**NEW ISSUE**
**BOOK-ENTRY ONLY**

**In the opinion of Orrick, Herrington & Sutcliffe LLP and Harrell & Chambliss LLP ("Bond Counsel"), based upon an analysis of existing laws, regulations, rulings and court decisions, and assuming, among other matters, the accuracy of certain representations and compliance with certain covenants, interest on the Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986 (the "Code"). In the further opinion of Bond Counsel, interest on the Bonds is not a specific preference item for purposes of the federal individual alternative minimum tax. Bond Counsel observes that, for tax years beginning after December 31, 2022, interest on the Bonds included in adjusted financial statement income of certain corporations is not excluded from the federal corporate alternative minimum tax. In the opinion of Bond Counsel, interest on the Bonds is exempt from income taxation by the Commonwealth of Virginia. Bond Counsel expresses no opinion regarding any other tax consequences related to the ownership or disposition of, or the amount, accrual or receipt of interest on, the Bonds. See "TAX MATTERS" herein.**

# $110,970,000
# CITY OF RICHMOND, VIRGINIA
# Public Utility Revenue and Refunding Bonds, Series 2023C

**RATINGS:**
**Moody's: Aa1**
**Standard & Poor's: AA**
**Fitch: AA**
**(See "Ratings" herein)**

| | | | |
|---|---|---|---|
| **Dated:** | **Date of Delivery** | **Due:** | **January 15, as shown herein** |
| **Denomination:** | **$5,000 and Integral Multiples Thereof** | **Interest Payable:** | **January 15 and July 15** |
| **First Interest Payment Date:** | **January 15, 2024** | **Form:** | **Registered, Book-Entry Only** |

**The Public Utility Revenue and Refunding Bonds, Series 2023C (the "Bonds"), are limited obligations of the City of Richmond, Virginia (the "City"), payable solely from certain revenues derived by the City from its natural gas, water and wastewater utilities, as described herein, and other funds pledged for their payment under the terms of the Master Indenture and the Twenty-Fifth Supplemental Indenture (as such terms are defined herein). Neither the faith and credit nor the taxing power of the Commonwealth of Virginia, the City nor any other political subdivision of the Commonwealth of Virginia are pledged to the payment of principal of or premium, if any, or interest on the Bonds.**

**The Bonds are issuable in fully registered form, registered in the name of Cede & Co., as nominee of The Depository Trust Company ("DTC"), which will act as securities depository for the Bonds. Individual purchases of beneficial ownership interest in the Bonds will be made in book-entry form only, and individual purchasers will not receive physical delivery of Bond certificates. Individual purchases of the Bonds will be in denominations of $5,000 and integral multiples thereof and will bear interest from the date of delivery, payable semi-annually on each January 15 and July 15, commencing January 15, 2024. Principal of and premium, if any, and interest on the Bonds will be made by wire transfer to Cede & Co., as nominee for DTC, for disbursement to DTC participants to be disbursed subsequently to the Beneficial Owners of the Bonds, as described in the subsection herein "Book-Entry Only System."**

**The Bonds are subject to optional and mandatory sinking fund redemption prior to their stated maturities, as more fully set forth herein.**

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MATURITY SCHEDULE – SEE INSIDE COVER

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**The Bonds are offered for delivery when, as and if issued and received by the Underwriters (as defined hereinafter) subject to the approving opinions of Bond Counsel, Orrick, Herrington & Sutcliffe LLP, Washington, D.C. and Harrell & Chambliss LLP, Richmond, Virginia. Certain legal matters will be passed upon for the City by Laura Drewry, Esquire, City Attorney, and for the Underwriters by their counsel, McGuireWoods LLP, Richmond, Virginia. It is expected that the Bonds will be available for delivery through the facilities of DTC, on or about September 28, 2023.**

## Wells Fargo Securities        Siebert Williams Shank & Co., LLC

***This cover page contains certain information for quick reference only. It is not a summary of this issue. Investors must read the entire Official Statement to obtain information essential to the making of an informed investment decision.***

**Dated: August 30, 2023**

# $110,970,000
# City of Richmond, Virginia
# Public Utility Revenue and Refunding Bonds, Series 2023C

## Maturity Schedule

**(Base CUSIP+ Number 765433)**

| Maturity January 15 | Principal Amount | Interest Rate | Yield | CUSIP Suffix | Maturity January 15 | Principal Amount | Interest Rate | Yield | CUSIP Suffix |
|---|---|---|---|---|---|---|---|---|---|
| 2024 | $625,000 | 5.000% | 3.270% | MC8 | 2034 | $10,165,000 | 5.000% | 3.170% | MN4 |
| 2025 | 720,000 | 5.000 | 3.270 | MD6 | 2035 | 10,675,000 | 5.000 | 3.240* | MP9 |
| 2026 | 760,000 | 5.000 | 3.140 | ME4 | 2036 | 2,070,000 | 5.000 | 3.370* | MQ7 |
| 2027 | 930,000 | 5.000 | 3.000 | MF1 | 2037 | 2,170,000 | 5.000 | 3.530* | MR5 |
| 2028 | 970,000 | 5.000 | 2.980 | MG9 | 2038 | 2,280,000 | 5.000 | 3.630* | MS3 |
| 2029 | 1,025,000 | 5.000 | 3.000 | MH7 | 2039 | 2,390,000 | 5.000 | 3.700* | MT1 |
| 2030 | 1,080,000 | 5.000 | 3.020 | MJ3 | 2040 | 2,510,000 | 5.000 | 3.760* | MU8 |
| 2031 | 8,790,000 | 5.000 | 3.100 | MK0 | 2041 | 2,635,000 | 5.000 | 3.810* | MV6 |
| 2032 | 9,220,000 | 5.000 | 3.130 | ML8 | 2042 | 2,775,000 | 4.000 | 4.170 | MW4 |
| 2033 | 9,685,000 | 5.000 | 3.110 | MM6 | 2043 | 2,885,000 | 4.000 | 4.190 | MX2 |

**$6,115,000 4.000% Term Bonds Due January 15, 2045, Yield at 4.250% CUSIP suffix MY0**

**$6,650,000 5.000% Term Bonds Due January 15, 2047, Yield at 4.070%* CUSIP suffix MZ7**

**$23,845,000 4.25% Term Bonds Due January 15, 2053, Yield at 4.440% CUSIP suffix NA1**

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* Yield to the call date of January 15, 2034, at par.

+ CUSIP® is a registered trademark of the American Bankers Association. CUSIP Global Services (CGS) is managed on behalf of the American Bankers Association by FactSet Research Systems Inc.  CUSIP® data herein is provided by CUSIP Global Services. This data is not intended to create a database and does not serve in any way as a substitute for the CGS database. CUSIP® numbers are provided for convenience of reference only. Neither the City, the Financial Advisors nor the Underwriters or their agents or counsel are responsible for the accuracy of such numbers. No representation is made as to their correctness on the Bonds or as included herein. The CUSIP number for a specific maturity is subject to being changed after the issuance of the Bonds as a result of various subsequent actions including, but not limited to, a refunding in whole or in part or as a result of the procurement of secondary market portfolio insurance or other similar enhancement by investors that is applicable to all or a portion of certain maturities of the Bonds.

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**CITY OF RICHMOND, VIRGINIA**

**ELECTED OFFICIALS**

**MAYOR**

Levar M. Stoney

**CITY COUNCIL**

Michael J. Jones, President

Kristen M. Nye, Vice President

Andreas D. Addison

Katherine Jordan

Ann-Frances Lambert

Stephanie A. Lynch

Cynthia I. Newbille

Ellen F. Robertson

Reva M. Trammell

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**ADMINISTRATION**

J.E. Lincoln Saunders, Chief Administrative Officer ("CAO")

Sabrina Joy-Hogg, Deputy CAO – Finance and Administration

Robert Steidel, Deputy CAO – Operations

Sharon Ebert, Deputy CAO – Economic and Community Development

Laura K. Drewry, Esquire, City Attorney

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**FISCAL MANAGEMENT**

Sheila D. White, Director of Finance

April N. Bingham, Director of Public Utilities

Jayson May, Director of Budget and Strategic Planning

Michael S. Nguyen, Deputy Director of Finance

Meiling Qu, Debt and Investment Portfolio Manager

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**BOND COUNSEL**

Orrick, Herrington & Sutcliffe LLP

Harrell & Chambliss LLP

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**CERTIFIED PUBLIC ACCOUNTANTS**

CliftonLarsonAllen LLP

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**FINANCIAL ADVISOR**

Davenport & Company LLC

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**PAGE**

The Bonds will be exempt from registration under the Securities Act of 1933. As obligations of a political subdivision of the Commonwealth of Virginia, the Bonds also will be exempt from registration under the securities laws of Virginia.

No dealer, broker, salesman or other person has been authorized by the City or the Underwriters to give any information or to make any representations, other than those contained in this Official Statement, and if given or made such other information or representations must not be relied upon as having been authorized by the City or the Underwriters. This Official Statement does not constitute an offer to sell or the solicitation of any 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 or agreement between the City and the purchasers or owners of any of the Bonds. The information and expressions of opinion herein are subject to change without notice and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the affairs of the City since the respective date as of which such information is given herein.

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

Certain persons participating in this offering may engage in transactions that stabilize, maintain or otherwise affect the price of the Bonds, including transactions to (a) over allot in arranging the sales of the Bonds and (b) to make purchases and sales of the Bonds, for long or a short position, on a when-issued basis or otherwise, at such prices, in such amounts and in such manner as the Underwriters may determine.

References to web site addresses presented herein are for informational purposes only and may be in the form of a hyperlink solely for the reader's convenience. Unless specified otherwise, such web sites and the information or links contained therein are not incorporated into, and are not part of, this final official statement for purposes of, as that term is defined in, SEC rule 15c2-12.

**OFFICIAL STATEMENT**

**$110,970,000**

**CITY OF RICHMOND, VIRGINIA**

**Public Utility Revenue and Refunding Bonds,
Series 2023C**

## SECTION ONE: INTRODUCTION

The purpose of this Official Statement, including the cover page and the **Appendices**, is to furnish information concerning the City of Richmond, Virginia (the "City"), and its natural gas, water and wastewater utility operations in connection with the sale by the City of $110,970,000 aggregate principal amount of the City's Public Utility Revenue and Refunding Bonds, Series 2023C (the "Bonds"). Financial and other information contained in this Official Statement has been prepared by the City from its records (except where other sources are noted). This Official Statement is in effect only as of its date.

This Official Statement contains forecasts, projections and estimates that are based on current expectations but are not intended as representations of fact or guarantees of results. If and when included in this Official Statement, the words "expects," "forecasts," "projects," "intends," "anticipates," "estimates," and analogous expressions are intended to identify forward-looking statements as defined in the Securities Act of 1933, as amended, and any such statements inherently are subject to a variety of risks and uncertainties, which could cause actual results to differ materially from those contemplated in such forward-looking statements. These 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 change in the City's expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based.

**Persons considering a purchase of the Bonds should read this Official Statement in its entirety.** All capitalized terms used in this Official Statement, unless otherwise defined or the context otherwise indicates, are defined in **Appendix A** -- "Definitions of Certain Terms."

### THE ISSUER

The issuer of the Bonds is the City of Richmond, Virginia. The City, located in the central portion of Virginia, is the capital of the Commonwealth of Virginia and covers an area of approximately 63 square miles. The City had a population of 226,610 in 2020 according to the United States Census Bureau.

The City is organized under the Mayor-Council form of government. The Mayor is elected every four years by a majority of the voters in at least five of the City's nine council districts. The Mayor is the chief executive officer of the City and responsible for the proper administration of the City government. The City Council establishes the policies for the administration of the City. The City Council is comprised of nine members, elected on a single member district basis for four-year terms. The President of the Council is chosen by a majority vote of all members of City Council from their own members and is elected at the City Council's January organizational meeting for a term of two years. The Mayor appoints a Chief Administrative Officer, subject to the advice and consent of a majority of the members of the City Council, who serves at the pleasure of the Mayor. The Chief Administrative Officer has responsibility for the day-to-day operation of the City's departments and agencies and has the power of appointment and removal of certain officers and employees of the City as well as the heads of all administrative departments.

Additional information with respect to the City is set forth in **Appendix C** hereto. Audited financial statements for the City for the fiscal year ended June 30, 2022, are set forth in **Appendix F** hereto.

## THE SYSTEM

The System is a natural gas, water and wastewater utility owned by the City and operated under the management of the City's Department of Public Utilities. Each utility is operated on a self-sustaining enterprise basis and follows the policies and directives of the City as provided in the City Charter. The System serves the City and neighboring localities. The Natural Gas Utility serves all of the City, all of Henrico County, the northern part of Chesterfield County and, beginning recently, portions of Hanover County. The Water Utility provides retail service to all of the City and to small portions of Chesterfield and Henrico Counties. The Water Utility provides wholesale services to Chesterfield, Hanover and Henrico Counties. The Water Utility also provides water indirectly to Goochland County. The Wastewater Utility serves all of the City and small portions of Chesterfield and Henrico Counties that lie on the city/county line. The City has an agreement with Goochland County to treat a portion of Goochland County's wastewater. Additional information with respect to the System is set forth in **Appendix C** hereto. Certain financial information about the System is contained in the City's audited financial statements, as set forth in **Appendix F** hereto.

The City has retained two independent consultants to review the System. A consulting engineer has evaluated the condition of the various component parts of the System. A financial consultant has reviewed the forecasts of revenues and expenses of the System in order to determine whether revenues generated from operations will be sufficient to fund operating expenses, to pay System supported debt service, to fund required reserves and otherwise satisfy the rate covenant contained in the Master Indenture. See "The Consultants' Reports" herein. The reports of the consultants are set forth in **Appendix D** and **Appendix E**.

## THE BONDS

The Bonds will be dated the date of their delivery, will be issued in authorized denominations of $5,000 and multiples thereof and will be held by The Depository Trust Company ("DTC"), or by its nominee as securities depository with respect to the Bonds.

Interest on the Bonds will be payable on January 15 and July 15, commencing January 15, 2024 until the earlier of maturity or redemption. As long as the Bonds are held by DTC or its nominee, interest will be paid to Cede & Co., as nominee of DTC, in same day funds on each interest payment date.

The Bonds will be limited obligations of the City payable solely from Net Revenues (as described herein) derived from the System and other funds pledged for their payment under the terms of a Master Indenture of Trust dated as of April 1, 1998 (the "Master Indenture"), between the City and U.S. Bank Trust Company, National Association (successor trustee to Crestar Bank and SunTrust Bank), Richmond, Virginia, as trustee (the "Trustee"), as supplemented with respect to the Bonds by a Twenty-Fifth Supplemental Indenture of Trust, dated as of September 1, 2023 (the "Twenty-Fifth Supplemental Indenture"), between the City and the Trustee (collectively, the "Indenture of Trust"). Neither the faith and credit nor the taxing power of the Commonwealth of Virginia nor the faith and credit nor the taxing power of any county, city, town or other subdivision of the Commonwealth of Virginia, including the City, are pledged to the payment of principal of or premium, if any, or interest on the Bonds.

In the Master Indenture, the City covenants to fix, charge, collect and revise its rates, fees and other charges for the use of and for the services furnished by the System in each Fiscal Year, so as to produce Revenues (as described herein) sufficient to pay the cost of operation and maintenance of the System, payments in lieu of taxes, the cost of necessary replacements and improvements to the System and debt service on the Bonds and on any other indebtedness of the City secured by Net Revenues of the System, and to provide certain reserves therefor. See Section Two: Security for the Bonds – "Rate Covenant" herein.

## DELIVERY

The Bonds are offered for delivery, when, as and if issued, subject to the approval of validity by Orrick, Herrington & Sutcliffe LLP, Washington, D.C., and Harrell & Chambliss LLP, Richmond, Virginia, Bond Counsel, and to certain other conditions referred to herein. Certain legal matters will be passed upon for the City by the City Attorney, Laura K. Drewry, Esquire, and for the Underwriters by their counsel McGuireWoods LLP, Richmond, Virginia. It is expected that the Bonds will be available for delivery, at the expense of the City, through the facilities of DTC, on or about September 28, 2023.

## ADDITIONAL INFORMATION

Any question concerning the content of this Official Statement should be directed to Sheila D. White, Director of Finance, 900 East Broad Street, Richmond, Virginia 23219 (804-646-5776), or the City's Financial Advisor, Davenport & Company LLC, 901 East Cary Street, Richmond, Virginia 23219 (804-697-2900).

## SECTION TWO: THE BONDS

### AUTHORIZATION OF THE BONDS

The issuance of the Bonds is authorized by Ordinance No. 2021-062, adopted by the City Council (the "Council") on May 24, 2021, Ordinance No. 2022-080, adopted by the Council on May 9, 2022, and Resolution No. 2023-R045, adopted by the Council on July 24, 2023 (collectively, the "Ordinance"). The Bonds are being issued pursuant to Article VII of the Constitution of the Commonwealth of Virginia, the provisions of the City Charter and the Public Finance Act of 1991 (Chapter 26 of Title 15.2 of the Code of Virginia, 1950, as amended) (the "Virginia Code") and the Indenture of Trust.

### USE OF PROCEEDS

Proceeds of the Bonds, together with other available funds, will be used (a) to finance or reimburse expenditures for certain improvements to and expansions of the System, (b) to refund certain maturities or portions of maturities of the City's Public Utility Revenue Refunding Bonds, Series 2020B (Federally Taxable) (the "Refunded Bonds"), and (c) to fund certain costs of issuance of the Bonds. See **Appendix C** – "Capital Improvements" for a summary of capital improvement projects.

**Plan of Refunding**

The refunding will be accomplished by the deposit in an escrow fund for the Refunded Bonds (the "Escrow Fund") with U.S. Bank Trust Company, National Association, as escrow agent (the "Escrow Agent") pursuant to an Escrow Agreement by and between the City, the Trustee and the Escrow Agent dated as of the date of closing of the Bonds, of cash and noncallable obligations of the United States government (the "Government Obligations") sufficient to pay all principal, premium and interest when due on the Refunded Bonds through and until the date that the same are irrevocably called for redemption. See **Appendix I** for a summary of maturities, principal amounts, redemption dates and redemption prices for the Refunded Bonds. Upon such deposit in the Escrow Fund, such Refunded Bonds will no longer constitute outstanding obligations of the City under the Master Indenture, but will be payable solely from the Escrow Fund. See "**VERIFICATION OF MATHEMATICAL CALCULATIONS**" herein.

## Estimated Sources and Uses of Funds

The following table sets forth the anticipated application of the proceeds of the Bonds, together with other funds for the purposes described above:

| Sources of Funds | Series 2023C Bonds |
|---|---|
| Principal Amount of Bonds | $110,970,000.00 |
| Net Original Issue Premium | 8,518,301.10 |
| Interest Fund Contribution | 347,334.00 |
| Total Sources | 119,835,635.10 |
| **Uses of Funds** | |
| Deposit to Construction Fund | 73,462,611.00 |
| Deposit to Escrow Account | 45,296,905.00 |
| Costs of Issuance* | 1,076,119.10 |
| Total Uses | $119,835,635.10 |

*Includes underwriters' discount and rounding amount.

## DESCRIPTION OF THE BONDS

The Bonds will be issued in fully registered form in the denominations of $5,000 and integral multiples thereof and will be held by DTC or its nominee, as securities depository with respect to the Bonds. See the subsection herein "Book-Entry Only System." Purchases of beneficial ownership interests in the Bonds will be made only in book-entry form, and individual purchasers will not receive physical delivery of bond certificates. The Bonds will be dated the date of the delivery thereof, will bear interest at the rates per annum set forth on the inside cover page hereof, calculated on the basis of a 360-day year of twelve 30-day months, payable semi-annually on each January 15 and July, commencing January 15, 2024 (each an "Interest Payment Date"), and will mature on January 15 in the years and in the principal amounts set forth on the inside cover page hereof. The record date for payments is January 1 and July 1, preceding the next Interest Payment Date.

As long as the Bonds are held by DTC or its nominee, interest will be paid to Cede & Co., as nominee of DTC (or such other DTC nominee), in same day funds on each Interest Payment Date. If the book-entry system is discontinued, bond certificates will be delivered as described in the Indenture of Trust, and Beneficial Owners (as defined below in the subsection entitled "Book-Entry Only System") will become registered owners of the Bonds ("Bondholders"). Interest on the Bonds shall be payable on each Interest Payment Date by check or draft mailed to the registered owner at his address as it appears on the first day of the month preceding an Interest Payment Date on the registration books kept by the Trustee. See **Appendix J** – Book-Entry Only System.

## Optional Redemption

The Bonds maturing on or before January 15, 2034, are not subject to redemption prior to maturity. The Bonds maturing on or after January 15, 2035, are subject to redemption prior to maturity at the option of the City on or after January 15, 2034, in whole or in part at any time, upon payment of the redemption price equal to the principal amount of the Bonds to be redeemed plus accrued interest to the date fixed for redemption.

**Mandatory Redemption**

The Bonds maturing on January 15, 2045, are required to be redeemed prior to maturity in part upon payment of 100% of the principal amount thereof plus interest accrued to the redemption date on January 15 in years and amounts, as follows:

| Year | Amount |
|---|---|
| 2044 | $3,000,000 |
| 2045 (final maturity) | 3,115,000 |

The Bonds maturing on January 15, 2047, are required to be redeemed prior to maturity in part upon payment of 100% of the principal amount thereof plus interest accrued to the redemption date on January 15 in years and amounts, as follows:

| Year | Amount |
|---|---|
| 2046 | $3,245,000 |
| 2047 (final maturity) | 3,405,000 |

The Bonds maturing on January 15, 2053, are required to be redeemed prior to maturity in part upon payment of 100% of the principal amount thereof plus interest accrued to the redemption date on January 15 in years and amounts, as follows:

| Year | Amount |
|---|---|
| 2048 | $3,575,000 |
| 2049 | 3,725,000 |
| 2050 | 3,880,000 |
| 2051 | 4,050,000 |
| 2052 | 4,220,000 |
| 2053 (final maturity) | 4,395,000 |

**Manner of Redemption**

If less than all of the Bonds are called for redemption, such Bonds to be redeemed shall be selected by the City's Director of Finance in such a manner as he or she may determine to be in the best interest of the City. If less than all of the Bonds of a particular maturity are called for redemption, such Bonds to be redeemed shall be selected by DTC or any successor securities depository pursuant to its rules and procedures or, if the book-entry system is discontinued, by the Trustee by lot in such manner as the Trustee in its discretion may determine. In either case, (a) the portion of the Bonds to be redeemed shall be in the principal amount of $5,000 or some multiple thereof and (b) in selecting Bonds for redemption, each Bond shall be considered as representing that number of Bonds which is obtained by dividing the principal amount of such Bond by $5,000.

**Notice of Redemption**

The Trustee, upon being satisfied as to the payment of its expenses, shall send notice of the call of redemption, identifying the Series of Bonds or portions thereof to be redeemed, not less than 30 nor more than 60 days prior to the redemption date (a) by facsimile, registered or certified mail or overnight express delivery, to the holder of each such Bond to be redeemed at the address as it appears on the registration books kept by the Trustee, (b) by facsimile, registered or certified mail or overnight express delivery, to all organizations registered with the Securities and Exchange Commission (the “SEC”) as securities depositories and (c) to the Municipal Securities Rulemaking Board’s Electronic Municipal Market Access System (“EMMA”). Upon the written direction of the City, the notice of redemption for optional redemption shall contain a statement to the effect that the redemption of the Bonds is conditioned upon the receipt by the Trustee, prior to the date fixed for such redemption, of amounts equal to the redemption price of the Bonds to be redeemed, and that if such moneys shall not have been so received, the notice will be of no force and effect and the City shall not be required to redeem such Bonds and such Bonds shall not become due and payable.

The City shall not be responsible for mailing notice of redemption to anyone other than DTC or another qualified securities depository or its nominee unless no qualified securities depository is the registered owner of the Bonds. If no qualified securities depository is the registered owner of the Bonds, notice of redemption shall be mailed to the registered owners of the Bonds.

**During the period that DTC or the DTC nominee is the registered holder of the Bonds, the City will not be responsible for mailing notices of redemption to the beneficial owners of the Bonds. See Appendix J - Book-Entry Only System.**

### Book-Entry Only System

The City has no responsibility or obligation to the Direct or Indirect Participants or the Beneficial Owners with respect to (A) the accuracy of any records maintained by DTC or any Direct or Indirect Participant; (B) the payment by any Direct or Indirect Participant of any amount due to any Beneficial Owner in respect of the principal of and premium, if any, and interest on the Bonds; (C) the delivery or timeliness of delivery by any Direct or Indirect Participant of any notice to any Beneficial Owner which is required or permitted under the terms of the Indenture of Trust to be given to Bondholders; or (D) any other action taken by DTC, or its nominee, Cede & Co., as Bondholder, including the effectiveness of any action taken pursuant to an Omnibus Proxy.

So long as Cede & Co. is the registered owner of the Bonds, as nominee of DTC, references in the Official Statement to the Owners of the Bonds shall mean Cede & Co. and shall not mean the Beneficial Owners, and Cede & Co. will be treated as the only Bondholder of Bonds for all purposes under the Indenture of Trust.

The City may enter into amendments to the agreement with DTC or successor agreements with a successor securities depository, relating to the book-entry system to be maintained with respect to the Bonds without the consent of Beneficial Owners or Bondholders. See **Appendix J** – Book-Entry Only System.

## SECURITY FOR THE BONDS

### Pledge of Net Revenues

The Bonds will be issued under the Master Indenture as supplemented with respect to the Bonds by the Twenty-Fifth Supplemental Indenture. The Bonds will be limited obligations of the City issued on a parity with other Senior Debt (as defined and discussed below) and payable (except to the extent payable from the proceeds of the Bonds or the income, if any, derived from the investment thereof) solely from Net Revenues derived from the ownership or operation of the System, certain reserves, income from investments and proceeds of insurance pledged for such purpose under the Master Indenture and Twenty-Fifth Supplemental Indenture, see “Outstanding Parity Obligations” herein.

Under the Indenture of Trust, the City pledges to the Trustee for the payment of the principal of and interest on all Senior Debt, which includes the Bonds, the Net Revenues derived from the operation of the

System and all amounts held under the Bond Fund. The Bonds will not be secured by a Debt Service Reserve Account. See **Appendix B**, "Pledge of Net Revenues and Certain Funds and Accounts."

"Net Revenues" means Revenues less Operating Expenses.

"Revenues" means all moneys received as rates, fees and other charges for, or payments in respect of, the use of and for the services furnished by the System, including Connection Fees, proceeds of any business interruption insurance, and investment earnings on all of the foregoing. Revenues shall not include refundable customer deposits.

"Operating Expenses" means all current expenses directly or indirectly attributable to the ownership or operation of the System, including reasonable and necessary usual expenses of administration, operation, maintenance and repair, payments in lieu of taxes, costs for billing and collecting the rates, fees and other charges for the use of or the services furnished by the System, amounts to reimburse the City for administrative expenses incurred in connection with the System, insurance and surety bond premiums, credit enhancement or liquidity support fees, legal, engineering, auditing and financial advisory expenses, expenses and compensation of the Trustee, deposits into a self-insurance program as described in the Master Indenture, and in addition including moneys which the City elects to transfer to the Rate Stabilization Account in accordance with the Master Indenture. Operating Expenses shall not include any allowance for depreciation, amortization, Debt Service Components, Remaining Components, deposits or transfers to the Bond Fund, the Debt Service Reserve Fund, General Obligation Bond Account, Subordinate Debt Account or expenditures for capital improvements to and extensions of the System. Operating Expenses shall be reduced by transfers from the Rate Stabilization Account to the utility account.

The Master Indenture does not convey or mortgage the System. The City has covenanted in the Master Indenture not to lease, sell, encumber or otherwise dispose of any part of the System except in the limited circumstances provided in the Indenture of Trust. See **Appendix B** -- "Particular Covenants."

THE PRINCIPAL OF AND THE PREMIUM, IF ANY, AND THE INTEREST ON THE BONDS WILL NOT BE DEEMED TO CONSTITUTE A PLEDGE OF THE FAITH AND CREDIT OF THE COMMONWEALTH OF VIRGINIA OR ANY OTHER POLITICAL SUBDIVISION, INCLUDING THE CITY. NEITHER THE FAITH AND CREDIT NOR THE TAXING POWER OF THE COMMONWEALTH OF VIRGINIA OR ANY COUNTY, CITY, TOWN OR OTHER POLITICAL SUBDIVISION OF THE COMMONWEALTH, INCLUDING THE CITY, ARE PLEDGED TO THE PAYMENT OF PRINCIPAL OF OR PREMIUM, IF ANY, OR INTEREST ON THE BONDS.

**Outstanding Parity Obligations**

The Bonds will be equally and ratably secured by Net Revenues on a parity basis with City's Public Utility Revenue Bond, Series 2006A, Public Utility Revenue Bond, Series 2008A, Public Utility Revenue Bond, Series 2009B, Public Utility Revenue Bond, Series 2010A, Public Utility Revenue Bond, Series 2012A, Public Utility Revenue Bond, Series 2015A, Public Utility Revenue and Refunding Bonds, Series 2016A, Public Utility Revenue Bond, Series 2020A, Public Utility Revenue Bond, Series 2020B, Public Utility Revenue Bond, Series 2021A and Public Utility Revenue Bond, Series 2023A, (the "Parity Bonds") in the aggregate outstanding principal amount of $776,022,946*****, as of June 30, 2023, and with any additional obligations issued under the Master Indenture as Senior Debt (the "Parity Bonds"). The City has not entered into any

* A portion of this aggregate outstanding principal amount corresponding to the Refunded Bonds will be defeased and refunded with the proceeds of the Bonds. Additionally, the City expects to refund and defease a portion of the City's Public Utility Revenue and Refunding Bonds, Series 2016A on or about September 28, 2023 with the proceeds of additional Parity Bonds under the Master Indenture. See "ADDITIONAL INDEBTEDNESS" herein.

interest rate swap agreements in connection with any of the outstanding Indebtedness. See "**ADDITIONAL INDEBTEDNESS**" herein and "Issuance of Additional Indebtedness" in **Appendix B** for the terms and conditions of the issuance of additional indebtedness.

**Rate Covenant**

The Master Indenture provides that the City will fix, charge, collect and revise the rates, fees and other charges for the use of and for the services furnished by the System, so that in each Fiscal Year the City will be able to meet the following two independent requirements:

(a) Revenues will be sufficient to pay (1) actual Operating Expenses for such Fiscal Year, (2) the amount required to be deposited in the Bond Fund in such Fiscal Year, (3) the amount required to pay Annual Debt Service on Subordinate Debt in such Fiscal Year, and (4) any amount necessary to be deposited in any Series Debt Service Reserve Account to restore the amount on deposit therein to the amount of the Series Debt Service Reserve Requirement.

(b) Net Revenues, together with all other balances available to pay debt service, shall be sufficient in each Fiscal Year to equal the sum of (1) 115% of the Annual Debt Service on all outstanding Series of Bonds for such Fiscal year and (2) 100% of Annual Debt Service with respect to Other System Indebtedness and Subordinate Debt for such Fiscal Year.

**Flow of Funds**

The Master Indenture requires all Revenues to be deposited in a utility account to be held by the City. The Director of Finance pursuant to policy determinations may, at any time, transfer Revenues from the utility account to the Rate Stabilization Account. Thereafter, throughout the month, but not later than the last business day of each month, the Director of Finance shall pay Operating Expenses from the utility account. Net Revenues shall be disbursed no later than the last business day of each month in the following order (except that no distinction or preference shall exist in the use in an amount sufficient to make the following deposits of Net Revenues for payment into the Interest Account, the Principal Account or the Sinking Fund Account of the Bond Fund, such accounts being on a parity with each other as to payment from Net Revenues):

(a) To the subaccounts established for each Series of Bonds or Other System Indebtedness in the Interest Account, Principal Account and Sinking Fund Account in the Bond Fund the amounts, if any, set forth in the applicable Supplemental Indentures with respect to each Series of Bonds or Other System Indebtedness; provided, however, that if such Other System Indebtedness is evidenced by documents other than a Supplemental Indenture, to the related principal and interest accounts set forth therein.

Moneys in the Interest Account shall be used to pay interest required to be paid on any interest payment date related to such Series of Bonds or Other System Indebtedness, as applicable. Moneys in the Principal Account shall be used to pay principal required to be paid on any principal payment date related to such Series of Bonds or Other System Indebtedness, as applicable. Moneys in the Sinking Fund Account shall be used to pay the amount required for mandatory sinking fund redemption on the applicable redemption date related to such Series of Bonds or Other System Indebtedness, as applicable.

(b) To the applicable Account in the Debt Service Reserve Fund with respect to each applicable Senior Debt issue the amounts, if any, necessary to restore the amount on deposit therein to the related Series Debt Service Reserve Requirement.

(c) To the Subordinate Debt Account, the amount equal to the deposits to such funds and accounts required by the related Supplemental Indenture or other documents evidencing such debt; provided, further, to the General Obligation Bond Account, the amounts equal to the deposits to such funds and accounts required pursuant to the terms of the General Obligation Bonds (except that no distinction or preference shall exist in the use of an amount sufficient to make these deposits of Net Revenues for payment of the principal and interest payments to be made in the Subordinate Debt Account and the General Obligation Bond Account, such accounts being on a parity with each other as to payment from Net Revenues).

There shall also be made periodic dividend distributions to the City on an annual basis, after the deposits required by subsections (a) through (c) above have been made, to the extent of the limitations provided by the City Charter.

If the City fails to make the deposits required by subsection (a) through (c) above, the Trustee is directed in the Master Indenture to give notice of such failure to the Chief Administrative Officer and the Director of the Department of Public Utilities, if any, within 10 days of such failure. At any time that the City is required to make transfers pursuant to subsections (a) through (c) above, and there are insufficient Net Revenues to make all required transfers pursuant to such subsections, the City shall make the transfers in the order set forth above from any other legally available monies. In the event the balance on deposit in the Principal Account, the Sinking Fund Account or the Interest Account is insufficient for the purposes thereof, the Trustee shall transfer for deposit in such Accounts such amounts as may be necessary therefor from the applicable Series Debt Service Reserve Account pursuant to the Master Indenture and applicable supplements.

See "Establishment of Funds and Accounts - Disposition of Revenues" in **Appendix B** for more information on the flow of funds under the Master Indenture.

**Debt Service Reserve Fund**

The Master Indenture provides that each Supplemental Indenture shall set forth whether an Account in the Debt Service Reserve Fund is required to be funded in the amount of the applicable Series Debt Service Reserve Requirement on the Closing Date of such Series of Bonds. To the extent that such Account shall be required to be funded pursuant to the terms of a Supplemental Indenture, amounts in each Account in the Debt Service Reserve Fund shall be used to pay debt service on the related Series of Bonds on the date such debt service is due when insufficient funds for that purpose are available in the Bond Fund. The Series Debt Service Reserve Requirement is equal to the least of (a) the maximum principal and interest due on such Series of Bonds in the current or any future Fiscal Year, (b) 10% of the original stated principal amount of such Series of Bonds (or 10% of the issue price of such Series of Bonds if required by the Code) or (c) 125% of the average annual principal and interest due on such Series of Bonds in the current and each future Fiscal Year.

In the event the amount on deposit in any Series Debt Service Reserve Account is less than the applicable Series Debt Service Reserve Requirement, the Trustee shall transfer moneys to such Series Debt Service Reserve Account to restore such Series Debt Service Reserve Requirement from available Revenues. In the event the amount on deposit in a Series Debt Service Reserve Account is less than the applicable Series Debt Service Reserve Requirement after such transfer, then the City shall transfer to the Trustee from any legally available moneys the amount of such deficiency as soon as practicable and in any event within one year by depositing one-twelfth of the required amount each month.

In lieu of or in addition to cash or investments, at any time the City may cause to be deposited to the credit of any Series Debt Service Reserve Account any form of credit facility, including a surety bond, in the amount of all or a portion of the Series Debt Service Reserve Requirement, irrevocably payable to the Trustee as beneficiary for the holders of the respective Senior Debt, provided that the Trustee has received evidence satisfactory to it of certain matters as stated in the Indenture of Trust. If (1) the City receives an expiration notice from the provider of the credit facility and the provider of such credit facility does not extend its expiration date, (2) the City receives notice of the termination of the credit facility or (3) the provider of such credit facility no longer has a credit rating in one of the two highest credit rating categories by two Rating Agencies, the City shall immediately (A) provide a substitute credit facility that meets the requirements set forth in the Indenture of Trust, (B) deposit the Series Debt Service Reserve Requirement to the respective Series Debt Service Reserve Account (i) in equal monthly installments over the next succeeding 12 months, in the case of receipt of an expiration notice, (ii) prior to the termination date in the case of receipt of a termination notice, or (iii) immediately in the case of such reduction in credit rating or (C) instruct the Trustee to draw on such credit facility in the amount of the Series Debt Service Reserve Requirement (i) 12 months prior to expiration of the credit facility in the case of receipt of an expiration notice, (ii) prior to the termination date in the case of receipt of a termination notice, or (iii) immediately in the case of such reduction in credit rating and deposit such drawing to the Series Debt Service Reserve Account.

**No Debt Service Reserve Account for the Bonds**

The Bonds will not be secured by a Debt Service Reserve Account.

**Rate Stabilization Account**

The Master Indenture provides that the Rate Stabilization Account shall be held by the City separate and apart from all other funds and accounts of the City. The Director of Finance pursuant to policy determinations may, at any time, transfer Revenues from the utility account to the Rate Stabilization Account. Moneys in the Rate Stabilization Account shall be used to increase Net Revenues in order to offset requirements for rate increases. The Rate Stabilization Account is not subject to the lien of the Master Indenture.

## BONDHOLDERS' REMEDIES IN THE EVENT OF DEFAULT

In the case of an Event of Default under the Master Indenture (see "Events of Default and Remedies on Default" in **Appendix B**), the Trustee may, and if requested by the holders of not less than 25% in aggregate principal amount of Bonds of all Series then Outstanding upon indemnification as provided in the Master Indenture shall, proceed to protect and enforce their rights by declaring the entire unpaid principal of such Bonds due and payable or by instituting a mandamus or other suit, action or proceeding at law or in equity, including an action for specific performance of any agreement contained in the Master Indenture. The mandamus remedy, however, may be impracticable and difficult to enforce. Furthermore, the right to enforce payment of the Bonds may be limited by bankruptcy, insolvency, reorganization, moratorium and similar laws and equitable principles, which may limit the specific enforcement of certain remedies.

Chapter 9 of the United States Bankruptcy Code (the "Bankruptcy Code"), 11 U.S.C. §101 et seq. (the "Bankruptcy Code"), permits a municipality (defined in section 101(40) of the Bankruptcy Code as a "political subdivision or public agency or instrumentality of a State" and including the City), if insolvent, to file a voluntary petition for the purpose of commencing a case under that Chapter and proposing a plan for the adjustment of debts, provided that, *inter alia*, the municipality is specifically authorized, in its capacity as a municipality or by name, to be a debtor under Chapter 9 by State law, or by a governmental officer or organization empowered by State law to authorize such entity to be a debtor under Chapter 9. Current Virginia statutes do not "specifically authorize" the City or municipalities generally to commence a case under Chapter 9 of the Bankruptcy Code. Furthermore, creditors are not authorized by the Bankruptcy Code to commence an involuntary case, either under Chapter 9 or against a municipality under any other Chapter of the Bankruptcy Code.

Bankruptcy proceedings by the City could have adverse effects on Bondholders including (a) delay in the enforcement of their remedies, (b) subordination of their claims to claims of those supplying goods and services to the City after the initiation of bankruptcy proceedings and to the general administrative expenses of bankruptcy proceedings, and (c) imposition without their consent of a reorganization plan reducing or delaying payment of the Bonds. The Bankruptcy Code contains provisions intended to ensure that, in any reorganization plan not accepted by at least a majority of a class of creditors such as the holders of general obligation bonds, such creditors will have the benefit of their original claim or the "indubitable equivalent." The effect of these and other provisions of the Bankruptcy Code cannot be predicted and may be significantly affected by judicial interpretations.

## ADDITIONAL INDEBTEDNESS

As set forth in the Master Indenture, the City may issue, subject to certain restrictions, one or more Series of Bonds or Other System Indebtedness, equally and ratably secured by Net Revenues with the Bonds and other Senior Debt, to pay the cost of acquiring, constructing, improving, extending, expanding or equipping the System, to pay the cost of planning or investigating the feasibility of acquiring, constructing, improving, extending, expanding or equipping the System or to refund any Series of Bonds or other City obligations secured by or payable from Net Revenues. In addition, the City may at any time issue one or more series of bonds having a lien on revenues of the System that is subordinate to the lien securing the Bonds, so long as the City remains in compliance with the Rate Covenant under the Master Indenture.

In the case of a Series of Bonds or Other System Indebtedness issued to pay the cost of acquiring, constructing, improving, extending, expanding or equipping the System, the Series of Bonds or Other System Indebtedness may be issued only upon

(1) evidence that upon issuance of such Bonds, each Series Debt Service Reserve Account will contain the applicable Series Debt Service Reserve Requirement, if any, and

(2) either (a) a certificate of the Chief Administrative Officer, the Director of Finance or an Authorized Representative of the City stating that based on the City's financial records with respect to the System for any 12 consecutive months of the last 24 months (the "Test Period") prior to the issuance of such Series of Bonds or Other System Indebtedness the City would have been able to meet the Rate Covenant, taking into account (i) the maximum Annual Debt Service on the proposed Series of Bonds or Other System Indebtedness in the current or any future Fiscal Year, and (ii) the rates, fees and other charges which are in effect and any future changes therein as have been approved by the Council at the time of the delivery of the proposed Series of Bonds, or

(b) a written statement of the Chief Administrative Officer, the Director of Finance or an Authorized Representative of the City which projects Operating Expenses, Revenues and Net Revenues for two full Fiscal Years following the anticipated completion of the Project and which demonstrates that, on the basis of such projection, the City can comply with the Rate Covenant, taking into account those rates, fees and other charges which are in effect at the time of the delivery of the proposed Series of Bonds or Other System Indebtedness and any future changes in such rates, fees and other charges as have been approved by the Council.

Completion Bonds may be issued without limitation; provided, however, that prior to the issuance of such Completion Bonds, the City will furnish to the Trustee (a) a certificate of the Consulting Engineer estimating the costs of completing the facilities for which such Completion Bonds are to be issued and (b) a certificate of the Chief Administrative Officer or the Director of Finance, or Authorized Representative of the City, certifying that the amount of such Completion Bonds to be issued will be sufficient, together with other funds, if applicable, to complete construction of the facilities as estimated by the Consulting Engineer with respect to which such Completion Bonds are to be issued.

The City may issue Subordinate Debt at any time and pledge Net Revenues to the payment thereof so long as rates, fees and charges are in effect or scheduled to go into effect to meet the Rate Covenant immediately after the issuance of such Subordinate Debt. Subordinate Debt may not be accelerated if any Senior Debt is outstanding.

The City may issue Refunding Bonds so long as it shall provide: (1) evidence that the City has made provision as required by the Master Indenture for the payment or redemption off all Indebtedness to be refunded; (2) either (a) a written determination by of the Chief Administrative Officer, the Director of Finance or an Authorized Representative of the City that after the issuance of such Bonds and the provision for payment or redemption of all Indebtedness to be refunded, the Annual Debt Service requirements will not increase more than 5% of what the Annual Debt Service requirements would have been immediately prior to the issuance of such Refunding Bonds and that the final maturity has not been extended or (b) a certificate as described in subsection (2)(a) of the second paragraph of this section.

On or about September 28, 2023, the City anticipates that it will issue a Series of Parity Bonds under the Master Indenture referred to as the City's Public Utility Revenue Refunding Bonds, Series 2023B (Federally Taxable) in an aggregate principal amount of $209,705,000 (the "Series 2023B Bonds"). A portion of the proceeds of the Series 2023B Bonds will be used to defease and refund a portion of the City's Public Utility Revenue and Refunding Bonds, Series 2016A. **The Series 2023B Bonds are not being offered pursuant to this Official Statement.**

See "Issuance of Additional Indebtedness" in **Appendix B** for more information on the requirements for the issuance of additional indebtedness.

# SECTION THREE: MISCELLANEOUS

## LITIGATION

There are miscellaneous claims against the City in litigation. In the opinion of the City Attorney and the City administration, none of these claims would materially affect the City's financial position. According to the City Attorney, there is no litigation of any kind now pending or, to the best of his information, knowledge and belief, threatened against the City which would in any way affect the validity of the Bonds or the ability of the City to own and operate the System and collect the revenues of the System and apply such revenues in accordance with the Indenture of Trust. There is no litigation pending or, to the best of the City Attorney's information, threatened against the City which reasonably could be expected to have a material adverse effect on the System's financial condition.

## RATINGS

Moody's Investors Service ("Moody's"), S&P Global Ratings ("Standard & Poor's") and Fitch Ratings ("Fitch") have assigned the ratings of Aa1, AA, and AA, respectively, to the Bonds. The City furnished to such rating agencies the information contained in this Official Statement and certain other materials and information about the City.

Generally, rating agencies base their ratings on such materials and information, as well as their own investigations, studies and assumptions. It should be noted that such ratings may be changed at any time and that no assurance can be given that they will not be revised or withdrawn by any or all of such agencies. Reference should be made to the individual rating agency for a fuller description of the meanings of the ratings assigned by each agency. Any downward revision or withdrawal of such ratings could have an adverse effect on market prices for the Bonds.

## INDEPENDENT AUDIT

The financial statements included in **Appendix F** have been audited by CliftonLarsonAllen LLP, independent certified public accountants, to the extent and for the period indicated in their report thereon on page F-1. CliftonLarsonAllen LLP will not be reviewing any matters in connection with the issuance of the Bonds. See also **Appendix C** – "Financial Management" regarding a recent SEC inquiry relating to an accounting restatement in the City's audited financial statements for the fiscal year ended June 30, 2021.

## CONSULTANTS' REPORTS

The City has retained Greeley & Hansen LLC (the "Consulting Engineer") and Raftelis Financial Consultants, Inc. (the "Financial Feasibility Consultant") to develop the Consulting Engineer's Report and the Financial Feasibility Consultant's Report, respectively. The Consulting Engineer's Report attached as **Appendix D** reviewed the condition of the components of the System and the Capital Improvement Plan to assess the ability of the System to provide the required service throughout the service area. The Financial Feasibility Consultant's Report attached as **Appendix E** reviewed the forecasted revenues and expenses of the System to determine whether System operations would generate sufficient Revenues to fund all Operating Expenses, debt service requirements, reserve fund funding requirements and to otherwise satisfy the Rate Covenant under the Master Indenture. Each of such reports is included herein in reliance upon the authority of the respective firm as an expert in the matters covered by the respective report. The Reports should be read in their entirety for a discussion of the assumptions and rationale underlying their forecasts. To the extent that actual conditions differ from those assumed in preparing such forecasted amounts, the actual results will vary from those shown therein.

## CERTAIN LEGAL MATTERS

Certain legal matters will be passed upon by Orrick, Herrington & Sutcliffe LLP, Washington, D.C. and Harrell & Chambliss LLP, Richmond, Virginia, Bond Counsel, in substantially the form set forth in **Appendix G**, which will be furnished at the expense of the City upon delivery of the Bonds.

The opinion of Bond Counsel will be limited to matters relating to authorization and validity of the Bonds and to the tax-exempt status of interest thereon as described in the section herein "Tax Matters." Bond Counsel has not been engaged to investigate the financial resources of the City or its ability to provide for payment on the Bonds.

Certain legal matters will be passed on for the City by its City Attorney, Laura K. Drewry, Esquire, and for the Underwriters by their counsel, McGuireWoods LLP, Richmond, Virginia.

## TAX MATTERS

In the opinion of Orrick, Herrington & Sutcliffe LLP and Harrell & Chambliss LLP ("Bond Counsel"), based upon an analysis of existing laws, regulations, rulings and court decisions, and assuming, among other matters, the accuracy of certain representations and compliance with certain covenants, interest on the Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986 (the "Code"). In the further opinion of Bond Counsel, interest on the Bonds is not a specific preference item for purposes of the federal individual alternative minimum tax. Bond Counsel observes that, for tax years beginning after December 31, 2022, interest on the Bonds included in adjusted financial statement income of certain corporations is not excluded from the federal corporate alternative minimum tax. In the opinion of Bond Counsel, interest on the Bonds is exempt from income taxation by the Commonwealth of Virginia. Bond Counsel expresses no opinion regarding any other tax consequences related to ownership or disposition of, or the amount, accrual or receipt of interest on, the Bonds. A complete copy of the proposed form of opinion of Bond Counsel is set forth in **Appendix G**.

To the extent the issue price of any maturity of the Bonds is less than the amount to be paid at maturity of such Bonds (excluding amounts stated to be interest and payable at least annually over the term of such Bonds), the difference constitutes "original issue discount," the accrual of which, to the extent properly allocable to each Beneficial Owner thereof, is treated as interest on the Bonds which is excluded from gross income for federal income tax purposes. For this purpose, the issue price of a particular maturity of the Bonds is the first price at which a substantial amount of such maturity of the Bonds is sold to the public (excluding bond houses, brokers, or similar persons or organizations acting in the capacity of underwriters, placement agents or wholesalers). The original issue discount with respect to any maturity of the Bonds accrues daily over the term to maturity of such Bonds on the basis of a constant interest rate compounded semiannually (with straight-line interpolations between compounding dates). The accruing original issue discount is added to the adjusted basis of such Bonds to determine taxable gain or loss upon disposition (including sale, redemption, or payment on maturity) of such Bonds. Beneficial Owners of the Bonds should consult their own tax advisors with respect to the tax consequences of ownership of Bonds with original issue discount, including the treatment of Beneficial Owners who do not purchase such Bonds in the original offering to the public at the first price at which a substantial amount of such Bonds is sold to the public.

Bonds purchased, whether at original issuance or otherwise, for an amount higher than their principal amount payable at maturity (or, in some cases, at their earlier call date) ("Premium Bonds") will be treated as having amortizable bond premium. No deduction is allowable for the amortizable bond premium in the case of bonds, like the Premium Bonds, the interest on which is excluded from gross income for federal income tax purposes. However, the amount of tax-exempt interest received, and a Beneficial Owner's basis in a Premium Bond, will be reduced by the amount of amortizable bond premium properly allocable to such Beneficial Owner. Beneficial Owners of Premium Bonds should consult their own tax advisors with respect to the proper treatment of amortizable bond premium in their particular circumstances.

The Code imposes various restrictions, conditions and requirements relating to the exclusion from gross income for federal income tax purposes of interest on obligations such as the Bonds. The City has made certain representations and covenanted to comply with certain restrictions, conditions and requirements designed to ensure that interest on the Bonds will not be included in federal gross income. Inaccuracy of these representations or failure to comply with these covenants may result in interest on the Bonds being included in gross income for federal income tax purposes, possibly from the date of original issuance of the Bonds. The opinion of Bond Counsel assumes the accuracy of these representations and compliance with these covenants. Bond Counsel has not undertaken to determine (or to inform any person) whether any actions taken (or not taken), or events occurring (or not occurring), or any other matters coming to Bond Counsel's attention after the date of issuance of the Bonds may adversely affect the value of, or the tax status of interest on, the Bonds. Accordingly, the opinion of Bond Counsel is not intended to, and may not, be relied upon in connection with any such actions, events or matters.

Although Bond Counsel is of the opinion that interest on the Bonds is excluded from gross income for federal income tax purposes and is exempt from income taxation by the Commonwealth of Virginia, the ownership or disposition of, or the accrual or receipt of interest on, the Bonds may otherwise affect a Beneficial Owner's federal, state or local tax liability. The nature and extent of these other tax consequences depends upon the particular tax status of the Beneficial Owner or the Beneficial Owner's other items of income or deduction. Bond Counsel expresses no opinion regarding any such other tax consequences.

Current and future legislative proposals, if enacted into law, clarification of the Code or court decisions may cause interest on the Bonds to be subject, directly or indirectly, in whole or in part, to federal income taxation or to be subject to or exempted from state income taxation, or otherwise prevent Beneficial Owners from realizing the full current benefit of the tax status of such interest. The introduction or enactment of any such legislative proposals or clarification of the Code or court decisions may also affect, perhaps significantly, the market price for, or marketability of, the Bonds. Prospective purchasers of the Bonds should consult their own tax advisors regarding the potential impact of any pending or proposed federal or state tax legislation, regulations or litigation, as to which Bond Counsel expresses no opinion.

The opinion of Bond Counsel is based on current legal authority, covers certain matters not directly addressed by such authorities, and represents Bond Counsel's judgment as to the proper treatment of the Bonds for federal income tax purposes. It is not binding on the Internal Revenue Service ("IRS") or the courts. Furthermore, Bond Counsel cannot give and has not given any opinion or assurance about the future activities of the City, or about the effect of future changes in the Code, the applicable regulations, the interpretation thereof or the enforcement thereof by the IRS. The City has covenanted, however, to comply with the requirements of the Code.

Bond Counsel's engagement with respect to the Bonds ends with the issuance of the Bonds, and, unless separately engaged, Bond Counsel is not obligated to defend the City or the Beneficial Owners regarding the tax-exempt status of the Bonds in the event of an audit examination by the IRS. Under current procedures, Beneficial Owners, would have little, if any, right to participate in the audit examination process. Moreover, because achieving judicial review in connection with an audit examination of tax-exempt bonds is difficult, obtaining an independent review of IRS positions with which the City legitimately disagrees may not be practicable. Any action of the IRS, including but not limited to selection of the Bonds for audit, or the course or result of such audit, or an audit of bonds presenting similar tax issues may affect the market price for, or the marketability of, the Bonds, and may cause the City or the Beneficial Owners to incur significant expense.

Payments on the Bonds generally will be subject to U.S. information reporting and possibly to "backup withholding." Under Section 3406 of the Code and applicable U.S. Treasury Regulations issued thereunder, a non-corporate Beneficial Owner of Bonds may be subject to backup withholding with respect to "reportable payments," which include interest paid on the Bonds and the gross proceeds of a sale, exchange, redemption, retirement or other disposition of the Bonds. The payor will be required to deduct and withhold the prescribed amounts if (i) the payee fails to furnish a U.S. taxpayer identification number ("TIN") to the payor in the manner required, (ii) the IRS notifies the payor that the TIN furnished by the payee is incorrect, (iii) there has been a "notified payee underreporting" described in Section 3406(c) of the Code or (iv) the payee fails to certify under penalty of perjury that the payee is not subject to withholding under Section 3406(a)(1)(C) of the Code. Amounts withheld under the backup withholding rules may be refunded or credited against a Beneficial Owner's federal income tax liability, if any, provided that the required information is timely furnished to the IRS. Certain Beneficial Owners (including among others, corporations and certain tax-exempt organizations) are not subject to backup withholding. The failure to comply with the backup withholding rules may result in the imposition of penalties by the IRS.

## UNDERWRITING

The Bonds will be purchased by the underwriters set forth on the cover page hereof represented by Wells Fargo Bank, National Association, as Representative (the "Underwriters"). The purchase contract for the Bonds (the "Bond Purchase Agreement") sets forth the Underwriters' obligation to purchase the Bonds at a price of $119,081,287.84 (representing net original issue premium of $8,518,301.10 and an underwriters' discount of $407,013.26 from the initial public offering prices set forth on the inside cover page of this Official Statement), and is subject to certain terms and conditions, including the approval of certain legal matters by counsel. The Bond Purchase Agreement provides that the Underwriters will purchase all of the Bonds if any are purchased. The Underwriters may offer and sell the Bonds to certain dealers (including dealers depositing the Bonds into investment trusts) and others at prices different from the public offering prices stated on the inside cover page of this Official Statement. The public offering prices may be changed from time to time at the discretion of the Underwriters.

The Underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, principal investment, hedging, financing and brokerage services. Certain of the Underwriters and their respective affiliates have, from time to time, performed, and may in the future perform, various financial advisory and investment banking services for 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 may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities, which may include credit default swaps) and financial instruments (including bank loans) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investment and securities activities may involve securities and instruments of 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.

Wells Fargo Securities is the trade name for certain securities-related capital markets and investment banking service of Wells Fargo & Company and its subsidiaries, including, Wells Fargo Bank, National Association, which conducts its municipal securities sales, trading and underwriting operations through the Wells Fargo Bank, NA Municipal Products Group, a separately identifiable department of Wells Fargo Bank, National Association, registered with the Securities and Exchange Commission as a municipal securities dealer pursuant to Section 15B(a) of the Securities Exchange Act of 1934.

Wells Fargo Bank, National Association, the lead underwriter for the Bonds, has entered into an agreement (the "WFA Distribution Agreement") with its affiliate, Wells Fargo Advisors, LLC ("WFA"), for the distribution of certain municipal securities offerings, including the Bonds. Pursuant to the WFA Distribution Agreement, Wells Fargo Bank, National Association will share a portion of its underwriting compensation with respect to the Bonds with WFA. Wells Fargo Bank, National Association has also entered into an agreement (the "WFSLLC Distribution Agreement") with its affiliate Wells Fargo Securities, LLC ("WFSLLC"), for the distribution of municipal securities offerings, including the Bonds. Pursuant to the WFSLLC Distribution Agreement, Wells Fargo Bank, National Association pays a portion of WFSLLC's expenses based on its municipal securities transactions. Wells Fargo Bank, National Association, WFSLLC and WFA are each wholly-owned subsidiaries of Wells Fargo & Company.

On or about the time of the closing of the Bonds, Wells Fargo Bank, National Association will purchase the Series 2023B Bonds pursuant to privately negotiated loan transaction. The Series 2023B Bonds will constitute Parity Bonds under the Indenture and Wells Fargo Bank, National Association will receive certain compensation in connection with such purchase.

## FINANCIAL ADVISOR

Davenport & Company LLC, Richmond, Virginia (the “Financial Advisor”) serves as Financial Advisor to the City with respect to the sale of the Bonds. The Financial Advisor has assisted in the preparation of this Official Statement and in other matters relating to the planning, structuring and issuance of the Bonds by the City.

The Financial Advisor does not assume any responsibility for the information, covenants and representations contained in any of the legal documents provided, agreed to or made by others, or the possible impact of any present, pending or future actions taken by any legislative or judicial bodies.

Although the Financial Advisor has assisted in the preparation of this Official Statement, the Financial Advisor is not obligated to undertake, and has not undertaken to make, an independent verification or to assume responsibility for the accuracy, completeness or fairness of the information contained in this Official Statement.

## RELATIONSHIP OF THE PARTIES

McGuireWoods LLP, Underwriters’ counsel, from time to time represents U.S. Bank Trust Company, National Association, Davenport & Company LLC and the City in unrelated matters. Orrick, Herrington & Sutcliffe LLP, co-Bond Counsel, represents the Underwriters in transactions unrelated to the Bonds.

## CONTINUING DISCLOSURE

The City has undertaken to assist the Underwriters in complying with the provisions of Rule 15c2-12 (the “Rule”), promulgated by the Securities and Exchange Commission (the “SEC”) and as in effect on the date hereof, by providing annual financial information, operating data and certain event notices required by the Rule. The form of undertaking is set forth in **Appendix H**. Failure by the City to comply with its continuing disclosure undertaking is not an event of default under the Bonds or the Ordinance. The sole remedy for a breach of the City's obligations is to bring an action for specific performance of the City’s covenants thereunder, and no assurance can be provided as to the outcome of any such proceeding.

The City believes that it has complied in all material respects with previous undertakings with respect to the Rule during the last five years.

## VERIFICATION OF MATHEMATICAL COMPUTATIONS

The arithmetical accuracy of certain computations made in connection with the Refunded Bonds and included in supporting schedules was verified by The Arbitrage Group, Inc., independent arbitrage consultants relating to (i) computations of forecasted receipts of principal and interest on the investments in the Government Obligations and/or cash deposited in the Escrow Fund and the scheduled payments of principal, premium and interest required to redeem the Refunded Bonds, and (ii) computation of the yield on the Bonds and the related Government Obligations. Such computations were based solely on assumptions and information supplied by the City's Financial Advisor. The Arbitrage Group, Inc. has restricted its procedures to verifying the arithmetical accuracy of certain computations and has not made any study or evaluation of the assumptions and information on which the computations are based and, accordingly, has not expressed an opinion on the data used, the reasonableness of the assumptions or the achievability of the forecasted outcome.

## MISCELLANEOUS

The descriptions of all documents herein do not purport to be complete statements of the provisions of such documents, and reference is directed to all such documents for all matters of fact relating to the Bonds, the security therefore and the rights and obligations of the Bondholders. The information contained in this Official Statement has been compiled from official and other sources deemed to be reliable, and while not guaranteed as to completeness or accuracy, is believed to be correct as of this date. Any statements made in this Official Statement involving matters of opinion or estimates, whether or not so expressly stated, are set forth as such and not as representations of fact, and no representation is made that any of the estimates will be realized. Neither this Official Statement nor any statement which may have been made verbally or in writing is to be construed as a contract with the owners of the Bonds.

Additional information may be obtained, upon request, from the Director of Finance, 900 E. Broad Street, Richmond, Virginia 23219 (804-646-5776) or from the City's Financial Advisor, 901 East Cary Street, Richmond, Virginia 23219 (804-697-2900).

## APPROVAL OF OFFICIAL STATEMENT

The distribution of this Official Statement and its delivery have been duly authorized by the Director of Finance upon authorization from the Council. The Director of Finance, on behalf of the City, has deemed this Official Statement final as of its date within the meaning of the Rule.

**CITY OF RICHMOND, VIRGINIA**

BY: /s/ Sheila D. White
DIRECTOR OF FINANCE

## APPENDIX A

## DEFINITIONS OF CERTAIN TERMS

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## APPENDIX A

## DEFINITIONS OF CERTAIN TERMS

The following are definitions of certain terms used in the Official Statement:

"**Account**" shall mean any of the various Accounts, sometimes created within a fund, under the Indenture of Trust.

"**Annual Debt Service**" shall mean the amount of payments required to be made for principal of and interest on any specified Indebtedness, including mandatory sinking fund redemptions, and payments pursuant to agreements with providers of credit enhancement or liquidity support with respect to such Indebtedness, to reimburse such providers for debt service payments made, with respect to such Indebtedness, scheduled to come due within a specified Fiscal Year, but excluding any capitalized interest funded from proceeds of Indebtedness. For purposes of calculating Annual Debt Service, the following assumptions are to be used to calculate the principal and interest due in such specified Fiscal Year:

(a) In determining the principal amount due in the Fiscal Year, payment shall be assumed to be made in accordance with any amortization schedule established for such Indebtedness (unless a different subsection of this definition applies for purposes of determining principal maturities or amortization), including any scheduled redemption of such specified Indebtedness on the basis of accreted value and, for such purpose, the redemption payment shall be deemed a principal payment;

(b) If any of the specified Indebtedness constitutes Tender Indebtedness, then Annual Debt Service on the options or obligations of the holders of such Indebtedness to tender the same for purchase or payment prior to their stated maturity or maturities shall be treated as a principal maturity occurring on the first date on which owners of such Indebtedness may or are required to tender such Indebtedness, except that any such option or obligation to tender Indebtedness shall be ignored and not treated as a principal maturity if (1) such Indebtedness is rated at least in the "A' rating category (without regard to any rating refinement or gradation by numerical modifier or otherwise) by a Rating Agency, or such Indebtedness is rated in the two highest short-term note or commercial paper rating categories by a Rating Agency, and (2) any obligation the City may have, other than its obligation on such Indebtedness, to reimburse any provider of a credit or liquidity facility or a bond insurance policy, or similar arrangement, shall either be subordinated to the obligation of the City on such Indebtedness or shall have been incurred under and shall have met the tests and conditions for the issuance of such specified Indebtedness set forth in the Indenture of Trust;

(c) If any of the specified Indebtedness constitutes Variable Rate Indebtedness, the interest rate on such Indebtedness shall be assumed to be 100% of the greater of (1) the daily average interest rate on such Indebtedness during the 12 months ending with the month preceding the date of calculation, or such shorter period that such Indebtedness shall have been Outstanding or (2) the rate of interest on such Indebtedness on the date of calculation;

(d) If any of the specified Indebtedness constitutes Balloon Indebtedness, then, for purposes of determining the annual amount payable on account of principal of and interest on such Indebtedness, such Indebtedness that is or would be Balloon Indebtedness shall be treated as if the principal amount of such Indebtedness were to be amortized in substantially equal annual installments of principal and interest over the lesser of a term of 30 years or the actual term of the Indebtedness; and the interest rate used for such computation shall be the rate quoted in the 30-year revenue bond index, or revenue bond index related to the actual term of the Indebtedness, as applicable, published by The Bond Buyer no more than two weeks prior to the date of calculation, or if that index is no longer published, another similar index selected by the City, or if the City fails to select a replacement index, an interest rate equal to 80% of the yield for outstanding United

States Treasury bonds having an equivalent maturity as the Indebtedness on the date of issuance, or if there are no such Treasury bonds having equivalent maturities, 80% of the lowest prevailing prime rate of any of the five largest commercial banks in the United States of America ranked by assets;

(e) Indebtedness that is no longer Outstanding pursuant to the Indenture of Trust or otherwise shall be disregarded and not included in the calculation of Annual Debt Service;

(f) For any Indebtedness for which a binding commitment, letter of credit or other credit. arrangement providing for the extension of such Indebtedness beyond its original maturity date exists, the computation of the annual amount payable on account of principal and interest on such Indebtedness shall, at the option of the City, be made on the assumption that such Indebtedness will be amortized in accordance with such credit arrangement; and

(g) Except for Hedge Agreements, Interest Rate Swaps are to be disregarded in calculating the Series Debt Service Reserve Requirement. Upon incurrence of a Hedge Agreement, all calculations, including for the annual amount on account of principal and interest on Indebtedness subject to the Hedge Agreement, shall be made using the Hedge Fixed Rate for the applicable period and such Indebtedness shall not be considered as Variable Rate Indebtedness for such period.

"**Authorized Representative of the City**" shall mean such person or persons as may be designated to act on behalf of the City by a certificate executed by the Chief Administrative Officer and on file with the Trustee.

"**Authorized Utilities Representative**" shall mean such person or persons as may be designated to act on behalf of the Department of Public Utilities of the City by a certificate executed by the Director of Public Utilities and on file with the Trustee.

"**Balloon Indebtedness**" shall mean indebtedness having a term of longer than 60 months and 25% or more of the principal of which matures on the same date and which portion of the principal of such indebtedness is not required to be amortized by payment or redemption prior to such date. If any indebtedness consists partially of Variable Rate Indebtedness and partially of indebtedness bearing interest at a fixed rate, the portion constituting Variable Rate Indebtedness and the portion bearing interest at a fixed rate shall be treated as separate issues for purposes of determining whether any such indebtedness constitutes Balloon Indebtedness.

"**Bond Anticipation Notes**" shall mean any notes issued in anticipation of the issuance of Bonds.

"**Bond Counsel**" shall mean an attorney or firm of attorneys nationally recognized on the subject of municipal bonds.

"**Bond Fund**" shall mean the Bond Fund established in the Indenture of Trust.

"**Bondholders" or "holders**" of Bonds shall mean the registered owners of Bonds.

"**Bonds**" shall mean any bonds, notes or other obligations issued from time to time pursuant to Article III of the Indenture of Trust, including Bond Anticipation Notes and Completion Bonds, but not including Other System Indebtedness and Subordinate Debt.

"**Business Day**" shall mean a day on which banking business is transacted, but not including a Saturday, Sunday or legal holiday, or any day on which banking institutions are authorized by law to close in the city in which the Trustee has its principal corporate trust office.

"**City**" shall mean the City of Richmond, a body politic and corporate and political subdivision of the Commonwealth of Virginia.

"**City Council**" shall mean the Council of the City, the governing body of the City.

"**Code**" shall mean the Internal Revenue Code of 1986, as amended, including applicable regulations, rulings and revenue procedures promulgated or applicable thereunder.

"**Commonwealth**" shall mean the Commonwealth of Virginia.

"**Completion Bonds**" are any Bonds issued for the purpose of financing the completion of certain improvements to the System for which Bonds have theretofore been issued in accordance with the provisions of the Indenture of Trust, to the extent necessary to complete such improvements in the manner and scope contemplated at the time that such Bonds were originally issued, and, to the extent the same shall be applicable, in accordance with the general plans and specifications for such improvements as originally prepared with only such changes as have been made in conformance with the documents pursuant to which such Bonds were originally issued.

"**Connection Fees**" shall mean all nonrecurring fees that the City collects from developers, builders or others (1) to compensate the City for providing System capacity, and (2) to connect facilities related to installation of and expansion to the System.

"**Contracted Services**" shall mean (a) services rendered or facilities provided to the City in respect to the System or (b) the performance of functions for or on behalf of the City that are similar to those performed by the System, from a specific project or system, pursuant to a contract, lease, service agreement or another similar arrangement. No designation or characterization of payments pursuant to the terms of a particular Service Contract will affect the City's right to make designations as to the Debt Service Component, Operating Component and Remaining Component of the Cost of Contracted Services.

"**Construction Fund**" shall mean the Construction Fund established in the Indenture of Trust.

"**Consulting Engineer**" shall mean (a) an Independent Consulting Engineer or (b) the designated person(s) within the Department of Public Utilities of the City or of any successor department who is (1) an engineer experienced in the field of water, sanitary sewer, natural gas or electrical engineering (as appropriate), and (2) licensed and registered as a professional engineer in the Commonwealth.

"**Cost**" shall mean the Costs of the System as set forth in the Indenture of Trust.

"**Cost of Contracted Services**" shall mean the payments to be made by the City for Contracted Services under Service Contracts as set forth in the Indenture of Trust, which may consist of any of the following three components: a Debt Service Component, an Operating Component, and a Remaining Component, as designated by the Chief Administrative Officer or his designee for each Service Contract.

"**Debt Service Component**" shall mean the portion of the Cost of Contracted Services that an Authorized Representative of the City determines, in a certificate delivered to the Trustee, to be for the purpose of paying a fixed charge or the principal of or interest on the obligations, directly or indirectly associated with rendering the Contracted Services, of the person providing the Contracted Services.

"**Debt Service Reserve Fund**" shall mean the Debt Service Reserve Fund established in the Indenture of Trust.

**“Escrow Agent”** shall mean U.S. Bank Trust Company, National Association, Richmond, Virginia, as Escrow Agent under the Escrow Deposit Agreement.

**“Escrow Deposit Agreement”** shall mean the Escrow Deposit Agreement dated as of the date of closing of the Bonds, between the City, the Escrow Agent and the Trustee providing for the refunding of certain portions of the Series 2016A Bonds and the investment of certain proceeds of the Series 2023C Bonds.

**“Escrow Fund”** shall mean the Escrow Fund established by the Escrow Deposit Agreement.

“**Event of Default**” shall mean any of the events enumerated in the Indenture of Trust.

“**Fiscal Year**” shall mean the twelve-month period beginning on July 1 of one year and ending on June 30 of the following year, or such other fiscal year of twelve months, as may be selected by the City.

“**General Obligation Bond Account**” shall mean the General Obligation Bond Account established by the Indenture of Trust.

“**General Obligation Bonds**” shall mean the principal amount of the City’s outstanding general obligation bonds, from time to time, the proceeds of which were used to finance facilities of the System.

“**Government Certificates**” shall mean certificates representing proportionate ownership of Government Obligations, which Government Obligations are held by a bank or trust company organized under the laws of the United States of America or any of its states in the capacity of custodian of such certificates and which have been stripped by the Treasury itself; provided, however, if such certificates are the interest component of REPCORP strips, such obligations must have been stripped by request to the Federal Reserve Bank of New York.

“**Government Obligations**” shall mean (a) bonds, notes and other direct obligations of the United States of America, (b) securities unconditionally guaranteed as to the timely payment of principal, if applicable, and interest by the United States of America, or (c) bonds, notes and other obligations of any agency of the United States of America unconditionally guaranteed as to the timely payment of principal and interest by the United States of America.

“**Hedge Agreement**” shall mean an interest rate swap, cap, collar, floor, forward or other hedging agreement, arrangement or security however denominated, expressly identified pursuant to its terms as being entered into in connection with and in order to hedge interest rate fluctuations on all or a portion of any Indebtedness where (a) interest on such Indebtedness or such portion of such Indebtedness is payable at a variable rate of interest for any future period of time or is calculated at a varying rate per annum, and (b) a fixed rate is specified by the City in such agreement, or such Indebtedness, taken together with such agreement, results in a net fixed rate payable by the City for such period of time (the “Hedge Fixed Rate”), assuming the City and the party(ies) with whom the City has entered into the agreement make all payments required to be made by the terms of the agreement, provided that no such agreement may be entered into by the City unless any termination or similar payment which may be payable by the City thereunder is expressly subordinated to the obligation of the City on the Indebtedness, and that the party(ies) with whom the City has entered into the agreement shall have the same or higher rating as the Indebtedness to which it relates. If the rating of the Indebtedness or the party(ies) with whom the City has entered into such agreements is lowered, such agreement will continue in effect and expire in accordance with its terms.

“**Indebtedness**” shall mean Senior Debt and Subordinate Debt.

“**Indenture of Trust**” shall mean the Master Indenture of Trust dated as of April 1, 1998, between the City and the Trustee, as supplemented or amended by one or more Supplemental Indentures.

“**Independent Consulting Engineer**” shall mean an independent engineer, who is not an employee of the City, experienced in the field of water, sanitary sewer, natural gas or electrical engineering (as appropriate) and licensed and registered as a professional engineer in the Commonwealth.

“**Interest Account**” shall mean the Interest Account in the Bond Fund established in the Indenture of Trust.

“**Interest Rate Swap**” shall mean a contract pursuant to which a party (the “Counterparty’) has agreed to make payments to the City during a particular period equal to the interest payable on specified Indebtedness or on a specified nominal amount at the actual rate or rates or, if on a nominal amount at a stated rate or rates, payable thereon and, in consideration therefor, the party obligated on the Indebtedness or otherwise executing the agreement agrees to make payments to the Counterparty equal to the interest required to be paid on the specified Indebtedness or stated to be due on the nominal amount during the period calculated as if the specified Indebtedness or nominal amount bore an assumed rate of interest specified in the contract.

“**Letter of Representations**” shall mean the Blanket Letter of Representations dated November 9,1995, from the City to the Securities Depository and any amendments thereto or successor agreements between the City and any successor Securities Depository, relating to a book-entry system to be maintained by the Securities Depository with respect to the Series 2023C Bonds. Notwithstanding any provision of the Indenture of Trust, including Article X of the Indenture of Trust regarding amendments, the Trustee may enter into any such amendment or successor agreement without the consent of Bondholders.

“**Net Proceeds**” shall mean the gross proceeds from any insurance recovery or recovery in any condemnation proceeding remaining after payment of attorneys’ fees, fees and all other expenses incurred in collection of such gross proceeds.

“**Net Revenues**” shall mean Revenues less Operating Expenses.

“**Operating Component**” shall mean the portion of the Cost of Contracted Services (excluding any Debt Service Component) that an Authorized Representative of the City reasonably determines, in a certificate delivered to the Trustee from time to time, to be directly or indirectly attributable to the portion of the Costs of Contracted Services that represents operating expenses for the provisions of Contracted Services; provided, however, if no such determination is made, all of the Cost of Contracted Services (excluding any Debt Service Component) will be treated as Operating Component.

“**Operating Expenses**” shall mean all current expenses directly or indirectly attributable to the ownership or operation of the System, including reasonable and necessary usual expenses of administration, operation, maintenance and repair, payments in lieu of taxes, costs for billing and collecting the rates, fees and other charges for the use of or the services furnished by the System, amounts to reimburse the City for administrative expenses incurred in connection with the System, insurance and surety bond premiums, credit enhancement or liquidity support fees, legal, engineering, auditing and financial advisory expenses, expenses and compensation of the Trustee, deposits into a self-insurance program as described in the Indenture of Trust and moneys which the City elects to transfer to the Rate Stabilization Account. Operating Expenses shall not include any allowance for depreciation, amortization, Debt Service Components, Remaining Components, deposits or transfers to the Bond Fund, the Debt Service Reserve Fund, the General Obligation Bond Account, and the Subordinate Debt Account, or expenditures for capital improvements to and extensions of the System. Operating Expenses shall be reduced by transfers from the Rate Stabilization Account to the utility account.

"**Opinion of Counsel**" shall mean an opinion of any attorney or firm of attorneys acceptable to the Trustee, who may be counsel for the City but shall not be an employee of either the City or the Trustee.

"**Other System Indebtedness**" shall mean (a) any Debt Service Component that the City is required, or has elected, to treat as payable on a parity with the Bonds with respect to the pledge of Net Revenues, and (b) any other Indebtedness incurred by the City pursuant to the Indenture of Trust that the City is required, or has elected, to treat as payable on a parity with the Bonds with respect to the pledge of Net Revenues.

"**Outstanding**" shall mean, when used as descriptive of obligations, that such obligations have been authorized, issued, authenticated and delivered under the Indenture of Trust or a different document and have not been canceled or surrendered to the Trustee or a comparable trustee for cancellation, deemed to have been paid as provided in the Indenture of Trust, have had other obligations issued in exchange therefor or had their principal become due and moneys sufficient for their payment deposited with the Trustee as provided in the Indenture of Trust, or, for Indebtedness other than Bonds or Subordinated Debt issued under the Indenture of Trust, otherwise so treated under comparable issuance documents.

In determining whether holders of a requisite aggregate principal amount of the Outstanding Indebtedness have concurred in any request, demand, authorization, direction, notice, consent or waiver under the Indenture of Trust or other documents, words referring to or connoting "principal of' or "principal amount of Outstanding Indebtedness shall be deemed also to be references to, to connote and to include the accreted value of Indebtedness as of the immediately preceding interest compounding date for such Indebtedness. Indebtedness that is owned by the City shall be disregarded and deemed not to be Outstanding for the purpose of any such determination.

"**Principal Account**" shall mean the Principal Account in the Bond Fund established in the Indenture of Trust.

"**Public Finance Act**" shall mean the Public Finance Act of 1991, Chapter 26, Title 15.2 of the Virginia Code or any successor provision of law.

"**Qualified Independent Consultant**" shall mean an independent professional consultant having the skill and experience necessary to provide the particular certificate, report or approval required by the provision of the Indenture of Trust or any Supplemental Indenture in which such requirement appears, including an Independent Consulting Engineer and an independent certified public accountant.

"**Rate Covenant**" shall mean the obligation of the City to fix, charge and collect rates, fees and other charges for the use of and the services furnished by the System sufficient to meet the requirements of the Indenture of Trust.

"**Rate Stabilization Account**" shall mean the Rate Stabilization Account established in the Indenture of Trust.

"**Rating Agency**" or "**Rating Agencies**" shall mean any securities rating agency that shall have assigned a rating that is then in effect with respect to the Indebtedness.

"**Remaining Component**" shall mean the portion of the Cost of Contracted Services which is not included in the definition of Debt Service Component or Operating Component.

“**Reserve Determination Date**” shall mean (a) each interest payment date for the Bonds or (b) any other date established in writing by an Authorized Representative of the City for the valuation of obligations on deposit in any Series Debt Service Reserve Account.

“**Revenues**” shall mean all moneys received as rates, fees and other charges for, or payments in respect of, the use of and for the services furnished by the System, including Connection Fees, proceeds of any business interruption insurance, and investment earnings on all of the foregoing. Revenues shall not include refundable customer deposits.

“**Securities Depository**” shall mean The Depository Trust Company, a corporation organized and existing under the laws of the State of New York, whose nominee is Cede & Co., and any other securities depository for the Series 2023C Bonds appointed pursuant to the Indenture of Trust, and their successors.

“**Senior Debt**” shall mean Bonds and Other System Indebtedness.

**“Series 2016A Bonds”** shall mean the City’s outstanding Public Utility Revenue and Refunding Bonds, Series 2016A.

“**Series 2023C Arbitrage Rebate Fund**” shall mean the Series 2023C Arbitrage Rebate Fund established in the Twenty-Fifth Supplemental Indenture.

“**Series 2023C Bonds**” shall mean the City’s $110,970,000 Public Utility Revenue and Refunding Bonds, Series 2023C, authorized to be issued pursuant to the Twenty-Fifth Supplemental Indenture.

“**Series 2023C Construction Account**” shall mean the Series 2023C Construction Account of the Construction Fund established in the Twenty-Fifth Supplemental Indenture.

“**Series 2023C Cost of Issuance Account**” shall mean the Series 2016A Cost of Issuance Account of the Construction Fund established in the Twenty-Fifth Supplemental Indenture.

“**Series**” or “**Series of Bonds**” shall mean a separate series of Bonds issued under the Indenture of Trust and a Supplemental Indenture.

“**Series Debt Service Reserve Account**” for any Series of Bonds, to the extent required, shall have the meaning set forth in the Supplemental Indenture authorizing such Series of Bonds.

“**Series Debt Service Reserve Requirement**” for any Series of Bonds, to the extent required, shall have the meaning set forth in the Supplemental Indenture authorizing such Series of Bonds.

“**Service Contracts**” shall mean any contracts or agreements for Contracted Services entered into by the City from time to time.

“**Sinking Fund Account**” shall mean the Sinking Fund Account in the Bond Fund established in the Indenture of Trust.

“**Subordinate Debt**” shall mean any bonds, notes or other obligations issued in connection with the System (a) which are expected to be paid from Net Revenues and designated by the City as Subordinate Debt, or (b) which have pledged to their payment Net Revenues as a subordinate lien pledge after the pledge of Net Revenues to Senior Debt, including but not limited to any Debt Service Component and Remaining Component that the City is required, or has elected, to treat as Subordinate Debt and General Obligation Bonds.

“**Subordinate Debt Account**” shall mean the Subordinate Debt Account in the Bond Fund established in the Indenture of Trust.

“**Supplemental Indenture**” shall mean any Supplemental Indenture supplementing or modifying the provisions of the Indenture of Trust entered into by the City and the Trustee pursuant to the Indenture of Trust.

“**System**” shall mean all plants, systems, facilities, equipment or property owned, operated or maintained by the City from time to time, together with all future extensions, improvements, enlargements and additions thereto, and all replacements thereof, used in connection with the collection, treatment or disposal of sanitary sewage, the supply, treatment, storage or distribution of water, and the supply, storage or distribution of natural gas.

“**Tender Indebtedness**” shall mean any indebtedness a feature of which is an option or obligation on the part of the holders of such indebtedness to tender all or a portion of such indebtedness to a fiduciary for mandatory purchase or redemption prior to the stated maturity date of such indebtedness, which may include Variable Rate Indebtedness with such a feature.

“**Term Bonds**” shall mean any Bonds stated to mature on a specified date and required to be redeemed in part prior to maturity according to a sinking fund schedule.

“**Trustee**” shall mean U.S. Bank Trust Company, National Association as successor to SunTrust Bank and Crestar Bank, Richmond, Virginia, or its successors serving as such under the Indenture of Trust.

“**Trustee’s Fees and Expenses**” shall mean an initial acceptance fee and an annual administrative fee plus expenses in accordance with the fee schedule set forth in a letter from the Trustee to the City, as the same may be renegotiated from time to time.

“**Twenty-Fifth Supplemental Indenture”** shall mean the Twenty-Fifth Supplemental Indenture of Trust dated as of September 1, 2023, between the City and the Trustee, which supplements and amends the Indenture of Trust.

“**Variable Rate Indebtedness**” shall mean any indebtedness the interest rate on which is not established at the time of incurrence at a fixed or constant rate, provided that (a) the maximum interest rate on such indebtedness and the maximum rate payable to any liquidity provider with respect to such indebtedness shall be specified at the time of issuance of such indebtedness, (b) any liquidity provider of any liquidity facility shall cause such indebtedness to be rated by the Rating Agencies at least equal to the rating on such indebtedness in one of the two highest long-term rating categories of such Rating Agencies, (c) any accelerated principal payments or any interest in excess of the bond interest rate due to such liquidity provider shall be subordinate to the payment of debt service on Bonds, and (d) any two or more series of Bonds which are issued on the same date, the interest on which when such series are considered in the aggregate shall be a fixed or constant rate shall not be considered Variable Rate Indebtedness.

“**Virginia Code**” shall mean the Code of Virginia of 1950, as amended.

**APPENDIX B**

**SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE OF TRUST**

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# APPENDIX B

## SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE OF TRUST

The following is a brief summary of certain provisions contained in the Indenture of Trust and does not purport to be a complete statement of all of the provisions of the Indenture of Trust. Reference is made to the Indenture of Trust in its entirety for complete information on its terms and the terms of the Series 2023C Bonds, the security provisions and the application of Revenues. See also the sections entitled “Description of the Bonds” and “Security for the Bonds” contained in the Official Statement.

**General; Application of Bond Proceeds**

The Indenture of Trust authorizes the issuance of the Bonds by the City, establishes the form and details of the Bonds and makes provision for their execution, authentication, delivery, registration and exchange. All capitalized terms used in this summary have the meaning set forth in the Official Statement and in Appendix A, unless otherwise indicated.

The Indenture of Trust provides that the proceeds of the Bonds issued to pay certain Costs of the System be held in trust by the City in a Construction Fund and used solely to pay the Costs of the System. The proceeds of Bonds which are issued to refund any Indebtedness secured by or payable from Net Revenues, including any Bonds, will be held by the Trustee, an escrow agent or other party, as specifically provided in the Supplemental Indenture related to such refunding.

The proceeds of a Series of Bonds or Subordinate Debt issued under the Indenture of Trust will be deposited in the related Construction Account established by a Supplemental Indenture. Deposits will be made to the credit of the Construction Fund and any special accounts as provided in such Supplemental Indenture. All earnings on moneys in each Account and subaccount will be credited to such Account and subaccount.

When all Costs of the System to be paid with a portion of the proceeds of a Series of Bonds have been paid or moneys have been reserved to pay all remaining unpaid items of such Costs of the System, the balance of any Bond proceeds remaining in excess of the amount to be reserved for payment of unpaid items of the Costs of the System will be (a) transferred to the Trustee for deposit in the Bond Fund to be used solely to pay principal of and interest on the Series of Bonds which provided such proceeds to the extent approved by Bond Counsel, or (b) used to pay all or any portion of the Costs of the System designated by the City and approved by Bond Counsel.

**Issuance of Additional Indebtedness**

**Issuance of Bonds; Parity of Senior Debt**. The Indenture of Trust permits the City to issue Bonds (a) to pay the Costs of the System, (b) to refund any Indebtedness secured by or payable from Net Revenues, including any Bonds, or (c) a combination of such purposes. The Indenture of Trust provides for a continuing, irrevocable pledge of Net Revenues to secure payment of the principal of and premium, if any, and interest on all Senior Debt that may from time to time be issued and Outstanding. Each Senior Debt issue will be issued pursuant to a Supplemental Indenture or evidenced by other documents and will be equally and ratably secured by the pledge of Net Revenues under the Indenture of Trust, without preference, priority or distinction; provided, however, that the moneys in any Series Debt Service Reserve Account shall only secure the applicable Senior Debt, and provided further that any Senior Debt may have additional revenues or other security pledged to its payment. In connection with the issuance of Senior Debt, the Trustee may create additional accounts and subaccounts within any fund or account established by the Indenture of Trust. The Indenture of Trust provides that nothing therein will be construed, however, as (a) requiring that any Senior Debt bear interest at the same rate or in the same manner as any other Senior Debt, have the same, or an earlier or later, maturity, or be subject to mandatory, optional or extraordinary redemption prior to maturity on the same basis as any other Senior Debt, (b) prohibiting the City from entering into financial arrangements designed to assure that moneys will be available for the payment of certain Senior Debt at their maturity, or (c) prohibiting the City from pledging moneys or assets of the City other than those pledged in the Indenture of Trust for the benefit of certain Senior Debt.

Among the required conditions set forth in the Indenture of Trust permitting the issuance of Bonds are:

(a) in the case of any Series of Bonds issued to pay certain Costs of the System, the following:

(1) Evidence that upon issuance of such Bonds, each Series Debt Service Reserve Account within the Debt Service Reserve Fund will contain the applicable Series Debt Service Reserve Requirement, if any; and

(2) Either (A) a certificate of the Chief Administrative Officer, the Director of Finance or Authorized Representative of the City, stating that based on the City's financial records for any 12 consecutive months of the last 24 months (the "Test Period") prior to the issuance of such Bonds the City would have been able to meet the Rate Covenant, taking into account (i) the maximum Annual Debt Service on the proposed additional Series of Bonds in the current or any future Fiscal Year, and (ii) the rates, fees and other charges which are in effect and any future changes therein as have been approved by the City Council at the time of the delivery of the proposed additional Series of Bonds, or (B) a written statement of the Chief Administrative Officer, the Director of Finance or Authorized Representative of the City, which projects Operating Expenses, Revenues and Net Revenues for two full Fiscal Years following the anticipated completion of the System improvements to be financed with such proposed additional Series of Bonds and which demonstrates that, on the basis of such projection, the City can comply with the Rate Covenant, taking into account those rates, fees and other charges which are in effect at the time of the delivery of the proposed additional Series of Bonds and any future changes therein as have been approved by the City Council at the time of the delivery of the proposed additional Series of Bonds.

(b) in the case of Completion Bonds, Completion Bonds may be issued without limitation; provided, however, that prior to the issuance of such Completion Bonds, the City will furnish to the Trustee (a) a certificate of a Consulting Engineer estimating the costs of completing the facilities for which such Completion Bonds are to be issued and (b) a certificate of the Chief Administrative Officer, the Director of Finance or Authorized Representative of the City, certifying that the amount of such Completion Bonds to be issued will be sufficient, together with other funds, if applicable, to complete construction of the facilities as estimated by the Consulting Engineering with respect to which such Completion Bonds are to be issued.

(c) in the case of Bonds issued to refund any Indebtedness, the following:

(1) Evidence that the City has made provision as required by the Indenture of Trust or the documents providing for issuance of Subordinate Debt for the payment or redemption of all Indebtedness to be refunded;

(2) Either (A) a written determination by the Chief Administrative Officer, the Director of Finance or Authorized Representative of the City, or other evidence satisfactory to the Trustee that after the issuance of such Bonds and the provision for payment or redemption of all Indebtedness to be refunded, the Annual Debt Service requirements for each Fiscal Year in which there will be Outstanding Indebtedness not to be refunded will not increase more than 5% of what the Annual Debt Service requirements for such Fiscal Year would have been on all Senior Debt immediately prior to the issuance of such Bonds, including the Indebtedness to be refunded (if such

Indebtedness was Senior Debt), and that the final maturity of Indebtedness being refunded has not been extended, or (B) a certificate as described in clause (a)(2) above.

**Other System Indebtedness**. The City may incur or refinance Other System Indebtedness provided that (1) the documents providing for the Other System Indebtedness specify the amounts and due dates of Annual Debt Service with respect to the Other System Indebtedness, (2) the requirements of paragraphs (a), (b) or (c) above, as appropriate, have been met as if the Other System Indebtedness was an additional Series of Bonds, (3) the Trustee receives written notice of the issuance of the Other System Indebtedness and the material terms and conditions thereof, and the Trustee shall register the holder as owner thereof as such on its books and records, and (4) the Trustee receives an Opinion of Counsel that the documents creating the Other System Indebtedness have been duly authorized, executed and delivered on behalf of the City and constitute valid, binding and enforceable obligations.

**Subordinate Debt** The City may at any time issue Subordinate Debt and pledge Net Revenues thereto so long as rates, fees and charges are in effect or scheduled to go into effect to meet the Rate Covenant immediately after the issuance of such Subordinate Debt. Subordinate Debt may not be accelerated if any Senior Debt is outstanding.

**Rate Covenant**

The Indenture of Trust contains a rate covenant as described in the section entitled "THE BONDS - Security for the Bonds -- Rate Covenant" in the Official Statement.

**Establishment of Funds and Accounts**

The Indenture of Trust establishes the following funds and Accounts to be held as indicated:

(a) Construction Fund, in which there is shall be established separate accounts with respect to each Series of Bonds, including the Series 2023C Construction Account, the Series 2023C Costs of Issuance Account, to be held by the City;

(b) Rate Stabilization Account, to be held by the City, not subject to the lien of the Indenture of Trust;

(c) Bond Fund, in which there shall be established an Interest Account, a Principal Account and a Sinking Fund Account, and a separate subaccount in each such Account with respect to each Series of Bonds or Other System Indebtedness, including the Series 2023C Interest Subaccount and the Series 2023C Principal Subaccount, to be held by the Trustee;

(d) Debt Service Reserve Fund, in which there shall be established Series Debt Service Reserve Accounts for each Series of Bonds or Other System Indebtedness issue which has a Series Debt Service Reserve Requirement, to be held by the Trustee;

(e) General Obligation Bond Account, to be held by the City, not subject to the lien of the Indenture of Trust; and

(f) Subordinate Debt Account, to be held by the Trustee;

**Construction Fund**. The Construction Fund will be applied to the payment of the Cost of the System, including the costs of issuing Bonds. Any balance remaining in the respective Series 2023C Costs of Issuance Account after payment of such respective costs of issuance shall be transferred to the Series 2023C Construction Account. Any balance remaining in a Series Construction Account upon completion of the improvements to the System which were funded with the proceeds of a Series of Bonds, in excess of the amount to be reserved for the payment of unpaid items of the Cost of the System shall be (a) transferred to the Bond Fund to be used solely to pay interest and principal on the Series of Bonds which provided such proceeds to the extent approved by Bond Counsel or (b) used to pay all or any portion of the Cost of any other Project designated by the City and approved by Bond Counsel.

**Disposition of Revenues**. The Indenture of Trust provides that all Revenues will be deposited in a utility account to be held by the City. The Director of Finance of the City may, pursuant to policy determinations, at any time transfer Revenues to the Rate Stabilization Account. Thereafter, throughout the month but no later than the last Business Day of each month, the Director of Finance must debit from the utility account an amount sufficient to pay Operating Expenses during such month. Net Revenues will be disbursed on the last Business Day of each month in the following order (except that no distinction or preference shall exist in the use in an amount sufficient to make the following deposits of Net Revenues for payment into the Interest Account, the Principal Account or the Sinking Fund Account of the Bond Fund, such accounts being on a parity with each other as to payment from Net Revenues):

(a) To the subaccounts established for each Series of Bonds or Other System Indebtedness in the Interest Account, Principal Account and Sinking Fund Account in the Bond Fund the amounts, if any, set forth in the applicable Supplemental Indentures with respect to each Series of Bonds or Other System Indebtedness and such deposits shall be adjusted to give credit for any other available money then in such interest account or subaccount or otherwise available and designated to be used for such purpose; provided, however, that if such Other System Indebtedness is evidenced by documents other than a Supplemental Indenture, to the related principal and interest accounts set forth therein. Moneys in the Interest Account must be used to pay interest required to be paid on any interest payment date related to such Series of Bonds or Other System Indebtedness, as applicable. Moneys in the Principal Account must be used to pay principal required to be paid on any principal payment date related to such Series of Bonds or Other System Indebtedness, as applicable. Moneys in the Sinking Fund Account must be used to pay the amount required for mandatory sinking fund redemption on the applicable redemption date related to such Series of Bonds or Other System Indebtedness, as applicable.

(b) To the applicable Account in the Debt Service Reserve Fund with respect to each Senior Debt issue the amounts, if any, necessary to restore the amount on deposit therein to the related Series Debt Service Reserve Requirement.

(c) To the Subordinate Debt Account, the amount equal to the deposits to such funds and accounts required by the related Supplemental Indenture or other documents evidencing such debt; provided, further, to the General Obligation Bond Account, the amounts equal to the deposits to such funds and accounts required pursuant to the terms of the General Obligation Bonds (except that no distinction or preference shall exist in the use in an amount sufficient to make the deposits of Net Revenues for payment into the Subordinate Debt Account and the General Obligation Bond Account, such accounts being on a parity with each other as to payment from Net Revenues).

There shall also be made periodic dividend distributions to the City on an annual basis, after the deposits required by clauses (a) through (c) above have been made, to the extent of the limitations provided by the City Charter (see, "Financial Management" in Appendix C).

If the City fails to make the deposits required by clauses (a) through (c) above, the Trustee is required to give notice of such failure to the Chief Administrative Officer and the Director of the Department of Utilities, if any, within 10 days of such failure. Notwithstanding anything in the Indenture of Trust to the contrary, at any time that the City is required to make transfers pursuant to clauses (a) through (c) above, and there are insufficient Net Revenues to make all required transfers pursuant to such clauses, the City is required to make the transfers in the order set forth above first from Net Revenues then from any other legally available moneys.

In the event the balance on deposit in the Principal Account, Sinking Fund Account or the Interest Account is insufficient for the purposes thereof, the Trustee is required to transfer for deposit in such Accounts, such amounts as may be necessary therefor from the applicable Series Debt Service Reserve Account pursuant to the Indenture of Trust.

The Trustee is required to provide for a mandatory sinking fund redemption of any Term Bonds in accordance with the schedules set forth in the Supplemental Indenture for such Bonds; provided, however, that on or before the 70th day next preceding any such sinking fund payment date, the City may:

(1) deliver to the Trustee for cancellation Term Bonds of the maturity required to be redeemed on such sinking fund payment date in any aggregate principal amount desired; or

(2) instruct the Trustee to apply a credit against the City's next sinking fund redemption obligation for any such Term Bonds that previously have been redeemed (other than through the operation of the sinking fund) and canceled but not theretofore applied as a credit against any sinking fund redemption obligation.

Upon the occurrence of any of the events described in the clauses (1) or (2) above, the Trustee shall credit against the City's sinking fund redemption obligation on the next sinking fund payment date the amount of such Term Bonds so delivered or previously redeemed. Any principal amount of such Term Bonds in excess of the principal amount required to be redeemed on such sinking fund payment date is required to be similarly credited in such order as may be determined by the Chief Administrative Officer or the Director of Finance against future payments to the Sinking Fund Account and similarly reduce the principal amount of the Term Bonds of the applicable Series to be redeemed on the next sinking fund payment date. Within seven days of receipt of such Term Bonds or instructions to apply as a credit, any amounts remaining in the Sinking Fund Account in excess of the amount required to fulfill the remaining required sinking fund redemption obligation on the next sinking fund payment date is required to be used in such manner as determined at the direction of the City.

In the event the amount on deposit in the Interest Account on any interest payment date shall exceed the amount required to pay interest on the Senior Debt on the next interest payment date, the City is required to, if the amount on deposit in any Series Debt Service Reserve Account is less than the applicable Series Debt Service Reserve Requirement, instruct the Trustee to transfer such excess to any Series Debt Service Reserve Account to the extent of such deficiency, and otherwise retain any remaining excess in the Interest Account or instruct the Trustee to transfer any remaining excess to the related Principal Account to be credited against subsequent required deposits thereto, as determined by the Chief Administrative Officer or his designee.

In the event the amount on deposit in the Principal Account or Sinking Fund account on any principal payment or mandatory redemption date exceeds the amount required on such date to pay Bonds at maturity or to redeem Term Bonds pursuant to mandatory sinking fund requirements, the City is required to, if the amount on deposit in any Series Debt Service Reserve Account is less than the applicable Series Debt Service Reserve Requirement, instruct the Trustee to transfer such excess to the Series Debt Service Reserve Account to the extent of such deficiency, and otherwise retain such excess in the Principal Account or instruct the Trustee to transfer such excess to the Interest Account to be credited against subsequent required deposits thereto, as determined by the Chief Administrative Officer or his designee.

**Rate Stabilization Account**. The Indenture of Trust provides that the Rate Stabilization Account is required to be held by the City in an account separate and apart from all other funds and accounts of the City and payments therefrom shall be made as provided in the Indenture of Trust. Moneys in the Rate Stabilization Account are required to be used to increase Net Revenues in order to offset the requirement for rate increases. Moneys may be transferred by the City to the Rate Stabilization Account from the utility account as provided in Indenture of Trust as determined by the Director of Finance of the City. The Director of Finance, pursuant to policy determinations may, at any time, transfer Revenues from the utility account to the Rate Stabilization Account.

**Debt Service Reserve Fund**. (a) Each Supplemental Indenture will set forth whether an Account in the Debt Service Reserve Fund is required to be funded in the amount of the applicable Series Debt Service Reserve Requirement on the Closing Date of such Series of Bonds. To the extent that such Account shall be required to be funded pursuant to the terms of a Supplemental Indenture, amounts in each Account in the Debt Service Reserve Fund are required be used to pay debt service on the related Series of Bonds on the date such debt service is due when insufficient funds for that purpose are available in the Bond Fund; provided, however, that all amounts in an Account in the Debt Service Reserve Fund shall be used, together with other amounts available for such purpose under the Indenture of Trust, to provide for payment of the related Series of Bonds when the aggregate of such amounts is sufficient for such purpose. Amounts in each Account of the Debt Service Reserve Fund shall be pledged to Holders of the related Series.

(b) In lieu of or in addition to cash or investments, at any time the City may cause to be deposited to the credit of any Series Debt Service Reserve Account any form of credit facility, including a surety bond, in the amount of all or a portion of the Series Debt Service Reserve Requirement, irrevocably payable to the Trustee as beneficiary for the holders of the respective Series of Bonds, provided that the Trustee has received evidence satisfactory to it that (a) the provider of the credit facility has a credit rating in one of the two highest credit rating categories by two Rating Agencies, (b) the obligation of the City to pay the fees of and to reimburse the provider of the credit facility is subordinate to its obligation to pay debt service on the respective Series of Bonds, (c) the term of the credit facility is at least 36 months, (d) the only condition to a drawing under the credit facility is insufficient amounts in the applicable funds and Accounts held by the Trustee with respect to such Series of Bonds when needed to pay debt service on such Series or the expiration of the credit facility, and (e) the provider of the credit facility shall notify the City and the Trustee at least 24 months prior to the expiration of the credit facility. If (1) the City receives such expiration notice and the provider of such credit facility does not extend its expiration date, (2) the City receives notice of the termination of the credit facility, or (3) the provider of such credit facility no longer has a credit rating in one of the two highest credit rating categories by two Rating Agencies, the City immediately shall (A) provide a substitute credit facility that meets the requirements set forth in the foregoing sentences, (B) deposit the Series Debt Service Reserve Requirement to the respective Series Debt Service Reserve Account (i) in equal monthly installments over the next succeeding 12 months in the case of receipt of an expiration notice, (ii) prior to the termination date in the case of receipt of a termination notice, or (iii) immediately in the case of such reduction in credit rating, or (C) instruct the Trustee to draw on such credit facility in the amount of the Series Debt Service Reserve Requirement (i) 12 months prior to expiration of the credit facility in the case of receipt of an expiration notice, (ii) prior to the termination date in the case of receipt of a termination notice, or (iii) immediately in the case of such reduction in credit rating and deposit such drawing to the Series Debt Service Reserve Account.

If a disbursement is made pursuant to any credit facility, the City is required to either (a) reinstate the maximum limits of such credit facility, or (b) deposit to the credit of the applicable Series Debt Service Reserve Account moneys in the amount of the disbursement made under such credit facility from available Revenues. To the extent such moneys are still insufficient, then the City is required to transfer to the Trustee from any legally available moneys the amount of such deficiency as soon as practicable and in any event within one year by depositing one-twelfth of the required amount each month.

Amounts, if any, released from any Series Debt Service Reserve Account upon deposit to the credit of such Account of a credit facility shall, upon designation by an Authorized Representative of the City, accompanied by an Opinion of Bond Counsel that such use will not adversely affect the exclusion from gross income of interest on the respective Series of Bonds, be transferred (a) to the subaccount of the Principal Account with respect to such Series of Bonds and used to pay principal of or to redeem such Series of Bonds, or (b) to the City to be used to pay all or any portion of the Costs of the System designated by the City and approved by Bond Counsel.

(c) On or within five days after each Reserve Determination Date, the Trustee shall determine if the balance on deposit in each Series Debt Service Reserve Account was, as of the Reserve Determination Date, at least equal to the applicable Series Debt Service Reserve Requirement. In making such determination, any obligations in the Series Debt Service Reserve Account shall be valued in accordance with the requirements of the Indenture of Trust.

In the event the amount on deposit in any Series Debt Service Reserve Account is less than the applicable Series Debt Service Reserve Requirement, the Trustee shall transfer moneys to such Series Debt Service Reserve Account to restore such Series Debt Service Reserve Requirement from available Revenues. In the event the amount on deposit in a Series Debt Service Reserve Account is less than the applicable Series Debt Service Reserve Requirement after such transfer, then the City shall transfer to the Trustee from any legally available moneys the amount of such deficiency as soon as practicable and in any event within one year by depositing one-twelfth of the required amount each month.

In the event the amount on deposit in a Series Debt Service Reserve Account exceeds the applicable Series Debt Service Reserve Requirement, the Trustee shall (a) transfer such excess to the Bond Fund to be deposited in the related Series subaccount in the Interest Account and the related Series subaccount in the Principal Account to the extent amounts in such subaccounts are less than the amounts required to be paid on the next interest payment date and principal payment date, respectively, (b) thereafter transfer such excess to the Bond Fund to be deposited, as directed by an Authorized Representative of the City, in the Interest Account or the Principal Account to the extent amounts in such accounts are less than the amounts required to be paid on the next interest payment date and principal payment date, respectively, and (c) transfer such excess to the City to be used to pay all or any portion of the Costs of the System designated by the City and approved by Bond Counsel; provided, however, that if an Authorized Representative of the City calls for a Reserve Determination Date in connection with the refunding and/or defeasance of a Series of Bonds, then the Trustee is authorized to take such refunding and/or defeasance into account in valuing the Series Debt Service Reserve Account securing such Series of Bonds and is further authorized to apply the amount of any surplus arising from such valuation to reduce the amount of the refunding bonds and/or to provide for the defeasance of the Series of Bonds in such manner as the Authorized Representative of the City may direct.

**Payments in Aid of Construction**. The City is required to use any payments made to the City by any persons as payment for constructing water, sanitary sewer or natural gas facilities at the request of such persons, whether such payments are made prior to or after such construction, only to pay the cost of such construction. After completion of such construction, the City may use any moneys remaining after such construction is completed to pay all or any portion of the Costs of the System designated by the City and approved by Bond Counsel.

**Series 2023C Arbitrage Rebate Fund**. The City is required to calculate and pay any rebate obligation owing to the United States of America with respect to the Series 2023C Bonds as and when due.

After the principal of and premium, if any, and interest on all of the Indebtedness, any amounts required to be paid pursuant to the terms of the Indenture of Trust or any Supplemental Indenture and all expenses and charges in the Indenture of Trust required have been paid or provision therefor has been made, the Trustee is required to pay to the City any balance remaining in any fund then held by it.

**Pledge of Net Revenues and Certain Funds and Accounts**

Net Revenues are pledged equally and ratably to the payment of principal of and interest on all Senior Debt, subject only to the right of the City to make application thereof to other purposes as provided in the Indenture of Trust. Moneys in the Bond Fund and the Debt Service Reserve Fund are pledged (except as provided in the next sentence hereof) equally and ratably to the payment of the principal of and interest on all Senior Debt, subject only to the right of the City to make application thereof, or to direct the Trustee to make application thereof, to other purposes as provided in the Indenture of Trust. The lien and trust created in the Indenture of Trust are for the benefit of the holders of Senior Debt and for their additional security until all the Senior Debt has been paid; provided, however, that the moneys in each Series Debt Service Reserve Account and each Series construction subaccount shall only secure the applicable Series of Bonds and moneys in any account of the Bond Fund relating to a particular Senior Debt shall only secure such Senior Debt.

**Investment of Moneys**

Any moneys held in the Funds and Accounts shall be invested and reinvested by or at the written direction of the Director of Finance or Authorized Representative of the City in Investment Obligations, subject to the limitations stated in the Indenture of Trust. “Investment Obligations” shall mean any of the following which are at the time legal investments for public funds under the Investment of Public Funds Act (Chapter 18, Title 2.1 of the Virginia Code) or any successor provisions of law applicable to such investments:

(a) Government Obligations;

(b) Government Certificates;

(c) bonds, notes and other evidences of indebtedness of the Federal National Mortgage Association, the Federal Home Loan Bank, the Farm Credit System, the Federal Home Loan Mortgage Corporation, the Student Loan Marketing Association and the Resolution Funding Corp.;

(d) bonds and notes of the Commonwealth and securities unconditionally guaranteed as to the timely payment of principal and interest by the Commonwealth, so long as such obligations are rated by the Rating Agencies in one of the two highest rating categories of such Rating Agencies;

(e) commercial paper with a maturity of 270 days or less, which complies with the requirements of Section 2.1-328.1 of the Virginia Code, or any successor provision of law, so long as such commercial paper is rated at the time of purchase, “Prime-1” or better by Moody’s and “A-1” or better by the applicable Rating Agencies;

(f) bankers acceptances, if permitted by Section 2.1-328.3 of the Virginia Code, or any successor provision of law, with a maximum term of one year of any bank which has an unsecured, uninsured and unguaranteed obligation rating of “Prime-1” or “A3” or better by the applicable Rating Agencies;

(g) savings accounts, time deposits, certificates of deposit and other interest bearing accounts of any (1) national bank located within the Commonwealth or (2) state-chartered bank, provided that such funds are secured in the manner required by the Virginia Security for Public Deposits Act or any successor provision of law, but only to the extent such funds are fully insured by the Federal Deposit Insurance Corporation or any other Federal insurance agency, and provided that no deposits made under this subsection shall be made for a period in excess of five years;

(h) savings accounts and certificates of deposit of (1) savings institutions which are under supervision of the Commonwealth and (2) Federal institutions located within the Commonwealth organized under the laws of the United States of America and under Federal supervision, but only to the extent that such accounts and certificates are fully insured by the Federal Deposit Insurance Corporation or any other Federal insurance agency, unless such deposits in excess of the amount insured shall be fully collateralized (A) by eligible collateral as defined in Section 2.1-360(e) of the Virginia Code or any successor provision of law, (B) by Government National Mortgage Association Pass-through Certificates, (C) by Federal National Mortgage Association Guaranteed Pass-through Certificates, (D) by Federal Home Loan Mortgage Corporation Participation Certificates or (E) as provided by the Virginia Security for Public Deposits Act or any successor provision of law, provided that no deposits made under this subsection shall be made for a period in excess of five years; and

(i) units representing beneficial interests in investment pools created pursuant to the Government Non-Arbitrage Investment Act (Article 7.1, Chapter 14, Title 2.1 of the Virginia Code) or any successor provision of law.

Any moneys held in the Bond Fund and the Debt Service Reserve Fund or any Account in such funds shall be separately invested and reinvested by the Trustee at the direction of the Chief Administrative Officer or the Director of Finance or his designee in investments described in clauses (a), (b), (c), (g), (h) and (i) above, so long as they are authorized for investment of public sinking funds by Section 2.1-327 of the Virginia Code or any successor provisions of law applicable to such investments.

Any investments described in clauses (a) and (b) above may be purchased pursuant to an overnight, term or open repurchase agreement in accordance with the provisions of the Indenture of Trust.

Investments in a money market or other fund, investments of which fund are exclusively in obligations or securities described in clauses (a), (b) and (c) above, shall be considered investments in obligations described in clauses (a), (b) and (c) above; provided that such funds are registered under the Securities Act of the Commonwealth.

Moneys held in the following funds and Accounts shall be invested in obligations described above of the following maturities:

(1) Bond Fund, General Obligation Bond Account and Subordinate Debt Account - not later than the dates on which such moneys will be needed to pay principal of or interest on the related Indebtedness; and

2) Series Debt Service Reserve Accounts within the Debt Service Reserve Fund - not later than the earlier of five years from the date of acquisition of the investment or the final maturity of the applicable Senior Debt.

Unless otherwise provided in a Supplemental Indenture, earnings on Investment Obligations shall accrue to the fund or Account in which such Investment Obligations are on deposit, or, at the written direction of an Authorized Representative of the City, shall be transferred to and deposited in the Bond Fund.

In computing the amount in any fund or Account, except for the Debt Service Reserve Fund, obligations purchased as an investment of money therein shall be valued at cost or fair market value thereof, whichever is lower, plus accrued interest. Investments in the Debt Service Reserve Fund shall be valued at least semiannually at the fair market value thereof, plus accrued interest.

**Particular Covenants**

**Payment of Indebtedness: Limited Obligations**. The Indenture of Trust provides that the City shall promptly pay or cause to be paid when due the principal of (whether at maturity, by acceleration, call for redemption or otherwise) and premium, if any, and interest on the Indebtedness at the places, on the dates and in the manner provided therein and in the Indebtedness according to the true intent and meaning thereof; provided, however, that such obligations are not general obligations of the City but are limited obligations payable solely from Net Revenues, except to the extent payable from the proceeds of Indebtedness, the income, if any, derived from the investment thereof, certain reserves, proceeds of credit enhancement, income from investments pursuant to the Indenture of Trust or proceeds of insurance, which Net Revenues and other moneys are hereby specifically pledged to such purposes in the manner and to the extent provided in the Indenture of Trust. The Indebtedness, the premium, if any, and the interest thereon shall not be deemed to create or constitute an indebtedness or a pledge of the faith and credit of the Commonwealth or of any county, city, town or other political subdivision thereof, including the City.

**Limitation on Indebtedness**. The City shall not issue any bonds, notes or other obligations that shall be secured by a pledge of Net Revenues (a) senior to the pledge of Net Revenues securing the Senior Debt, (b) except in compliance with the Indenture of Trust, on parity with the pledge of Net Revenues securing the Senior Debt, or (c) except in compliance with the Indenture of Trust, subordinate to the pledge of Net Revenues securing the Senior Debt. The City shall not issue Bonds, Other System Indebtedness or Subordinate Debt unless the City complies with the provisions of the Indenture of Trust.

**Covenants and Representations of City**. The City shall faithfully observe and perform all covenants, conditions and agreements on its part contained in the Indenture of Trust, in every issue of Indebtedness issued thereunder and in all proceedings of the City pertaining thereto. The City represents that it is duly authorized under the Constitution and the laws of the Commonwealth, including the Public Finance Act, to issue the Indebtedness, to execute the Indenture of Trust, and to pledge Net Revenues in the manner and to the extent therein set forth. The City covenants that it will take all action necessary for issuance of the Indebtedness and the execution of the Indenture of Trust, and that upon issuance the Indebtedness will be valid and enforceable obligations of the City according to the import thereof.

**Covenants with Credit Banks, Insurers, etc**. The City may make such covenants and agreements in a Supplemental Indenture as it may determine to be appropriate with any insurer, credit bank or other financial institution that shall agree to insure or to provide credit or liquidity support that shall enhance the security or the value ot any Indebtedness. Such covenants and agreements may be set forth in the applicable Supplemental Indenture and shall be binding on the City and all the holders of the Indebtedness the same as if such covenants were set forth in full in the Indenture of Trust.

**Operation and Maintenance**. The City shall establish and enforce reasonable rules and regulations governing the use of and the services furnished by the System, maintain and operate the System in an efficient and economical manner, maintain the same in good repair and sound operating condition and make all necessary repairs, replacements and renewals.

**Free Service**. The City shall not permit connections to or use of the System or provide any services of the System without making a charge therefor in accordance with the City's schedule of rates, fees and charges for the System other than those connections, uses or services already in existence; provided, however, the City may accept proffers and other forms of payment in lieu of cash payments that the City deems are in its best interests to accept.

**Sale or Encumbrance of System**. (a) Neither the System nor any integral part thereof shall be leased, sold or otherwise disposed of without an Independent Consulting Engineer's certification that such disposition will not have a negative impact on the overall viability of the System unless the proceeds of such disposition, together with any other legally available moneys are sufficient to pay the principal of and premium, if any, and interest on all Indebtedness then Outstanding and the proceeds are used for such purpose. The City shall not create or suffer to be created any lien or charge upon the System or any part thereof or any lien or charge upon Net Revenues and other moneys pledged in the Indenture of Trust ranking equally with or prior to the lien and charge of the Indebtedness, except as provided in the Indenture of Trust. Notwithstanding anything in the Indenture of Trust to the contrary, the City may acquire items of personal property constituting part of the System under lease purchase agreements or similar financing arrangements entered into in the ordinary course of business which may be subject to purchase money security interests or other liens in an aggregate amount not to exceed five percent (5%) of the net amount of plant, property and equipment.

(b) Notwithstanding the provisions of clause (a) above, the City may sell, transfer or otherwise dispose of all or substantially all of the System for purposes of consolidating the System with or merging the System into one or more regional water and/or sewer systems of which the City is a participating member jurisdiction if: (1) the successor entity assumes in writing all of the Indebtedness then Outstanding, (2) the successor entity covenants in writing to comply with the Rate Covenant, (3) the City obtains an opinion of Bond Counsel, subject to the customary exceptions and qualifications, substantially to the effect that the assumption by the successor entity of all of the Indebtedness then Outstanding shall not have an adverse effect on the tax-exempt status of the interest on any such Indebtedness the interest on which was excludable from gross income for purposes of Federal income taxation when issued and (4) the ratings on the Indebtedness then Outstanding will not adversely be affected by such assumption.

**Insurance**. The City shall continuously maintain insurance with recognized responsible commercial insurance companies against such risks as are customary for public bodies owning and operating similar systems, including (a) insurance against loss or damage to the System, (2) public liability insurance against liability for bodily injury, including death resulting therefrom, and from damage to property, including loss of use thereof, arising out of the ownership or operation of the System and (3) workers' compensation insurance with respect to the System.

In lieu of insurance written by commercial insurance companies, the City may maintain a program of self insurance or participate in group risk financing programs, including sponsored insurance programs, risk pools, risk retention groups, purchasing groups and captive insurance companies, and in state or Federal insurance programs; provided, however, that the City shall obtain and maintain on file tri-annual favorable written opinion of a Qualified Independent Consultant that such alternative is reasonably acceptable under all the circumstances.

**Damage, Destruction, Condemnation and Loss of Title**. If all or any part of the System is destroyed or damaged by fire or other casualty, condemned or lost by failure of title, the City shall restore promptly the property damaged or destroyed to substantially the same condition as before such damage, destruction, condemnation or loss of title with such alterations and additions as the City may determine and which will not impair the capacity or character of the System for the purpose for which it is then being used or is intended to be used. The City may apply so much as may be necessary of the Net Proceeds received on account of any such damage, destruction, condemnation or loss of title to payment of the cost of such restoration, either on completion or as the work progresses. If such Net Proceeds are not sufficient to pay in full the cost of such restoration, the City shall pay so much of the cost as may be in excess of such Net Proceeds from any legally available moneys. Any balance of such Net Proceeds remaining after payment of the cost of such restoration shall be deposited in the Bond Fund.

**Records and Accounts: Inspections and Reports**. (a) The City shall keep proper books of records and accounts, separate from any of its other records and accounts, showing complete and correct entries of all transactions relating to the System, and the Trustee shall have the right at all reasonable times to inspect the System and all records, accounts and data relating thereto. The City shall also cause a certified audit to be made at the end of each Fiscal Year.

(b) The City shall cause an Independent Consulting Engineer at least once every five years to inspect the System and make a written report thereof.

**Service Contracts**. The City may enter into Service Contracts for the benefit of the System, provided that the City specifies the items payable as the Debt Service Component, Operating Component or Remaining Component of the Cost of Contracted Services and provided, further, that the City shall not enter into any Service Contracts that would create Debt Service Components unless the City satisfies the certain tests of the Indenture of Trust.

**Addition of Utilities or Enterprises to the Net Revenue Pledge of the System**. Additional enterprises may be added to the System from time to time at the discretion of the City by resolution of the City Council in accordance with the requirements of the Indenture of Trust.

**Limitations on Use of Proceeds**

The City covenants with the holders of the Series 2023C Bonds as follows:

(a) The City shall not take or omit to take any action or approve the Trustee's taking any action or making any investment or use of the proceeds of any Series 2023C Bonds (including failure to spend the same with due diligence) the taking or omission of which would cause the Series 2023C Bonds to be "arbitrage bonds" within the meaning of Section 148 of the Code, including participating in any issue of obligations that would cause the Series 2023C Bonds to be part of an "issue" of obligations that are arbitrage bonds, within the meaning of Treasury Regulations Section 1.148-10 or successor regulation, or otherwise cause interest on the Series 2023C Bonds to be includable in the gross income of the registered owners under existing law. Without limiting the generality of the foregoing, the City shall comply with any provision of law that may require the City at any time to rebate to the United States of America any part of the earnings derived from the investment of gross proceeds of the Series 2023C Bonds;

(b) Barring unforeseen circumstances, the City shall not approve the use of the proceeds from the sale of any Series 2023C Bonds otherwise than in accordance with the City's "non-arbitrage" certificate delivered immediately prior to the issuance of the Series 2023C Bonds;

(c) The City shall not permit the proceeds of the Series 2023C Bonds to be used in any manner that would result in either (1) 5% or more of such proceeds or facilities being financed with such proceeds being considered as having been used in any trade or business carried on by any person other than a governmental unit as provided in Section 141(b) of the Code, (2) 5% or more of such proceeds or the facilities being financed with such proceeds being used with respect to any "output facility" (other than a facility for the furnishing of water) within the meaning of Section 141(b)(4) of the Code, or (3) 5% or more of such proceeds or the facilities being financed with such proceeds being considered as having been used directly or indirectly to make or finance loans to any person other than a governmental unit, as provided in Section 141(c) of the Code; and

(d) The City shall not take any other action that would adversely affect, and shall take all action within its power necessary to maintain, the exclusion of interest on all Series 2023C Bonds from gross income for Federal income taxation purposes; provided; however, that if the City receives an opinion of Bond Counsel that compliance with any such covenant is not required to prevent the interest on the Series 2023C Bonds from being includable in the gross income of the registered owners thereof under existing law, the City need not comply with such restriction.

**Events of Default and Remedies on Default**

Each of the following events shall be an "Event of Default" upon the conditions and subject to the limitations provided in the Indenture of Trust: (a) default by the City in the due and punctual payment of the principal of or premium, if any, on any Bond (whether at maturity, by acceleration, call for redemption or otherwise), (b) default by the City in the due and punctual payment of the interest on any Bond, (c) subject to certain provisions, failure of the City to observe or perform any other covenants, conditions or agreements under the Indenture of Trust or in the Bonds, (d) failure to make any required payment with respect to any Other System Indebtedness, or an event of default as defined in any mortgage, indenture, or instrument under which there may be issued, or by which there may be secured or evidenced any Other System Indebtedness shall occur, which event of default shall not have been waived by the holder of such mortgage, indenture or instrument, and as a result of such failure to pay or other event of default, such Other System Indebtedness shall have been accelerated, and (e) failure of the City generally to pay its debts as they become due and certain events of bankruptcy, assignment, dissolution, liquidation or reorganization by or against the City.

Certain of the City's obligations other than the obligation to make all payments on the Bonds may be suspended if by reason of force majeure, as defined in the Indenture of Trust, the City is unable to carry out such obligations.

Upon the occurrence and continuation of an Event of Default, the Trustee may (and if requested by the holders of not less than 25% in aggregate principal amount of Bonds then Outstanding shall) by written notice to the City, declare the entire unpaid principal of the Bonds due and payable and, thereupon, the entire unpaid principal of and premium, if any, and accrued interest on the Bonds shall forthwith become due and payable, but only from Net Revenues and other moneys specifically pledged for payments of Bonds.

Upon the occurrence and continuation of an Event of Default, the Trustee may (and if requested by the holders of not less than 25% in aggregate principal amount of Outstanding Bonds and if indemnified in accordance with prevailing industry standards shall) proceed to protect and enforce their rights by mandamus or other suit, action or proceeding at law or in equity, including an action for specific performance of any covenant or agreement contained in the Indenture of Trust.

All moneys received by the Trustee pursuant to any right given or action taken under the provisions of the Indenture of Trust shall, after payment of the cost and expenses of the proceedings resulting in the collection of such moneys, the expenses, liabilities and advances incurred or made by the Trustee and its fees and the expenses of the City in carrying out the Indenture of Trust, be deposited in the Bond Fund and applied as follows and for no other purpose:

(a) Unless the principal of all the holders of Bonds shall have become due or shall have been declared due and payable, all such moneys shall be applied:

First - To the payment to the persons entitled thereto of all installments of interest then due on the Senior Debt, in the order of the maturity of the installments of such interest and, if the amount available shall not be sufficient to pay in full any particular installment, then to the payment ratably, according to the amounts due on such installment, to the persons entitled thereto, without any discrimination or preference except as to any difference in the respective rates of interest specified in the Senior Debt; and

Second - To the payment to the persons entitled thereto of the unpaid principal of and premium, if any, on any of the Senior Debt which shall have become due (other than Senior Debt called for redemption for the payment of which moneys are held pursuant to the provisions of the Indenture of Trust), in the order of their due dates, with interest on such Senior Debt at the respective rates specified therein from the respective dates upon which they become due and, if the amount available shall not be sufficient to pay in full Senior Debt due on any particular date, together with such interest, then first to the payment of such interest, ratably, according to the amount of such interest due on such date, and then to the payment of such principal and premium, if any, ratably, according to the amount of such principal due on such date, to the persons entitled thereto, without any discrimination or preference except as to any difference in the respective rates of interest specified in the Senior Debt.

(b) If the principal of all the Senior Debt shall have become due or shall have been declared due and payable, all such moneys shall be applied to the payment of the principal and interest then due and unpaid on the Senior Debt, including, to the extent permitted by law, interest on overdue installments of interest, without preference or priority of principal over interest or of interest over principal, or of any installment of interest over any other installment of interest, or of any bond over any other bond, ratably, according to the amounts due respectively for principal and interest, to the persons entitled thereto, without any discrimination or preference except as to any difference in the respective rates of interest specified in the Senior Debt.

(c) If the principal of all the Senior Debt shall have been declared due and payable and if such declaration shall thereafter have been rescinded and annulled under the provisions of Article IX of the Indenture of Trust, then, subject to the provisions of clause (b) above in the event that the principal of all the Senior Debt shall later become due or be declared due and payable, the moneys shall be applied in accordance with the provisions of clause (a) above.

Whenever moneys are to be applied pursuant to the provisions above, such moneys shall be applied at such times and from time to time as the Trustee shall determine, having due regard to the amount of such moneys available for application and the likelihood of additional moneys becoming available for such application in the future.

Whenever there are moneys remaining after application to the Bond Fund for the payment of Senior Debt, the Trustee shall apply such remaining moneys, allocated in a similar manner as provided above, to the payment of Subordinate Debt.

Whenever the principal of and premium, if any, and interest on all Senior Debt have been paid under the provisions of this section, all payments required by the terms of any Supplemental Indenture have been paid and all expenses and charges of the Trustee have been paid, any balance remaining in the several funds created by the Indenture of Trust shall be paid to the City as provided in the Indenture of Trust.

**Supplemental Indentures**

The City and the Trustee may, without the consent of, or notice to, any of the holders at Bonds, enter into Supplemental Agreements as shall not be inconsistent with the intent of the terms and provisions of the Indenture of Trust for any one or more of the following purposes:

(a) To cure any ambiguity, formal defect or omission in the Indenture of Trust;

(b) To grant to or confer upon the holders of Senior Debt any additional rights, remedies, powers or authority that may lawfully be granted to or conferred on the holders of Senior Debt;

(c) To add to the covenants and agreements of the City in the Indenture of Trust other covenants and agreements to be observed by the City;

(d) To modify, amend or supplement the Indenture of Trust in such manner as required to permit the City to comply with the provisions of the Code relating to the rebate to the United States of America of earnings derived from the investment of the proceeds of Senior Debt, provided that such modification, amendment or supplement does not materially adversely affect the holders of all Outstanding Senior Debt;

(e) To modify, amend or supplement the Indenture of Trust in such manner as may be required by a Rating Agency to maintain its rating on the Senior Debt, provided that such modification, amendment or supplement does not materially adversely affect the holders of all Outstanding Senior Debt;

(f) To modify, amend or supplement the Indenture of Trust to implement any covenants or agreements in connection with an insurer, credit bank or other financial institution that shall agree to insure or to provide credit or other liquidity support to enhance the security or the value of any Senior Debt, as provided in the Indenture of Trust;

(g) To authorize the issuance of and to secure one or more issues of Indebtedness as provided in the Indenture of Trust; and

(h) To modify, amend or supplement the Indenture of Trust in any manner that the Trustee concludes is not materially adverse to the holders of all Outstanding Bonds.

In addition, subject to the terms and provisions contained in the Indenture of Trust, the holders of not less than a majority in aggregate principal amount of Outstanding Bonds shall have the right from time to time, notwithstanding anything in the Indenture of Trust to the contrary, to consent to the execution by the City and the Trustee of such other agreements or agreements supplemental thereto as shall be deemed necessary or desirable by the City for the purpose of modifying, altering, amending, adding to or rescinding, in any particular, any of the terms or provisions contained in the Indenture of Trust and any Supplemental Indentures; provided, however, that nothing in the Indenture of Trust shall permit, or be construed as permitting, (a) an extension of the maturity of the principal of or the interest on any Bonds, (b) a privilege or priority of any Senior Debt over any other Senior Debt, (c) a reduction in the aggregate principal amount of Bonds required for consent to such Supplemental Indentures, (d) a reduction in the principal amount of or premium, if any, on any Bonds or the rate of interest thereon or (e) an extension of time or a reduction in amount of any payment required by any sinking fund that may be applicable to any Bonds, without the consent of the holders of all of the Outstanding Bonds; provided, however that there shall be no modification of the Net Revenue pledge which secures the Other System Indebtedness nor ol the Net Revenue pledge which secures the Subordinate Debt, if such respective modification would adversely affect the interests of the holders of such debt.

If at any time the City shall request the Trustee to enter into any such Supplemental Indenture, the Trustee shall cause notice of the proposed execution of such Supplemental Indenture to be sent by registered or certified mail to the registered owner of each Bond at his address as it appears on the registration books. Such notice shall briefly set forth the nature of the proposed Supplemental Indenture and shall state that a copy thereof is on file at the corporate trust office of the Trustee for inspection by all holders of Bonds. If, within 90 days or such longer period as shall be prescribed by the City following the giving of such notice, the holders of not less than a majority in aggregate principal amount of Outstanding Bonds, or in the case of (a) through (e) above, the holders of all Outstanding Bonds, shall have consented to and approved the execution thereof as provided in the Indenture of Trust, no holder of any Bond shall have any right to object to any of the terms and provisions contained therein, or the operation thereof, or in any manner to question the propriety thereof, or to enjoin or restrain the Trustee or the City from executing such Supplemental Indenture or from taking any action pursuant to the provisions thereof. Upon the execution of any such Supplemental Indenture as above permitted and provided, the Indenture of Trust shall be and be deemed to be modified and amended in accordance therewith.

The City and the Trustee may enter into a Supplemental Indenture pursuant to (g) above and in accordance with Article III of the Indenture of Trust without compliance with the above.

Notwithstanding anything in the Indenture of Trust to the contrary, the City and the Trustee may enter into any Supplemental Indenture upon receipt of the consent of the holders of all Outstanding Bonds; provided, however that there shall be no modification of the Net Revenue pledge which secures the Other System Indebtedness nor of the Net Revenue pledge which secures the Subordinate Debt, if such respective modification would adversely affect the interest of the holders of such debt.

**Discharge of Indenture of Trust**

If (a) (1) all Bonds and Subordinate Debt issued under the Indenture of Trust shall have become due and payable in accordance with their terms or otherwise as provided in the Indenture of Trust or have been duly called for redemption or irrevocable instructions to call the Bonds or Subordinate Debt issued under the Indenture of Trust or to pay them at maturity have been given by the City to the Trustee, and (2) the Trustee holds cash or obligations that are either noncallable direct obligations of the United States of America or noncallable obligations, timely payment of which is guaranteed by the United States of America, the principal of and the interest on which at maturity will be sufficient (without reinvestment) (A) to redeem in accordance with the relevant section of the Indenture of Trust all Bonds or Subordinate Debt issued under the Indenture of Trust that have been called for redemption, or for which irrevocable instructions for call for redemption have been given, on the date set for such redemption, (B) to pay at maturity all Bonds or Subordinate Debt issued under the Indenture of Trust not irrevocably called for redemption, (C) to pay interest accruing on any Bonds or Subordinate Debt issued under the Indenture of Trust prior to its redemption or payment at maturity, (D) to make all payments required by the terms of any Supplemental Indenture and (E) to pay the Trustee's fees and expenses and any other fees and expenses for which the City is responsible under the Indenture of Trust, including the costs and expenses of canceling and discharging the Indenture of Trust, and (b) the Trustee shall have received notification from the holders of all other Indebtedness that such Indebtedness has been paid, or payment has been provided for such Indebtedness, in accordance with the documents related thereto, then the Trustee shall, at the expense of the City, cancel and discharge the Indenture of Trust and execute and deliver to the City such instruments in writing as shall be necessary to cancel the lien thereof, and assign and deliver to the City any property at the time subject to the Indenture of Trust that may then be in its possession, except moneys or securities in which such moneys are invested which are held by the Trustee for the payment of principal of or premium, if any, or interest on the Bonds and Subordinate Debt issued under the Indenture of Trust.

Bonds for the payment or redemption of which cash or noncallable direct obligations of the United States of America the principal of and premium, if any, and interest on which will be sufficient therefor shall have been deposited with the Trustee (whether upon or prior to the date of their maturity or their redemption date) shall be deemed to be paid and no longer Outstanding; provided, however, that if such Bonds are to be redeemed prior to the maturity thereof, notice of such redemption shall have been duly given or arrangements satisfactory to the Trustee shall have been made for the giving thereof.

APPENDIX C

DESCRIPTION OF THE CITY OF RICHMOND, VIRGINIA
AND THE SYSTEM

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## Overview

The City of Richmond (the “City” or “Richmond”) is a municipal corporation of the Commonwealth of Virginia (the “Commonwealth” or “Virginia”) and is the capital of the Commonwealth. As a full service independent city, Richmond is autonomous of any county or other political subdivision. Its citizens are not subject to taxation by any county or independent school district for any purpose. The City covers an area of approximately 63 square miles. According to the 2020 U.S. Census Bureau population survey, the City had a population of 226,610. As of January 1, 2023, the assessed taxable real property base valuation in the City was $35,933,695,000.

### *General Government*

The City is governed by a Mayor (the “Mayor”) and a City Council (the “Council”). The Mayor is elected every four years by a majority vote of voters in at least five of the City’s nine council districts. The Mayor is the chief executive officer of the City with responsibilities that include recommending the annual budget to the Council, selecting a Chief Administrative Officer with the advice and consent of the Council, issuing regulations as necessary to implement the duties and powers of the Mayor and making recommendations on revenue and funding transfer matters. The City Charter (the “Charter”) grants the Mayor the power to veto any ordinance or any item in any City budget ordinance, which veto may be overridden only by an affirmative vote of six or more Council members.

The Council establishes the policies for the administration of the City. The Council is comprised of nine members, each elected in a single district. Council members are elected for a four-year term and their current terms expire on December 31, 2024. The Council elects a President of the Council who serves a two-year term and presides at meetings of the Council. If a vacancy occurs in the office of the Mayor, the President of the Council becomes acting Mayor until residents of the City elect a successor to fill the remainder of the Mayor’s term.

The Chief Administrative Officer reports to and serves at the pleasure of the Mayor, with the approval of the Council, and is responsible for the day-to-day operations of the City. The Chief Administrative Officer has the power of appointment and removal of the heads of the administrative departments of the City.

## Overview of the Organization

### *Office of the Mayor*

**Mayor**. Levar M. Stoney was sworn in as Richmond’s 80th Mayor on December 31, 2016. He is the youngest Mayor elected to serve the City. The Mayor was re-elected in November of 2020 to serve his second 4-year term. Prior to his mayoral election, Mayor Stoney was a Fellow in then-Governor Mark Warner’s office and later become the first African-American Secretary of the Commonwealth. As the Secretary of the Commonwealth, he led the largest, oldest, and one of the most public-facing office of the Governor’s cabinet, and was the driving force behind transforming the process that restores civil and voting rights to the citizens of the Commonwealth. Previously, he served as Deputy Campaign Manager for Governor Terry McAuliffe’s successful gubernatorial campaign in 2013, and as the Executive Director of the Democratic Party of Virginia. Mayor Stoney received a bachelor’s degree from James Madison University and is a graduate of the Minority Political Leadership Institute at Virginia Commonwealth University. Mayor Stoney serves on a number of civic and community boards including the VCU Massey Cancer Center Advisory Board; GRASP, a college- access organization; the Jamestown Yorktown Foundation 2019 Commemoration; and the Ujima Legacy Fund. He is also a proud member of Richmond Crusade for Voters and the NAACP.

***Council***

**President of Council and Ninth District Representative**. Michael J. Jones was elected to the Council in November 2016 and was elected Council President in January 2023. Mr. Jones serves as Chair of the Organizational Development Committee and has previously served as Chair of the Finance and Economic Development Committee as well as a member of the Governmental Operations Committee and the Land Use, Housing and Transportation Committee. Mr. Jones serves as pastor of the Village of Faith Church in Richmond. Mr. Jones received his Bachelors of Arts degree in Sociology from the University of Colorado and a Masters of Divinity from Virginia Union University.

**Vice President of the Council and Fourth District Representative**. Kristen Nye was elected to the Council in November 2016 and was elected Council Vice President in January 2023. Ms. Nye serves as a member of the Public Safety Committee. Ms. Larson is employed as a freelance writer and previously served as an elected member of the Richmond Public School Board. Ms. Larson received a Bachelor of Arts degree in Communications from Syracuse University.

**First District Representative**. Andreas D. Addison was elected to City Council in November 2016. Mr. Addison serves as Chair of the Land Use, Housing and Transportation Committee. Mr. Addison is currently employed by Dominion Payroll as the Director of Strategy and Engagement. He received a Bachelor of Arts degree in Political Science from Virginia Tech and a Masters of Business Administration from the University of Richmond.

**Second District Representative**. Katherine Jordan was elected to the Council in November of 2020. Mrs. Jordan serves as Chair of the Governmental Operations Committee and as a member of the Finance and Economic Development Committee. She received a Bachelor of Arts degree and Masters of Arts degree, in Urban & Environmental Planning, from the University of Virginia.

**Third District Representative**. Ann-Frances Lambert was elected to the Council in November of 2020. Mrs. Lambert serves as Vice Chair of the Governmental Operations Committee and as a member of the Land Use, Housing and Transportation Committee. Ms. Lambert began her public policy career in Richmond in 2000, as City Council Liaison to Del. Delores McQuinn, and later became the Senior Policy Analyst for the City of Richmond's Intergovernmental Relations Department. Ms. Lambert is a local business owner and has held additional roles in government at the state and federal levels. She earned a Bachelor of Arts in Communications with a minor in Education from Howard University.

**Fifth District Representative**. Stephanie A. Lynch was elected to City Council in November of 2019. Ms. Lynch serves as Chair of the Education and Human Services Committee and as a member of the Governmental Operations Committee. She is employed as the Director of Government Affairs, Strategy, and Development at Good Neighbor, a firm providing psychiatric, therapy, and in-home counseling services. Ms. Lynch received a Bachelor's of Science degree, a Bachelor of Arts degree and a Master's degree from Virginia Commonwealth University.

**Sixth District Representative**. Ellen F. Robertson was elected to the Council in 2003. Ms. Robertson serves as Vice Chair of the Finance and Economic Development Committee and as Vice Chair of the Land Use, Housing and Transportation Committee. Ms. Robertson is a retired community and housing developer. Ms. Robertson received an Associate's degree from J. Sargeant Reynolds Community College and a Bachelor of Science degree from Virginia Commonwealth University.

**Seventh District Representative**. Cynthia I. Newbille was elected to the Council in 2009. Dr. Newbille serves as Chair of the Finance and Economic Development Committee and as Vice Chair of the Education and Human Services Committee. Prior to being elected to the Council, she served from 2002 to 2004, as Chief of Staff to the City of Richmond's City Manager. Dr. Newbille received a Bachelor of Arts degree and a Master of Arts degree in psychology from S.U.N.Y at Stony Brook and a Doctorate of Philosophy in Public Policy and Administration from Virginia Commonwealth University.

**Eighth District Representative**. Reva M. Trammell was re-elected to Council in 2006, having previously served on the Council from 1998 to 2002. Ms. Trammell serves as Chair of the Public Safety Committee. Ms. Trammell is a self-employed businesswoman.

***Administration***

**Chief Administrative Officer.** Lincoln Saunders was appointed as Chief Administrative Officer in October 2021. Prior to his appointment, Mr. Saunders served as Acting CAO and as Acting Chief of Staff to the Mayor of the City of Richmond. Additionally, he previously served as a Policy Advisor to Virginia Governor Terry McAuliffe and as Chief of Staff to Virginia First Lady Dorothy McAuliffe. Mr. Saunders graduated with a Bachelor of Arts degree from the College of William and Mary and a Master's degree in public affairs from Indiana University. He also has graduated from the Virginia Executive Institute and the Bloomberg Harvard City Leadership Initiative and is currently serving on the Board of Visitors of his alma mater, the College of William and Mary.

**Deputy Chief Administrative Officer – Finance and Administration.** Sabrina Joy-Hogg was appointed Deputy Chief Administrative Officer – Finance and Administration in January 2022. Ms. Joy-Hogg has a total of three decades of experience in public service. She previously served as the Chief Deputy City Manager of Charlotte, North Carolina and has also served as Chief Deputy City Manager for the City of Norfolk, Virginia. Before accepting this role, she served as a residential technician advisor to the Ministry of Finance, Planning and Economic Development of Uganda through the United States Treasury. She holds both a Bachelor of Arts and a Master's degree from Stony Brook University and held the credential of a registered and licensed architect while working in New York City.

**Deputy Chief Administrative Officer – Operations.** Robert C. Steidel oversees the Department of Public Utilities and the Department of Public Works. He has been employed by the City of Richmond since 2003, having previously served as the Director of Public Utilities. Before joining the City, he served as environmental and assistant director for the City of Hopewell's Wastewater Treatment Facility and as wastewater supervisor for the Rock River Water Reclamation District. He also has held leadership positions with industry associations including the Association of Clean Water Agencies Facilities and the Virginia section of the American Water Works Association. Mr. Steidel received a Bachelor of Arts Degrees in Biology and Chemistry from Winona State University and a Masters of Public Administration degree from Virginia Commonwealth University.

**Deputy Chief Administrative Officer – Economic and Community Development**. Sharon Ebert was appointed Deputy Chief Administrative Officer – Economic and Community Development in March 2019. She previously held planning, economic and real estate development positions in New York City, Yonkers, NY, Philadelphia, PA, and Bridgeport CT. Most recently, Ms. Ebert served as Director of Community Development in the City of Johns Creek, Georgia, where she oversaw planning, zoning, land development, building permitting, and code enforcement activities. She holds a Bachelors of Arts degree from Rensselaer Polytechnic Institute and held the credential of a registered and licensed architect while working in New York City.

**City Attorney.** Laura K. Drewry was appointed as City Attorney in April 2023. Ms. Drewry has served the City since 2006, where she served as Deputy City Attorney in the Division of Civil Litigation. She primarily worked in worker's compensation and employment litigation and served as the primary legal representative for Fire and Emergency Services, GRTC Transit System, Human Resources, Richmond Library Board, Richmond Personnel Board, and the Richmond Retirement Board. Ms. Drewry received a Juris Doctorate from George Mason University.

**Director of Finance.** Sheila D. White was appointed Director of Finance in February 2021. Prior to her appointment, Ms. White served as Senior Deputy Director of Finance for the City. Additionally, Ms. White is a certified Public Accountant with more than 20 years of experience in both accounting and operational roles. She holds a Bachelor's degree from North Carolina Agricultural and Technical State University, and a M.B.A. from the University of North Carolina at Greensboro.

**Deputy Director of Finance-Chief Investment and Debt Officer.** Michael Nguyen joined the City's Finance Department in April 2023. Prior to joining the City, Mr. Nguyen was the head of investments at the Virginia College Savings Plan, where he was responsible for managing multi-asset portfolios in public and private markets. Mr. Nguyen previously held investments in public advisory roles with RBC Global Asset Management and Wells Capital Management. He holds a Bachelor of Arts in Political Science from the University of California at Irvine, and a Master's in Public Policy from the Humphrey School at the University of Minnesota.

**Investment & Debt Portfolio Manager**. Meiling Qu joined the City's Finance Department in March 2023. Prior to joining the City, Ms. Qu was Assistant Finance Director at New Kent County, where she was responsible for the county's daily financial operations, including issuing municipal bonds for capital improvement projects for both the county and its public utility department. Ms. Qu received a Bachelor of Science Degree in Business and Management and a Master Degree in Accounting from Western Carolina University.

**Director of Budget and Strategic Planning**. Jason P. May was appointed the Director of Budget and Strategic Planning in August of 2021. Mr. May, who has 11 years of experience in municipal budgeting and 19 years of experience in local government, joined the City in 2019 as Deputy Director of Budget and Strategic Planning. Prior to joining the City, Mr. May served as the Assistant to the City Manager for the City of Kannapolis, North Carolina. He holds a Bachelor's degree from the University of North Carolina, Charlotte, and a Master's in Public Administration from Appalachian State University.

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**Financial Management**

During the past four fiscal years, the Administration and Council have worked closely together to establish clear goals and actions designed to promote the City as being a well-managed organization based on strong financial management and accountability principles.

In fiscal years 2020 – 2023, the City experienced the following:

- Although the world-wide COVID-19 pandemic impacted the fiscal year 2020 financial results, the City still reported higher year-over-year General Fund revenue and Transfers-in of $747,178,663, which exceeded fiscal year 2020 expenditures by $14,615,236.

- For fiscal year 2020, the General Fund reported an ending Fund Balance of $166.6 million, representing an increase of $14.6 million, or 9.6%, compared to the prior year. $112.8 million is Unassigned, representing 15.4% of actual Expenditures and Transfers out of $732.6 million.

- As of June 30, 2021, due to strong investment performance, the Richmond Retirement System's ("RRS") Net Fiduciary Net Position was 71.8%, compared to 59.9% in the previous fiscal year. The funded status is at its highest level in 19 years.

- For fiscal year 2021, the General Fund reported an ending Fund Balance of $162.2 million, representing a decrease of $4.4 million, or 2.6%, compared to the prior year. $100.5 million is Unassigned, representing 12.9% of actual Expenditures and Transfers out of $778.6 million.

- For fiscal year 2022, the General Fund reported an ending Fund Balance of $206.2 million, representing an increase of $44.1 million, or 27.2%, compared to the prior year. $107.9 million is Unassigned, representing 13.9% of actual Expenditures and Transfers out of $776.4 million.

- For fiscal year 2022, the City's Net Position for Governmental Activities increased $150.6 million, or 52.8%, compared to the prior year. Additionally, the City's Business Type Activities Net Position increased by $47.0 million, or 5.4%.

- The City's total taxable assessed value for Real and Personal Property including Machinery and Tools increased by $5.4 billion, or 18.5% for fiscal year 2022.

- The City's General Obligation Bond ratings were reaffirmed at Aa1 by Moody's and AA+ by both Fitch Ratings and S&P Global Ratings, all with a stable outlook.

- The recently adopted Fiscal Year 2024 General Fund budget indicates total General Fund Revenues of $951,923,789, which reflects increased revenue of $113,207,961 (+13.4%). The increase is driven largely by increased assessed values of real estate and personal property.

From fiscal years ending June 30, 2018, through June 30, 2020, the City's Concentration Account carried an unreconciled balance on the City's financial statements in the amount of $12,114,049. Additionally, for certain capital projects placed into service from fiscal years ending June 30, 2016, through June 30, 2019, the entry to record the transfer of related expenditures from the Capital Projects Fund to the Parking Enterprise Fund was not captured, resulting in an unreconciled balance on the City's financial statements in the amount of $2,906,491. As a result, the City restated its net position and general fund balances to account for the cumulative effect of the error on prior reporting periods in its audited financial statements for the fiscal year ended June 30, 2021 (the "Restatement"). Additional information relating to the Restatement is available in Note 18 to the City's audited financial statements for the fiscal year ending June 30, 2021, which are available on the Electronic Municipal Market Access (EMMA) website administered by the Municipal Securities Rulemaking Board (MSRB). The City received an inquiry relating to the Restatement from the United States Securities and Exchange Commission ("SEC") and has cooperated, and expects to continue to cooperate, with the SEC in all respects relating thereto. Since the Restatement, the City has implemented new policies and training to prevent similar occurrences.

***Strategic Deployment of CARES Act Funding***

The City was allocated from the Commonwealth of Virginia approximately $40.2 million of federal grant assistance under the Coronavirus Aid, Relief, and Economic Security Act ("CARES Act"), approved by the United States Congress and signed by President Trump on March 27, 2020. The City received the funding in two equal allocations. The first allotment of $20.1 million was received in June 2020 and the second allotment in August 2020. The funds could only be used for COVID-19 related expenses and the City expended the funds to procure goods and services, such as emergency child care services, personal protective equipment (PPE), citizen and small business assistance, housing support, COVID-19 testing and contact tracing, and improvements in telework capabilities. All of the CARES Act funds received by the City have been expended.

***The American Rescue Plan Funding***

The American Rescue Plan Act of 2021 ("ARPA"), which was approved by the United States Congress and signed into law by President Biden on March 11, 2021, provided the City with an aggregate $155.9 million of additional federal grant assistance. The City received the $155.9 million in ARPA funds from the federal government in two annual installments received on June 16, 2021, and on June 21, 2022. Primary expenditure categories that have been approved by City Council include contributions to an affordable housing trust, economic development grants to small business for workforce development, setting up reserves to address health, family crisis, healthy homes, gun violence prevention and first responder hazard pay. Funds have also been appropriated to various capital projects to address low-income housing, parks and recreation projects and community centers. A portion of the funds will also be used for Water Utility and Stormwater Utility capital projects.

**Financial Policies**

In addition to the fiscal policy and procedures that are in place to foster adequate internal controls and financial controls, the City has enacted financial policies to assist with its financial management.

***Rainy Day Fund***

In December 2017, the City Council amended the Code of the City of Richmond (2015) (the "City Code") to establish the financial policies of the City regarding the General Fund Balance (the "Revised Fund Balance Policy").The Revised Fund Balance Policy, among other things, established a "rainy day" fund (the "Rainy Day Fund") for the City, consisting of the Unassigned Funded Balance and the Budget and Revenue Stabilization Contingency Reserve. The goal of the City is for the Rainy Day Fund to equal to at least 16.67% of budgeted General Fund operating expenses for the latest fiscal year for which City Council has adopted a General Fund Budget. As of June 30, 2022, the Unassigned Fund Balance was $107.8 million and the Budget and Revenue Stabilization Contingency Reserve was $25.2 million, providing for a combined balance of $133.1 million, or 17.14% of budgeted fiscal year 2023 General Fund operating expenses, in the Rainy Day Fund. According to the Revised Fund Balance Policy, 50% of any calculated General Fund surplus should be allocated to the Rainy Day Fund, with the exact allocations between the Unassigned Funded Balance and the Budget and Revenue Stabilization Contingency Reserve determined by the Mayor.

The City considers the Rainy Day Fund to be comprised of funds that have no limitations, restrictions or planned use.

***Unassigned Fund Balance Policy***

Since 1988, the Council has had a fund balance policy regarding the required level of the Unassigned Fund Balance, which has been amended from time to time, including as recently as December 2017. Currently, the policy on the Unassigned Fund Balance provides as follows:

1) It is the goal of the City that the Unassigned Fund Balance be equal to at least 13.67% of budgeted General Fund operating expenses for the latest fiscal year for which City Council has adopted a General Fund Budget.

2) It is the policy of the City that appropriations from the Unassigned Fund Balance will be made (i) only in the event of unusual, unanticipated, and seemingly unsurmountable hardship, and (ii) only after all other reserves or contingency funds have been exhausted.

3) To the extent that the Unassigned Fund Balance is ever drawn upon, the Mayor shall submit to City Council, within 90 days after the date on which such funds were expended, a plan to restore the amount expended within three years.

As of June 30, 2022, the Unassigned Fund Balance was $107.8 million, which represents 13.90% of budgeted fiscal year 2023 General Fund operating expenses.

***Budget and Revenue Stabilization Contingency Reserve***

In September 2010, the Council created a new reservation of fund balance called the Revenue Stabilization Fund for the purpose of helping the City manage through the immediate needs of economic factors including, but not limited to, revenue reductions and unanticipated cuts in state funding and set aside $2.0 million as a reservation of fund balance (the "Policy"). In April of 2012, the Council amended the Policy by changing the name of the fund to the Revenue Stabilization and Contingency Fund and increasing the minimum target balance to $10.0 million and in December 2017, the Council further amended the Policy and changed the name of the fund to the Budget and Revenue Stabilization Contingency Reserve. Currently, the policy on the Budget and Revenue Stabilization Contingency Reserve provides, in part, as follows:

1) It is the goal of the City that the Budget and Revenue Stabilization Contingency Reserve be equal to at least 3.00% of budgeted General Fund operating expenses for the latest fiscal year for which City Council has adopted a General Fund Budget.

2) To the extent that the Budget and Revenue Stabilization Contingency Reserve is ever drawn upon, the Mayor shall submit to City Council, within 90 days after the date on which such funds were expended, a plan to restore the amount expended within three years.

As of June 30, 2022, the Budget and Revenue Stabilization Contingency Reserve was $25.2 million, which represents 3.24% of budgeted fiscal year 2023 General Fund operating expenses.

***Debt Management Policies***

The City has a debt policy in place regarding limitations on General Fund supported debt. The debt policy has become an integral part of the City's financial management and capital budgeting process and the City is currently in compliance with the policy.
The policy states:

1) Total outstanding general obligation debt, moral obligation debt and subject to appropriation debt will not exceed 3.75% of total assessed taxable value (real estate, personal property and machinery & tools).

2) The amount of total debt service to be paid on general obligation debt, moral obligation debt and subject to appropriation debt will not exceed 10% of total General Fund, Richmond Public Schools', and City funding from the State for Highway and Street Maintenance budgeted revenues.

3) The ten-year payout ratio of tax supported general obligation debt, moral obligation debt and subject to appropriation debt shall not be less than 60%.

4) Tax supported general obligation debt, moral obligation debt and subject to appropriation debt will not exceed the useful life of the project to be funded, with a maximum maturity of 30 years.

5) City will target to provide cash funding from the annual operating budget for a portion of its five-year Capital Improvement Plan (CIP) budget.

***Budget Adoption Process***

The Charter requires that the General Fund budget be prepared in accordance with generally accepted principles of municipal accounting. The budget adoption process is described below.

1) On a day fixed by Council, (March 6th in the current year), the Mayor submits to the Council a proposed operating budget for the fiscal year commencing the following July 1. The operating budget, including a transfer to the schools and other funds, contains proposed expenditures and the means of financing those expenditures.

2) Public hearings are conducted to obtain taxpayer comments.

3) On or before May 31, the budget is legally enacted through passage of an ordinance by the Council. If the Council does not adopt a budget prior to or on May 31, the budget submitted by the Mayor shall be in full force and effect as if it had been adopted by the Council.

4) The Charter grants the Mayor power to veto any one or more items in any City budget ordinance or resolution by written notice of veto delivered to the City Clerk within 14 calendar days of the Council's action. The Council may override the Mayor's veto by vote of any six or more Council members at a meeting held within 14 days after the City Clerk's receipt of the notice of veto.

5) Formal budgetary integration is employed as a management control device during the year for all funds.

6) Budgets for the General Fund, Special Revenue Funds and Capital Projects Funds are generally prepared on the modified accrual basis of accounting, except those encumbrances that do not lapse at the end of a fiscal year, which are included as budgetary expenditures.

***Basis of Accounting***

For a detailed discussion of the City's basis of accounting, see Note 1.C in the audited financial statements for the City for the fiscal year ended June 30, 2022, which are set forth in Appendix F of this Official Statement.

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**Overview of the System**

The Natural Gas Utility, Water Utility and Wastewater Utility is a natural gas, water and wastewater utility owned by the City and operated by the City's Department of Public Utilities (the "Department"). Each utility is operated on an enterprise basis and follows the policies and directives of the City as provided in the Charter. The Department operates a system consisting of natural gas, water treatment and distribution, wastewater collection and treatment (including floodwall and levee operations), stormwater collection and treatment (including canals) and streetlights (collectively, the "System"), which serves the City and neighboring localities. The Natural Gas Utility serves the City, Henrico County, the northern part of Chesterfield County and portions of Hanover County. The Water Utility provides retail service to the City and to small portions of Chesterfield and Henrico Counties. The Water Utility also provides wholesale water service to Chesterfield, Hanover and Henrico Counties and water indirectly to Goochland County. The Wastewater Utility serves the City and small portions of Chesterfield and Henrico Counties that lie on the city/county line. In addition, the Wastewater Utility has a contract with Goochland County to treat five million gallons a day ("MGD") of its wastewater.

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The following is an operational summary and asset evaluation of the System for the five fiscal years ended June 30, 2022.

**Operational Summary and Asset Evaluation**
**Natural Gas, Water & Wastewater System**

| | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| **Natural Gas** | | | | | |
| Peak Day Sendout (MCF) | 190,134 | 165,557 | 155,768 | 153,988 | 178,963 |
| Annual Sendout (MCF) | 19,394,749 | 17,649,213 | 23,810,540 | 20,844,134 | 24,307,518 |
| # of Gate Stations | 8 | 8 | 8 | 8 | 8 |
| Miles of Main | 1,930 | 1,926 | 1,936 | 1,945 | 1,956 |
| Avg Number of Meters | 115,608 | 117,027 | 118,347 | 120,435 | 121,632 |
| Total Value of Plant in Service | $662,644,839 | $690,336,920 | $710,647,077 | $731,415,359 | $757,263,002 |
| **Water** | | | | | |
| Peak Sendout (MGD) | 91.4 | 80.1 | 97.6 | 94.7 | 83.0 |
| Avg Day Sendout (MGD) | 65.2 | 57.2 | 59.9 | 63.2 | 62.0 |
| Millions of Gallons of Water in Storage | 73,000,000 | 73,000,000 | 73,000,000 | 73,000,000 | 73,000,000 |
| Water Pumping Stations | 12 | 12 | 12 | 12 | 12 |
| Miles of Water Lines | 976 | 976 | 976 | 976 | 976 |
| Avg Number of Meters | 64,148 | 64,831 | 65,459 | 66,597 | 67,340 |
| Total Value of Plant in Service | $559,966,719 | $606,329,529 | $617,262,807 | $635,030,927 | $672,466,956 |
| **Wastewater** | | | | | |
| Peak Day Treated (MGD) | 82.9 | 80.4 | 80.4 | 82.9 | 130.0 |
| Avg Day Treated (MGD) | 54.4 | 54.4 | 55.5 | 65.0 | 58.8 |
| Sewer Pumping Stations | 5 | 5 | 5 | 5 | 5 |
| Miles of Sewer Lines | 960 | 960 | 960 | 960 | 960 |
| Miles of Interceptors | 41 | 41 | 41 | 41 | 41 |
| Avg Number of Meters | 60,829 | 61,489 | 62,050 | 63,143 | 63,846 |
| Total Value of Plant in Service | $761,493,165 | $796,684,821 | $833,282,122 | $855,203,323 | $883,760,116 |

Source: City of Richmond, Department of Public Utilities

### The Department of Public Utilities

The Department of Public Utilities is a department of the City that was established and is operating in accordance with the Charter. The Department has approximately 700 employees budgeted, and it has been operating at or below this level for the last nine years. As a result of automation and other organization efficiencies, the Department does not currently expect to exceed this staffing level in the future. The Department is managed by the Director of Public Utilities (the "Director") and is organized in six units: Richmond Gas Works, Water Services, Customer Service, Finance, Communications and Asset Management. The heads of each of these units report to the Director. Each unit is comprised of several divisions and sub-work units. Many of the duties of the employees in the various divisions and work units are common to two or more utilities, thereby providing economies of scale in the operation of each utility. None of the Department's employees is represented by a collective bargaining unit.

#### Key Administrative Personnel

**Director of Public Utilities.** April N. Bingham is the first woman director to lead the Department of Public Utilities within the City of Richmond, VA. With more than 24 years of utility industry experience, covering gas and water, Ms. Bingham seeks to improve the customer experience and enhance DPU's overall service delivery and workforce. Ms. Bingham holds a Bachelor's Degree in Business Administration along with a Master's Degree in Public Administration and is responsible for the operation of five utilities (i.e. natural gas, water, wastewater, stormwater and electric street lighting), serving more than 500,000 residential and commercial customers in the Richmond VA and surrounding metropolitan region. Ms. Bingham looks forward to advancing technologies and new processes that can deliver performance, achieve results and realize success for the utility industry and the City of Richmond as a whole. Ms. Bingham was born in Washington, DC and worked for two major utilities in that area (i.e., Washington Gas and DC Water). In February 2020, Ms. Bingham relocated to Richmond VA where she could further develop her passion within the utility industry. In her role as Director for DPU, she enjoys helping others to find their passion and creating opportunities where people and community can connect.

**Deputy Director of Public Utilities**. Daniel Rifenburgh is the Director of Richmond Gas Works, a Department of Public Utilities division. He is responsible for the management of the Gas Distribution Division, DPU Paving, and Water distribution construction. Mr. Rifenburgh assumed this position in 2022. He has been working at DPU for 17 years. During Mr. Rifenburgh's career at DPU, he has been responsible for several different divisions including Richmond Gas Works, DPU Technical Services, and DPU's GIS. Mr. Rifenburgh holds a degree in Engineering from the State University of New York at Alfred. He is a board member of the American Public Gas Association.

**Deputy Director of Public Utilities.** Eric Whitehurst leads the Department's Wastewater Treatment Plant, Water Treatment Plant, Water Transmission and Distribution, Stormwater, Engineering Services and Regulatory Affairs which includes both laboratories, Pretreatment and the CSO program. Mr. Whitehurst assumed this position in February 2023 after working with the City for 7 years as the superintendent of wastewater operations, two years as the Chief Chemist overseeing the WWTP laboratory and 10 years as the DPU Environmental Compliance Officer. Prior experience includes Wastewater manager at Tyson Foods. Inc. and plant technical support with CHM2Hill engineering (OMI division) focusing on process optimization and waste minimization. Mr. Whitehurst received a Bachelor of Math and Science degree from New York University and an Associate's degree in Environmental Science from Mountain Empire focusing on Water and Wastewater Treatment. He is currently a member of American Water works Association, Water Environment Federation and the National Association of Clean Water Agencies.

**Deputy Director of Public Utilities.** Lynette Lemon is the Deputy Director for Customer Service. Ms. Lemon has more than 20 years of experience in the private and public sectors. Her most recent role was Division Manager of Customer Care at Washington Suburban Sanitary Commission (WSSC) Water, where she served for six years and worked to improve efficiencies in the customer service and emergency service operations. She also collaborated to enhance affordability programs for WSSC's accountholders. Ms. Lemon's previous roles include managing the 24/7 Emergency Command Center at DC Water where she modernized operations and improved the call center's answer rate, dispatch and field service responses; Operations Manager for the City of Kansas City Water and Kansas City 311, where she improved the call center and back-office operations, procured foreign language services to improve the customer experience and implemented a skills assessment tool to improve the hiring process; and Operations Manager for the City of Atlanta 311 where she helped build an award-winning Customer Service Center, Ms. Lemon holds a Bachelor's Degree in Business Management and a Master's Degree in Technology Management from the University of Maryland University College.

**Deputy Director of Public Utilities.** John Vaughan was appointed to this position in October of 2020. Mr. Vaughan joined the City in January 2001, working as a Financial and Statistical Analyst in DPU's Material and Fleet Warehouse. In April 2008, he accepted a position in DPU's Financial Operation's department where he served in various capacities of financial reporting. Mr. Vaughan is a Certified Public Accountant and holds a Bachelor of Science Degree in Business Management from Longwood University.

**Financial Management**

The Department maintains separate books of account for each utility using the accrual basis of accounting and following generally accepted accounting principles. The Department uses a uniform system of accounts to categorize expenses at the activity and service level. Revenues are recognized when earned, and expenses are recorded in the month incurred.

Since 1991, the Department has prepared five-year financial and rate forecasts that calculate the revenue requirements necessary to meet each utility's financial performance targets and all revenue bond rate covenants each year. The five-year forecasts are updated annually based on the results of each year's operations, new regulatory requirements and market conditions. This time horizon enables the Department to account for the entire life cycle of its major capital projects and provides the City administration and the Council with accurate information to use in balancing long and short term rate decisions on an annual basis.

Each year, the Department prepares separate operating and capital improvement budgets for each utility. These budgets incorporate the short and long term financial requirements as established in the five-year financial and rate forecasts. Each utility's budget includes proposed expenses and means of financing such expenses. These budgets are submitted to the City's Budget Director and, in turn, the Mayor's Office, for review, comments and approval. Once approved by the City administration, the budgets are submitted to the Council for adoption as a part of the City's annual operating and capital budget process. After the Council conducts public hearings for citizens' comments, the budgets are enacted by the passage of ordinances by the Council.

The Department incorporates the adopted budgetary data in its ERP and internal financial reports for each utility as a management monitoring and control device during the year. Reports are reviewed, and any variances from budget projections are scrutinized. If it appears that expenses will exceed the amount budgeted, the Department shall take appropriate measures to reduce expenses in future months. Revenues are also followed closely each month for any variation from budgeted or acceptable limits.

Transfers of retained earnings of any utility of the City are made only after retention of sufficient funds to meet all bond covenant requirements, working capital requirements, and other legal requirements. Any such transfer is limited to 30 percent of any year's net income of such utility with such transfer to be made in the second succeeding fiscal year. Further, cash transfers are not made to the general fund unless a utility has a minimum of 45 days working capital set aside.

***Cash Management***

The City pools its cash in order to maximize its investment opportunities, resulting in greater flexibility and, consequently, a better investment return. Investments consist primarily of repurchase agreements, U.S. government obligations, and U.S. government guaranteed investments. All repurchase agreements are collateralized by U.S. government securities. Interest earned on pooled cash is allocated to the various participating funds based upon their net annual equity in pooled cash.

***Billing and Collection Procedures***

The Department uses a customer information system ("CIS") to process metered and non-metered charges for natural gas, water and wastewater services, covering residential, commercial, industrial and municipal customers. Under the structure of the CIS billing program, combined billing takes place to maximize economies of scale in processing. Billing occurs monthly and with nineteen monthly billing cycles the Department renders approximately 185,000 bills a month. Both natural gas and water meters are read monthly. Wastewater charges are based on a customer's water usage.

All payments received from customers are deposited into a separate utility account under the control of the City. From time to time, interfund borrowings may occur among the various funds that comprise the City's pooled cash account, including the Department's funds. All funds in the pooled cash account, however, are accounted for separately and maintain their equity interest therein.

As provided by the Charter, the Department charges all other City departments, boards, commissions and agencies for all utility services rendered based on the actual cost to provide each service. Conversely, the Department pays for services it receives from other City agencies. In addition, and in keeping with the self-sustaining requirement of the Charter, the Department attempts to earn a reasonable rate of return on the net invested capital of each of the utilities in the System.

An account is considered delinquent if a bill has not been paid by the next billing date. Delinquent accounts are assessed late charges which vary in amount depending upon the delinquent utility service. Customers with delinquent accounts may direct their payments to an individual utility charge (e.g. natural gas, water or wastewater), although this practice is not encouraged by the Department.

A notice of delinquency is sent to the customer when an account is 30 days past due. At 60 days past due, a cut-off notice is sent to the customer. Only the delinquent service is shut off if other billed services are current. In the collection of bills, the City has a valuable enforcement tool available in the form of a statutory lien which may be placed against industrial, commercial and residential property for non-payment.

The City also assigns accounts receivable written off as bad debt to a collection law firm. Accounts eligible for assignment must be inactive (the service is turned off), the arrears must be at least 90 days old, and the debt is greater than $50.00

Collections activities can be influenced by seasonal weather policies and special circumstances, such as severe winter-driven volumes and commodity costs for natural gas and special needs of elderly and disabled customers. The Department has several customer assistance plans in force, both monetary and non-monetary, to provide temporary assistance to customers with delinquent accounts who are experiencing financial difficulties.

**The Natural Gas Utility**

***Overview***

The Natural Gas Utility is owned by the City and serves not only City residents but also residents of Henrico, Chesterfield and Hanover Counties under various contracts that are in place through 2040.

The Natural Gas Utility serves approximately 124,000 residential, commercial and industrial customers through 1,973 miles of intermediate and low-pressure mains, and eight pipeline meter and regulating stations, with a ninth under construction and estimated to be in operation by the end of 2023. Annual natural gas sales for fiscal year 2022 amounted to 21,144,391 Mcf (thousand cubic feet), with a peak day send-out of 167,825 Mcf.

The Natural Gas Utility continues to see moderate growth over the past two years due, in part, to new single family homes constructed in the western portion of Henrico County. Abundant supply and lower cost of shale gas have contributed to an overall volume increase across the Richmond market as businesses and residences transition from higher cost energy sources to natural gas. The Natural Gas Utility expands in both the western and eastern portions of the City in order to meet customer demands for natural gas service.

The utility receives natural gas from eight gate stations, of which three stations have been in operation since 1986. A significant number of high pressure upgrades have been made to the distribution system since 1992. The upgrades were required to support an average of 1,506 new customers being added annually in each of the last four years and have greatly improved the reliability of service. The City anticipates that each of these stations will require only routine maintenance in the foreseeable future.

***Supply of Natural Gas***

Since the restructuring of the national natural gas pipeline system, which begun in 1994 under orders from the Federal Energy Regulatory Commission ("FERC"), the Natural Gas Utility has been purchasing and managing its daily natural gas supplies directly with four natural gas suppliers pursuant to long term contracts. The purchases are made at market prices based on natural gas industry price indices. The Department has entered into a long term pre-paid contract with Municipal Gas Authority of Georgia, Peak and Seal, which allows the Department to purchase gas at a discount to market indexes. These contracts have certain corporate warranties and other terms to ensure the reliable supply of natural gas every day of the year.

The United States Department of Transportation, Office of Pipeline Safety ("OPS"), regulates pipeline safety under the Natural Gas Pipeline Act. The Natural Gas Utility has regular contact with, and is audited by, OPS. The Natural Gas Utility has received favorable feedback on its pipeline safety, maintenance and infrastructure improvement programs.

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Set forth below is the statistical summary for the Natural Gas Utility for the five fiscal years ended June 30, 2022.

**Natural Gas Utility**
**Statistical Summary**

| | Fiscal Years ended June 30 | | | | |
|---|---|---|---|---|---|
| | **2018** | **2019** | **2020** | **2021** | **2022** |
| Total Annual Sales (MCF) | 16,812,558 | 16,186,090 | 19,263,149 | 21,750,961 | 21,144,391 |
| Revenue | $154,720,858 | $159,450,739 | $150,461,746 | $163,066,209 | $218,147,016 |
| Residential (MCF) | 6,896,429 | 6,533,829 | 5,944,613 | 6,872,202 | 6,091,066 |
| Revenue | $87,644,308 | $84,010,865 | $79,444,054 | $85,139,655 | $90,667,092 |
| Commercial (MCF) | 3,371,145 | 3,308,842 | 2,982,115 | 3,285,297 | 3,165,553 |
| Revenue | $34,465,974 | $33,824,310 | $31,013,089 | $32,019,935 | $37,371,680 |
| Industrial Firm (MCF) | 6,167,324 | 5,981,419 | 10,000,013 | 11,263,284 | 11,592,118 |
| Revenue | $32,836,114 | $33,642,794 | $39,300,699 | $47,206,479 | $72,996,568 |
| Interruptible (MCF) | 122,396 | 112,809 | 116,865 | 127,162 | 103,183 |
| Revenue | $844,432 | $834,999 | $841,579 | $829,445 | $873,623 |
| Municipal (MCF) | 212,576 | 208,211 | 181,058 | 179,536 | 166,776 |
| Revenue | $2,009,914 | $1,944,975 | $1,700,597 | $1,580,597 | $1,805,585 |
| Miscellaneous (MCF) | 42,688 | 40,980 | 38,486 | 23,480 | 25,695 |
| Revenue [(1)] | ($3,079,884) | $5,192,796 | ($1,838,272) | $(3,709,902) | $14,432,468 |
| Avg # of Meters in Service | 115,608 | 117,027 | 118,347 | 120,435 | 121,632 |
| Degree Days | 3,711 | 3,492 | 3,282 | 3,635 | 3,215 |
| % of Normal Heating Degree Days | 98% | 93% | 87% | 96% | 92% |

Source: City of Richmond, Department of Public Utilities.

[(1)] Miscellaneous Revenue includes a purchased gas cost adjustment. The Department of Public Utilities is required to pass the cost of gas, dollar for dollar, to customers. Since it is not practical to change our billing rate for gas as frequently as the actual cost of gas changes, at the end of the fiscal year the Department compares gas expense to the amount billed for the gas commodity and accrues the difference as Miscellaneous Revenues.

**The Water Utility**

The Water Utility serves approximately 67,300 customers in the City and also provides wholesale water service under contracts with Hanover, Henrico and Chesterfield Counties. The Water Utility also serves Goochland County indirectly through Henrico County. For a description of the Water Utility's major contracts with its neighboring localities, see **Appendix D** to this Official Statement.

In 1994, Chesterfield, Henrico, and Hanover Counties agreed that the Water Utility would be the major regional provider of water. Each county entered into a long-term contract (between 40 and 50 years) with the Water Utility, which ensures that the entire water plant capacity will be used.

The Water Utility's water supply is the James River, which has a minimum flow of approximately 266 million gallons per day ("MGD"). After treatment, half the water is pumped to a covered reservoir for distribution; the other half is pumped to wholesale customers and to the distribution system. The average consumption from the System during the last five fiscal years was 60.8 MGD with the highest summer peak of 97.6 MGD. The distribution system consists of approximately 1,000 miles of mains and 12 pumping stations. The mains and pumping stations are in good repair. The distribution and storage systems in Hanover, Henrico and Chesterfield Counties are owned and maintained by the respective counties.

The Water Utility's first water filtration plant was built on the banks of the James River in 1924. Originally capable of processing 30 MGD, the plant was enlarged in 1950, when its rated capacity was increased by 36 MGD. In the mid-1980s, the Water Utility undertook a comprehensive program to refurbish the plant so that it would be able to meet all known and planned purification requirements. A significant part of this effort, accomplished largely by using the latest technologies, was the expansion of the plant's purification capacity to 132 MGD at relatively little incremental cost. In 1996, the plant's permitted capacity was certified at 132 MGD, which is sufficient to meet the utility's current requirements and its contract commitments with the counties.

Approximately half of the water from the water treatment plant is distributed after passing through the Water Utility's principal reservoir at Byrd Park. The reservoir was originally built in 1876, and a roof was installed in or about 1970. The reservoir is capable of storing 50 million gallons ("MG"). Additional water storage capacity of 17 MG is provided by ten water tanks located throughout the distribution system. The City has invested primarily in pumping capacity reliability and in storage capacity to provide the backup needed to insure a continuous water flow. The City's water treatment plant is in complete compliance with Stage 1 Disinfectants and Disinfection Byproducts Rule promulgated by the United States Environmental Protection Agency ("EPA").

To protect the filtration plant during floods, the U.S. Army Corps of Engineers and the utility jointly constructed a flood wall around the plant. The wall was completed in 1999 and will protect the water treatment plant from a 500-year flood.

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The following table sets forth a statistical summary for the Water Utility for the five fiscal years ended June 30, 2022.

**Water Utility**
**Statistical Summary**

| | Fiscal Years Ended June 30 | | | | |
|---|---|---|---|---|---|
| | 2018 | 2019 | 2020 | 2021 | 2022 |
| Total Annual Sales (MCF) | 2,634,040 | 2,424,379 | 2,418,061 | 2,476,764 | 2,446,344 |
| Total Revenue | $69,917,873 | $74,574,616 | $77,076,714 | $73,269,515 | $75,385,511 |
| Residential (MCF) | 386,033 | 354,008 | 380,428 | 375,352 | 379,980 |
| Residential Revenue | $25,026,089 | $23,154,238 | $25,782,931 | $25,483,023 | $26,404,349 |
| Commercial (MCF) | 436,770 | 444,865 | 450,010 | 441,625 | 478,102 |
| Commercial Revenue | $22,370,608 | $24,360,013 | $25,907,125 | $25,156,490 | $27,629,263 |
| State & Federal (MCF) | 260,999 | 148,630 | 143,117 | 128,406 | 131,128 |
| State & Federal Revenue | $6,480,002 | $7,055,623 | $7,074,771 | $6,413,177 | $6,696,244 |
| Industrial (MCF) | 88,242 | 86,255 | 59,903 | 62,050 | 60,217 |
| Industrial Revenue | $3,750,886 | $3,917,797 | $2,882,574 | $2,968,274 | $2,957,898 |
| Municipal (MCF) | 32,556 | 32,351 | 29,348 | 23,126 | 25,883 |
| Municipal Revenue | $1,689,077 | $1,792,689 | $1,726,311 | $1,440,647 | $1,611,310 |
| **Wholesale Service:** | | | | | |
| Henrico (MCF) | 709,148 | 631,867 | 580,513 | 694,065 | 544,589 |
| Henrico Revenue | $5,581,750 | $5,054,933 | $4,644,103 | $5,476,643 | $4,258,942 |
| Chesterfield (MCF) | 439,869 | 425,757 | 467,120 | 472,885 | 458,904 |
| Chesterfield Revenue | $3,229,317 | $3,532,392 | $4,171,222 | $4,539,697 | $4,038,353 |
| Hanover (MCF) | 390,535 | 300,646 | 307,624 | 279,255 | 367,540 |
| Hanover Revenue | $2,208,870 | $2,166,675 | $2,592,384 | $2,654,953 | $2,524,281 |
| Miscellaneous Revenue | ($418,706) | $3,540,256 | $2,295,293 | $(863,389) | $(735,129) |
| Avg # of Meters in Service | 64,148 | 64,831 | 65,459 | 66,597 | 67,340 |

Source: City of Richmond, Department of Public Utilities.

The Water Utility has an ongoing program of upgrading its plant, pumping stations and distribution system. In conjunction with this work, a significant amount of new and upgraded transmission mains are being added to the water system to meet the utility's contractual obligations to the counties. Some of the larger projects include an $88.7 million rehabilitation of our Byrd Park reservoir, $8.0 million for replacement of electrical substation #1, $11.6 million for a replacement of raw water pump screens and VFDs, $13.0 million in renovations to our Byrd Park main pumping station, a $3.5 million investment in Cofer Road tank #3, and a $14.6 million to replace our Korah 3 main.

Under the authority of the Federal Safe Drinking Water Act, the Virginia State Board of Health regulates all water utilities in the Commonwealth to protect public health and to ensure that water supplies for public consumption comply with certain minimum standards. The regulations apply to water quality, design and operation, including the application of chemicals in the purification process. Prior to constructing or materially modifying any treatment process, a construction permit must be obtained. An operational permit is required prior to operating a water system. The Water Utility is in full compliance with these requirements, and it is inspected periodically by the Commonwealth to assure continued compliance with the applicable regulators.

**The Wastewater Utility**

The Wastewater Utility serves approximately 63,800 customers and also provides a small amount of wastewater treatment for Goochland, Henrico and Chesterfield Counties by contract. The wastewater system consists of a main treatment plant that provides tertiary treatment and advanced nutrient removal, and its ancillary pumping station, five satellite pumping stations, a network of over 41 miles of intercepting sewer lines and 960 miles of sewer lines.

The main treatment plant was built in 1958 as a primary treatment facility with a rated capacity of 45 MGD for Dry Weather Flow (DWF) and 75 MGD for Wet Weather Flow (WWF). In 1973, the plant was upgraded to secondary treatment. In 1990, filter facilities were added, giving the plant advanced treatment capability. In 2015, upgrades to the plant's advanced treatment capacity were completed, which allow for improved removal of nitrogen and phosphorus. In 2022 upgrades were completed that upgraded the plant to treat 140 MGD WWF of combined stormwater and wastewater. The plant is in good repair and consistently produces one of the highest quality effluents in the country based on industry standards.

In addition to the main treatment plant, there are five satellite pumping stations:

- Upham Brook Pumping Station – built in 1949, upgraded in 1959 with a rated capacity of 13 MGD.
- Hampton Street Pumping Station – built in 1961 with a rated capacity of 1.7 MGD.
- Douglasdale Road Pumping Station – built in 1969 with a rated capacity of 9.6 MGD.
- Dock Street Pumping Station – built in 1995 with a rated capacity of 108 MGD.
- McCloy Pumping Station – built in 2003 with a rated capacity of 5 MGD.

The Wastewater Utility is responsible for the operation of the Shockoe facility, which consists of a retention basin, a diversion structure and a pumping station. The Shockoe facility was completed in 1983 and designed to collect and hold the dirtiest "first flush" of storm and sanitary flow, which is triggered by rain, until it can be released to the main plant for treatment. The capacity of the retention basin is 35 MG, with an additional 15 MG held in the lines. The pumping station was originally built in 1926 and replaced in 1995. The Wastewater Utility also operates the Dock Street Pumping Station, which has a rated capacity of 108 MGD. The Dock Street Pumping Station, commissioned in 1995, replaced the original pumping station built in 1926.

Prior to 1995, the Department of Public Works maintained the sewage collection system with financial assistance from the Department. Since July 1995, the responsibility for maintaining the system was assumed by the Wastewater Utility. In July 1996, the Wastewater Utility also assumed responsibility for sewer design and construction.

The Wastewater Utility is also responsible for administering the federally-mandated industrial pre-treatment program, under which industries discharging to the main plant are required to pre-treat their wastewater. Over 70 different industries are currently permitted by the City. The pre-treatment division within the Wastewater Utility inspects and monitors these industries.

In 2003, the Wastewater Utility completed a $250 million Combined Sewer Overflow (CSO) control program (Phases I & II) that conveys the combined sanitary and storm wastewater from the James River Park areas downstream. Flows on the north side of the James River are diverted to the Shockoe Retention Basin. As part of the CSO control program, the Wastewater Utility has installed interceptor lines under the bottom of the Kanahwa Canal that run parallel to the north bank of the James River and has also renovated a portion of the canal in the downtown area.

In 2005, the City entered into a Special Order by Consent with the Virginia Department of Environmental Quality ("DEQ"), which was reviewed by the EPA, to begin work on Phase III of the CSO control program with an implementation cost in the range of $350 to $420 million (based on 2006 dollars). In 2020, the Virginia General Assembly passed Senate Bill 1064 which requires Interim and Final Plans for addressing combined sewer overflows. DEQ and the City then amended the 2005 Special Order by Consent to incorporate Senate Bill 1064. The Interim Plan includes 10 projects, the first of which is under active construction near Gillies Creek. All projects are projected to be complete by July 1, 2027, and are projected to further reduce approximately 182 million gallons of CSO, thereby increasing CSO capture rate to 92%.

Final Plan projects are being evaluated to identify those with most cost-effective, system-wide improvements. A Public Stakeholder Group of residents from each Council District are assisting with this process, with the Final Plan report due July 1, 2024 with construction to be complete by July 1, 2035.

In 2022, City Council adopted Resolution No. 2022-R025 expressing commitment to CSS improvements. In addition to the Interim and Final Plans, the City is implementing several other projects not required by SB 1064 to maintain and improve the combined sewer system performance. The current Interim and Final Plan cost estimate is over $1.3 billion. This represents a preliminary amount that will be updated as the City's Final Plan is further developed and completed. The City has already secured a $50 million grant from the Commonwealth of Virginia in 2021, with a 100% matching requirement, and another $100 million grant from the Commonwealth of Virginia in the 2022 Special session that does not have a match requirement. The City will continue to work with State and Federal partners to identify grant opportunities to fund this program.

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The following table sets forth a statistical summary of certain Wastewater Utility data for the last five fiscal years ended June 30, 2022.

**Wastewater Utility**
**Statistical Summary**

| | Fiscal Years ended June 30 | | | | |
|---|---|---|---|---|---|
| | 2018 | 2019 | 2020 | 2021 | 2022 |
| Total Annual Sales (MCF) | 1,080,045 | 901,303 | 951,993 | 935,466 | 1,110,857 |
| Total Revenue | $86,932,675 | $85,644,469 | $86,821,333 | $84,026,579 | $93,819,301 |
| Residential (MCF) | 290,001 | 278,927 | 284,521 | 289,462 | 291,161 |
| Residential Revenue | $31,471,502 | $30,764,412 | $32,610,435 | $33,230,627 | $34,720,802 |
| Commercial (MCF) | 418,542 | 414,472 | 413,534 | 411,702 | 442,893 |
| Commercial Revenue | $32,923,723 | $33,053,238 | $34,955,680 | $34,439,646 | $38,626,085 |
| State & Federal (MCF) | 145,022 | 144,399 | 138,680 | 125,344 | 130,198 |
| State & Federal Revenue | $10,685,138 | $10,778,716 | $10,802,420 | $9,815,767 | $10,440,660 |
| Industrial (MCF) | 58,331 | 62,236 | 47,067 | 26,144 | 28,367 |
| Industrial Revenue | $4,332,577 | $4,521,922 | $3,068,955 | $2,073,173 | $2,409,575 |
| Municipal (MCF) | 29,288 | 30,803 | 28,170 | 22,133 | 24,556 |
| Municipal Revenue | $2,370,656 | $2,529,376 | $2,424,899 | $1,993,186 | $2,287,522 |
| Henrico (MCF) | 14,515 | 17,607 | 8,257 | 3,455 | 19,341 |
| Henrico Revenue | $977,611 | $884,126 | $772,320 | $323,166 | $992,193 |
| Chesterfield (MCF) | 109,336 | 82,548 | 21,914 | 38,002 | 110,162 |
| Chesterfield Revenue | $1,317,160 | $1,088,730 | $874,918 | $1,517,223 | $1,343,863 |
| Goochland (MCF) | 15,010 | 14,710 | 9,850 | 19,224 | 64,179 |
| Goochland Revenue | $1,026,811 | $228,686 | $153,131 | $298,856 | $997,976 |
| Miscellaneous Revenue | $1,827,497 | $1,795,263 | $1,158,574 | $334,935 | $2,000,625 |
| Avg # of Meters in Service | 60,829 | 61,489 | 62,050 | 63,143 | 63,846 |

Source: City of Richmond, Department of Public Utilities.

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## Average Monthly Bill Comparison

The tables on the next three pages (including this page) set forth a comparison of average monthly bills for each of the Natural Gas Utility, the Water Utility and the Wastewater Utility as of July 2023 (unless otherwise noted).

### Natural Gas Utility
### Average Residential Monthly Bill Comparison
### Surrounding Companies and Peer Cities
### As of July 2023

**Residential Service**

| Company | Location | Flat / Minimum Customer Charge | Consumption per Ccf | 70 Ccf Average Bill |
|---|---|---|---|---|
| Columbia Gas of Virginia | All Districts | $18.96 | $1.63 | $132.82 |
| Virginia Natural Gas | Suffolk | $15.09 | $1.56 | $124.20 |
| Washington Gas Light | Northern Virginia | $11.25 | $1.19 | $94.54 |
| City of Richmond | Richmond | $15.38 | $1.06 | $89.23 |
| | Average | $15.17 | $1.36 | $110.20 |

Source: City of Richmond, Department of Public Utilities.

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## Water Utility System
## Comparison of Various Utility Systems Within Virginia
## Average Residential Monthly Water Bill
## As of July 2023

| | Monthly Service Charge | Per 1,000 gal | Per Ccf[7] | 6 Ccf (5/8" Meter) |
|---|---|---|---|---|
| Spotsylvania County | $25.53 | $1.24, 1-2000; $7.27, 2001-7500 | $4.05 | $49.82 |
| Chesapeake[1] | 24.47 | | 5.52 | 41.03 |
| Richmond | 16.7 | | 3.93 | 40.26 |
| Norfolk | 0.00 | | 6.08 | 36.48 |
| Virginia Beach | 5.00 | | 5.20 | 36.2 |
| Newport News | 13.00 | | 3.53 | 34.18 |
| Henrico County[1] | 9.05 | | 4.16 | 34.01 |
| Stafford County | 13.63 | $3.02, 0-2000; $4.21, 3000-4000, $5.76 over 5000 | 3.37 | 33.85 |
| Roanoke County[2] (Western VA Water Authority) | 14.50 | $3.35, 0-5000 | 2.79 | 31.25 |
| Manassas[4] | 10.42 | $3.53 0-5000 | 2.94 | 28.07 |
| Loudoun Water[3] (Central System) | 12.99 | $2.85 | 2.38 | 27.24 |
| Portsmouth | 5.00 | | 3.56 | 26.34 |
| Chesterfield County[1] | 10.89 | | 2.43 | 25.47 |
| Lynchburg | 7.69 | | 2.93 | 25.27 |
| Prince William County Service Authority | 7.10 | $3.60 | 3.00 | 25.1 |
| Fairfax County Water Authority[6] | 4.98 | $3.65 | 3.04 | 23.23 |
| Hanover County[1] | 5.92 | $1.88, 0-4000; $5.75, 4001-15000 | 2.21 | 19.16 |
| **Average** | **$9.85** | | **$3.59** | **$31.59** |

Source: City of Richmond, Department of Public Utilities

(1) Water & Sewer customers billed bimonthly

(2) Roanoke County rates are proposed effective 10/1/23

(3) Loudoun Water (Central System) rates were effective 1/1/23

(4) Manassas rates effective 7/1/22

(5) Per Ccf rate for wastewater does not include Upper Occoquan Sewage Authority (UOSA) cost recovery charge

(6) Fairfax County bills capacity charge quarterly to customers

(7) Per Ccf column represents average Ccf rate for 6 Ccfs of consumption when tiered rates are used

## Wastewater Utility System
## Comparison of Various Utility Systems Within Virginia
## Average Residential Monthly Wastewater Bill
## As of July 2023

| | Monthly Service Charge | Per 1,000 gal | Per Ccf[7] | 6 Ccf (5/8" Meter) |
|---|---|---|---|---|
| Portsmouth (includes HRSD fee) | $24.40 | | $10.38 | $86.68 |
| Virginia Beach (includes HRSD fee) | 31.58 | | 7.60 | 77.18 |
| Norfolk (includes HRSD fee) | 0.00 | | 12.83 | 76.98 |
| Chesapeake[1] (includes HRSD fee) | 36.23 | | 12.84 | 74.75 |
| Richmond | **21.23** | | **8.504** | **72.25** |
| Newport News (includes HRSD fee) | 5.00 | | 10.97 | 70.82 |
| Fairfax County Water Authority[6] | 14.94 | $8.46 | 7.05 | 57.24 |
| Lynchburg | 7.69 | | 8.10 | 56.29 |
| Stafford County | 17.03 | $7.16 | 5.97 | 52.83 |
| Spotsylvania County | 25.53 | $2.37, 1-2000; $6.18, 2001-7500 | 3.88 | 48.81 |
| Hanover County[1] | 12.68 | $6.80, 1-4000; $8.58, over 4000 | 5.96 | 48.46 |
| Prince William County Service Authority | 12.55 | $6.85 | 5.71 | 46.80 |
| Henrico County[1] | 18.28 | | 4.41 | 44.74 |
| Roanoke County[2] (Western VA Water Authority) | 20.35 | $4.20, 1-5,000 | 3.50 | 41.35 |
| Loudoun Water (Central System) | 12.98 | $5.59 | 4.66 | 40.93 |
| Chesterfield County[1] | 16.69 | | 2.56 | 32.05 |
| Manassas[4],[5] | 9.40 | $3.02, 0-5000 | 2.54 | 24.65 |
| **Average** | **$16.86** | | **$6.91** | **$56.05** |

Source: City of Richmond, Department of Public Utilities

(1) Water & Sewer customers billed bimonthly

(2) Roanoke County rates are proposed effective 10/1/23

(3) Loudoun Water (Central System) rates were effective 1/1/23

(4) Manassas rates effective 7/1/22

(5) Per Ccf rate for wastewater does not include Upper Occoquan Sewage Authority (UOSA) cost recovery charge

(6) Fairfax County bills capacity charge quarterly to customers

(7) Per Ccf column represents average Ccf rate for 6 Ccfs of consumption when tiered rates are used

## Charges for Ten Largest Customers

Listed below are the ten largest customers for the Natural Gas Utility, Water Utility and the Wastewater Utility. The information includes the revenue generated from sales as of June 30, 2022.

**NATURAL GAS UTILITY**

| Rank | Customer | Charges (in $000s) | Percent of Total Revenue |
|---|---|---|---|
| 1 | DuPont Specialty Products | $14,800 | 7.00% |
| 2 | Philip Morris | 3,253 | 1.54 |
| 3 | VA Commonwealth University | 1,806 | 0.85 |
| 4 | Richmond Redevelopment & Housing Authority | 1,738 | 0.82 |
| 5 | Sonoco Products | 1,288 | 0.61 |
| 6 | Modelez International | 874 | 0.41 |
| 7 | Greater Richmond Transit Company | 767 | 0.36 |
| 8 | University of Richmond | 540 | 0.26 |
| 9 | Kinder Morgan Energy Partners | 499 | 0.24 |
| 10 | Fareva Richmond | 494 | 0.23 |
| | Total Top-Ten Charges | $26,059 | 12.32% |

**WATER UTILITY**

| Rank | Customer | Charges (in $000s) | Percent of Total Revenue |
|---|---|---|---|
| 1 | County of Henrico | $10,341 | 4.89% |
| 2 | County of Chesterfield | 4,038 | 1.91 |
| 3 | Richmond Redevelopment & Housing Authority | 3,004 | 1.42 |
| 4 | Hanover County | 2,524 | 1.19 |
| 5 | Sonoco Products | 1,406 | 0.66 |
| 6 | Medical College of VA Hospital | 1,189 | 0.56 |
| 7 | VA Commonwealth University | 1,168 | 0.55 |
| 8 | Philip Morris | 1,099 | 0.52 |
| 9 | Southwood Apartments | 762 | 0.36 |
| 10 | Richmond School Board | 482 | 0.23 |
| | Total Top-Ten Charges | $26,013 | 12.29% |

**WASTEWATER UTILITY**

| Rank | Customer | Charges (in $000s) | Percent of Total Revenue |
|---|---|---|---|
| 1 | Richmond Redevelopment & Housing Authority | $4,862 | 2.30% |
| 2 | Medical College of VA Hospital | 1,947 | 0.92 |
| 3 | VA Commonwealth University | 1,597 | 0.75 |
| 4 | Southwood Apartments | 1,255 | 0.59 |
| 5 | Sonoco Products | 1,111 | 0.53 |
| 6 | Philip Morris | 952 | 0.45 |
| 7 | Richmond School Board | 661 | 0.31 |
| 8 | City of Richmond DPU | 638 | 0.30 |
| 9 | St. Johns Wood | 624 | 0.29 |
| 10 | Commonwealth of VA | 602 | 0.28 |
| | Total Top-Ten Charges | $14,249 | 6.72% |

Source: City of Richmond, Department of Public Utilities.

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## Natural Gas Utility Rates

The following is a three-year comparison of the Natural Gas Utility rates.

| Description | Rates Effective 7/1/2021 | Rates Effective 7/1/2022 | Rates Effective 7/1/2023 |
|---|---|---|---|
| **Residential Gas Service:** | | | |
| Schedule RS - | | | |
| Customer Charge | $ 14.25 | $ 14.82 | $ 15.38 |
| Distribution Charge | | | |
| Block 1 (1st 500 CCF) | $ 0.606 | $ 0.630 | $ 0.650 |
| Block 2 (All Over) | $ 0.606 | $ 0.630 | $ 0.650 |
| Purchase Gas Cost[1] | $ 0.385 | $ 1.114 | $ 0.405 |
| Restore Service Charge | $ 35.00 | $ 35.00 | $ 35.00 |
| **General Gas Service:** | | | |
| Schedule GS - | | | |
| Customer Charge | $ 16.83 | $ 17.50 | $ 18.16 |
| Distribution Charge | | | |
| Block 1 (1st 500 CCF) | $ 0.548 | $ 0.570 | $ 0.590 |
| Block 2 (All Over) | $ 0.548 | $ 0.570 | $ 0.590 |
| Purchase Gas Cost[1] | $ 0.385 | $ 1.114 | $ 0.405 |
| Restore Service Charge | $ 35.00 | $ 35.00 | $ 35.00 |
| Schedule CIS - | | | |
| Customer Charge | $ 146.33 | $ 152.18 | $ 157.89 |
| Demand Charge | $ 1.44 | $ 1.50 | $ 1.56 |
| Distribution Charge | $ 0.324 | $ 0.337 | $ 0.350 |
| Purchase Gas Cost | $ 0.277 | $ 1.006 | $ 0.297 |
| Schedule LVS - | | | |
| Customer Charge | $ 708.18 | $ 736.51 | $ 764.13 |
| Demand Charge | $ 1.44 | $ 1.50 | $ 1.56 |
| Transportation Charge | | | |
| Block 1 (1st 15,000 CCF) | $ 0.196 | $ 0.204 | $ 0.212 |
| Block 2 (From 15,001 to 115,000 MCF) | $ 0.102 | $ 0.106 | $ 0.110 |
| Block 3 (Over 115,000 CCF | $ 0.072 | $ 0.075 | $ 0.078 |
| Schedule LVS2 - | | | |
| Customer Charge | $ 708.18 | $ 665.92 | $ 689.23 |
| Demand Charge | $ 1.44 | $ 13.57 | $ 14.04 |
| Transportation Charge | $ 0.069 | $ 0.072 | $ 0.075 |
| **Air Conditioning:** | | | |
| Schedule AC - | | | |
| Air Conditioning (Apr - Oct) | Weighted average commodity cost of gas plus $0.10 | Weighted average commodity cost of gas plus $0.10 | Weighted average commodity cost of gas plus $0.10 |
| **Municipal Gas Service:** | | | |
| Schedule MGS - | | | |
| Distribution Charge | $ 0.509 | $ 0.529 | $ 0.549 |
| Purchased Gas Cost | $ 0.385 | $ 1.114 | $ 0.405 |
| **Gas Lights – Unmetered:** | | | |
| Schedule GL - | | | |
| Distribution Charge | $ 0.487 | $ 0.506 | $ 0.525 |
| Purchased Gas Cost[1] | $ 0.385 | $ 1.114 | $ 0.405 |
| Minimum Charge | $ 14.85 | $ 15.44 | $ 16.02 |

| Description | Rates Effective 7/1/2021 | Rates Effective 7/1/2022 | Rates Effective 7/1/2023 |
|---|---|---|---|
| **Transportation Service:** | | | |
| Schedule TS - | | | |
| Customer Charge | $ 778.410 | $ 809.550 | $ 839.910 |
| Transportation Charge | | | |
| Block 1 (1st 1500 MCF) | $ 0.196 | $ 0.204 | $ 0.212 |
| Block 2 (From 1,501 to 11,500 MCF) | $ 0.102 | $ 0.106 | $ 0.110 |
| Block 3 (Over 11,500 MCF | $ 0.072 | $ 0.075 | $ 0.078 |
| Daily Imbalances in Excess of 10% | $ 0.060 | $ 0.062 | $ 0.064 |
| **Transportation Service (TS2):** | | | |
| Schedule TS2 - | | | |
| Customer Charge | $ 778.410 | $ 809.550 | $ 839.910 |
| Transportation Charge | $ 0.069 | $ 0.072 | $ 0.075 |
| Daily Imbalances in Excess of 10% | $ 0.060 | $ 0.062 | $ 0.064 |
| **Natural Gas Vehicle Gas Service** | | | |
| Schedule NGV | | | |
| System Charge | $ 0.192 | $ 0.200 | $ 0.208 |
| Gas Commodity Charge | $ 0.385 | $ 0.385 | $ 0.385 |

Below are the Purchased Gas Cost rates since 7/1/2021:

| Effective | Rate |
|---|---|
| 7/1/2021 | $0.038 |
| 10/1/2021 | $0.570 |
| 7/1/2022 | $1.114 |
| 8/1/2022 | $0.920 |
| 9/1/2022 | $1.157 |
| 10/1/2022 | $1.133 |
| 11/1/2022 | $0.762 |
| 1/1/2023 | $0.658 |
| 3/1/2023 | $0.588 |
| 5/1/2023 | $0.438 |
| 6/1/2023 | $0.405 |

Source: City of Richmond, Department of Public Utilities

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## Water Utility Rates

The following is a three-year comparison of the Water Utility rates.

| Description | Rates Effective 7/1/2021 | Rates Effective 7/1/2022 | Rates Effective 7/1/2023 |
|---|---|---|---|
| **General Water Service:** | | | |
| Service Charges | | | |
| 5/8 Inch meter | $ 15.52 | $ 16.06 | $ 16.70 |
| 3/4 Inch meter | $ 22.05 | $ 22.82 | $ 23.73 |
| 1 Inch meter | $ 35.09 | $ 36.32 | $ 37.77 |
| 1-1/2 Inch meter | $ 67.67 | $ 70.04 | $ 72.84 |
| 2 Inch meter | $ 106.78 | $ 110.52 | $ 114.94 |
| 3 Inch meter | $ 211.08 | $ 218.47 | $ 227.21 |
| 4 Inch meter | $ 328.41 | $ 339.90 | $ 353.50 |
| 6 Inch meter | $ 654.34 | $ 677.24 | $ 704.33 |
| 8 Inch meter | $ 1,045.46 | $ 1,082.05 | $ 1,125.33 |
| 10 Inch meter | $ 1,501.76 | $ 1,554.32 | $ 1,616.49 |
| 12 Inch meter | $ 3,445.22 | $ 3,565.80 | $ 3,708.43 |
| Commodity Charge (Ccf) | | | |
| Commercial | $ 4.59 | $ 4.75 | $ 4.94 |
| Industrial | $ 4.59 | $ 4.75 | $ 4.94 |
| Municipal | $ 4.59 | $ 4.75 | $ 4.94 |
| Metered Fire Protection (Firelines) | | | |
| 5/8 Inch meter | $ 8.04 | $ 8.32 | $ 8.65 |
| 3/4 Inch meter | $ 8.04 | $ 8.32 | $ 8.65 |
| 1 Inch meter | $ 8.04 | $ 8.32 | $ 8.65 |
| 1-1/2 Inch meter | $ 8.04 | $ 8.32 | $ 8.65 |
| 2 Inch meter | $ 12.83 | $ 13.28 | $ 13.81 |
| 3 Inch meter | $ 25.68 | $ 26.58 | $ 27.64 |
| 4 Inch meter | $ 40.11 | $ 41.51 | $ 43.17 |
| 6 Inch meter | $ 80.21 | $ 83.02 | $ 86.34 |
| 8 Inch meter | $ 128.34 | $ 132.83 | $ 138.14 |
| 10 Inch meter | $ 184.47 | $ 190.93 | $ 198.57 |
| 12 Inch meter | $ 346.50 | $ 358.63 | $ 372.98 |

Source: City of Richmond, Department of Public Utilities.

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## Wastewater Utility Rates

The following is a three-year comparison of the Wastewater Utility rates.

| Description | Rates Effective 7/1/2021 | Rates Effective 7/1/2022 | Rates Effective 7/1/2023 |
|---|---|---|---|
| **General Wastewater Service:** | | | |
| Capacity Charges | | | |
| 5/8 Inch meter | $ 18.94 | $ 19.93 | $ 21.23 |
| 3/4 Inch meter | $ 27.02 | $ 28.44 | $ 30.29 |
| 1 Inch meter | $ 43.19 | $ 45.46 | $ 48.41 |
| 1-1/2 Inch meter | $ 83.63 | $ 88.02 | $ 93.74 |
| 2 Inch meter | $ 132.13 | $ 139.07 | $ 148.11 |
| 3 Inch meter | $ 261.50 | $ 275.23 | $ 293.12 |
| 4 Inch meter | $ 407.04 | $ 428.41 | $ 456.26 |
| 6 Inch meter | $ 811.30 | $ 853.89 | $ 909.39 |
| 8 Inch meter | $ 1,296.42 | $ 1,364.48 | $ 1,453.17 |
| 10 Inch meter | $ 1,862.40 | $ 1,960.18 | $ 2,087.59 |
| 12 Inch meter | $ 2,859.76 | $ 3,009.90 | $ 3,205.54 |
| Monthly Quantity Charge (Ccf) | | | |
| Commercial | $ 7.587 | $ 7.985 | $ 8.504 |
| Commercial S & F | $ 7.587 | $ 7.985 | $ 8.504 |
| Industrial | $ 7.587 | $ 7.985 | $ 8.504 |
| Municipal | $ 7.587 | $ 7.985 | $ 8.504 |
| Strong Wastewater Charge | | | |
| SUS > 275 mg/1 | $ 0.4300 | $ 0.4500 | $ 0.480 |
| BOD > 250 mg/1 | $ 0.4100 | $ 0.4300 | $ 0.458 |
| Nitrogen > 30 mg/1 | $ 1.7300 | $ 1.8200 | $ 1.940 |
| Phosphorous >12 mg/1 | $ 2.4400 | $ 2.5700 | $ 2.740 |
| SUS Factor | $ 0.00268 | $ 0.00281 | $ 0.00300 |
| BOD Factor | $ 0.00256 | $ 0.00268 | $ 0.00286 |
| Nitrogen Factor | $ 0.01080 | $ 0.01136 | $ 0.01211 |
| Phosphorous Factor | $ 0.01523 | $ 0.01604 | $ 0.01710 |
| **Domestic and Fire Line** | | | |
| 3 Inch meter | $ 132.13 | $ 139.07 | $ 148.11 |
| 4 Inch meter | $ 132.13 | $ 139.07 | $ 148.11 |
| 6 Inch meter | $ 261.50 | $ 275.23 | $ 293.12 |
| 8 Inch meter | $ 407.04 | $ 428.41 | $ 456.26 |
| 10 Inch meter | $ 811.30 | $ 853.89 | $ 909.39 |

Source: City of Richmond, Department of Public Utilities.

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**Results of Operations for the Fiscal Year Ended June 30, 2022**

In fiscal year ended June 30, 2022, operating income increased $18.6 million, or 52%, compared to the prior year. Combined operating revenues increased $15.2 million, or 6.7% (excluding gas purchases), and total operating expenses decreased by $3.4 million. or 1.6% (excluding gas costs). (NOTE: the cost of purchased gas is recovered dollar for dollar through the purchased gas adjustment ("PGA"); therefore, changes in the cost of gas from year to year do not impact net income.)

Gas revenues (excluding gas purchases) in fiscal year ended June 30, 2022, increased by $3.3, or 3.7%, compared to the prior fiscal year, primarily due to rate increases that occurred in fiscal year ended June 30, 2022. Operating expenses (excluding gas costs) remained relatively flat, decreasing $.945 million, or 1.26% compared to the prior fiscal year.

Water revenues in fiscal year ended June 30, 2022, increased $2.1 million or, 2.9%, compared to the prior fiscal year. This increase was primarily the result of rate increases that occurred in fiscal year ended June 30, 2022. Water also saw an increase in operating expenses from the prior year of $3.3 million, or 5.4%. This increase is primarily related to increases in depreciation and miscellaneous operating expenses, offset by reductions in salaries, wages and benefits and uncollectable expense.

Wastewater revenues in fiscal year ended June 30, 2022, increased by $9.8 million, or 11.65%, compared to the prior fiscal year. This increase was due to rate increases that occurred in fiscal year ended June 30, 2022, and increases in commercial volumes. Wastewater Utility saw a decrease in operating expenses from the prior year of $5.7 million, or 7.7%. This decrease is primarily related to decreases in salaries, wages and benefits, and maintenance and repairs.

With a focus on cost containment combined with the efficiencies gained through the implementation of new technologies, the Department will be able to maintain its strong financial base. This allows the Department to continue to address significant infrastructure upgrades and generate desired financial results with moderate rate increases in the future.

**Projections of the Results of Operations for the Fiscal Year Ended June 30, 2023 (Unaudited)**

For the fiscal year ended June 30, 2023, the City is projecting combined net revenues (revenues less gas purchases) to increase by approximately $14 million, or over 5%, compared to the prior fiscal year. The City believes the increase is related primarily to rate increases that occurred in fiscal year ended June 30, 2023. The City anticipates net combined operating expenses (excluding gas costs) to increase by approximately $29 million, or 14% in fiscal year 2023. The City is projecting the System to have a net income of approximately $45 million in fiscal year ended June 30, 2023, which would be approximately 25% higher than budgeted.

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## Historical Results

The following tables detail the historical revenues and expenses and the historical debt service coverage of the System for the five fiscal years ended June 30, 2022.

### Statement of Historical Revenues, Expenses, and Changes in Retained Earnings (in 000's)

| | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| Operating Revenues | | | | | |
| Gas Recovery | $67,060 | $72,527 | $61,470 | $74,313 | $126,109 |
| Gas Revenue | 87,660 | 86,924 | 88,992 | 88,753 | 92,038 |
| Water Revenue | 69,918 | 74,575 | 77,077 | 73,270 | 75,386 |
| Wastewater Revenue | 86,933 | 85,644 | 86,821 | 84,027 | 93,819 |
| Total Operating Revenues | $311,571 | $319,670 | $314,360 | $320,362 | $387,352 |
| Operating Expenses | | | | | |
| Purchased Gas | $67,060 | $72,526 | $61,470 | $74,313 | $126,109 |
| Operation & Maintenance | 133,198 | 134,823 | 142,123 | 149,573 | 142,057 |
| Depreciation | 60,698 | 64,156 | 60,878 | 60,654 | 64,729 |
| Total Operating Expenses | $260,956 | $271,505 | $264,471 | $284,540 | $332,895 |
| Operating Profit (Loss) | $50,615 | $48,165 | $49,889 | $35,822 | $54,457 |
| Non-Operating Income | | | | | |
| Interest & Misc. Income | $4,312 | $8,847 | $9,172 | $3,192 | $2,328 |
| Capital Contributions | 17,371 | 33,768 | 19,216 | 12,819 | 20,536 |
| Total Non-Operating Income | $21,683 | $42,615 | $28,388 | $16,011 | $22,864 |
| Non-Operating Expenses | | | | | |
| Interest on Customer Deposits | ($56) | ($50) | ($48) | ($55) | ($52) |
| Interest on Long Term Debt | (29,592) | (28,750) | (27,252) | (29,708) | (28,533) |
| Total Non-Operating Expense | (29,648) | (28,800) | (27,300) | (29,763) | (28,585) |
| Profit (Loss) before Operating Transfers | $42,650 | $61,980 | $50,977 | $22,070 | $48,736 |
| Operating Transfers In (Out) | (3,594) | (3,877) | (7,584) | (8,464) | (9,528) |
| Increase (Decrease) in Retained Earnings | $39,056 | $58,103 | $43,393 | $13,606 | $39,208 |
| Retained Earnings, Beginning of Year | $671,439 | $710,495 | $768,598 | $811,991 | $825,597 |
| Retained Earnings, End of Year | $710,495 | $768,598 | $811,991 | $825,597 | $864,805 |

Source: City of Richmond, Department of Public Utilities.

## Statement of Historical Debt Service Coverage
## (in 000's)

| | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| Revenues | | | | | |
| Revenue | $311,572 | $319,670 | $314,360 | $320,362 | $387,352 |
| Connection Fees and Interest Income | 17,567 | 21,887 | 22,056 | 13,649 | 20,539 |
| Total Revenue Base for Debt Service | $329,139 | $341,557 | $336,416 | $334,011 | $407,891 |
| Deductions | | | | | |
| Operating Expenses | $260,867 | $271,555 | $264,519 | $284,540 | $332,896 |
| Less: Depreciation | (60,698) | (64,156) | (60,878) | (60,654) | (64,729) |
| Total | $200,169 | $207,399 | $203,641 | $223,886 | $268,167 |
| Net Revenues Available for Debt Service | $128,970 | $134,158 | $132,775 | $110,125 | $139,724 |
| Annual Debt Service | | | | | |
| Public Utility Revenue Bonds | $50,919 | $56,792 | $52,666 | $59,912 | $62,788 |
| Other Debt Service | 21,870 | 11,463 | 11,517 | 12,300 | 3,960 |
| Total Public Utility Debt Service | $72,789 | $68,255 | $64,183 | $71,212 | $66,748 |
| Coverage Ratio for All Debt | 1.77 | 1.97 | 2.07 | 1.55 | 2.09 |
| Coverage Revenue Bonds Only (1.15 x Req.) | 2.53 | 2.36 | 2.52 | 1.84 | 2.23 |

Source: City of Richmond, Department of Public Utilities.

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## Projected Results

The following tables detail the projected revenues and expenses and the projected debt service coverage of the Department for five fiscal years ending June 30, 2024 through 2028.

### Statement of Projected Revenues and Expenses
### (in 000's)

| | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|
| Operating Revenues: | | | | | |
| Gas | $226,652 | $234,578 | $242,743 | $251,196 | $260,130 |
| Water | 81,050 | 83,862 | 86,770 | 89,784 | 92,903 |
| Wastewater(1) | 106,057 | 111,702 | 117,658 | 123,936 | 130,550 |
| Total Operating Revenues | $413,759 | $430,142 | $447,171 | $464,916 | $483,583 |
| Operating Expenses: | | | | | |
| Purchased gas | $126,700 | $130,500 | $134,400 | $138,400 | $142,600 |
| Operation & Maintenance(2) | 181,966 | 188,288 | 194,859 | 201,331 | 207,563 |
| Depreciation | 71,117 | 76,960 | 82,480 | 87,009 | 90,262 |
| Total Operating Expenses | $379,783 | $395,748 | $411,739 | $426,740 | $440,425 |
| Operating Profit (Loss) | $33,976 | $34,394 | $35,432 | $38,176 | $43,158 |
| Non-Operating Income | | | | | |
| Interest Income | $9,403 | $13,477 | $11,293 | $9,671 | $7,798 |
| Misc Revenue | 26,718 | 30,340 | 25,124 | 20,445 | 20,427 |
| Total Non-Operating Income | $36,121 | $43,817 | $36,417 | $30,116 | $28,225 |
| Non-Operating Expenses | | | | | |
| Interest on Long Term Debt | (31,488) | (33,019) | (34,123) | (37,175) | (38,635) |
| Total Non-Operating Expense | (31,488) | (33,019) | (34,123) | (37,175) | (38,635) |
| Profit (Loss) | $38,609 | $45,192 | $37,726 | $31,117 | $32,748 |

(1) Wastewater revenue includes other revenues, such as wastewater high strength surcharges, late payments and other miscellaneous revenues.

(2) Includes payment in lieu of taxes by the System to the City.

(3) Includes capital contributions from neighboring jurisdictions and connection fees.

Source: City of Richmond, Department of Public Utilities.

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## Statement of Projected Debt Service Coverage
## (in 000's)

| | 2024 | 2025 | 2026 | 2027 | 2028 |
|---|---|---|---|---|---|
| Revenues | | | | | |
| Revenue | $413,759 | $430,142 | $447,171 | $464,916 | $483,583 |
| Connection Fees and Interest Income | 36,121 | 43,817 | 36,417 | 30,116 | 28,225 |
| Total Revenue Base for Debt Service | $449,880 | $473,959 | $483,588 | $495,032 | $511,808 |
| Deductions | | | | | |
| Operating Expenses | $379,783 | $395,748 | $411,739 | $426,740 | $440,425 |
| Less: Depreciation | (71,117) | (76,960) | (82,480) | (87,009) | (90,262) |
| Total | $308,666 | $318,788 | $329,259 | $339,731 | $350,163 |
| Net Revenues Available for Debt Service | $141,214 | $155,171 | $154,329 | $155,301 | $161,645 |
| Annual Debt Service | | | | | |
| Public Utility Revenue Bonds | $65,027 | $72,851 | $75,819 | $81,425 | $84,675 |
| Other Debt Service | 3,809 | - | - | - | - |
| Total Public Utility Debt Service | $68,836 | $72,851 | $75,819 | $81,425 | $84,675 |
| Coverage Ratio for All Debt | 2.05 | 2.13 | 2.04 | 1.91 | 1.91 |
| Coverage Revenue Bonds Only (1.15 x Req.) | 2.17 | 2.13 | 2.04 | 1.91 | 1.91 |

Source: City of Richmond, Department of Public Utilities.

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### Outstanding Indebtedness and Annual Debt Service Requirements

The following tables set forth as of June 30, 2023 (a) the outstanding principal amount of indebtedness of or supported by the System, and (b) for each fiscal year, the total debt service requirements for the outstanding long-term indebtedness, including debt service on the Series 2023C Bonds, of the City applicable to the System.

**Indebtedness of the System as of June 30, 2023 (1)**

| | |
|---|---|
| Existing Revenue Bond Long-Term debt (2)(3) | $776,022,946 |
| Plus: General Obligation Long-Term debt (4) | 3,755,674 |
| **Sub-total** | **$779,778,620** |
| Plus: Series 2023 Bonds | $110,970,000 |
| (Less: the defeasance of the Series 2020B Bonds) | ($48,245,000) |
| **Total** | **$842,503,620** |

(1) Assumes existing revenue bond long term debt and general obligation long term debt as of June 30, 2023, less the defeasance of the 2020B bonds, plus the issuance of the Series 2023C Bonds, both as of September 28, 2023.

(2) Includes the 2016A, 2020A, and 2020B Revenue Bonds, as well as debt issued through VRA.

(3) Incorporates the drawn balance as of 6/30/2023 on the 2021A and 2023A VRA Bonds.

(4) From time to time the City issues General Obligation Bonds for the System.

Source: City of Richmond, Department of Public Utilities.

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## Debt Service Requirements for System Supported Long Term Indebtedness(1),(2)

| | Existing Debt | | | Less Refunded Debt | | | Plus New Money & Refunding Bonds | | | Total Existing & New Debt | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fiscal Year | Principal | Interest | Total | Principal | Interest | Total | Principal | Interest | Total | Principal | Interest | Total |
| 2024 | $35,215,968 | $30,310,634 | $65,526,602 | $ - | $694,669 | $694,669 | $625,000 | $1,560,985 | $2,185,985 | $35,840,968 | $31,176,950 | $67,017,918 |
| 2025 | 37,025,583 | 29,130,037 | 66,155,620 | - | 1,389,338 | 1,389,338 | 720,000 | 5,220,663 | 5,940,663 | 37,745,583 | 32,961,362 | 70,706,944 |
| 2026 | 37,934,870 | 27,739,535 | 65,674,405 | - | 1,389,338 | 1,389,338 | 760,000 | 5,184,663 | 5,944,663 | 38,694,870 | 31,534,860 | 70,229,730 |
| 2027 | 38,960,554 | 26,288,752 | 65,249,307 | - | 1,389,338 | 1,389,338 | 930,000 | 5,146,663 | 6,076,663 | 39,890,554 | 30,046,077 | 69,936,632 |
| 2028 | 39,591,855 | 24,784,158 | 64,376,013 | - | 1,389,338 | 1,389,338 | 970,000 | 5,100,163 | 6,070,163 | 40,561,855 | 28,494,983 | 69,056,838 |
| 2029 | 40,853,033 | 23,250,255 | 64,103,289 | - | 1,389,338 | 1,389,338 | 1,025,000 | 5,051,663 | 6,076,663 | 41,878,033 | 26,912,580 | 68,790,613 |
| 2030 | 42,042,955 | 21,634,168 | 63,677,123 | - | 1,389,338 | 1,389,338 | 1,080,000 | 5,000,413 | 6,080,413 | 43,122,955 | 25,245,243 | 68,368,198 |
| 2031 | 42,932,955 | 19,941,843 | 62,874,798 | 9,125,000 | 1,389,338 | 10,514,338 | 8,790,000 | 4,946,413 | 13,736,413 | 42,597,955 | 23,498,918 | 66,096,873 |
| 2032 | 43,790,671 | 18,161,424 | 61,952,096 | 9,370,000 | 1,143,419 | 10,513,419 | 9,220,000 | 4,506,913 | 13,726,913 | 43,640,671 | 21,524,918 | 65,165,589 |
| 2033 | 45,652,955 | 16,288,283 | 61,941,238 | 9,630,000 | 881,528 | 10,511,528 | 9,685,000 | 4,045,913 | 13,730,913 | 45,707,955 | 19,452,668 | 65,160,623 |
| 2034 | 41,932,955 | 14,317,744 | 56,250,699 | 9,915,000 | 602,739 | 10,517,739 | 10,165,000 | 3,561,663 | 13,726,663 | 42,182,955 | 17,276,668 | 59,459,623 |
| 2035 | 39,247,955 | 12,534,248 | 51,782,203 | 10,205,000 | 310,742 | 10,515,742 | 10,675,000 | 3,053,413 | 13,728,413 | 39,717,955 | 15,276,918 | 54,994,873 |
| 2036 | 35,618,457 | 10,880,755 | 46,499,213 | - | - | - | 2,070,000 | 2,519,663 | 4,589,663 | 37,688,457 | 13,400,418 | 51,088,875 |
| 2037 | 32,238,457 | 9,530,384 | 41,768,841 | - | - | - | 2,170,000 | 2,416,163 | 4,586,163 | 34,408,457 | 11,946,546 | 46,355,004 |
| 2038 | 29,553,457 | 8,316,370 | 37,869,827 | - | - | - | 2,280,000 | 2,307,663 | 4,587,663 | 31,833,457 | 10,624,033 | 42,457,490 |
| 2039 | 29,623,457 | 7,211,006 | 36,834,463 | - | - | - | 2,390,000 | 2,193,663 | 4,583,663 | 32,013,457 | 9,404,669 | 41,418,126 |
| 2040 | 29,733,457 | 6,104,093 | 35,837,550 | - | - | - | 2,510,000 | 2,074,163 | 4,584,163 | 32,243,457 | 8,178,255 | 40,421,712 |
| 2041 | 25,754,024 | 5,037,498 | 30,791,523 | - | - | - | 2,635,000 | 1,948,663 | 4,583,663 | 28,389,024 | 6,986,161 | 35,375,185 |
| 2042 | 23,820,000 | 4,161,447 | 27,981,447 | - | - | - | 2,775,000 | 1,816,913 | 4,591,913 | 26,595,000 | 5,978,359 | 32,573,359 |
| 2043 | 21,980,000 | 3,326,458 | 25,306,458 | - | - | - | 2,885,000 | 1,705,913 | 4,590,913 | 24,865,000 | 5,032,370 | 29,897,370 |
| 2044 | 13,225,000 | 2,542,050 | 15,767,050 | - | - | - | 3,000,000 | 1,590,513 | 4,590,513 | 16,225,000 | 4,132,562 | 20,357,562 |
| 2045 | 13,695,000 | 2,066,750 | 15,761,750 | - | - | - | 3,115,000 | 1,470,513 | 4,585,513 | 16,810,000 | 3,537,262 | 20,347,262 |
| 2046 | 14,200,000 | 1,574,200 | 15,774,200 | - | - | - | 3,245,000 | 1,345,913 | 4,590,913 | 17,445,000 | 2,920,112 | 20,365,112 |
| 2047 | 5,925,000 | 1,006,200 | 6,931,200 | - | - | - | 3,405,000 | 1,183,663 | 4,588,663 | 9,330,000 | 2,189,863 | 11,519,863 |
| 2048 | 6,160,000 | 769,200 | 6,929,200 | - | - | - | 3,575,000 | 1,013,413 | ,4,588,413 | 9,735,000 | 1,782,613 | 11,517,613 |
| 2049 | 6,405,000 | 522,800 | 6,927,800 | - | - | - | 3,725,000 | 861,475 | 4,586,475 | 10,130,000 | 1,384,275 | 11,514,275 |
| 2050 | 6,665,000 | 266,600 | 6,931,600 | - | - | - | 3,880,000 | 703,163 | 4,583,163 | 10,545,000 | 969,763 | 11,514,763 |
| 2051 | - | - | - | - | - | - | 4,050,000 | 538,263 | 4,588,263 | 4,050,000 | 538,263 | 4,588,263 |
| 2052 | - | - | - | - | - | - | 4,220,000 | 366,138 | 4,586,138 | 4,220,000 | 366,138 | 4,586,138 |
| 2053 | - | - | - | - | - | - | 4,395,000 | 186,788 | 4,581,788 | 4,395,000 | 186,788 | 4,581,788 |
| **Total** | $779,778,620 | $327,696,894 | $1,107,475,513 | $48,245,000 | $13,358,461 | $61,603,461 | $110,970,000 | $78,622,160 | $189,592,160 | $842,503,620 | $392,960,593 | $1,235,464,212 |

(1) Assumes existing revenue bond long term debt and general obligation long term debt as of June 30, 2023, less the defeasance of the 2020B bonds, plus the issuance of the Series 2023C Bonds, both as of September 28, 2023. Totals may not foot due to rounding.

(2) Does not include Series 2023B Bonds.

Source: City of Richmond

The capital improvement programs described in the adopted fiscal year 2024 capital budget include major projects for the System. The proceeds from the Series 2023 Bonds will fund, in part, these capital projects.

**Capital Improvement Projects – Natural Gas Utility**

The 2024 capital improvement budget for the Natural Gas Utility provides for the funding of two categories of major capital improvements for the five fiscal years ending June 30, 2028. The first category is the installation of new natural gas mains including high pressure system upgrades, services, meters and regulators to serve the estimated 1,000 new customers that are expected to be added to the Natural Gas Utility each year over the next several years. New natural gas mains are constructed only after a net present value financial analysis shows that the estimated net revenue to the Natural Gas Utility (net of the cost of natural gas) will cover the total cost of construction over a fifteen-year period.

The second category of capital improvements is comprised of various programs to replace or renovate natural gas mains, services, meters, and regulators on a scheduled basis. Since the implementation of a formal, planned program in 1990 to address the older cast iron main and service line requirements in a comprehensive way and to upgrade all of the meters in the system, unaccounted for natural gas has remained within industry standards. Over the next five years, the City intends to invest over $80 million in upgrading the distribution and metering of the system, to improve system reliability and minimize unaccounted for natural gas.

**Capital Improvement Projects – Water Utility**

The 2024 capital improvement budget for the Water Utility provides for the funding of projects to ensure the Richmond metropolitan region safe and secure drinking water, dependable fire protection services, consistent compliance with all regulatory requirements and infrastructure for enterprise growth. Water Utility projects are prioritized in the master planning process and the assets are managed to provide for water demands today and in the future based on on-going water supply planning analysis. Current projects will ensure the Water Utility maintains the firm capacity of the treatment plant, pumping station and distribution system at the design maximum of 132 million gallons per day of safe drinking water. This volume will meet the demands of the customers of the City and wholesale water needs for the Counties of Henrico (and indirectly to Goochland through Henrico), Chesterfield (and indirectly to Powhatan through Chesterfield) and Hanover. City and wholesale customers pay rates based on cost of service and generate the revenue to fund the capital improvements. The Department's goal is to maintain those rates at a competitive cost.

**Capital Improvement Projects – Wastewater Utility**

The capital improvement budget for the Wastewater Utility provides for the funding of projects to improve the operation of the treatment plant and to more fully automate its processes. It also funds our ongoing rehabilitation and upgrades the sanitary sewers to ensure reliable conveyance of sanitary waste to the plant as well as various CSO Phase III, Interim Plan and Final Plan projects.

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## Capital Expenditures

The following charts show the projected capital spending, in total for the System and separately for each utility for fiscal years 2024 through 2028:

**FIVE YEAR CAPITAL SPENDING FORECAST**
**(in 000's)**

| | Fiscal Year ending June 30, | | | | | |
|---|---|---|---|---|---|---|
| **Project** | **2024** | **2025** | **2026** | **2027** | **2028** | **Total** |
| **Gas Utility** | $28,168 | $24,792 | $23,718 | $23,833 | $23,772 | $124,283 |
| **Water Utility** | 61,994 | 76,907 | 76,996 | 56,810 | 28,411 | 301,118 |
| **Wastewater Utility** | 132,534 | 119,399 | 95,124 | 62,264 | 45,468 | 454,789 |
| **TOTAL** | $222,696 | $221,098 | $195,838 | $142,907 | $97,651 | $880,190 |

**NATURAL GAS UTILITY**
**FIVE YEAR CAPITAL SPENDING FORECAST**
**(in 000's)**

| | Fiscal Year ending June 30, | | | | | |
|---|---|---|---|---|---|---|
| **Project** | **2024** | **2025** | **2026** | **2027** | **2028** | **Total** |
| **New Business** | $9,273 | $6,867 | $6,972 | $7,077 | $7,360 | $37,549 |
| **Gas Replacements** | 18,895 | 17,925 | 16,746 | 16,756 | 16,412 | 86,734 |
| **TOTAL** | $28,168 | $24,792 | $23,718 | $23,833 | $23,772 | $124,283 |

**WATER UTILITY**
**FIVE YEAR CAPITAL SPENDING FORECAST**
**(in 000's)**

| | Fiscal Year ending June 30, | | | | | |
|---|---|---|---|---|---|---|
| **Project** | **2024** | **2025** | **2026** | **2027** | **2028** | **Total** |
| **Distribution System Improvements** | $21,394 | $18,376 | $18,707 | $19,046 | $19,389 | $96,912 |
| **Major Plant & Pumping Improvements** | $37,712 | $56,412 | $55,811 | $23,674 | $3,563 | $177,172 |
| **Transmission Main Improvements** | 2,888 | 2,119 | 2,478 | 14,090 | 5,459 | 27,034 |
| **TOTAL** | $61,994 | $76,907 | $76,996 | $56,810 | $28,411 | $301,118 |

**WASTEWATER UTILITY**
**FIVE YEAR CAPITAL SPENDING FORECAST**
**(in 000's)**

| | Fiscal Year ending June 30, | | | | | |
|---|---|---|---|---|---|---|
| **Project** | **2024** | **2025** | **2026** | **2027** | **2028** | **Total** |
| **Treatment Plant Improvements** | $42,546 | $52,884 | $34,460 | $8,208 | $0 | $138,098 |
| **CSO Project** | 40,908 | 22,305 | 15,600 | 9,600 | 4,000 | 92,413 |
| **Sanitary Sewer Upgrades** | 49,080 | 44,210 | 45,064 | 44,456 | 41,468 | 224,278 |
| **TOTAL** | $132,534 | $119,399 | $95,124 | $62,264 | $45,468 | $454,789 |

Source: City of Richmond, Department of Public Utilities

### Major Issues Affecting the Department

#### *Combined Sewer Overflow*

A third of the City is partially served by pipelines through which flow both sanitary sewage and stormwater. These combined pipelines collect the sewage and stormwater and discharge them to the treatment plant. All dry weather flow and some storm events are captured and fully treated in the sewage treatment plant. During heavier precipitation events, partially treated combined stormwater and sanitary sewage can be released into the James River at outfall points permitted by DEQ. This overflow contains bacteria and other pollutants and the City has a control program to address the overflows.

Begun in 1988, Phases I and II of the CSO control program were completed in 2003 at a cost of $246 million and have resulted in improved water quality and river aesthetics in the James River. In 2005, the City and the Commonwealth signed the Third (and current) Special Order by Consent with the Virginia State Water Control Board (SWCB) to implement Phase III of the CSO control program at an estimated cost of between $352 to 422 million (based on 2006 dollars – the time of the last formal revision of the CSO control program plan). In December 2006, the City submitted the Richmond Phase III CSO Control Plan Program Project Plan to the DEQ which specifies the estimated implementation plan, schedule and costs. In the Third Special Order by Consent issued by the SWCB to the City, DEQ states the City shall be deemed to be raising CSO control project funds to the limit of its financial capability if at least bi-annually, the City adjusts its sewer rates (an increase of 5.25% in fiscal year 2022 and 6.5% in fiscal year 2023 for wastewater rates) so that in conformance with the Order, the annual sewer bill for typical residential customers (i.e. 7 ccf of average monthly use) will be at least 1.25% of median household income (MHI). In addition, the City performs industry standard cost of service and rate setting, closely monitors revenue and expenses and projects Department future rate changes that are affordable and sustainable in order to ensure that there is no significant change in uncollectible expense.

The City is actively seeking state and federal financial assistance for the CSO control program as well as applying for low interest loans from the Virginia Revolving Loan Fund. In April 2013, the Commonwealth's budget authorized the Virginia Resources Authority and the State Water Control Board to make a grant to the City to pay a portion of the capital costs of their CSO control projects. Through the Commonwealth's Combined Sewer Overflow Matching Fund, $45,000,000 was provided to the City. These funds were used to upgrade the Wastewater Treatment Plant to accommodate to 140 MGD WWF and other CSO control projects. Additionally, the City has benefited from in-kind resources that the Army Corps of Engineers has allocated for preliminary engineering studies of the projects in the Phase III CSO control plan.

To date, the City's CSO plan has reduced CSO volumes by 77% and caused an 80% reduction in Biochemical Oxygen Demand (BOD) and Suspended Solids Loads. These reductions have contributed to improved aquatic life and enhanced waterfront development. In 2020, the Virginia General Assembly passed Senate Bill 1064 which requires Interim and Final Plans for addressing combined sewer overflows. DEQ and the City then amended the 2005 Special Order by Consent to incorporate Senate Bill 1064. The Interim Plan includes 10 projects, the first of which is under active construction near Gillies Creek. All projects are projected to be complete by July 1, 2027 and are projected to further reduce approximately 182 million gallons of CSO, thereby increasing CSO capture rate to 92%. Final Plan projects are being evaluated to identify those with most cost-effective system-wide improvements. A Public Stakeholder Group of residents from each Council District are assisting with this process, with the Final Plan report due July 1, 2024 with construction to be complete by July 1, 2035. In 2022, City Council adopted Resolution No. 2022-R025 expressing commitment to CSS improvements. In addition to the Interim and Final Plans, the City is implementing several other projects not required by SB 1064 to maintain and improve the combined sewer system performance. The current Interim and Final Plan cost estimate is over $1.3 billion. This represents a preliminary amount that will be updated as the City's Final Plan is further developed and completed. The City has already secured a $50 million grant from the Commonwealth of Virginia in 2021, with a 100% matching requirement, and another $100 million grant from the

Commonwealth of Virginia in the 2022 Special session that does not have a match requirement. The City will continue to work with State and Federal partners to identify grant opportunities to fund this program.

**Cybersecurity**

The City relies on a technology environment to conduct its operations. As such, it may face multiple cybersecurity threats including but not limited to, hacking, viruses, malware and other such attacks on computer or other sensitive digital systems and networks. There can be no assurance that any security and operational control measures implemented by the City will be completely successful to guard against and prevent cyber threats and attacks. The result of any such attack could impact operations and/or digital networks and the costs of remedying any such damage could be significant.

To transfer and share these risks the City maintains robust cyber insurance coverage as a part of its overall insurance portfolio, which also includes crime insurance for misdirected funds. The City's cyber insurance coverage is $5 million, which is provided by VAcorp. Coverage includes all standard cyber security insurance provisions including but not limited to Network Security, Privacy and Data Breach Liability, Multimedia Liability, Regulatory Liability, Data Breach Incidence Response, Data Restoration, Cyber Extortion, Social Engineering Fraud and PCI DSS Fines.

The City's Department of Information Technology includes dedicated cyber security staff who focus on system-wide hardware and software vulnerability management, mitigation solutions, and backups for redundancy of critical records and systems processes. The City follows the National Institute of Standards and Technology (NIST) Special Publication 800-18 framework and NIST Cybersecurity Framework v1.1. To ensure an awareness of emerging threats, cyber security staff interfaces routinely with external consultants; State and Federal partners such as the Department of Homeland Security, MS-ISAC, EL-ISAC, WaterISAC; and other entities.

During Fiscal Year 2024, like many governmental and business entities around the United States, the City discovered that it was subject to a small, sophisticated business email compromise that resulted in a misdirected ACH transfer. At this time, the City believes that this activity was limited to six inbox accounts out of the City's 11,000 active inbox accounts. The City immediately initiated its incident response protocols, notified its cyber insurance carrier, and engaged a leading third-party cybersecurity expert - Mandiant. The City also notified the Virginia State Police Fusion Center and the FBI Cyber Crimes Division of the incident and is working with law enforcement in their investigation. These protocols resulted in the freezing of the bank account to which the misdirected funds were sent and the return of approximately 99.96% of the misdirected funds to the City. The City is actively working to recover the remaining funds from other sources available to the City. The City is continuing to evaluate additional actions to strengthen its security in the face of an ever-evolving cyber threat landscape. The City does not anticipate that this incident will have a material impact on the City's finances or overall operations.

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### Economic and Statistical Information

Richmond is one of the major financial centers of the United States. It is headquarters for the Fifth Federal Reserve District which comprises five states and the District of Columbia. The City also serves as the home to regional offices for a number of other banking institutions. Home to an array of industries and eight Fortune 500 headquarters, the area is a magnet for talent and ranks 3rd for the highest concentration of business and finance workers east of the Mississippi. The Richmond Metropolitan Statistical Area ("Richmond MSA") has a diverse mix of government, manufacturing and service sector businesses.

The following tables set forth a 2023 listing of the Fortune 500 companies located in the Richmond MSA, a listing of the 25 largest employers in the Richmond MSA and the assessed values of the 25 largest taxpayers in the City as of January 1, 2023.

**Richmond MSA**
**Industrial and Commercial Base**
**Fortune 500 Companies**

| 2023 Rank | Firm | Industry Group | 2022 Revenues ($Billions) |
|---|---|---|---|
| 91 | Performance Food Group | Food Wholesaler | $ 47.1 |
| 124 | CarMax | Retail Auto Sales | 21.1 |
| 174 | Altria Group | Tobacco Products | 20.0 |
| 242 | Dominion Energy | Electric and Gas Utilities | 17.1 |
| 460 | ARKO | Convenience Stores | 8.1 |
| 486 | Genworth Financial | Insurance | 7.5 |

Source: Fortune Magazine, June 2023

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**Richmond MSA**
**25 Largest Private Employers[(1)]**

| Rank | Company Name | Line of Business | Employees |
|---|---|---|---|
| 1 | VCU Health System | Health Care | 13,500+ |
| 2 | Capital One Financial | Financial Services | 13,000+ |
| 3 | HCA Virginia Health System | Health Care | 11,000+ |
| 4 | Bon Secours Richmond | Health Care | 8,500+ |
| 5 | Dominion Energy | Energy | 5,400+ |
| 6 | Truist Financial | Banking | 4,500+ |
| 7 | Amazon | Online Retail | 4,100+ |
| 8 | Atria Group | Cigarettes and Wine | 2,700+ |
| 9 | Federal Reserve Bank of Richmond | Reserve Bank | 2,700+ |
| 10 | Anthem Blue Cross and Blue Shield | Health Insurance | 2,700+ |
| 11 | Wells Fargo | Banking | 2,500+ |
| 12 | United Parcel Service | Freight and Package Distribution | 2,500+ |
| 13 | CarMax Inc. | Auto Sales | 2,200+ |
| 14 | DuPont | Chemicals and Fibers | 1,900+ |
| 15 | Bank of America | Banking | 1,900+ |
| 15 | Markel Corporation | Specialty Insurance | 1,900+ |
| 16 | Verizon Communications | Telecommunications | 1,700+ |
| 17 | University of Richmond | Private University | 1,500+ |
| 18 | General Dynamics | Call Center | 1,400+ |
| 19 | Estes Express Lines | Trucking, Air Freight | 1,400+ |
| 20 | T-Mobile USA | Telecommunications | 1,300+ |
| 21 | AdvanSix | Polymers | 1,200+ |
| 22 | CoStar Group | Real Estate Information and Analytics | 1,000+ |
| 23 | Kings Dominion | Amusement Park | 1,000+ |
| 24 | The Results Companies | Call Center | 1,000+ |
| 25 | GE Power | Manufacturing | 900+ |

(1) As of June 30, 2022.

Source: Virginia Employment Commission

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**City of Richmond**
**Real Estate Assessed Values of Largest Taxpayers**
**as of January 1, 2023[1]**

| Rank | Taxpayer | Assessment | % of Total |
|---|---|---|---|
| 1 | Philip Morris USA Inc. | $434,056,000 | 1.21% |
| 2 | Philip Morris USA Inc. | $323,677,000 | 0.90% |
| 3 | Dominion Energy | $307,141,000 | 0.85% |
| 4 | Richmond Riverfront Plaza LP | $187,589,000 | 0.52% |
| 5 | CoStar Realty Information Inc. | $165,391,000 | 0.46% |
| 6 | RP James Center LLC | $157,280,000 | 0.44% |
| 7 | Chippenham Hospital Inc. | $131,870,000 | 0.37% |
| 8 | MDC Coastal 21 LLC | $126,740,000 | 0.35% |
| 9 | Gateway Plaza Realty LLC | $123,557,000 | 0.34% |
| 10 | Kireland South 10th Street LLC | $91,842,000 | 0.26% |
| 11 | Federal Reserve Bank of Richmond | $84,474,000 | 0.24% |
| 12 | LS Biotech Eight LLC | $76,911,000 | 0.21% |
| 13 | Logistics Park 95 LLC | $73,378,000 | 0.20% |
| 14 | AREP Riverside LLC | $71,233,000 | 0.20% |
| 15 | Parma Richmond LLC | $70,083,000 | 0.20% |
| 16 | Dominion Energy | $58,509,000 | 0.16% |
| 17 | Sauer Properties Inc. | $57,154,000 | 0.16% |
| 18 | Truist Bank | $56,846,000 | 0.16% |
| 19 | Alacer Corporation | $52,173,000 | 0.15% |
| 20 | RVA 1111 East Main Tower LP | $49,421,000 | 0.14% |
| 21 | Dominion Energy | $38,449,000 | 0.11% |
| 22 | Gambles Hill Lab LLC | $35,952,000 | 0.10% |
| 23 | Koochenvagner's Brewing CO. | $35,731,000 | 0.10% |
| 24 | 700 Main LLC | $35,478,000 | 0.10% |
| 25 | Country Club of Virginia | $25,081,000 | 0.10% |
| **Subtotal** | | **$ 2,880,016,000** | **8.01%** |
| All Other Properties | | $ 33,053,679,000 | 91.99% |
| **Total Taxable Assessment** | | **$ 35,933,695,000** | **100.00%** |

[1] Taxpayers with the same identification are assessed separately from their affiliates.

Source: Fiscal Year 2023 Land Book, City Assessor's Office

### Annual Labor Force Statistics, Employment and Unemployment

Set forth below are the labor force statistics, including employment and unemployment numbers, for the City and the Richmond Metropolitan Statistical Area since 2012.

**City of Richmond**

| Year | Labor Force (City) | Employment (City) | Unemployment (City) | Unemployment Rate (City) (%) | Unemployment Rate (US) (%) | Unemployment Rate (VA) (%) |
|---|---|---|---|---|---|---|
| 2012 | 109,323 | 101,135 | 8,188 | 7.5 | 8.1 | 6.1 |
| 2013 | 110,443 | 102,934 | 7,509 | 6.8 | 7.4 | 5.7 |
| 2014 | 112,500 | 105,568 | 6,932 | 6.2 | 6.2 | 5.2 |
| 2015 | 112,566 | 106,690 | 5,876 | 5.2 | 5.3 | 4.5 |
| 2016 | 113,825 | 108,599 | 5,226 | 4.6 | 4.9 | 4.0 |
| 2017 | 116,588 | 111,499 | 5,089 | 4.4 | 4.4 | 3.8 |
| 2018 | 117,259 | 113,125 | 4,134 | 3.5 | 3.9 | 3.0 |
| 2019 | 119,328 | 115,433 | 3,895 | 3.3 | 3.7 | 2.8 |
| 2020 | 119,939 | 109,002 | 10,937 | 9.1 | 8.1 | 6.5 |
| 2021 | 118,245 | 111,931 | 6,314 | 5.3 | 5.3 | 3.9 |
| 2022 | 120,998 | 116,881 | 4,117 | 3.4 | 3.6 | 2.9 |

Source: Virginia Employment Commission

**Richmond Metropolitan Statistical Area[(1)]**

| Year | Labor Force | Employment | Unemployment | Unemployment Rate (%) |
|---|---|---|---|---|
| 2012 | 642,337 | 600,051 | 42,286 | 6.6 |
| 2013 | 647,017 | 607,694 | 39,323 | 6.1 |
| 2014 | 655,765 | 619,578 | 36,187 | 5.5 |
| 2015 | 655,630 | 625,131 | 30,499 | 4.7 |
| 2016 | 663,376 | 636,068 | 27,308 | 4.1 |
| 2017 | 703,565 | 676,118 | 27,447 | 3.9 |
| 2018 | 675,649 | 654,321 | 21,328 | 3.2 |
| 2019 | 689,252 | 669,081 | 20,171 | 2.9 |
| 2020 | 680,100 | 632,930 | 47,170 | 6.9 |
| 2021 | 678,129 | 649,799 | 28,330 | 4.2 |
| 2022 | 699,370 | 678,487 | 20,883 | 3.0 |

Source: Virginia Employment Commission

(1) The Richmond MSA includes the cities of Richmond, Petersburg, Colonial Heights, and Hopewell and the counties of Henrico, Chesterfield, Amelia, Caroline, Charles City, Cumberland, Dinwiddie, Goochland, King and Queen, King William, Louisa, New Kent, Powhatan, Prince George, and Sussex.

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## ECONOMY AND DEMOGRAPHY

### Income Indicators

Set forth below are the income indicators for the City and the Richmond MSA, including average weekly wage for calendar years 2012 through 2022 and per capita personal income for calendar years 2012 through 2022.

**Average Weekly Wage**

| Year | City of Richmond | % Change | Richmond MSA | % Change | Commonwealth of Virginia | % Change |
|---|---|---|---|---|---|---|
| 2012 | $1,036 | 1.37 | $ 912 | 1.33 | $ 993 | 1.95 |
| 2013 | 1,047 | 1.06 | 921 | 0.99 | 998 | 0.50 |
| 2014 | 1,075 | 2.67 | 942 | 2.28 | 1,018 | 2.00 |
| 2015 | 1,121 | 4.20 | 964 | 2.34 | 1,044 | 2.55 |
| 2016 | 1,122 | 0.09 | 972 | 0.83 | 1,055 | 1.05 |
| 2017 | 1,158 | 3.21 | 1,004 | 3.29 | 1,087 | 3.03 |
| 2018 | 1,186 | 2.40 | 1,022 | 1.79 | 1,120 | 3.00 |
| 2019 | 1,231 | 3.80 | 1,056 | 3.32 | 1,158 | 3.40 |
| 2020 | 1,352 | 9.80 | 1,143 | 8.24 | 1,253 | 8.20 |
| 2021 | 1,408 | 4.10 | 1,195 | 4.54 | 1,307 | 4.30 |
| 2022 | 1,486 | 5.50 | 1,259 | 5.35 | 1,368 | 4.70 |

Source: U.S. Department of Labor – Bureau of Labor Statistics

**Per Capita Personal Income**

| Year | City of Richmond | % Change | Richmond MSA | % Change | Commonwealth of Virginia | % Change |
|---|---|---|---|---|---|---|
| 2012 | $47,975 | 4.15 | $47,140 | 5.04 | $49,302 | 3.70 |
| 2013 | 46,862 | (2.32) | 46,854 | (0.61) | 48,490 | (1.65) |
| 2014 | 47,991 | 2.40 | 48,475 | 3.46 | 50,157 | 3.44 |
| 2015 | 50,591 | 5.42 | 50,947 | 5.10 | 52,184 | 4.04 |
| 2016 | 51,684 | 2.16 | 53,093 | 4.21 | 53,605 | 2.72 |
| 2017 | 54,139 | 4.75 | 55,282 | 4.12 | 55,306 | 3.17 |
| 2018 | 52,839 | (2.40) | 56,101 | 1.48 | 56,978 | 3.02 |
| 2019 | 58,813 | 4.45 | 58,111 | 3.58 | 59,073 | 3.12 |
| 2020 | 63,989 | 8.80 | 61,148 | 5.23 | 62,189 | 5.35 |
| 2021 | 68,048 | 6.30 | 65,834 | 5.10 | 66,305 | 6.60 |

Source: U.S. Department of Labor – Bureau of Labor Statistics

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**Population Statistics**

Set forth below are the population estimates for the City for calendar years 2010 through 2020.

| Calendar Year[1] | Population |
|---|---|
| 2010 | 204,214 |
| 2011 | 205,533 |
| 2012 | 210,309 |
| 2013 | 214,114 |
| 2014 | 217,853 |
| 2015 | 220,289 |
| 2016 | 223,170 |
| 2017 | 227,032 |
| 2018 | 228,783 |
| 2019 | 230,436 |
| 2020 | 226,610 |

(1) Population data is based on estimates as of January 1 of each year, adjusted for Census updates and as presented in the City's Annual Comprehensive Financial Report. No additional annual population estimates are available at this time.

Source: U.S. Department of Commerce: U.S. Census Bureau, U.S. Census of Population

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**Pension Funds**

City Constitutional offices of the Sheriff, Courts, City Registrar, and City Treasurer are eligible for participation in the Virginia Retirement System pension plan. All other City employees are participants in the Richmond Retirement System

**Virginia Retirement System Plan**

Plan Description

The City contributes to the Virginia Retirement System (VRS), a cost-sharing and agent multiple-employer defined benefit pension plan administered by the VRS. City of Richmond members include employees of the constitutional offices of the Sheriff, Courts, Registrar and Treasurer. Benefits vest after five years of service credit. Members earn one month of service credit for each month they are employed and their employer is paying into the VRS. Members are eligible to purchase prior public service, active duty military service, certain periods of leave and previously refunded VRS service as credit in their plan. There are three defined benefit plans for local government employees – Plan 1, Plan 2 and Hybrid Plan.

*Plan 1*. Members hired before July 1, 2010 and who were vested as of January 1, 2013 are covered under Plan 1. Non-hazardous duty members are eligible for an unreduced retirement benefit beginning at age 65 with at least five years of service credit or age 50 with at least 30 years of service credit. They may retire with a reduced benefit as early as age 55 with at least five years of service credit or age 50 with at least 10 years of service credit.

*Plan 2*. Members hired or rehired on or after July 1, 2010 and who were not vested on January 1, 2013 are covered under Plan 2. Non-hazardous duty members are eligible for an unreduced benefit beginning at their normal Social Security retirement age with at least five years of service credit or when the sum of their age and service equals 90. They may retire with a reduced benefit as early as age 60 with at least five years of service credit.

*Hybrid Plan*. Non-hazardous duty employees hired on or after January 1, 2014 are covered under the Hybrid Plan. The VRS Hybrid Retirement Plan combines features of a defined benefit and a defined contribution plan. Employees covered under the VRS Hybrid Plan are eligible for an unreduced benefit when they reach their normal Social Security retirement age or when their age and service equal the sum of 90. Benefits are payable monthly for life in an amount equal to 1% of their Average Final Salary for each year of credited service. Hybrid members make mandatory contributions to the defined contribution component of the plan and may make additional voluntary contributions to the plan, which the employer is required to match. Employees vest in the matching employer contributions based upon a tiered schedule. Employees are 100% vested in all matching employer contributions upon reaching 4 years of creditable service.

The system issues a publicly available comprehensive annual financial report (CAFR) that includes financial statements and required supplementary information for the plans administered by VRS. A copy of the report may be obtained from the VRS web site located at http://www.varetire.org/publications/index.asp or by writing to the System's Chief Financial Officer at P.O. Box 2500, Richmond, VA, 23218-2500.

Contribution Policy

Plan members are required by Section 51.1-145 of the Code of Virginia (1950), as amended, to contribute 5% of their compensation toward their retirement. Beginning July 1, 2012, new employees were required to pay the 5% member contribution. In addition, for existing employees, employers were required to begin making the employee pay the 5% member contribution. This could be phased in over a period of up to 5 years and the employer is required to provide a salary increase equal to the amount of the increase in the employee-paid member contribution. In addition, the City is required to contribute the remaining amounts necessary to fund its participation in the VRS using the actuarial basis specified by Code of Virginia and approved by the VRS Board of Trustees. The City's contribution rates for the fiscal year ended June 30, 2022, was 17.66% of the annual covered payroll.

Annual Pension Cost

For the fiscal year ended June 30, 2022, the City's annual pension contribution to the VRS was $4,531,551. The required contribution was determined as of June 30, 2020 using updated actuarial assumptions, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2021. The actuarial assumptions for general employees at June 30, 2022, included:

- An investment rate of return (net of pension plan investment expense, including inflation) of 6.75%;
- Projected salary increases of 3.50% to 5.35% per year; and
- Plan 1 included an inflation component of 2.50% and Plan 2 included an inflation component of 2.50%.

The actuarial value of the City's assets is equal to the modified market value of assets. This method uses techniques that smooth the effects of short-term volatility in the market value of assets over a five-year period. The City's unfunded actuarial accrued liability is being amortized as a level percentage of projected payroll on a closed basis. The remaining amortization period as of July 1, 2020 for the Unfunded Actuarial Accrued Liability (UAAL) was twenty years.

Net Pension Liability

A detailed schedule of changes in the net pension liability is presented in the City's 2022 ACFR. The net pension liability of the City at June 30, 2022 for the VRS was as follows:

| | |
|---|---|
| Total Pension Liability (TPL) | $ 148,472,523 |
| VRS Fiduciary Net Position | (152,725,780) |
| Net Pension Liability (NPL) | $ (4,253,257) |
| | |
| Plan Fiduciary Net Position as a percentage of Total Pension Liability | 102.86% |
| | |
| Covered Employee Payroll | $24,088,930 |
| City's Net Pension Liability as a percentage of Covered Employee Payroll | (17.66%) |

**Richmond Retirement System Plan**

The City maintains a Defined Benefit Retirement Plan and a Defined Contribution Retirement Plan (401a) for City employees. For the Defined Benefit Retirement Plan of the Richmond Retirement System ("RRS"), the City contributes an amount each year equal to the sum of the current liability and a portion of the unfunded liability. RRS is financed through contributions made by the City as well as earned income from RRS investments. The City's Pension Trust Funds' investment portfolio includes corporate bonds and notes, common stocks, international bonds, notes and stocks.

## Defined Benefit Plan

### Plan Description

The RRS was established by action of the Richmond City Council on February 1, 1945. The City Council appoints five members and the Mayor appoints two members of the Board of Trustees to administer the RRS. However, City Council retains the authority to establish or amend benefit provisions. The RRS is currently not subject to the provisions of the Employee Retirement Income Security Act of 1974.

The RRS is a single-employer Defined Benefit Plan, which has one participating employer, the City, including its component unit, the Richmond Behavioral Health Authority and a small portion of the Richmond School Board. The Plan covers all full-time, permanent employees, with the exception of those elected officials and persons eligible for membership in the Judicial Retirement System and the Virginia Retirement System. A majority of the employees of the Richmond School Board participate in the VRS, which offers both agent and cost sharing multiple-employer retirement plan options to Virginia localities and acts as a common investment and administrative agent for certain political subdivisions in the Commonwealth. Members are vested after five years of creditable service or at their normal retirement age (age 65 for general employees; age 60 for public safety employees). The plan is contributory for employees.

### Contribution Policy

The City Code, requires the City to contribute to the RRS, annually, an amount as determined by the actuary, expressed as a percentage of payroll, equal to the sum of the “normal contribution” and the “actuarial determined contribution.” During 2022, the City contributed $1.2 million in addition to funding the Actuarially Determined Contribution.

The Actuarial Determined Contribution is the amount necessary to amortize the unfunded actuarial liability and any increase or decrease in the unfunded actuarial liability in future years due to changes in actuarial assumptions, changes in RRS provisions, including the granting of COLA increases, or actuarial gains or losses amortized over a closed period not to exceed 30 years, with payments increasing up to 4% per year.

The following is a schedule of the City’s contributions to the RRS, exclusive of City employee contributions, for fiscal years ended June 30, 2014 through 2022:

| Fiscal Year Ended June 30 | Actuarially Determined Contributions[1] | Employer Contributions[1] | Percentage Contributed |
|---|---|---|---|
| 2014 | $42,342,620 | $42,342,620 | 100.00% |
| 2015 | $46,684,500 | $46,684,500 | 100.00% |
| 2016 | $44,926,043 | $44,926,043 | 100.00% |
| 2017 | $42,911,076 | $42,911,076 | 100.00% |
| 2018 | $46,548,902 | $46,548,902 | 100.00% |
| 2019 | $46,539,647 | $48,539,647 | 104.30% |
| 2020 | $48,276,781 | $55,240,421 | 114.42% |
| 2021 | $55,649,723 | $55,649,723 | 100.00% |
| 2022 | $54,012,445 | $54,012,445 | 100.00% |

[1] The figures above include contributions made by the Richmond Behavioral Health Authority on behalf of its employees who participated in RRS.

Source: Richmond Retirement System-Annual Comprehensive Financial Report – Fiscal Year 2022

### Plan Membership

The number of vested and retired City employees participating in the RRS defined benefit plan for fiscal years 2014 to 2022 is as follows:

| Fiscal Year | Classification | Active* Members | Retired Members | Vested Terminated | Total |
|---|---|---|---|---|---|
| 2014 | Municipal Employees | 2,065 | 4,312 | 1,662 | 8,039 |
| 2015 | Municipal Employees | 2,019 | 4,314 | 1,620 | 7,953 |
| 2016 | Municipal Employees | 1,911 | 4,322 | 1,618 | 7,851 |
| 2017 | Municipal Employees | 1,858 | 4,297 | 1,616 | 7,771 |
| 2018 | Municipal Employees | 1,781 | 4,318 | 1,603 | 7,702 |
| 2019 | Municipal Employees | 1,731 | 4,300 | 1,567 | 7,598 |
| 2020 | Municipal Employees | 1,731 | 4,300 | 1,567 | 7,598 |
| 2021 | Municipal Employees | 1,587 | 4,327 | 1,545 | 7,459 |
| 2022 | Municipal Employees | 1,463 | 4,276 | 1,544 | 7,283 |

Source: Richmond Retirement System-Annual Comprehensive Financial Report – Fiscal Year 2022

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Net Pension Liability

| Fiscal Year | Fiduciary Net Position | Total Pension Liability | Net Pension Liability | Fiduciary Net Position as a % of Total Pension Liability |
|---|---|---|---|---|
| 2014 | $544,904,299 | $854,284,141 | $309,379,842 | 63.8% |
| 2015 | 540,060,865 | 850,911,445 | 310,850,580 | 63.5% |
| 2016 | 515,253,793 | 854,875,197 | 339,621,404 | 60.3% |
| 2017 | 552,712,561 | 863,992,966 | 311,280,405 | 64.0% |
| 2018 | 569,085,310 | 874,789,363 | 305,704,053 | 65.1% |
| 2019 | 572,635,105 | 938,077,477 | 365,442,372 | 61.0% |
| 2020 | 565,456,261 | 954,585,395 | 389,129,134 | 59.2% |
| 2021 | 685,425,764 | 954,775,368 | 269,349,604 | 71.8% |
| 2022 | 619,157,459 | 959,392,716 | 340,235,257 | 64.5% |

Source: Richmond Retirement System-Annual Comprehensive Financial Report – Fiscal Year 2022

During 2022, the funded status fell from 71.5% in the prior year (Fiscal Year 2021) to 64.5%. Factors which contributed to the decrease in 2022 funded status relate to the assumptions as a result of an Experience Study, which is performed every five years, as well as, investment performance that fell short of assumed rates of return. The assumption changes that had the greatest impact were a change in the assumed rate of return being decreased from 7.5% to 7.0% and the adoption of new mortality tables.

**Defined Contribution Plan**

401(a) Plan Description

The RRS also offers a Defined Contribution 401(a) Plan as another retirement option to the City and RBHA. This plan is mandatory for general employees hired on/or after July 1, 2006, and optional for senior executives and public safety officers. The RRS is the administrator for this plan and has contracted with an independent, not-for-profit financial services organization to be the record keeper of the plan. The City contributes a percentage of an employee's creditable compensation, based on years of service, to a portable account for investment by the employee. This plan is non-contributory for employees. As of June 30, 2022, the Defined Contribution 401(a) Plan had 2,518 plan members.

The Defined Contribution Plan is a 401(a) account which grows through contributions from the participating employers and investment earnings. The Defined Contribution Plan is funded entirely by employer contributions, and no employee contributions are required. Participating employers contribute a percentage of the member's salary to an account each pay period in accordance with the following schedule, which is based on years of creditable service:

- Less than 5 years of service – 5%
- 5 – 10 years of service – 6%
- 10 – 15 years of service – 8%
- 15 or more years of service – 10%

The Richmond Retirement System's Annual Comprehensive Financial Statement ("ACFR") for the fiscal years ended June 30, 2022, is available on the City's website at https://rva.gov/sites/default/files/2022-11/ACFR2022.pdf.

**Insurance and Risk Management**

The City has an active risk management program including safety and loss control, claims administration, risk management financing and consulting services to all City agencies that is accounted for as an Internal Service Fund. The City manages risk through a combination of commercial insurance, self-insurance and association programs. The program continues to provide worker's compensation and third party liability coverage. The City purchases excess liability coverage of $10,000,000 in excess of $1,500,000 Self Insured Retention ("SIR") and excess workers' compensation in statutory limits over a $1,250,000 SIR. Claims under the SIR are paid by the Risk Management Internal Service Fund. The City also has Cyber Liability Coverage of $5,000,000 in excess of a $100,000 SIR.

The City-owned Utilities (Gas, Water, Wastewater, Stormwater and Electric Utility Proprietary Funds) are members of the Associated Electric Gas and Insurance Services Ltd, a member owned insurance company. In exchange for annual premiums paid, the City's Utilities are provided insurance coverage to a limit of $35.0 million per occurrence for general and Employee Liability, and $1.0 million per occurrence for Pollution Liability. Claims under $1,000,000 are self-insured. The Utilities are also a member of Energy Insurance Mutual Ltd, which provides excess liability coverage with limits to $100.0 million in excess of the $35 million of underlying coverage.

Changes in the self-insurance reserves for the fiscal years 2012 through 2022 are set forth in the chart below:

| Fiscal Year | Beginning of Fiscal Year Liability Balance | Current Year Claims and Changes in Estimates | Claims and Premium Payments | Fiscal Year-End Reserved Liability Balance |
|---|---|---|---|---|
| 2012 | $39,224,863 | $4,372,017 | $6,145,223 | $37,451,657 |
| 2013 | 37,451,657 | 5,257,194 | 3,861,969 | 38,846,882 |
| 2014 | 38,846,882 | 2,584,653 | 5,165,237 | 36,266,298 |
| 2015 | 36,266,298 | 5,943,430 | 6,648,556 | 35,561,172 |
| 2016 | 35,561,172 | 6,179,001 | 7,327,968 | 34,412,205 |
| 2017 | 34,412,205 | 2,411,238 | 5,320,965 | 31,502,478 |
| 2018 | 31,502,478 | 3,255,876 | 1,637,823 | 33,120,531 |
| 2019 | 33,120,531 | 10,969,924 | 8,282,134 | 35,808,321 |
| 2020 | 35,808,321 | 11,884,878 | 9,465,044 | 38,228,155 |
| 2021 | 38,228,155 | 15,704,183 | 12,195,116 | 41,107,222 |
| 2022 | 41,107,222 | 9,229,181 | 7,781,634 | 42,554,769 |

Source: City Department of Finance - Bureau of Risk Management

**Other Post-Employment Benefits**

Plan Description

The City provides continuous medical insurance coverage for some full-time employees who retire directly from the City, have continuously been enrolled in the health plans for 5 years prior to retirement, and are eligible to receive an early or regular retirement benefit from the City. The plan was amended in 2007 to only include participants who were currently retired or were active full time employees that were hired prior to January 1, 1997. General employees hired after this date are assumed to pay the full cost of the program with no implicit rate subsidy, and therefore, have no related liability. Sworn Police, Sworn Fire and Executives are eligible to participate in the post-retirement medical coverage even if they were hired after January 1, 1997. Retirees that become Medicare eligible are no longer eligible for the City retiree medical plan.

Net OPEB Obligation

The City's OPEB cost is calculated based on the annual required contribution of the employer (ARC), an amount actuarially determined in accordance with the parameters of GAAP. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover normal cost each year and amortize any unfunded actuarial liabilities (or funding excess) over a period not to exceed thirty years. The following table shows the components of City's annual OPEB cost for the year, annually required contribution to the plan, and changes in the City's net OPEB obligation:

**Changes in Net OPEB Liability – Fiscal Year 2021 and 2022**

| | 2021 | 2022 |
|---|---|---|
| Net OPEB Liability – Beginning of Fiscal Year | $ 115,591,786 | $ 118,039,413 |
| Changes for the Year | | |
| Service cost | 5,702,876 | 5,854,572 |
| Interest on Total OPEB Liability | 3,058,492 | 3,188,970 |
| Change of Benefit Terms | - | (53,566,193) |
| Experience Losses (Gains) | - | (28,201,247) |
| Change in Assumptions | - | (10,387,390) |
| Benefits Paid | (6,313,741) | (4,007,890) |
| Net Change in Total OPEB Liability | 2,447,627 | (87,119,178) |
| Total OPEB Liability | 118,039,413 | 30,920,235 |
| Plan Fiduciary Net Position | - | (8,234,777) |
| **Net OPEB Liability – End of Fiscal Year** | **$ 118,039,413** | **$ 22,685,458** |

Source: City of Richmond Annual Comprehensive Financial Report of 2022.

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**APPENDIX D**

**CONSULTING ENGINEER'S REPORT**

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City of Richmond, Virginia
Department of Public Utilities

## Public Utility Revenue and Refunding Bonds, Series 2023C

# CONSULTING ENGINEER'S REPORT

**FINAL**

August 24, 2023

GREELEY AND HANSEN
A TYLin Company

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# SECTION 1 INTRODUCTION

The City of Richmond, Virginia (City) is issuing its Public Utility Revenue and Refunding Bonds, Series 2023C (Bonds) to fund a portion of its Capital Improvement Program (CIP) for fiscal years (FY) 2024 through 2028. This Report provides a general description of the City's existing natural gas, water, and wastewater systems, a description of the improvements for these systems contained in the CIP and their estimated costs.

This report was prepared by the consulting engineering firm of Greeley and Hansen, A TYLin Company (Greeley and Hansen) for inclusion as an appendix to the official statement for the Bonds. Greeley and Hansen has provided engineering services in the specialized fields of water and wastewater engineering since 1914 and has offices in 21 cities throughout the United States and internationally. Greeley and Hansen has served the City since the early 1950s. Greeley and Hansen has planned, designed and managed the construction of water, wastewater, and CSO facilities serving the City.

# SECTION 2 EXISTING NATURAL GAS, WATER, AND WASTEWATER SYSTEMS

## 2.1 GAS SYSTEM

The City's natural gas system (Richmond Gas System) is presently the eighth largest municipally owned gas utility in the country. The City of Richmond Department of Public Utilities (DPU) is responsible for day-to-day operation and maintenance of the system, which includes more than 1,973 miles of gas mains serving approximately 122,500 customer accounts in the City, Henrico County, northern Chesterfield County and portions of Hanover County as of June 2023. DPU purchases gas on a wholesale basis from four major suppliers BP Energy, Municipal Gas Authority of Georgia, Southeast Gas Supply, and Public Energy of Authority of Kentucky. From these suppliers, gas is delivered to the City's eight gate stations, with a ninth gate station currently under construction, through major transmission pipelines owned by TC Energy, Williams and BHE GT&S. The information in the following subsections is based on interviews with City gas system specialists.

### 2.1.1 History

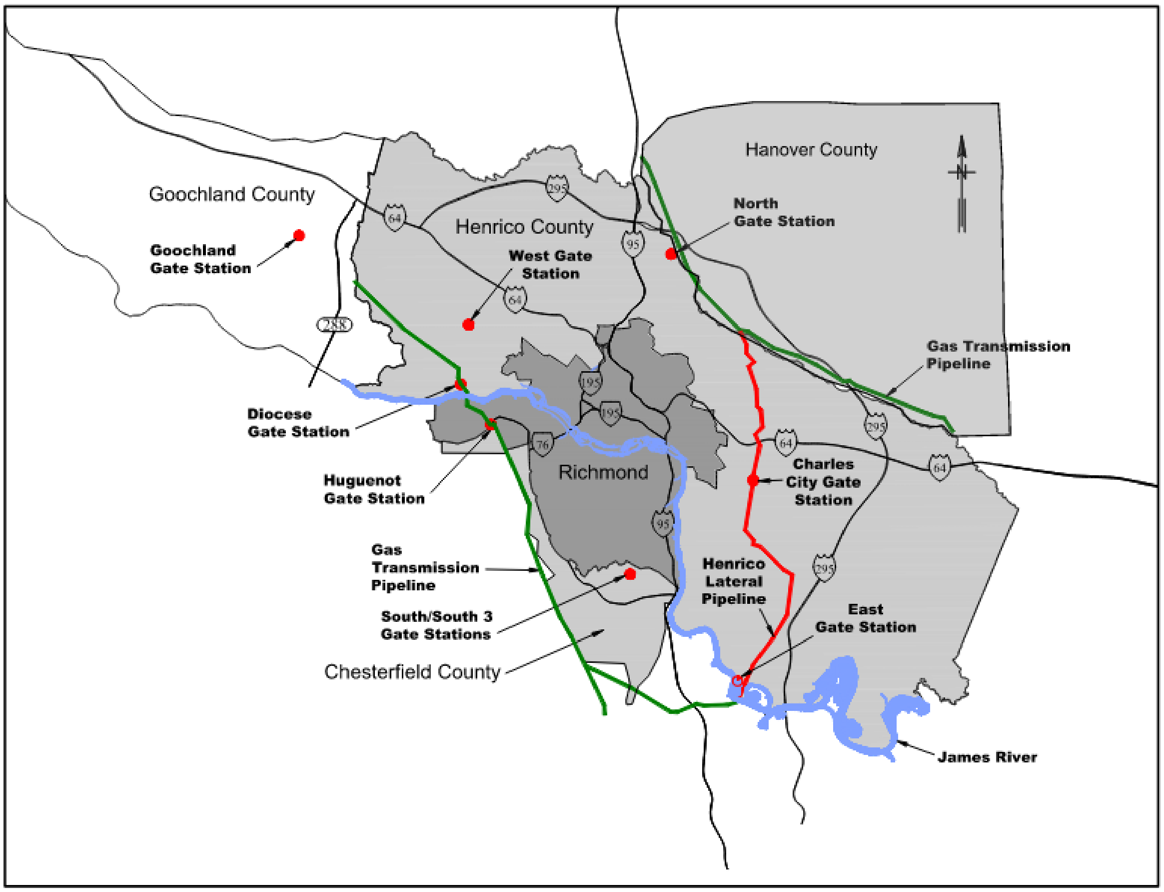
The origins of the Richmond Gas System date back about 174 years when on November 29, 1849, the Richmond City Council adopted an ordinance to begin illuminating City streets using gas lights. A plant that manufactured gas from coal was constructed at a site on East Cary Street between 15th and 16th Streets and the plant and streetlights went into full operation on February 22, 1851. The gas plant on East Cary Street was later replaced by the Fulton Gas Works, which began operating on October 5, 1856 and continued to operate until it was eventually decommissioned in the mid-1950s.

Gas was distributed at very low pressure (< 1 psi) in cast iron pipelines throughout the distribution system. Although the gas manufactured at that time was of a lesser quality than that of today and costly to produce, the gas system provided a much needed but economical source of energy to its customers. For over a century and a half, the Richmond Gas System has continued to flourish and expand. Today, supply gas is purchased on a wholesale basis from various suppliers and originates primarily from gas wells in the Appalachian area.

### 2.1.2 Service Area

The present service area of the Richmond Gas System covers an area of approximately 326.4 square miles and includes all of the City, Henrico County, Northern Chesterfield and portions of Hanover County. The service area of the Richmond Gas System is illustrated in Figure 2-1.

Figure 2-1: Gas Service Area and Gate Stations




### 2.1.3 Facilities and Resources

The major facilities comprising the Richmond Gas System consist of roughly 1,973 miles of distribution pipelines, various pressure regulators and eight gate stations.

Gas is introduced into the City's gas distribution system through a total of eight gate stations. The purpose of these gate stations is to meter and regulate the flow of gas into the City system from the supply transmission pipelines owned by others. The City recently completed capital projects to upgrade and modernize all of its gate stations. The locations of the City's eight gate stations are shown on Figure 2-1, with a ninth gate station, Goochland Gate Station, currently under construction.

Overall, the reliability of the gas supplies on which the Richmond Gas System depends is deemed to be very high. This determination is based on a number of factors and safeguards designed to protect the City's System. There continues to be no occurrences where the City has ever experienced an interruption in service as a result of inadequate supply to its gate stations, either through failure of a critical asset or through contractual disagreement. The Richmond Gas System's capacity is approximately 214,188 decatherms as shown in Table 2-1. The construction of the Goochland Gate Station will add an additional

33, 000 decatherms for a total capacity of 247,188 decatherms. Construction of the Goochland Gate Station is expected to be complete by the end of 2023.

Table 2-1: Gate Station Capacities

| Gate Station | Maximum Day Capacity DTH/Day |
|---|---|
| West | 62,954 |
| South/South 3 (1) | 47,378 |
| East | 18,656 |
| Huguenot | 7,200 |
| Diocese | 7,000 |
| North | 59,000 |
| Charles City | 12,000 |
| TOTAL | 214,188 |

Note:

1. South/South Gate 3 are 2 stations at one location.

Of the 1,973 miles of pipelines in the system, approximately 130 miles is cast iron and non-state of the art jointed pipe or high risk pipe in need of replacement. Much of the cast iron pipe that is still in service today is over 75 years old. The City has a long-term program underway to replace all of the old cast iron mains in the system with high-density polyethylene (HPDE) pipe and coated steel welded pipe. The City has continued its replacement program by replacing approximately 7.82 miles/year of cast iron pipe from 2017 to 2022. The mains selected for replacement are based on the results of a field testing and evaluation program to prioritize mains for rehabilitation or replacement.

The gas pipelines in the system are basically classified into three service pressures; low pressure, intermediate pressure and high pressure. Low pressure pipelines operate only under a pressure of about 7 inches water column (< 1 psi) and supply mostly low volume, residential customers. Most of the low pressure pipelines are associated with older parts of the service area. Accordingly, most of the maintenance and service problems in the system are associated with low pressure pipelines. The City intends to slowly phase out low pressure service and replace it with intermediate service. The low pressure system is currently 3.6% (71.03 miles) of the total system. The City is currently working on multiple projects in this system. Intermediate service pipelines operate under about 20-25 psi pressure. High pressure pipelines operate under 125-350 psi pressure and are used primarily as high pressure pipelines. Only a very few high volume customers are supplied from high pressure pipes. Pressure regulators are used at various locations throughout the distribution system to reduce the pressure to either intermediate or low pressure service. The City's average unaccounted gas from 2018 to 2023 (6 years) was about 5.2% of the metered gas, which is within acceptable bounds. The City is working on updating meters to lower the unaccounted gas percentage.

The City currently has contracts with four major gas suppliers, as shown in Table 2-2, to provide natural gas on a wholesale basis:

Table 2-2: Major Gas Suppliers

| Supplier | Percent of Total City Demand Supplied |
|---|---|
| BP Energy | 43% |
| Municipal Gas Authority of Georgia | 28% |
| Southeast Gas Supply (SGS) | 23% |
| Public Energy Authority of Kentucky (PEAK) | 6% |

Prior to entering into contract negotiations, the City closely investigates each company to determine that it has the facilities, financial resources and operating practices in-place to provide the level of service required by the City. The City also adopted the requirement that gas suppliers must have a minimum BBB credit rating. Negotiated into each of the City's contracts are also various safeguards and mechanisms that ensure the reliability of supplies. Suppliers face severe financial penalties for failure to provide minimum quantities of gas as stipulated in their contracts. The City also maintains the option of switching to alternative suppliers in the event of one or more companies failure to deliver gas as promised.

### 2.1.4 Environmental/Regulatory Review

Federal Department of Transportation delegated the inspection of the City's gas utility to the State Corporation Commission (SCC) in 2005. The June 16, 2023, SCC inspection found the City's gas utility to be in compliance with required state and federal operational regulations. No violations have been sent to date.

### 2.1.5 Risks

Alternative Fuels: Competition from alternative fuels such as coal, oil, electricity and others provide additional opportunities to customers to choose where to meet their energy needs. In order to be competitive and to maintain a sizable share of the energy market, natural gas must continue to be the preferred source for energy by being economical, safe and reliable. The long-term outlook for natural gas as being a valuable commodity and preferred energy source continues to be very positive. Domestic natural gas reserves are sufficient to meet the country's projected needs for at least the next thirty years. Natural gas is also easier and less costly to transport than other petroleum fuels and is cleaner burning as well. In light of increased environmental requirements restricting pollution and exhaust emissions, and diminishing supplies of oil and low sulfur coal, the likelihood of the Richmond Gas System losing market share to other alternative fuel sources is very slight.

Loss of High Demand Industrial Loads: The energy needs from high demand industrial customers are significant and generally do not undergo the drastic seasonal and diurnal fluctuations, as do the demands from residential and most commercial customers. While preferred from an operational standpoint, high volume customers however, pose additional risk because the loss of just a few customers may have a severe impact on total system demand and associated revenue stream. Presently, the Richmond Gas System does not appear to be facing any major threat from losing large volume customers. Approximately 30 percent of the City's total gas operating revenues is derived from industrial and large volume customers.

Climactic Conditions: It is estimated that roughly 40 percent of the total gas consumption is for climate control purposes such as heating homes and places of work. As such, gas revenues are highly dependent on prevailing weather patterns. Annual gas consumption can vary as much as 15 percent from one year to the next based solely on the climactic conditions that occur. The risks to gas revenues are short-term risks only and overall, should not have a detrimental effect for more than a few years at any one time.

### 2.1.6 Regional Agreements and City/County Relationship

The DPU owns and operates the entire gas system including those facilities located within Henrico County and portions of Chesterfield and Hanover Counties. Accordingly, customers in the counties are billed on a retail basis directly by the City. Presently, the only known legal agreement between the City and the adjacent counties is a 40-year agreement with Henrico County that expires in 2040. Basically, this agreement simply states that the City will continue to provide gas service to the citizens of Henrico County for the duration of the agreement.

### 2.1.7 Growth Trends

According to data supplied by DPU for June 2023, the Richmond Gas System serves a total of 122,500 residential and non-residential customers. Based on data for the previous five years, typical annual customer growth rates average about 0.8 percent per year. The average numbers of customers served by the Richmond Gas System and associated sales volumes for the years 2019 through 2023 are shown in Table 2-3:

Table 2-3: Customer Sales

| Fiscal Year | Average Number of Meters | Sales Volumes (MCF) |
|---|---|---|
| 2019 | 117,027 | 16,186,090 |
| 2020 | 118,347 | 19,263,149 |
| 2021 | 120,435 | 21,750,961 |
| 2022 | 121,632 | 21,144,391 |
| 2023 | 122,568 | 19,863,349 |

The Greater Richmond Transit Company (GRTC) began the use of Compressed Natural Gas (CNG) in November 2012 and has increased use of CNG vehicles. All of the fleet that has been dedicated to use CNG is now 100% operational with plans to continue increasing the percentage of CNG vehicles. Other CNG fleet customers include:

- City Department of Public Works Trash Trucks
- Waste Management
- Clean Energy Station
- St Catherine's School
- Richmond Airport
- United Postal Service

## 2.2 WATER SYSTEM

### 2.2.1 History

The City formed its water system in 1829 and has expanded and upgraded it over the years. The water purification plant was completed in 1924, expanded in 1950 and has been upgraded over the years. The DPU treats water from the James River and distributes it to over 64,800 residential and commercial customers in the City. The City also provides water through long-term wholesale contracts to Henrico, Chesterfield and Hanover counties. The water purification plant has a rated capacity of 132 mgd.

### 2.2.2 Service Area

The City's water system service area is divided into a total of six pressure zones as shown in Figure 2 2 and includes all areas located within the City limits. Some pressure zones are further subdivided. Water is also provided to the Counties of Henrico, Chesterfield and Hanover through wholesale contract master meters.

### 2.2.3 Facilities and Resources

The City has long-standing water withdrawal rights from the James River to meet the contractual water demands through 2060. The water pumping station and storage facilities are shown in Table 2-5 and Table 2-6, respectively. The major facilities of the water system are summarized below:

- One water purification plant (132 mgd)
- 12 finished water pumping stations (2.7 mgd to 56 mgd)
- 10 finished water storage facilities (0.20 MG to 53.3 MG)

The capacity of the water purification plant is 132 mgd. The capacity of the plant finished water transmission system is 162 mgd, which is higher than the plant capacity. The James River has adequate capacity to meet the City and Counties demands projected for more than the next 30 years. A regional water conservation plan was developed to protect the water supply from the James River during low river flow conditions. This plan was submitted to the Virginia Department of Environmental Quality in 1998. During drought conditions the City is allowed to continue to withdraw water from the James River provided that water conservation measures are in place. The water distribution system is comprised of approximately 1,050 miles of pipe as summarized below in Table 2-4:

Table 2-4: Water Distribution System Piping

| Pipe Size Diameter (Inches) | Miles of Pipe |
|---|---|
| 8 or Less | 784 |
| 10 | 26 |
| 12 | 112 |
| 16 | 47 |
| 20 | 17 |
| 24 | 28 |
| 30 | 14 |
| 36 | 18 |
| 42 | 1.4 |
| 48 | 3.8 |
| 60 or Greater | 0.8 |

Regardless of the diligence in locating and correcting distribution leaks and faulty water meters, urban areas typically experience between 8 and 12% of unaccounted water. Unaccounted for water includes distribution leaks, water-metering discrepancies, fire flows, pipe flushing and other water uses for distribution system maintenance activities. The City's average unaccounted water from 2013 to 2022 (10 years) was about 11.7% of the metered water, which is within acceptable bounds.

Figure 2-2: Water System Service Area, Pressure Zones and Facilities

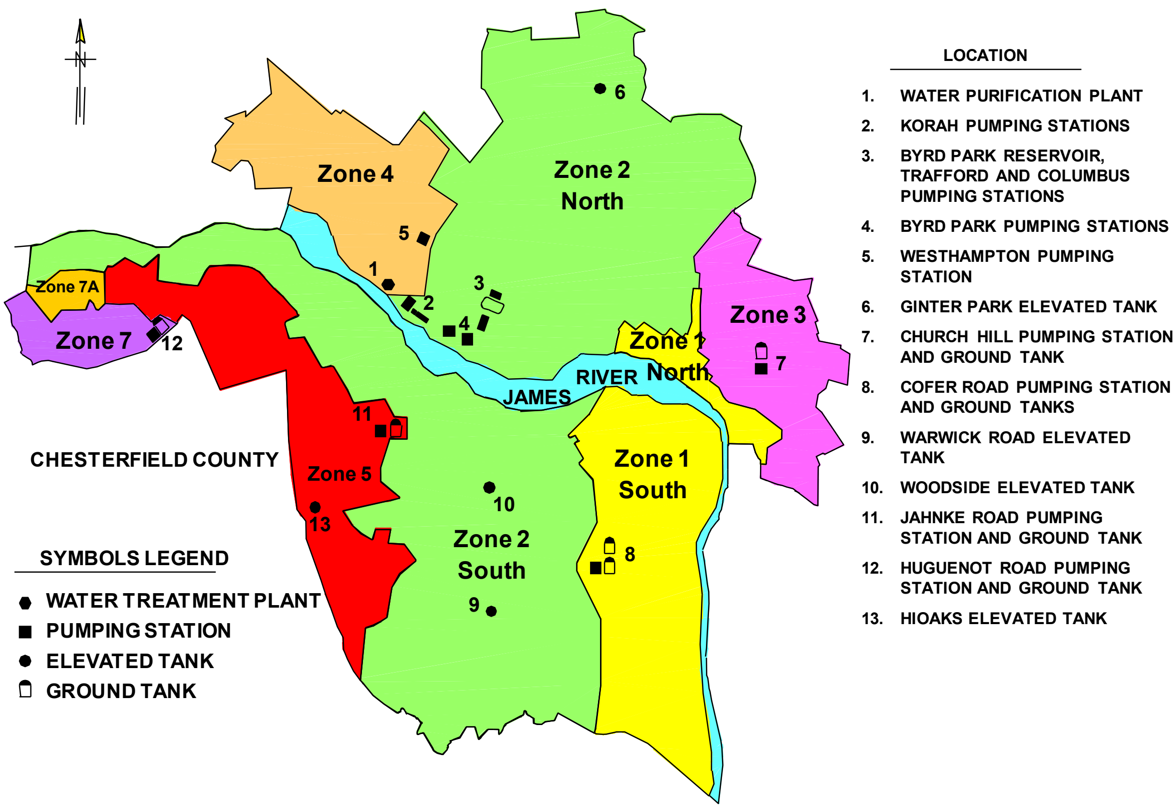


Table 2-5: Pumping Station Inventory

| Station | Number of Pumps | Station Capacity | Firm Capacity (1) |
|---|---|---|---|
| Korah No. 1 | 2 | 34 mgd @ 190' | 17 mgd @ 145' |
| Byrd Park Main | 3 | 50 mgd @ 165' | 30 mgd @ 165' |
| Byrd Park Reserve- Zone 1 | 1 | 11.5 mgd @ 166' | 11.5 mgd (2) @ 166' |
| Korah No. 2 | 5 | 70 mgd @ 248' | 56 mgd @ 248' |
| Korah No. 3 | 5 | 35 mgd @ 378' | 28 mgd @ 378' |
| Byrd Park Reserve- Zone 2 | 3 | 24.9 mgd @ 110' | 13.6 mgd @ 128' |
| Trafford | 5 | 66.8 mgd @ 145' | 51.8 mgd @ 145' |
| Columbus | 4 | 60 mgd @ 145' | 45 mgd @ 145' |
| Westhampton | 4 | 24 mgd @ 132' | 16 mgd @ 132' |
| Jahnke Road –City Zone 5 | 2 | 12 mgd @ 234' | 6 mgd @ 234' |
| Jahnke Road- Chesterfield County | 4 | 31.5 mgd @ 250' | 21.5 mgd @ 250' |
| Huguenot Road | 2 | 5.4 mgd @ 135' | 2.7 mgd @ 135' |
| Church Hill | 3 | 39.0 mgd @ 135' | 26.0 mgd @ 135' |
| Cofer Road | 4 | 35.2 mgd @ 185' | 26.4 mgd @ 185' |

Notes:

2. Largest pump out of service
3. With one 20 mgd Byrd Park Main pump out of service

Table 2-6: Distribution System Water Storage Facilities

| Storage Facility | Pressure Zone | Total Storage Volume (MG) |
|---|---|---|
| Byrd Park Reservoir | 1N | 50.8 |
| Ginter Park | 2N | 1.00 |
| Church Hill | 3 | 4.8 |
| Cofer Rd. No. 1 | 1S | 2.00 |
| Cofer Rd. No. 2 | 1S | 2.0 |
| Woodside | 2S | 1.00 |
| Warwick Rd. | 2S | 2.00 |
| Jahnke Rd. | 5 | 2.40 |
| Hioaks | 5 | 2.00 |
| Huguenot Rd. | 7 | 0.75 |
| TOTAL STORAGE | | 68.75 |

Greeley and Hansen has prepared the water distribution master plan and has reviewed the water purification plant master plan. The City's water distribution system is considered to be in better condition than most systems in cities of similar age. The Water Purification Plant Master Plan concludes that after the completion of the planned and recommended improvements, the City's Water Treatment Plant will be able to continue to meet regulatory requirements and the contractual water demands through the year 2060. The facility will continue to provide safe and affordable drinking water for its customers. The expenditures associated with planned and recommended improvements referenced in the Master Plan are included in the CIP presented in this report.

### 2.2.4 Environmental/Regulatory Review

The water purification plant is in compliance with all existing state and federal regulatory requirements. Past studies and evaluations conducted by the City conclude that the plant should be able to meet all of the planned future drinking water regulatory requirements with process changes to plant operational procedures. The City submits monthly reports of the finished water quality to the Virginia Department of Health.

### 2.2.5 Risks

The water purification plant has a floodwall in order to protect the plant from damage during major James River flood events. The City prepared the Richmond Water Supply (WSP) in accordance with the "Local and Regional Water Supply Planning Regulation" (9 VAC 25-780). The purpose of the state regulation is to establish a comprehensive water supply planning process for the development of local, regional and state water supply plans. The Richmond WSP concluded that the City has sufficient supply capacity to meet City's retail customer and contractual water demands through 2060.

### 2.2.6 Regional Agreements and City/County Relationship

The City has long-term wholesale water supply agreements with Henrico County, Chesterfield County and Hanover County, which are summarized in Table 2-8. The City has an active program of regional cooperation with neighboring localities. In accordance with Water Supply Planning Regulation 9 VAC 25-780, the counties have developed separate water supply plans and have incorporated the water supply capacities from the City into their plans. Chesterfield and Henrico Counties have separate water treatment facilities to meet their future demands. Hanover County has purchased 20 mgd of maximum day capacity from the City, which is expected to meet their demands for the next 30 years. Long-term wholesale water supply capacity from the City's water system is summarized as follows in Table 2-7:

Table 2-7: Wholesale Water Supply Maximum Day Capacity

| Wholesale Customer | Wholesale Water Supply Capacity |
|---|---|
| Henrico County | 35 mgd |
| Chesterfield County | 32 mgd* |
| Hanover County | 20 mgd |
| TOTAL | 87 mgd |

*Chesterfield County First Amendment to Amended Water Contract

Table 2-8: County Water Agreements

| Item | | Henrico | Chesterfield | Hanover |
|---|---|---|---|---|
| Contract Date | | 1994 | 1994 | 1994 |
| Contract Period (Minimum) | | 46 years | 51 years | 41 years |
| Long Term Capacity | - Max. Day | 35 mgd (1) | 27 mgd | 20 mgd |
| | - Max. Hour | 40 mgd (1) | | |
| Option to Obtain Additional Capacity | | No | Yes (2) | Yes |
| Annual Projections (10 yr.) | | | | |
| From County | | May 1 | July 1 (3) | July 1 (3) |
| City Reply (System Improvements) | | August 1 | October 1 | October 1 |
| County Approval for Improvements | | December 1 | January 1 | January 1 |
| County Review of Improvements | | | | |
| Plans and Specifications | | No | Yes | Yes |
| Bid Awards | | No | Yes | Yes |
| Contract Change Orders | | No | Yes | Yes |
| Maximum Peak Day Volumes | | -- | 105% | 105% |
| Demand Charge | | Yes | -- | -- |
| Commodity Charge | | Yes | -- | -- |
| Direct County Capital Costs | | Yes | Yes | Yes |
| Joint Capital Costs | | -- | Yes | Yes |
| Operating Expenses | | -- | Yes | Yes |
| Capacity Billings | | -- | -- | Yes |
| Water Transmission Surcharge | | -- | -- | Yes |

Notes:
1. After Henrico WTP operational
2. Chesterfield has first option
3. Past projections used if new projections not provided

### 2.2.7 Growth Trends

Population projections by the Richmond Regional Planning District Commission conclude that the City will stay at about the same population level in the future. Population growths are projected for the counties, which will result in higher water usage and increased wholesale water demands on the City's system. The average daily metered water demand by user type during the past 5 years is summarized in Table 2-9:

Table 2-9: Average Daily Water Demand

| Classification | Average Daily Demand (mgd) | | | | |
|---|---|---|---|---|---|
| | 2018 | 2019 | 2020 | 2021 | 2022 |
| Residential | 7.9 | 7.3 | 7.8 | 7.7 | 7.8 |
| Commercial | 9.0 | 9.1 | 9.2 | 9.1 | 9.8 |
| Industrial | 1.8 | 1.8 | 1.2 | 1.3 | 1.2 |
| Non-Residential | 3.1 | 3.1 | 2.9 | 2.6 | 2.7 |
| Municipal | 0.7 | 0.7 | 0.6 | 0.5 | 0.5 |
| Subtotal-City | 22.4 | 21.9 | 21.8 | 21.1 | 22.0 |
| Counties | 31.55 | 27.84 | 27.78 | 29.64 | 28.10 |
| TOTAL | 53.98 | 49.7 | 49.6 | 50.8 | 50.1 |

Estimated future maximum daily water usage rates and demand for City customers and County wholesale customers are summarized in Table 2-10:

Table 2-10: Estimated Maximum Daily Demand

| Item | Estimated Maximum Daily Demand (mgd) | | |
|---|---|---|---|
| | 2025 | 2029 | 2031 |
| City | 56 | 56 | 56 |
| Henrico County* | 35 | 35 | 35 |
| Chesterfield County** | 18.74 | 19.26 | 19.52 |
| Hanover County*** | 12.51 | 13.54 | 14.09 |
| TOTAL | 122.25 | 123.8 | 124.61 |

* Henrico data from Water Agreement between City of Richmond and the County of Henrico, April 21,2021 Correspondence
** Chesterfield data from July 17, 2023 Correspondence, "Daily Max Water Usage."
*** Hanover data from May 5,2020 Correspondence, "Hanover County Peak Day Water Projections."

## 2.3 WASTEWATER SYSTEM

### 2.3.1 History

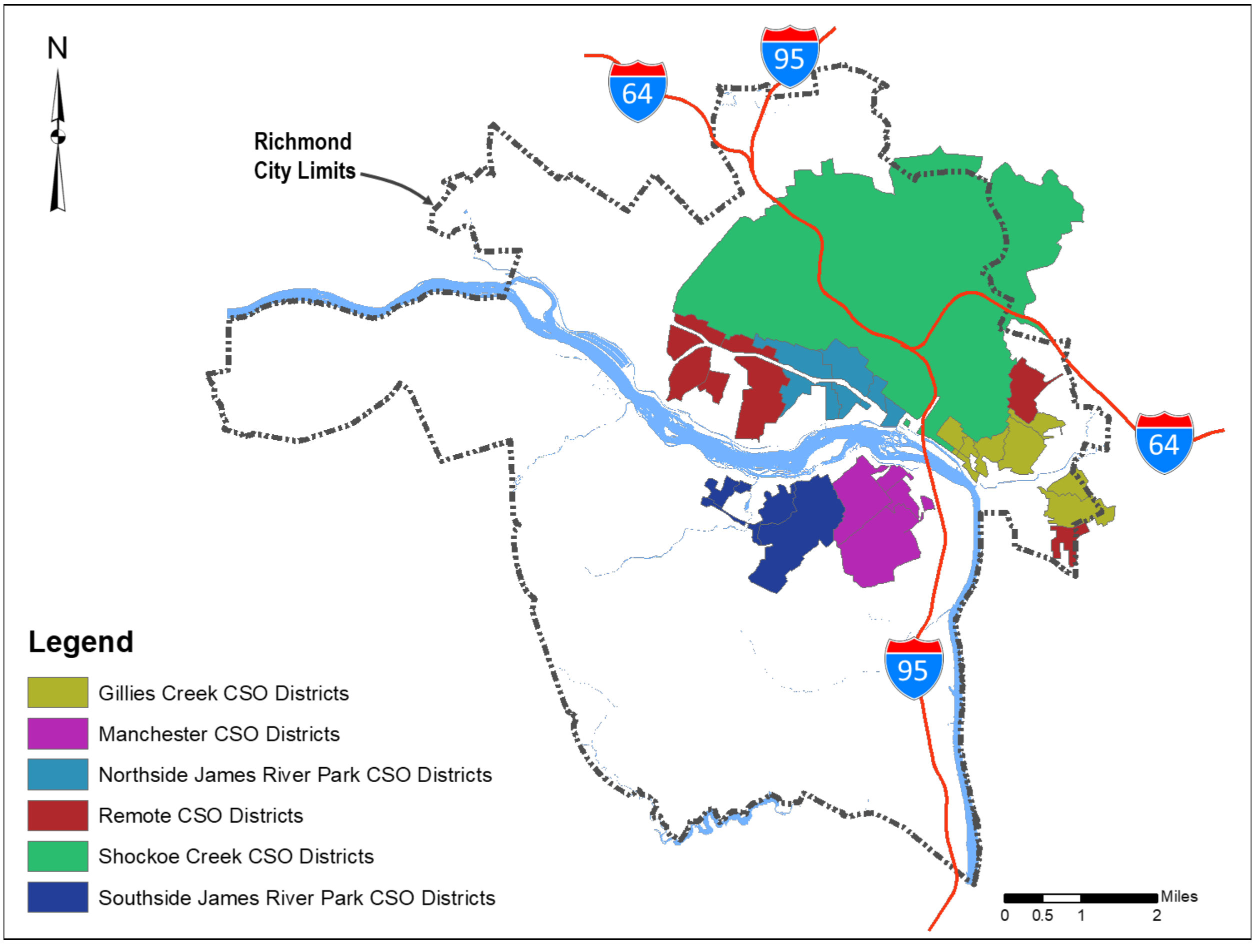
The original wastewater system, formed in the late 1800s, was comprised of combined sewer pipes that carry both sanitary sewage and runoff from storms to the James River. In the early 1950s construction started on the interceptor system to convey the sanitary sewage to the City's Wastewater Treatment Plant (WWTP). The initial WWTP facilities completed in the mid-1950s, performed primary treatment consisting of screening, grit removal, and primary sedimentation. The WWTP site and facilities were upgraded throughout the 1960s, which include the addition of solids handling facilities and sludge digesters. In 1973, the WWTP was upgraded to secondary treatment to reduce the biochemical oxygen demand (BOD) and total suspended solids (TSS). In the early 1990s, the effluent filters were added at the WWTP to meet more stringent BOD and TSS effluent permit limits. In 1997, secondary treatment upgrades were installed to comply with ammonia limitations. In the early 2000s, the City renewed equipment in the primary and final sedimentation tanks to maintain reliability. In 2015, the City completed upgrades to provide Biological Nutrient Removal (BNR) level of treatment at the Richmond WWTP. These improvements were required to comply with Watershed General VPDES Permit (General Permit) that incorporated the annual waste load allocations for nitrogen and phosphorus. Similar permit limitations were required for all large WWTP facilities in Virginia.

In contrast with other large cities served by combined sewer systems, Richmond has been proactively studying and alleviating CSOs for more than 40 years. The City's Wastewater Utility has been under CSO Consent Orders since 1992 and has maintained continuous compliance with the requirements of the Consent Orders. The current CSO Consent Special Order is discussed in further in Section 2.3.4, below. The City's CSO districts are shown in Table 2-3. The City has developed and is implementing the third phase of a three phase CSO control plan. The Shockoe Retention Basin and the WWTP improvements represent the Phase I CSO controls. The Shockoe Retention Basin, completed in 1983, is a 50-million-gallon facility (35 MG retention basin and 15 MG in system storage) that retains combined sewer flow for treatment at the wastewater treatment plant. In 1987, the City initiated construction of wastewater treatment plant (WWTP) improvements to increase plant capacity during wet weather events to allow the retention basin to be emptied in two days.

In 1988, the City completed a comprehensive CSO study that defined the Phase II CSO controls, which addressed CSOs that discharged into the sensitive park areas of the James River. The Phase II CSO controls are identified as follows:

- CSO Projects No. 1 and 2 – Controls CSO discharges in the South Side James River Park. Operational since 1998.
- CSO Project No. 3 – Controls CSO discharges in the North Side James River Park. Operational since 1998.
- CSO Projects No. 4 and 5 – Controls the remaining CSO discharges in the Falls of the James. The retention tunnel represents the last project in the City's Phase II CSO Controls. Operational since 2003.

Figure 2-3: CSO Districts




The Phase I and II CSO controls increased the number of days that the James River downstream of the City is safer for swimming by 41 days in the average year based on bacteriological water quality. The solids and floatable control regulators installed under the Phase II CSO controls virtually eliminates floating trash. In addition, these improvements control the discharges to about four times per year in the Falls of the James.

It was envisioned during the development of the 1988 comprehensive CSO study that at the completion of the Phase II CSO controls, a re-evaluation of the CSO control plan would be performed. This re-evaluation would make adjustments to the CSO control plan in light of current regulations and state-of-the-art technologies. The CSO Re-Evaluation report was prepared, which identified a Phase III CSO control plan in 2006. The re-evaluation report updated the City's approved Phase III portion of the CSO Control Plan identified in the 1988 CSO Study. Since then, the City has replaced 7 CSO regulators and performed sewer separation of 4 outfalls in the Gillies Creek and Manchester CSO districts.

From 2013 to 2017, a group of nearly 50 active stakeholders – water experts from government agencies, local educational institutions, and regional non-profits – met regularly to discuss and shape the future of Richmond's watersheds. During this time, the City held public community meetings and forums to gather input from its citizens. The culmination of this effort is the RVA Clean Water Plan, which was released in September 2017. It is a comprehensive framework for a watershed-wide, water quality-based strategy that will allow Richmond to develop an effective and affordable management plan while meeting regulatory requirements and demonstrating to the public that the plan protects and improves the watershed and waterways. The 2015 Watershed Characterization Report, a watershed-by-watershed analysis of each of Richmond's 20 distinct watersheds, helped to inform the Clean Water Plan. The Plan integrates the City's numerous water quality regulatory requirements, including the Municipal Separate Storm Sewer System (MS4), the Combined Sewer Overflow (CSO) program, the James River and tributaries (Bacteria) Total Maximum Daily Load (TMDL) and Chesapeake Bay TMDL. As of 2018, the City's VPDES Permit encompasses the City's wastewater, CSO, and stormwater discharges.

In 2020, the Virginia General Assembly passed Senate Bill 1064, and the Governor signed into law, the 2020 CSO Law, that requires the owner or operator of any CSS east of Charlottesville that discharges into the James River watershed to submit to DEQ an Interim and Final Plan to address the requirements of any consent special order (SO) issued by the State Water Control Board. The Interim Plan projects identify improvements that can be initiated in the short-term and be completed by July 1, 2027. The Final Plan re-evaluates the remaining SO projects (Phase III CSO controls) and identifies system-wide improvements to be completed by July 1, 2035. The 2005 Order was amended in 2020 in alignment with the 2020 CSO Law. The projects and improvements presented in the Interim and Final Plans will establish a prioritized list of projects that will provide the community with the most cost-effective solutions to complete the City's obligations. Ten Interim Plan projects were selected for implementation and are expected to reduce approximately 182 MG of annual CSO volume. There are currently 5 projects identified in the 2005 Order that have yet to be completed. The performance improvement and cost effectiveness of these projects were re-evaluated during the Interim Plan development process. DEQ approved the substitution of the 10 Interim Plan projects for SO # 16 & 18 projects, thereby creating 3 remaining SO projects.

The City's CSO Control Program has earned recognition from stakeholder groups, regulatory agencies and the engineering community including:

- Endorsement from the Falls of the James Scenic River Advisory Board for the City's CSO Program Special Order (June 14, 1999)
- "Friend of the River Award" from the James River Association (October 3, 1999)
- A favorable review in an article titled "DEQ Praises City's Cleanup" from the Richmond Time Dispatch, May 7, 2002
- 1999 National CSO Control Program Excellence Award from USEPA
- "Engineering Excellence Honor Award" from the American Consulting Engineers Council
- Feature article in the 1999 September issue of "Civil Engineering Magazine"

### 2.3.2 Service Area

The City is landlocked with Henrico County bound on the north and Chesterfield County on the south. The City's wastewater system is divided into two general service areas as shown in Figure 2-4 and summarized below in Table 2-11:

Table 2-11: Wastewater Treatment Plant Service Area

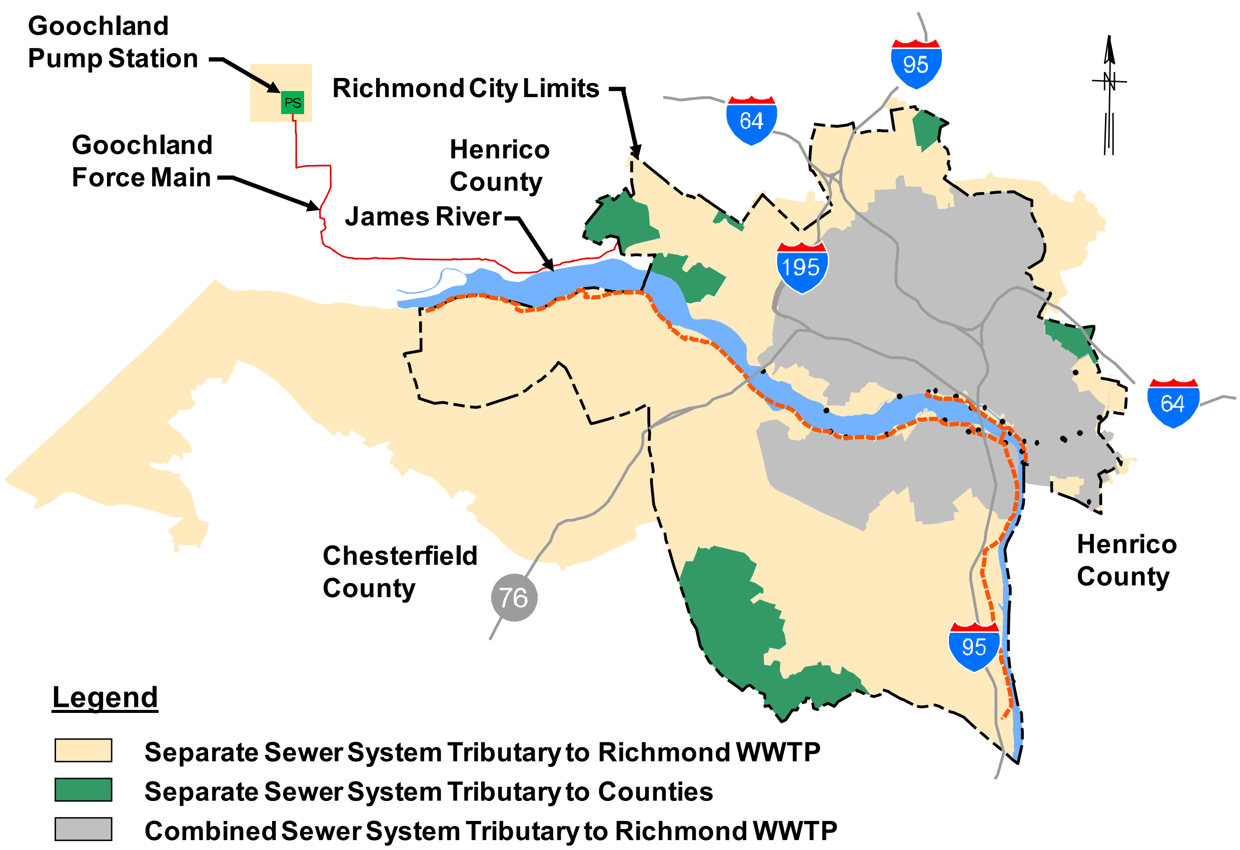
| Service Area | Area |
|---|---|
| Separated Sewer System | |
| From City of Richmond | 25,100 acres |
| From Chesterfield County | 13,300 acres |
| From Henrico County | 1,500 acres |
| From Goochland County (1) | 155 acres |
| Combined Sewer System | 12,000 acres |
| TOTAL | 52,055 acres |

Note:

1. Estimated service area currently served by the City.

Additionally, wastewater service is provided to portions of Henrico and Chesterfield Counties that naturally drain to the City. Likewise, the counties provide wastewater service to the City for the 3,500 acres that naturally drain to the Counties. These services are covered in contracts with the counties.

Figure 2-4: Wastewater Service Area



### 2.3.3 Facilities and Resources

The City has one wastewater treatment plant, which is located on the south side of the James River adjacent to Interstate 95. The WWTP has two modes of operation as follows:

- Dry Weather Flow (DWF) Treatment: The dry weather flow capacity of the WWTP is 45 mgd.
- Wet Weather Flow (WWF) Treatment: During and immediately after rainfall events the WWTP treats flows in excess of the dry weather flow capacity that are associated with the combined sewer system. The Virginia Pollution Discharge Elimination System (VPDES) permit requires the City to operate the plant to treat at least 140 mgd during these wet weather conditions.

The City wastewater system is comprised of two general service areas; separated sewer system and combined sewer system. Current practices are to build separate sewers for sewage and stormwater. No combined sewers have been installed since the early 1950s.

As of 2023, of the original 40 CSO outfalls, 15 have been eliminated, and 12 main outfalls have been provided with state-of-the-art controls. Thus, the remaining 13 outfalls will be controlled during the final CSO control phase. The current combined sewer system includes 31 dry weather flow regulators, 5 remote pumping stations, 57.2 MG of wet weather storage (50 MG at Shockoe Retention Facilities and 7.2 MG at Hampton/McCloy CSO Retention Tunnel) and 11 wet weather flow regulators. A pipeline summary for the collection system length is provided in Table 2-12 below.

Table 2-12: Wastewater Collection System Piping

| Pipe Type | Length In Miles |
|---|---|
| Collection System | |
| Mainline Pipes | |
| Sanitary | 407 |
| Combined | 440 |
| Interceptor Pipes | 136 |
| Subtotal | 983 |
| Customer Lateral Connections | 410 |
| TOTAL – COLLECTION SYSTEMS | 1,393 |

The costs included in the capital spending plan are adequate to support needs expected for the near term. The City has master plans that address future upgrades of the wastewater treatment plant and the wastewater collection system. As the master plans are designed to anticipate future conditions, they will be routinely adjusted to conform to actual needs.

### 2.3.4 Environmental/Regulatory Review

The City's Wastewater Utility is in compliance with the requirements of the current VPDES permit and CSO Consent Special Order dated March 17, 2005 issued by the Department of Environmental Quality (DEQ) for the implementation of the Phase III CSO Controls. The Phase III CSO Controls were identified in the January 2002 CSO Long-Term Control Plan (LTCP) report as Alternative E. The City's CSO Special Order includes the affordability criteria, financial requirements, and implementation schedules for Phase III CSO projects. The CSO Special Order requires the City to undertake approximately $20 million dollars over 12 years and afterwards build up sufficient reserve by maintaining the wastewater bill at 1.25% Median Household Income in order to undertake the balance of the approximately $500 million dollar program in 2012 dollars. The CSO Special Order also requires DEQ to address wet weather water quality compliance prior to the City making any investments beyond the $20 million in the first 12 years. To-date, the first 12 projects in the CSO Special Order have been completed ahead of schedule and were funded with state and/or federal grants.

As mentioned above, the City has developed the CSO Interim Plan and is working on developing the CSO Final Plan by July 1, 2024 in accordance with the amended 2005 Consent SO and per the 2020 CSO Law. The 10 Interim Plan projects will control overflows by using existing capacity in the CSS, providing an estimated 92% CSO capture on an annual basis, and costing the City approximately $33.1 M in 2021 dollars. The Final Plan must capture, convey, and treat up to 5 billion gallons per year which equates to an estimated 99% CSO capture on an annual basis and costing the City approximately $1.3 B in 2021 dollars. The City is utilizing ARPA funding and other state and/or federal grants to help mitigate the cost of these projects.

Pretreatment program: The City has a pretreatment program approved by DEQ that monitors the wastewater from industrial dischargers. The program restricts the strength of the wastewater that enters the sewer system.

### 2.3.5 Risks

Proposed EPA Rule for Sanitary Sewer Overflow (SSO): The City has completed a comprehensive collection system master plan (CSMP). This plan has established a prioritized approach for renewal of the sanitary sewer system assets with the objective of the reducing the average age of the collection system and updating its performance. As the CSMP projects are implemented and their effectiveness in upgrading the collection system performance is established the CSMP will continue to be updated. The collection system master plan also provides the framework for compliance with future Capacity, Management, Operation and Maintenance (CMOM) requirements of the proposed EPA rule for SSOs.

Compliance with Water Quality Standards during Wet Weather: The DEQ CSO Consent Special Order requires DEQ to address wet weather water quality compliance prior to the City making any investments beyond the $20 million in the first 12 years. The City received a $45 M grant from the State of Virginia to advance the upgrade of the wet weather disinfection capacity to 140 mgd, which is beyond the first 12 projects in the CSO Special Order. A project to increase the capacity of UV disinfection has been completed and construction to upgrade the headworks (screenings and grit removal) is underway.

The City developed a voluntary, collaborative, long-term plan (RVA Clean Water Plan) to bring cleaner water under EPA's Integrated Planning Framework. This plan included a four-year process to seek an innovative permit granted by the EPA's National Pollutant Discharge Elimination System (NPDES) program. Richmond is one of the first cities in the U.S. to receive such a permit, which allows for the efficient combination of addressing efforts regarding drinking water, wastewater and stormwater, allowing the City to set funding priorities to deliver cleaner water faster.

Potential Additional Nutrient Controls to Reduce James River Chlorophyll-a: The 2010 Chesapeake Bay TMDL modeling suggested that significant nutrient controls would be required meet the current Virginia Chlorophyll-a water quality standards in the James River. DEQ recognized in Virginia Phase I Watershed Implementation Plan for the Chesapeake Bay TMDL that James River has less impact on the water quality of the mainstem of the Chesapeake Bay than any other river and that new information was available that suggested the Chlorophyll-a water quality standard should be revisited prior to reducing the waste load allocations in the James River. The DEQ is in the process of reevaluating the existing James River Site-Specific Numeric Chlorophyll-a Criteria and associated modeling framework for the tidal James River to determine the best scientific basis for the standard. The City of Richmond is collecting water quality data to support the development of the new standard to improve the linkage between nutrients and the Chlorophyll-a levels in the James River. If the revised water quality standard requires reductions of nutrient permit limitations, all the WWTPs in the James River basin will be required to install additional nutrient controls. Richmond's WWTP was planned with adequate space to design and construct additional controls, if needed. The City is actively participating in scientific and regulatory studies to reduce the risk of additional nutrient controls.

### 2.3.6 Regional Agreements and City/County Relationship

The City has wastewater service contracts with Henrico, Chesterfield, and Goochland Counties. Wastewater service is provided to portions of Henrico and Chesterfield Counties that naturally drain to the City. Likewise, the counties provide wastewater service to the City for areas that naturally drain to the Counties. Goochland County has negotiated a contract with the City to purchase 5 mgd of treatment capacity. Goochland County started conveying wastewater to the City in January 2008. A summary of each County's wastewater agreement is shown in Table 2-13.

Table 2-13: County Wastewater Agreements

| Item | | Henrico | Chesterfield | Goochland |
|---|---|---|---|---|
| Contract Date | | 1991 | 2000 | 2001 |
| Contract | - Period | 1 Year Automatically Renewed Annually | Effective until Terminated by either Locality | Effective until Terminated by Goochland (1) |
| | - Notice to Terminate | Two Years Written Notice Required | Two Years Written Notice Required | Five Years Written Notice Required |
| Service Provided | | Treat other's wastewater | Treat other's wastewater | City Treats Wastewater from Goochland |
| Capacity | - Initial | -- | -- | 5 mgd |
| | - Option to Increase Capacity | -- | -- | Up to 15 mgd |
| Pretreatment Agreement | | Yes | Yes | Yes |
| Emergency Discharge Agreement (2) | | Yes | No | No |
| Wastewater Service | - Treatment Rate | $4.918 per 100 cubic feet | $1.41 per 100 cubic feet | $1.69 per 1,000 gallons |
| | - Payment Period | Monthly | Monthly | Monthly |

| Item | | Henrico | Chesterfield | Goochland |
|---|---|---|---|---|
| | - Rate for Strong Wastes | 100% of rate imposed by treating jurisdiction | $3.16 per cwt of suspended solids in excess of 275 mg/L & $2.74 per cwt of BOD in excess of 250 mg/L | -- |
| | - Emergency Rate | Double Treatment Rate | -- | -- |
| Rate Adjustment | - Frequency | Annually | Annually | Annually |
| | - Method | Average of Both System Rate Increases | Determined by Directors of both Public Utilities | Based on City's Actual Costs for Treating Goochland Wastewater |
| County Review of Improvements: | | | | |
| Plans and Specifications | | No | No | Yes |
| Bid Awards | | No | No | Yes |
| Contract Change Orders | | No | No | Yes |

Notes:

1. City may also terminate contract based on non-fulfillment of agreement terms by Goochland.
2. Provision for either WWTP to direct flow to the other under emergency conditions.

### 2.3.7 Growth Trends

As indicated previously, population projections by the Richmond Regional Planning District Commission conclude that the City will stay at about the same population level in the future. The sewage service provided to the Counties will remain in the 130,000 MCF range over the foreseeable future.

The City provided public wastewater service as shown in Table 2-14.

Table 2-14: Wastewater Usage

| Category | Total Usage (MCF) | | | | |
|---|---|---|---|---|---|
| | 2018 | 2019 | 2020 | 2021 | 2022 |
| Residential | 290,001 | 278,927 | 284,521 | 289,462 | 291,161 |
| Commercial | 563,564 | 558,871 | 552,214 | 537,046 | 573,091 |
| Industrial | 58,331 | 62,236 | 47,067 | 26,144 | 28,367 |
| Municipal | 29,288 | 30,803 | 28,170 | 22,133 | 24,556 |
| Subtotal - City | 941,185 | 930,837 | 911,972 | 874,785 | 917,175 |
| Counties | 138,861 | 114,865 | 40,021 | 21,914 | 193,682 |
| TOTAL | 1,080,045 | 1,045,702 | 951,993 | 896,699 | 1,110,857 |

# SECTION 3 CAPITAL IMPROVEMENT PROGRAM

## 3.1 INTRODUCTION

The City has developed a Capital Improvement Program (CIP) comprising of additions, extensions, improvements and rehabilitations of the gas, water and wastewater systems. Projects in the CIP are either in the preliminary planning stages, design process or contracts have not been awarded yet. Accordingly, the total cost of the Capital Improvement Program could be more or less depending on actual contract awards, future needs, and other economic factors. The capital spending plan is summarized in Table 3-1. The capital improvement projects for the gas, water and wastewater systems are described below.

Table 3-1: Capital Spending Plan

| Description | FY24 | FY25 | FY26 | FY27 | FY28 | Total |
|---|---|---|---|---|---|---|
| Gas New | 9,273,088 | 6,867,040 | 6,971,760 | 7,077,200 | 7,360,000 | 37,549,088 |
| Gas Replacement | 18,895,045 | 17,924,459 | 16,746,157 | 16,756,083 | 16,412,000 | 86,733,744 |
| TOTAL GAS | 28,168,133 | 24,791,499 | 23,717,917 | 23,833,283 | 23,772,000 | 124,282,832 |
| Wastewater Plant | 41,985,401 | 52,324,912 | 35,231,793 | 8,980,055 | - | 138,522,161 |
| CSO | 40,908,351 | 22,304,672 | 15,600,000 | 9,600,000 | 4,000,000 | 92,413,023 |
| Wastewater Sanitary Sewers | 61,350,000 | 55,262,000 | 56,330,000 | 55,570,000 | 41,467,896 | 269,979,896 |
| TOTAL WASTEWATER | 132,533,648 | 119,399,080 | 95,123,689 | 62,263,951 | 45,467,896 | 454,788,264 |
| Water Plant & Pumping | 37,309,520 | 56,003,989 | 56,261,412 | 24,118,280 | 4,200,636 | 177,893,837 |
| Water Transmission | 2,887,686 | 2,119,200 | 2,477,509 | 14,090,430 | 5,459,440 | 27,034,265 |
| Water Distribution | 21,796,862 | 18,784,159 | 18,257,511 | 18,601,404 | 18,750,774 | 96,190,710 |
| TOTAL WATER | 61,994,068 | 76,907,348 | 76,996,432 | 56,810,114 | 28,410,850 | 301,118,812 |
| **TOTAL SYSTEM** | **222,695,849** | **221,097,927** | **195,838,038** | **142,907,348** | **97,650,746** | **880,189,908** |

## 3.2 GAS CAPITAL IMPROVEMENT PROJECTS

The City of Richmond gas system capital spending is estimated to be about $124 million over the next five years to meet future increases in customer growth and consumption as well as ongoing maintenance and facility replacement needs. The elements of the gas CIP are summarized below.

### 3.2.1 New Business

This project provides for the ongoing installation of new gas mains, services, meters, and regulators to serve new customers in the City of Richmond and the counties of Chesterfield, Hanover, and Henrico. It is estimated that 30,000 feet of new mains and 1,400 new services will be installed in FY 2024.

### 3.2.2 System Replacement

This project provides for the replacement of gas mains, services, meters, and regulators. The primary projects included in this program are replacement of old gas mains, replacement or renewal of old gas services and response to water infiltration. Also, included are ancillary projects to renew or replace mains in conjunction with projects being done by other City agencies or the State. It is estimated to replace 130,000 feet of main and 2,100 services in FY 2024. This project also allows for the purchase of replacement vehicles and equipment used to provide services throughout the Department of Public

Utilities' Gas Utility service territory. Much of the gas distribution system is over 45 years old and is deteriorating due to its age. This project replaces and/or renews old gas facilities as maintenance costs begin to exceed replacement costs. This program, along with the cathodic protection program (Project 1430), reduces gas leakage and revenue losses.

## 3.3 WATER CAPITAL IMPROVEMENT PROJECTS

The City's water system capital spending is estimated to be about $301 million over the next five years. The elements of the water CIP are summarized below.

### 3.3.1 Water Distribution System

This project provides for installation of water mains to serve new customers, also meter programs and the rehabilitation of existing water mains and services. It is estimated to replace or retire 42,000 feet of main and 300 to 500 services in FY 2020. Also included are ancillary projects to renew or replace mains in conjunction with projects being done by other City of Richmond agencies or the State. This project also allows for the purchase of replacement vehicles and equipment used to provide services throughout the Department of Public Utilities' Water Utility service territory. Rehabilitation and replacement of water mains are done on a systematic basis, with cost effectiveness and quality of water service in specific areas determining the projects to be completed. New water mains and services are installed as requested, with the customer paying for all work beyond a minimum amount per customer.

### 3.3.2 Transmission Main

This project provides for construction of water transmission mains and tanks, to provide service to the City of Richmond as well as Henrico, Hanover, and Chesterfield Counties, to maximize the use of the City of Richmond's water purification plant. All projects undertaken for the exclusive benefit of Henrico, Hanover, and Chesterfield Counties are paid for 100 percent by each County. This maximizes efficiencies of usage of the City of Richmond's water purification plant and lowers the cost of service for all customers of the Water Utility.

### 3.3.3 Major Plant & Pumping

A comprehensive study of the City of Richmond's water purification plant and pumping system indicated that substantial improvements were needed to meet projected water demand and to comply with the requirements of the Safe Drinking Water Act and State Health Department regulations. This project has been funded continuously to replace systems that have reached or surpassed their useful service lives, maintain compliance with new drinking water quality regulations, and to meet county wholesale water contract capacity requirements. Major projects include the following:

- Replacement of Water SCADA System (Station Controller Systems)
- Byrd Park Reservoir Roof Upgrades
- Byrd Park Main Pumping Station Upgrades
- Ginter and Warwick Water Tank Upgrades
- Raw Water Pump Screens and VFD Replacements

## 3.4 WASTEWATER CAPITAL IMPROVEMENT PROJECTS

The City's wastewater system capital spending is estimated to be about $454 million over the next five years. The elements of the wastewater CIP are summarized below.

### 3.4.1 Wastewater Treatment

This project provides for the upgrading of equipment and process control systems at the Wastewater Treatment Plant to improve the operational processes of the Wastewater Treatment Plant. The wastewater system serves approximately 58,000 customers in the City, Henrico, northern Chesterfield, and Goochland counties. This project also allows for the purchase of replacement vehicles and equipment used to provide services throughout the Department of Public Utilities' Wastewater Utility service territory. Major projects at the Wastewater Treatment Plant include the following:

- Sludge Thickening Facility
- Dewatering Facility
- Shockoe Diversion Structure Trash Rake, Crest Gates and ASEG House Improvements
- Headworks Facility
- Main Pumping Station

### 3.4.2 Sanitary Sewers

This project provides for rehabilitation and upgrade of sanitary sewers, inspection and replacement programs, miscellaneous sewer extensions, and emergency replacements. Projects include inspection and rehabilitation for sewersheds in Shockoe, South James River, McCloy, Lower Goodes, and Bon Air. Also included are ancillary projects to renew or replace sewers in conjunction with projects being done by other City agencies of the State.

### 3.4.3 Combined Sewer Overflow

As part of its VPDES Permit, CSO Special Order by Consent, and the Regional Water Quality Management Plan (208 Plan), the City of Richmond is required to develop and implement a plan to control CSO discharges and meet Virginia water quality standards, as well as an ongoing CSO monitoring program and financial status review. This project implements the City of Richmond's Combined Sewer Overflow (CSO) Plan. The program includes design engineering and construction of CSO conveyance facilities on the north and south sides of the James River, increases the wet weather treatment capacity at the Wastewater Treatment Plant, expansion of the Shockoe Retention Basin and other smaller CSO control projects.

# SECTION 4 FINDINGS

The following findings reflect the results of our evaluation concerning the adequacy of the project costs included in the capital spending plan, presented in this report, to meet identified needs. These findings are based on information received from the City or developed by Greeley and Hansen.

Gas System: Based on the information received and reviewed, the City's long-term reinvestment in the Richmond Gas System, shown in the capital spending plan, is adequate for maintaining the performance and condition of the capital facilities in the gas system.

Water System: The City's Water System will be able to continue to meet regulatory requirements and the contractual water demands through the year 2060. The facilities will thus be able to continue to provide safe and affordable drinking water for its customers. The expenditures associated with all necessary improvements are included in the capital spending plan.

Wastewater System: The City is in the process of updating the master plan for the Wastewater Treatment Plant and will be updating the master plan for the Collection System over the course of the next 5 years. The costs included in the capital spending plan are adequate to support needs expected for the near term.

CSO Control Program: The capital spending plan for the City's CSO Control Program is adequate to develop the projects identified in the CSO Consent Special Order. The DEQ CSO Consent Special Order requires DEQ to address wet weather water quality compliance prior to the City making any investments beyond the $20 million in the first 12 years. Even though the City is beyond the 13th year of the CSO Consent Special Order, the City will continue to work with DEQ for projects to address wet weather quality and quantity compliance. The City will continue actively pursue federal and state grant funding for the larger projects.

GREELEY AND HANSEN
A TYLin Company

9020 Stony Point Par
Richmond, Virg

**APPENDIX E**

**FINANCIAL FEASIBILITY CONSULTANT'S REPORT**

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# CITY OF RICHMOND, VIRGINIA
# DEPARTMENT OF PUBLIC UTILITIES

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Financial Feasibility Evaluation
of Proposed Combined Utilities
Revenue and Refunding Bonds, Series 2023C

RAFTELIS

AUGUST 23, 2023

**EVALUATION BY FINANCIAL FEASIBILITY CONSULTANTS**
**CITY OF RICHMOND, DEPARTMENT OF PUBLIC UTILITIES**
**COMBINED UTILITIES REVENUE AND REFUNDING BONDS, SERIES 2023**

We have evaluated the accompanying Forecast Statement of Revenues, Expenses, Debt Service, and Debt Service Coverage (the Forecast Statement) for the City of Richmond (City), Department of Public Utilities (DPU or Department) for the five fiscal years ending June 30, 2023 through June 30, 2028. Our evaluation was conducted in accordance with guidelines for the natural gas, water, and wastewater industries and included such procedures as we considered necessary to evaluate the assumptions of the Department.

In evaluating the financial feasibility of the proposed debt issuance, those assumptions that we believe are most significant include:

- Projected growth in customers and demand for natural gas, water, and wastewater services, and the resulting impact on forecast revenues during the five-year forecast period;
- Projected operating costs for providing natural gas, water, and wastewater services to meet demand during the forecast period;
- Projected natural gas, water, and wastewater rates during the forecast period; and
- Projected conditions for financing capital improvements over the forecast period.

The accompanying Forecast Statement is presented on a cash basis consistent with the Department's budgeting process for the natural gas, water, and wastewater utility systems (System), and has been presented to be consistent with the specific requirements of the coverage tests identified in the Master Indenture of Trust, dated as of April 1, 1998, as amended and supplemented (Master Indenture), pursuant to the ordinances (Ordinances) adopted by the Richmond City Council (Council), between the City and US Bank (formerly Crestar Bank). The Forecast Statement, together with the Summary of Significant Forecast Assumptions, which is included as an integral part of the forecast, constitutes the "Feasibility Evaluation" for the proposed debt issuance.

In our opinion, the accompanying Forecast Statement is presented in conformity with industry guidelines for presentation of a forecast, and the underlying assumptions provide a reasonable basis for the City's forecast. Based upon the assumptions in our report, the projected Revenues provide adequate funds to maintain the debt service coverage ratios required by the Master Indenture during the forecast period for the issuance of the City's proposed Combined Utilities Revenue and Refunding Bonds, Series 2023C (Series 2023 Bonds). However, there will be differences between the forecast and actual results because events and circumstances frequently do not occur as expected, and those differences may be material.

Raftelis Financial Consultants, Inc.

Charlotte, North Carolina
August 23, 2023

By: J. Bart Kreps
Vice President

## CITY OF RICHMOND, VIRGINIA
## NATURAL GAS, WATER, AND WASTEWATER SYSTEM
### Historical Statement of Revenues, Expenses, Debt & Debt Service Coverage
### Fiscal Year Ending June 30

| Line No. | Description | FY 2018 Actual | FY 2019 Actual | FY 2020 Actual | FY 2021 Actual | FY 2022 Actual |
|---|---|---|---|---|---|---|
| | **Revenues** | | | | | |
| | User Charges (1) | | | | | |
| 1. | Gas User Charges | $ 153,391,051 | $ 157,997,620 | $ 149,008,628 | $ 161,613,090 | $ 216,532,275 |
| 2. | Water User Charges | 69,931,753 | 73,400,183 | 76,353,819 | 72,852,963 | 74,412,054 |
| 3. | Wastewater User Charges | 85,490,505 | 83,850,978 | 85,027,840 | 83,282,819 | 91,770,545 |
| 4. | *Subtotal: User Charge Revenue* | $ 308,813,309 | $ 315,248,781 | $ 310,390,287 | $ 317,748,872 | $ 382,714,874 |
| | Miscellaneous Operating Revenue | | | | | |
| 5. | Transfer from Rate Stabilization | $ - | $ - | $ - | $ - | $ - |
| 6. | Other Revenue (2) | 2,758,097 | 4,421,044 | 3,969,506 | 2,613,431 | 4,636,954 |
| 7. | *Subtotal: Misc. Operating Revenue* | $ 2,758,097 | $ 4,421,044 | $ 3,969,506 | $ 2,613,431 | $ 4,636,954 |
| 8. | **Total Operating Revenue** | **$ 311,571,406** | **$ 319,669,825** | **$ 314,359,793** | **$ 320,362,303** | **$ 387,351,828** |
| | **Operating Expenses** | | | | | |
| 9. | Gas Recovery | $ (67,059,782) | $ (72,525,914) | $ (61,470,173) | $ (74,312,943) | $ (126,109,288) |
| 10. | O&M Expenses | (106,211,609) | (112,268,910) | (121,570,443) | (130,275,437) | (121,200,046) |
| 11. | Transfer to Rate Stabilization | - | - | - | - | - |
| 12. | Depreciation | (60,698,059) | (64,156,125) | (60,878,343) | (60,654,344) | (64,729,152) |
| 13. | Payment in Lieu of Taxes | (26,986,719) | (22,554,476) | (20,552,071) | (19,297,399) | (20,857,126) |
| 14. | **Total Operating Expenses** | **$ (260,956,169)** | **$ (271,505,425)** | **$ (264,471,030)** | **$ (284,540,123)** | **$ (332,895,612)** |
| 15. | Operating Income | $ 50,615,237 | $ 48,164,400 | $ 49,888,763 | $ 35,822,180 | $ 54,456,216 |
| | Non-Operating Income/Expenses | | | | | |
| 16. | Non-Operating Income | $ 4,312,169 | $ 8,846,713 | $ 9,171,819 | $ 3,191,849 | $ 2,327,625 |
| 17. | Interest Expense | (29,648,220) | (28,799,392) | (27,300,758) | (29,763,627) | (28,584,648) |
| 18. | Amortization of Issuance Expense | - | - | - | - | - |
| 19. | Total Non-Operating Income/Expenses | $ (25,336,051) | $ (19,952,679) | $ (18,128,939) | $ (26,571,778) | $ (26,257,023) |
| 20. | **Net Income (Excludes Grants & Cont.)** | **$ 25,279,187** | **$ 28,211,721** | **$ 31,759,824** | **$ 9,250,402** | **$ 28,199,193** |
| | Adjustments to Calculate Net Revenues | | | | | |
| | Add Back: | | | | | |
| 21. | Depreciation | $ 60,698,059 | $ 64,156,125 | $ 60,878,343 | $ 60,654,344 | $ 64,729,152 |
| 22. | Interest Expense | 29,648,220 | 28,799,392 | 27,300,758 | 29,763,627 | 28,584,648 |
| 23. | Amortization of Issuance Expense | - | - | - | - | - |
| 24. | Capital Contributions (3) | 17,370,999 | 33,768,499 | 19,216,414 | 12,819,275 | 20,536,424 |
| 25. | Other | - | - | - | - | - |
| 26. | **Net Revenue Available for Debt Service** | **$ 132,996,464** | **$ 154,935,736** | **$ 139,155,339** | **$ 112,487,648** | **$ 142,049,417** |
| | **Debt Service** | | | | | |
| | Senior Debt (Bonds) | | | | | |
| 27. | Existing Revenue Bonds (4) | $ 50,919,000 | $ 56,792,000 | $ 52,666,000 | $ 59,912,000 | $ 62,788,000 |
| 28. | *Subtotal: Senior Debt (Bonds)* | $ 50,919,000 | $ 56,792,000 | $ 52,666,000 | $ 59,912,000 | $ 62,788,000 |
| 29. | **Debt Service Coverage (Bonds) (Line 27 / Line 31)** | **2.61** | **2.73** | **2.64** | **1.88** | **2.26** |
| | Other System Indebtedness and Subordinate Debt | | | | | |
| 30. | Existing GO Bonds (4) | $ 21,870,000 | $ 11,463,000 | $ 11,517,000 | $ 12,300,000 | $ 3,960,000 |
| 31. | *Subtotal: Other System Indebt. and Sub. Debt* | $ 21,870,000 | $ 11,463,000 | $ 11,517,000 | $ 12,300,000 | $ 3,960,000 |
| 32. | Total Debt Service | $ 72,789,000 | $ 68,255,000 | $ 64,183,000 | $ 72,212,000 | $ 66,748,000 |
| 33. | **Total Debt Service Coverage (Line 27 / Line 35)** | **1.83** | **2.27** | **2.17** | **1.56** | **2.13** |
| | **Rate Covenant (9)** | | | | | |
| 34. | Net Revenues Available for Debt Service | $ 132,996,464 | $ 154,935,736 | $ 139,155,339 | $ 112,487,648 | $ 142,049,417 |
| 35. | Debt Service On Bonds (115%) | $ 58,556,850 | $ 65,310,800 | $ 60,565,900 | $ 68,898,800 | $ 72,206,200 |
| 36. | Other System Indebt. and Sub. Debt (100%) | 21,870,000 | 11,463,000 | 11,517,000 | 12,300,000 | 3,960,000 |
| 37. | Total Requirements for Rate Covenant | $ 80,426,850 | $ 76,773,800 | $ 72,082,900 | $ 81,198,800 | $ 76,166,200 |
| 38. | **Rate Covenant Test (Must Exceed 1.0x) (Line 26 / Line 40)** | **1.65** | **2.02** | **1.93** | **1.39** | **1.86** |
| 39. | Net Revenues After Total Debt | $ 60,207,464 | $ 86,680,736 | $ 74,972,339 | $ 40,275,648 | $ 75,301,417 |

Notes to the Historical Statement:

(1) Includes revenue from natural gas, water, and wastewater user charges as well as the operating and maintenance component of water and wastewater wholesale revenues.
(2) Other revenue includes late payments, wastewater high strength surcharges, and other miscellaneous revenues.
(3) Represents wholesale cash capital contributions and connection fees.
(4) Rounded to the nearest thousand.

## City of Richmond, Virginia
## Natural Gas, Water, and Wastewater System
### Forecast Statement of Revenues, Expenses, Debt & Debt Service Coverage
### Fiscal Year Ending June 30

| Line No. | Description | FY 2023 Estimate | FY 2024 Forecast | FY 2025 Forecast | FY 2026 Forecast | FY 2027 Forecast | FY 2028 Forecast |
|---|---|---|---|---|---|---|---|
| | **Revenues** | | | | | | |
| | User Charges (1) | | | | | | |
| 1. | Gas User Charges | $ 219,014,768 | $ 226,652,380 | $ 234,577,506 | $ 242,742,958 | $ 251,196,087 | $ 260,130,481 |
| 2. | Water User Charges | 77,996,206 | 81,049,479 | 83,861,812 | 86,770,444 | 89,784,021 | 92,903,066 |
| 3. | Wastewater User Charges | 96,172,965 | 101,281,095 | 106,783,695 | 112,590,671 | 118,717,248 | 125,174,101 |
| 4. | *Subtotal: User Charge Revenue* | $ 393,183,940 | $ 408,982,954 | $ 425,223,013 | $ 442,104,072 | $ 459,697,356 | $ 478,207,647 |
| | Miscellaneous Operating Revenue | | | | | | |
| 5. | Transfer from Rate Stabilization | $ - | $ - | $ - | $ - | $ - | $ - |
| 6. | Other Revenue (2) | 4,636,954 | 4,776,063 | 4,919,345 | 5,066,925 | 5,218,933 | 5,375,501 |
| 7. | *Subtotal: Misc. Operating Revenue* | $ 4,636,954 | $ 4,776,063 | $ 4,919,345 | $ 5,066,925 | $ 5,218,933 | $ 5,375,501 |
| 8. | **Total Operating Revenue** | **$ 397,820,895** | **$ 413,759,017** | **$ 430,142,358** | **$ 447,170,998** | **$ 464,916,289** | **$ 483,583,149** |
| | **Operating Expenses** | | | | | | |
| 9. | Gas Recovery (3) | $ (123,000,000) | $ (126,700,000) | $ (130,500,000) | $ (134,400,000) | $ (138,400,000) | $ (142,600,000) |
| 10. | O&M Expenses (4) | (144,172,391) | (160,822,512) | (165,647,188) | (170,616,603) | (175,735,101) | (181,007,155) |
| 11. | Transfer to Rate Stabilization | - | - | - | - | - | - |
| 12. | Depreciation | (66,855,888) | (71,116,813) | (76,960,283) | (82,480,464) | (87,009,103) | (90,262,306) |
| 13. | Payment in Lieu of Taxes | (20,170,693) | (21,143,767) | (22,641,011) | (24,241,717) | (25,595,657) | (26,555,366) |
| 14. | **Total Operating Expenses** | **$ (354,198,971)** | **$ (379,783,091)** | **$ (395,748,482)** | **$ (411,738,785)** | **$ (426,739,861)** | **$ (440,424,828)** |
| 15. | Operating Income | $ 43,621,923 | $ 33,975,925 | $ 34,393,876 | $ 35,432,213 | $ 38,176,428 | $ 43,158,321 |
| | Non-Operating Income/Expenses | | | | | | |
| 16. | Non-Operating Income (5) | $ 2,842,446 | $ 9,403,074 | $ 13,477,150 | $ 11,292,610 | $ 9,671,478 | $ 7,797,780 |
| 17. | Interest Expense | (31,721,072) | (31,487,576) | (33,018,913) | (34,122,892) | (37,175,145) | (38,635,439) |
| 18. | Amortization of Issuance Expense | - | - | - | - | - | - |
| 19. | Total Non-Operating Income/Expenses | $ (28,878,626) | $ (22,084,501) | $ (19,541,763) | $ (22,830,282) | $ (27,503,667) | $ (30,837,658) |
| 20. | **Net Income (Excludes Grants & Cont.)** | **$ 14,743,298** | **$ 11,891,424** | **$ 14,852,113** | **$ 12,601,931** | **$ 10,672,761** | **$ 12,320,663** |
| | Adjustments to Calculate Net Revenues | | | | | | |
| | Add Back: | | | | | | |
| 21. | Depreciation | $ 66,855,888 | $ 71,116,813 | $ 76,960,283 | $ 82,480,464 | $ 87,009,103 | $ 90,262,306 |
| 22. | Interest Expense | 31,721,072 | 31,487,576 | 33,018,913 | 34,122,892 | 37,175,145 | 38,635,439 |
| 23. | Amortization of Issuance Expense | - | - | - | - | - | - |
| 24. | Wholesale Cash Capital Contributions (6) | 11,997,949 | 22,318,337 | 25,939,973 | 20,724,095 | 16,044,868 | 16,026,970 |
| 25. | Connection Fees (7) | 3,400,000 | 4,400,000 | 4,400,000 | 4,400,000 | 4,400,000 | 4,400,000 |
| 26. | Other | - | - | - | - | - | - |
| 27. | **Net Revenue Available for Debt Service** | **$ 128,718,207** | **$ 141,214,150** | **$ 155,171,283** | **$ 154,329,382** | **$ 155,301,877** | **$ 161,645,378** |
| | **Debt Service** | | | | | | |
| | Senior Debt (Bonds) | | | | | | |
| 28. | Existing Revenue Bonds (8) | $ 62,422,052 | $ 61,022,760 | $ 64,635,487 | $ 64,285,067 | $ 63,859,969 | $ 62,986,674 |
| 29. | Series 2023 Revenue Bonds | - | 2,752,861 | 6,165,125 | 6,165,125 | 6,162,625 | 6,162,625 |
| 30. | Future Revenue Bonds (9) | - | - | - | 3,317,843 | 9,352,040 | 13,475,117 |
| 31. | Future SRF Loans | - | 1,250,828 | 2,050,828 | 2,050,828 | 2,050,828 | 2,050,828 |
| 32. | *Subtotal: Senior Debt (Bonds)* | $ 62,422,052 | $ 65,026,449 | $ 72,851,440 | $ 75,818,864 | $ 81,425,462 | $ 84,675,245 |
| 33. | **Debt Service Coverage (Bonds)**<br>**(Line 27 / Line 30)** | **2.06** | **2.17** | **2.13** | **2.04** | **1.91** | **1.91** |
| | Other System Indebtedness and Suborinate Debt | | | | | | |
| 34. | Existing GO Bonds | 4,045,111 | 3,809,174 | - | - | - | - |
| 35. | *Subtotal: Other System Indebt. and Sub. Debt* | $ 4,045,111 | $ 3,809,174 | $ - | $ - | $ - | $ - |
| 36. | Total Debt Service | $ 66,467,164 | $ 68,835,622 | $ 72,851,440 | $ 75,818,864 | $ 81,425,462 | $ 84,675,245 |
| 37. | **Total Debt Service Coverage**<br>**(Line 27 / Line 34)** | **1.94** | **2.05** | **2.13** | **2.04** | **1.91** | **1.91** |
| | **Rate Covenant (10)** | | | | | | |
| 38. | Net Revenues Available for Debt Service | $ 128,718,207 | $ 141,214,150 | $ 155,171,283 | $ 154,329,382 | $ 155,301,877 | $ 161,645,378 |
| 39. | Debt Service On Bonds (115%) | $ 71,785,360 | $ 74,780,416 | $ 83,779,157 | $ 87,191,694 | $ 93,639,281 | $ 97,376,532 |
| 40. | Other System Indebt. and Sub. Debt (100%) | 4,045,111 | 3,809,174 | - | - | - | - |
| 41. | Total Requirements for Rate Covenant | $ 75,830,471 | $ 78,589,590 | $ 83,779,157 | $ 87,191,694 | $ 93,639,281 | $ 97,376,532 |
| 42. | **Rate Covenant Test (Must Exceed 1.0x)**<br>**(Line 27 / Line 39)** | **1.70** | **1.80** | **1.85** | **1.77** | **1.66** | **1.66** |
| 43. | Net Revenues After Total Debt | $ 62,251,043 | $ 72,378,527 | $ 82,319,842 | $ 78,510,518 | $ 73,876,415 | $ 76,970,133 |

| Assumed Rate Increases | FY 2024 | FY 2025 | FY 2026 | FY 2027 | FY 2028 |
|---|---|---|---|---|---|
| Natural Gas | 3.75% | 3.75% | 3.75% | 3.75% | 3.75% |
| Water | 3.75% | 3.75% | 3.75% | 3.75% | 3.75% |
| Wastewater | 5.50% | 5.75% | 5.75% | 5.75% | 5.75% |

Notes to the Forecast Statement:

(1) User charge revenues in FY 2023 through FY 2028 are calculated based on projected customer information and demand, actual rates in FY 2023 and FY 2024, and projected natural gas, water, and wastewater rates in FY 2025 through FY 2028. Also includes the operating and maintenance (O&M) component of wholesale water and wastewater revenues.
(2) Other revenue includes late payments, wastewater high strength surcharges, and other miscellaneous revenues.
(3) Since the City can adjust the cost of purchased gas on a periodic basis, which is designed to ensure adequate cost recovery, the cost of purchased gas is included as both a revenue and pass-through expense.
(4) FY 2023 and FY 2024 Operating Expenses are based on DPU's approved budget. Operating Expenses in FY 2025 through FY 2028 are escalated approximately 3.0% annually.
(5) Excludes interest earnings on available bond proceeds in the Construction Fund.
(6) Includes the capital component of the wholesale water rate charged to Henrico County. Henrico County's wholesale rate includes both an O&M component, which is reflected as a user charge Revenue, and a capital component. The capital component is assessed on an ongoing basis to recover a proportionate share of the cost of assets that are used and useful to Henrico County. Since the capital component of the rate assessed to Henrico County is an ongoing cash-flow, and since DPU has entered into a long-term agreement with Henrico County to provide potable water services, this annual cash flow has been included as a Revenue for the purpose of calculating debt service coverage. Also includes cash capital contributions from both Hanover and Chesterfield counties for wholesale water services. These cash capital contributions are included as a funding source for the capital program.
(7) Per the Master Indenture, the City may include connection fees as Revenue for the purpose of calculating debt service coverage.
(8) Excludes select maturities in the Series 2020B Public Utility Revenue and Refunding Bonds (taxable) that are being refinanced with the Series 2023 Bonds.
(9) Future debt issuances have been assumed in the second half of FY 2026, the second half of FY 2027, and the second half of FY 2028.
(10) Per the Master Indenture, the City shall fix, charge, and collect such rates, fees, and other charges for the use of and the services furnished by the System and shall, from time to time and as often as shall be necessary, revise such rates, fees, and other charges so as to meet the following two independent requirements.
    1. Revenues shall be sufficient in each Fiscal Year to pay (A) the actual Operating Expenses for such Fiscal Year, (B) the amount required to be deposited in the Bond Fund in such Fiscal Year, (C) the amount required to pay Annual Debt Service on Subordinate Debt in such Fiscal Year, and (D) any amount necessary to be deposited in any Series Debt Service Reserve Account to restore the amount on deposit therein to the amount of the Series Debt Service Reserve Requirement.
    2. Net Revenues, together with all other balances available to pay debt service, shall be sufficient in each Fiscal Year to equal the sum of (A) 115% of the Annual Debt Service with respect to the Bonds for such Fiscal Year, and (B) 100% of Annual Debt Service with respect to Other System Indebtedness and Subordinate Debt for such Fiscal Year.

**CITY OF RICHMOND, DEPARTMENT OF PUBLIC UTILITIES**
**SUMMARY OF SIGNIFICANT FORECAST ASSUMPTIONS**

**FOR THE SIX FISCAL YEARS ENDING**
**JUNE 30, 2023 THROUGH JUNE 30, 2028**

## 1. Basis of Presentation

Raftelis Financial Consultants, Inc. (Raftelis) has been engaged by the City of Richmond (City), Department of Public Utilities (DPU or Department) to evaluate the financial feasibility of proposed improvements to its natural gas, water, and wastewater utility systems (System). The opinion letter to the City is based upon the Forecast Statement and the Summary of Significant Forecast Assumptions which presents, to the best of the City's knowledge and belief, based upon available information, the expected revenue, expenses, debt service, and debt service coverage for the System during the forecast period.

All schedules prepared in support of the Forecast Statement have been presented in accordance with the City's annual accounting cycle, based upon its fiscal year beginning July 1 and ending June 30 (Fiscal Year). The Forecast Statement reflects the DPU's judgment as of August 23, 2023, the date of this Forecast Statement, of the anticipated conditions and the DPU's expected course of action during the forecast period. The Forecast Statement is presented in conformity with the methodology for calculating debt service coverage of the outstanding indebtedness set forth in the Master Indenture of Trust, dated as of April 1, 1998, as amended and supplemented (Master Indenture), between the City and US Bank (formerly Crestar Bank) as Trustee.

The Master Indenture sets forth a Rate Covenant in Section 601 requiring that the City shall fix, charge, and collect such rates, fees, and other charges for the use of and the services furnished by the City's Systems, and shall, from time to time and as often as shall appear necessary, revise such rates, fees, and other charges so as to meet the following two independent requirements:

A. Revenues[1] shall be sufficient in each Fiscal Year to pay:
    a. The actual operating expenses for such Fiscal Year;
    b. The amount required to be deposited in the Bond Fund in such Fiscal Year;
    c. The amount required to pay Annual Debt Service on Subordinate Debt in such Fiscal Year; and
    d. Any amount necessary to be deposited in any Series Debt Service Reserve Account to restore the amount on deposit therein to the amount of the Series Debt Service Reserve Requirement.
B. Net Revenues[2], together with all other balances available to pay debt service, shall be sufficient in each Fiscal Year to equal the sum of:
    a. 115% of Annual Debt Service with respect to the Bonds for such Fiscal Year; and
    b. 100% of Annual Debt Service with respect to Other System Indebtedness and Subordinate Debt for such Fiscal Year.

[1] Per the City's Master Indenture, Revenues include all rates, fees, and other charges for, or payments in respect of, the use of and for the services furnished by the DPU.
[2] Net Revenues are defined as Revenues less Operating Expenses. Operating Expenses include all operation and maintenance (O&M) costs, including the DPU's Payment in Lieu of Taxes (PILOT) to the City, net of annual depreciation.

The Forecast Statement is presented on a cash basis consistent with the City's budgeting process for the System and is adjusted to meet the specific requirements of the rate covenant in the Master Indenture. Compliance with the Rate Covenant is demonstrated on the Forecast Statement since the ratio calculated using Net Revenues Available for debt service is significantly greater than the sum of 115% of Annual Debt Service with respect to the Bonds plus 100% of the Annual Debt Service with respect to Other System Indebtedness and Subordinate Debt in each year of the forecast.

The assumptions described below are those that the DPU believes are significant to the Forecast Statement. There will be differences between forecasted and actual results because events and circumstances frequently do not occur as expected, and those differences may be material.

## 2. DPU's Scope of Operations

The DPU provides natural gas, water, wastewater, stormwater, and electric street-lighting services to a diverse mix of residential, commercial, industrial, institutional, and wholesale customers. The DPU serves approximately 255,000 customers in the aggregate within the City and outside the greater metropolitan region, and it reports to the City Council. The DPU is operated as an Enterprise Fund with a goal of generating sufficient revenues through user rates and charges to meet all operating expenses and capital expenditures. Each of the respective utilities within the Enterprise Fund are operated on a self-sustaining basis. However, both the stormwater and electric street-lighting utilities are not included in the revenues and expenditures of the System under the Master Indenture. As such, the Forecast Statement excludes all financial information related to the stormwater and electric street-lighting utilities.

The City provides retail natural gas and distribution services to approximately 124,000 customers within the City and Henrico County and portions of Chesterfield and Hanover counties. The distribution system includes approximately 1,973 miles of distribution mains and eight pipeline meter and regulating stations, with a ninth under construction and estimated to be in operation by 12/31/2023. The City's raw water source for its water utility is the James River, and its treatment capacity is 132 million gallons per day (MGD). Retail service is provided to approximately 67,000 customers. Wholesale services are provided to Henrico, Chesterfield, and Hanover counties. The total service population exceeds 500,000. Water is delivered through a network infrastructure of pumping stations, transmission lines, and distribution lines. The City is also one of the largest providers of wastewater services in the region, and its treatment facility is the largest of its kind in the Commonwealth of Virginia, with treatment capacity of 75 MGD during wet weather conditions. Retail service is provided to approximately 64,000 customers. Wholesale service is provided to Chesterfield, Goochland, and Henrico counties. The wastewater system includes 1,000 miles of sanitary sewer pipes, pumping stations, interceptor sewers, retention basins, and a 50-million-gallon reservoir used to manage wet weather flows. It should be noted that the number of customers is estimated by the number of accounts with metered flow during the FY 2022 billing period.

## 3. Demand for Services

The DPU serves as the provider of natural gas, water, and wastewater services to all of the retail residential, commercial, industrial, and institutional customers within the City limits of Richmond. Retail natural gas service is also provided to customers in Henrico County and portions of Chesterfield and Hanover counties. Wholesale water service is provided on a contract basis to Henrico, Chesterfield, and Hanover counties. Wholesale wastewater service is provided to Chesterfield, Henrico, and Goochland counties. The specific structure of the wholesale contractual agreements varies, but generally includes a proportionate allocation of the operating expenses and capital costs associated with the assets that are used and useful to wholesale customers.

The City has experienced a moderate increase in the number of active retail natural gas customers over the past five years due to growth in the county service areas. As such, retail natural gas customers are assumed to increase 0.5% annually. Natural gas billable consumption in FY 2023 has been normalized based on a statistical analysis of heating degree days (HDDs) and associated sales of natural gas per account since 2010. Projected natural gas consumption per account by month in FY 2023 is based on 20-year historical average HDDs for the Richmond metropolitan area. Natural gas consumption from FY 2024 through FY 2028 is assumed to grow by 0.5% annually. The number of active City retail water and wastewater accounts has remained relatively stable over the last five years. Therefore, no growth in water and wastewater customer accounts has been projected for the forecast period. Water and wastewater billable consumption in FY 2023 is projected based on actual usage in FY 2022. However, similar to most utilities nationwide, the City continues to experience a trend in declining per capita water consumption related to a number of factors including, in particular, the increased prevalence and use of high efficiency fixtures, water resource conservation, and other related factors. As a result, the forecast period assumes a reduction in water consumption of 0.25% annually, which is consistent with historical results.

The following tables, Table 1 and Table 2, show a summary of the projected number of customer accounts and billable demand, based on detailed data provided by DPU staff, for the forecast period. It should be noted that the number of customer accounts estimated in Table 1 include active accounts excluding bills with no charge.

## TABLE 1: CUSTOMER ACCOUNTS

| Description | FY 2023 *Estimated (1)* | FY 2024 *Forecast* | FY 2025 *Forecast* | FY 2026 *Forecast* | FY 2027 *Forecast* | FY 2028 *Forecast* |
|---|---|---|---|---|---|---|
| **Customer Accounts** | | | | | | |
| **Natural Gas** | | | | | | |
| Residential | 114,018 | 114,588 | 115,161 | 115,737 | 116,316 | 116,897 |
| Commercial | 9,307 | 9,353 | 9,400 | 9,447 | 9,494 | 9,542 |
| Industrial | 298 | 298 | 298 | 298 | 298 | 298 |
| Large Volume | 56 | 56 | 56 | 56 | 56 | 56 |
| Municipal | 119 | 119 | 119 | 119 | 119 | 119 |
| Flexible/Interruptible | 11 | 11 | 11 | 11 | 11 | 11 |
| Total Natural Gas Customers | 123,809 | 124,426 | 125,045 | 125,668 | 126,294 | 126,923 |
| *% Change* | | *0.5%* | *0.5%* | *0.5%* | *0.5%* | *0.5%* |
| **Water** | | | | | | |
| Residential | 53,098 | 53,098 | 53,098 | 53,098 | 53,098 | 53,098 |
| Commercial | 7,735 | 7,735 | 7,735 | 7,735 | 7,735 | 7,735 |
| Industrial | 94 | 94 | 94 | 94 | 94 | 94 |
| Municipal | 484 | 484 | 484 | 484 | 484 | 484 |
| State and Federal | 532 | 532 | 532 | 532 | 532 | 532 |
| Fireline | 1,490 | 1,490 | 1,490 | 1,490 | 1,490 | 1,490 |
| Total Water Customers | 63,434 | 63,434 | 63,434 | 63,434 | 63,434 | 63,434 |
| *% Change* | | *0.0%* | *0.0%* | *0.0%* | *0.0%* | *0.0%* |
| **Wastewater** | | | | | | |
| Residential | 52,455 | 52,455 | 52,455 | 52,455 | 52,455 | 52,455 |
| Commercial | 7,283 | 7,283 | 7,283 | 7,283 | 7,283 | 7,283 |
| Industrial | 79 | 79 | 79 | 79 | 79 | 79 |
| Municipal | 263 | 263 | 263 | 263 | 263 | 263 |
| State and Federal | 481 | 481 | 481 | 481 | 481 | 481 |
| Fireline | 0 | 0 | 0 | 0 | 0 | 0 |
| Total Wastewater Customers | 60,561 | 60,561 | 60,561 | 60,561 | 60,561 | 60,561 |
| *% Change* | | *0.0%* | *0.0%* | *0.0%* | *0.0%* | *0.0%* |

(1) Estimated based on active accounts excluding bills with no charge.

### TABLE 2: BILLABLE DEMAND

| Description | FY 2023 Estimated | FY 2024 Forecast | FY 2025 Forecast | FY 2026 Forecast | FY 2027 Forecast | FY 2028 Forecast |
|---|---|---|---|---|---|---|
| **Billable Consumption (Ccf)** | | | | | | |
| **Natural Gas** | | | | | | |
| Residential | 63,429,882 | 63,747,031 | 64,065,767 | 64,386,095 | 64,708,026 | 65,031,566 |
| General Service | 32,834,588 | 32,998,761 | 33,163,755 | 33,329,573 | 33,496,221 | 33,663,702 |
| Large Commercial/Small Industrial | 13,603,688 | 13,671,707 | 13,740,065 | 13,808,765 | 13,877,809 | 13,947,198 |
| Large Volume Service (LVS) | 10,403,670 | 10,455,688 | 10,507,966 | 10,560,506 | 10,613,309 | 10,666,375 |
| Large Volume Service 2 (LVS2) | 84,380,614 | 84,802,517 | 85,226,530 | 85,652,662 | 86,080,926 | 86,511,330 |
| Muncipal | 1,682,492 | 1,690,904 | 1,699,359 | 1,707,856 | 1,716,395 | 1,724,977 |
| Transportation | 8,142,420 | 8,183,132 | 8,224,047 | 8,265,168 | 8,306,493 | 8,348,026 |
| Flexible/Interruptible | 1,034,043 | 1,039,213 | 1,044,409 | 1,049,631 | 1,054,879 | 1,060,153 |
| Miscellaneous | 300,679 | 302,182 | 303,693 | 305,211 | 306,737 | 308,271 |
| Natural Gas Billable Consumption | 215,812,074 | 216,891,135 | 217,975,590 | 219,065,468 | 220,160,796 | 221,261,600 |
| *% Change* | | *0.5%* | *0.5%* | *0.5%* | *0.5%* | *0.5%* |
| **Water (1)** | | | | | | |
| Residential | 3,772,275 | 3,762,845 | 3,753,438 | 3,744,054 | 3,734,694 | 3,725,357 |
| Commercial | 4,756,805 | 4,744,913 | 4,733,051 | 4,721,218 | 4,709,415 | 4,697,642 |
| Industrial | 619,704 | 618,154 | 616,609 | 615,067 | 613,530 | 611,996 |
| Municipal | 252,995 | 252,362 | 251,731 | 251,102 | 250,474 | 249,848 |
| State and Federal | 1,308,397 | 1,305,126 | 1,301,863 | 1,298,609 | 1,295,362 | 1,292,124 |
| Fireline | 21,740 | 21,685 | 21,631 | 21,577 | 21,523 | 21,469 |
| Water Billable Consumption | 10,731,916 | 10,705,086 | 10,678,323 | 10,651,627 | 10,624,998 | 10,598,436 |
| *% Change* | | *-0.3%* | *-0.2%* | *-0.3%* | *-0.2%* | *-0.3%* |
| **Wastewater (1)** | | | | | | |
| Residential | 2,918,503 | 2,911,207 | 2,903,929 | 2,896,669 | 2,889,427 | 2,882,204 |
| Commercial | 4,458,945 | 4,447,797 | 4,436,678 | 4,425,586 | 4,414,522 | 4,403,486 |
| Industrial | 282,719 | 282,012 | 281,307 | 280,604 | 279,903 | 279,203 |
| Municipal | 246,962 | 246,345 | 245,729 | 245,114 | 244,502 | 243,890 |
| State and Federal | 1,295,557 | 1,292,318 | 1,289,087 | 1,285,865 | 1,282,650 | 1,279,443 |
| Wastewater Billable Consumption | 9,202,686 | 9,179,679 | 9,156,730 | 9,133,838 | 9,111,004 | 9,088,226 |
| *% Change* | | *-0.3%* | *-0.3%* | *-0.2%* | *-0.3%* | *-0.2%* |

(2) Excludes wholesale consumption.

## 4. Rates and Charges

The City maintains separate rates and charges for natural gas, water, and wastewater customers.

***Rate Structure***

The DPU's natural gas customers are billed on a monthly basis. In general, the monthly bill includes a service charge and a volumetric charge per 100 cubic feet (Ccf) based on gas used. Natural gas customers are also assessed a volumetric charge per Ccf to recover the cost of purchased gas, or PGC. The DPU updates the PGC periodically based on market conditions. For the purpose of the Forecast Statement, the PGC is treated as both a revenue and a pass-through expense. Most natural gas customers fall into three primary categories including: residential, general service, and large volume. The City also has a number of other natural gas customer types including municipal, transportation (low volume), transportation (high volume), flexible/interruptible, and compressed natural gas (CNG). Water and wastewater customers are also billed monthly. For single-family water residential customers, the monthly bill includes a service charge and a two-tiered volumetric rate structure, with consumption up to 4 Ccf billed at a lower volumetric rate and consumption above 4 Ccf billed at a higher rate to promote customer affordability and resource conservation. For all wastewater customers and non-single-family residential water customers, the monthly bill includes a service charge and a uniform volumetric charge per Ccf based on water consumption. Water and wastewater service charges are escalated based on meter size.

***Rate Forecast***

The City adopted a new schedule of rates and charges on July 1, 2023. The rates presented in Table 3 for FY 2024 reflect this effective rate increase. For FY 2025 through FY 2028, Raftelis has developed a forecast of anticipated future rate increases to meet the DPU's revenue requirements and covenants identified in the Master Indenture. It should be noted that rate increases in FY 2025 through FY 2028 are applied across-the-board within the natural gas, water, and wastewater rate structures. Table 3 identifies the actual rates for FY 2023 and FY 2024 and the projected increases from FY 2025 through FY 2028.

### TABLE 3: EXISTING RATE STRUCTURE

| Description | FY 2023 Actual | FY 2024 Actual | FY 2025 Forecast | FY 2026 Forecast | FY 2027 Forecast | FY 2028 Forecast |
|---|---|---|---|---|---|---|
| **Natural Gas (1)** | | | | | | |
| Residential | | | | | | |
| Customer Charge | $ 14.82 | $ 15.37 | $ 15.94 | $ 16.53 | $ 17.14 | $ 17.78 |
| Distribution Charge (per Ccf) | $ 0.63 | $ 0.65 | $ 0.68 | $ 0.70 | $ 0.73 | $ 0.76 |
| Purchased Gas Cost (per Ccf) | $ 0.76 | $ 0.79 | $ 0.82 | $ 0.85 | $ 0.88 | $ 0.91 |
| General Gas Service | | | | | | |
| Customer Charge | $ 17.50 | $ 18.15 | $ 18.83 | $ 19.53 | $ 20.26 | $ 21.01 |
| Distribution Charge (per Ccf) | $ 0.57 | $ 0.59 | $ 0.61 | $ 0.64 | $ 0.66 | $ 0.68 |
| Purchased Gas Cost (per Ccf) | $ 0.76 | $ 0.79 | $ 0.82 | $ 0.85 | $ 0.88 | $ 0.91 |
| Schedule CIS | | | | | | |
| Customer Charge | $ 152.18 | $ 157.88 | $ 163.80 | $ 169.94 | $ 176.31 | $ 182.92 |
| Demand Charge (per Ccf) | $ 1.50 | $ 1.56 | $ 1.61 | $ 1.67 | $ 1.74 | $ 1.80 |
| Distribution Charge (per Ccf) | $ 0.34 | $ 0.35 | $ 0.36 | $ 0.38 | $ 0.39 | $ 0.40 |
| Purchase Gas Cost (per Ccf) | $ 0.68 | $ 0.68 | $ 0.71 | $ 0.74 | $ 0.77 | $ 0.81 |
| **Water** | | | | | | |
| Service Charge | | | | | | |
| 5/8 " meter | $ 16.06 | $ 16.66 | $ 17.28 | $ 17.92 | $ 18.59 | $ 19.28 |
| 3/4 " meter | $ 22.82 | $ 23.67 | $ 24.55 | $ 25.47 | $ 26.42 | $ 27.41 |
| 1 " meter | $ 36.32 | $ 37.68 | $ 39.09 | $ 40.55 | $ 42.07 | $ 43.64 |
| 1-1/2 " meter | $ 70.04 | $ 72.66 | $ 75.38 | $ 78.20 | $ 81.13 | $ 84.17 |
| 2 " meter | $ 110.52 | $ 114.66 | $ 118.95 | $ 123.41 | $ 128.03 | $ 132.83 |
| 3 " meter | $ 218.47 | $ 226.66 | $ 235.15 | $ 243.96 | $ 253.10 | $ 262.59 |
| 4 " meter | $ 339.90 | $ 352.64 | $ 365.86 | $ 379.57 | $ 393.80 | $ 408.56 |
| 6 " meter | $ 677.24 | $ 702.63 | $ 728.97 | $ 756.30 | $ 784.66 | $ 814.08 |
| 8 " meter | $ 1,082.05 | $ 1,122.62 | $ 1,164.71 | $ 1,208.38 | $ 1,253.69 | $ 1,300.70 |
| 10 " meter | $ 1,554.32 | $ 1,612.60 | $ 1,673.07 | $ 1,735.81 | $ 1,800.90 | $ 1,868.43 |
| Single Family Residential (SFR) Volumetric Rate | | | | | | |
| Rate 1 ( 0 - 4 Ccf) | $ 2.85 | $ 2.96 | $ 3.07 | $ 3.18 | $ 3.30 | $ 3.42 |
| Rate 2 (Over 4 Ccf) | $ 5.63 | $ 5.84 | $ 6.06 | $ 6.29 | $ 6.52 | $ 6.77 |
| Non-SFR Volumetric Rate | $ 4.75 | $ 4.93 | $ 5.11 | $ 5.30 | $ 5.50 | $ 5.71 |
| **Wastewater** | | | | | | |
| Service Charge | | | | | | |
| 5/8 " meter | $ 19.93 | $ 21.02 | $ 22.22 | $ 23.49 | $ 24.84 | $ 26.26 |
| 3/4 " meter | $ 28.44 | $ 30.00 | $ 31.72 | $ 33.54 | $ 35.46 | $ 37.49 |
| 1 " meter | $ 45.46 | $ 47.96 | $ 50.71 | $ 53.62 | $ 56.70 | $ 59.96 |
| 1-1/2 " meter | $ 88.02 | $ 92.86 | $ 98.19 | $ 103.83 | $ 109.80 | $ 116.11 |
| 2 " meter | $ 139.07 | $ 146.71 | $ 155.14 | $ 164.06 | $ 173.49 | $ 183.46 |
| 3 " meter | $ 275.23 | $ 290.36 | $ 307.05 | $ 324.70 | $ 343.37 | $ 363.11 |
| 4 " meter | $ 428.41 | $ 451.97 | $ 477.95 | $ 505.43 | $ 534.49 | $ 565.22 |
| 6 " meter | $ 853.89 | $ 900.85 | $ 952.64 | $ 1,007.41 | $ 1,065.33 | $ 1,126.58 |
| 8 " meter | $ 1,364.48 | $ 1,439.52 | $ 1,522.29 | $ 1,609.82 | $ 1,702.38 | $ 1,800.26 |
| 10 " meter | $ 1,960.18 | $ 2,067.98 | $ 2,186.88 | $ 2,312.62 | $ 2,445.59 | $ 2,586.21 |
| Volumetric Rate (per Ccf) | $ 7.99 | $ 8.42 | $ 8.91 | $ 9.42 | $ 9.96 | $ 10.53 |
| **Annual Rate Increase** | | | | | | |
| Natural Gas | | 3.75% | 3.75% | 3.75% | 3.75% | 3.75% |
| Water | | 3.75% | 3.75% | 3.75% | 3.75% | 3.75% |
| Wasteater | | 5.50% | 5.75% | 5.75% | 5.75% | 5.75% |

(1) The City also has several additional natural gas customer classifications including, municipal, transportation (low volume), transportation (high volume), flexible/interruptible, and CNG.

## 5. Revenues

The City collects Revenue from a number of different sources that are deposited into a utility account to be held by the City. Operating revenues consist primarily of revenues from retail natural gas, water, and wastewater rates and charges. The City also collects operating revenue from its water and wastewater wholesale customers, which reflects each wholesale customers' proportionate responsibility for O&M expenses. Non-operating revenues include primarily interest income. An adjustment has been made to non-operating revenue to reflect the exclusion of refundable customer deposits. The Financial Forecast also includes wholesale water revenue collected from Henrico County to recover a proportionate share of the City's capital costs. Since the capital component of the wholesale rate assessed to Henrico County is an ongoing, annual cash-flow, and since DPU has entered into a long-term agreement with Henrico County to provide potable water services, this annual cash flow has been included as a Revenue for the purpose of calculating debt service coverage. Similarly, the Financial Forecast includes cash capital contributions from both Hanover and Chesterfield counties that reflect each customer's proportionate responsibility for future capital expenditures. Connection fees have also been included as Revenue per the Master Indenture.

Revenues have been estimated for FY 2023 and FY 2024 based on the projected number of customer accounts and demand, and the rates in place as of July 1, 2022 and July 1, 2023, respectively. The remaining years of the forecast period (FY 2025 through FY 2028) have been estimated using the projected billable units of service and anticipated future rate increases.

Table 4 presents projected Revenues over the forecast period.

### TABLE 4: PROJECTED REVENUE

| Line No. | Description | FY 2023 *Estimated* | FY 2024 *Forecast* | FY 2025 *Forecast* | FY 2026 *Forecast* | FY 2027 *Forecast* | FY 2028 *Forecast* |
|---|---|---|---|---|---|---|---|
| | **Revenues** | | | | | | |
| | User Charges (1) | | | | | | |
| 1. | Gas User Charges | $ 219,014,768 | $ 226,652,380 | $ 234,577,506 | $ 242,742,958 | $ 251,196,087 | $ 260,130,481 |
| 2. | Water User Charges | 77,996,206 | 81,049,479 | 83,861,812 | 86,770,444 | 89,784,021 | 92,903,066 |
| 3. | Wastewater User Charges | 96,172,965 | 101,281,095 | 106,783,695 | 112,590,671 | 118,717,248 | 125,174,101 |
| 4. | *Subtotal: User Charge Revenue* | $ 393,183,940 | $ 408,982,954 | $ 425,223,013 | $ 442,104,072 | $ 459,697,356 | $ 478,207,647 |
| | Miscellaneous Operating Revenue | | | | | | |
| 5. | Transfer from Rate Stabilization | $ - | $ - | $ - | $ - | $ - | $ - |
| 6. | Other Revenue (2) | 4,636,954 | 4,776,063 | 4,919,345 | 5,066,925 | 5,218,933 | 5,375,501 |
| 7. | *Subtotal: Misc. Operating Revenue* | $ 4,636,954 | $ 4,776,063 | $ 4,919,345 | $ 5,066,925 | $ 5,218,933 | $ 5,375,501 |
| 8. | **Total Operating Revenue** | **$ 397,820,895** | **$ 413,759,017** | **$ 430,142,358** | **$ 447,170,998** | **$ 464,916,289** | **$ 483,583,149** |
| | Non-Operating Revenue | | | | | | |
| 9. | Non-Operating Income (3) | $ 2,842,446 | $ 9,403,074 | $ 13,477,150 | $ 11,292,610 | $ 9,671,478 | $ 7,797,780 |
| 10. | Other | - | - | - | - | - | - |
| 11. | *Subtotal: Non-Operating Revenue* | $ 2,842,446 | $ 9,403,074 | $ 13,477,150 | $ 11,292,610 | $ 9,671,478 | $ 7,797,780 |
| | Other Revenue | | | | | | |
| 12. | Wholesale Capital Contributions (4) | $ 11,997,949 | $ 22,318,337 | $ 25,939,973 | $ 20,724,095 | $ 16,044,868 | $ 16,026,970 |
| 13. | Connection Fees | 3,400,000 | 4,400,000 | 4,400,000 | 4,400,000 | 4,400,000 | 4,400,000 |
| | *Subtotal: Other Revenue* | $ 15,397,949 | $ 26,718,337 | $ 30,339,973 | $ 25,124,095 | $ 20,444,868 | $ 20,426,970 |
| 14. | **Total Revenue** | **$ 416,061,290** | **$ 449,880,428** | **$ 473,959,482** | **$ 483,587,703** | **$ 495,032,635** | **$ 511,807,899** |

(1) User charge revenues in FY 2023 through FY 2028 are calculated based on projected customer information and demand, actual rates in FY 2023 and FY 2024, and projected natural gas, water, and wastewater rates in FY 2025 through FY 2028. Also includes the O&M component of wholesale water and wastewater revenues.

(2) Other revenue includes late payments, wastewater high strength surcharges, and other miscellaneous revenues.

(3) Interest earnings exclude interest earned on customer deposits.

(4) Reflects the recovery of capital costs from Henrico, Hanover, and Chesterfield counties for the provision of wholesale water service.

### 6. Operating Expenses

Operating Expenses represent normal, recurring expenses necessary to operate and maintain the System in good condition incurred during the City's annual accounting cycle based upon its Fiscal Year ending June 30. It should be noted that depreciation is excluded, since it is a non-cash expense. Operating Expenses have been projected for the forecast period and are presented in Table 5.

**TABLE 5: PROJECTED OPERATING EXPENSES**

| Line No. | Description | FY 2023 *Estimated* | FY 2024 *Forecast* | FY 2025 *Forecast* | FY 2026 *Forecast* | FY 2027 *Forecast* | FY 2028 *Forecast* |
|---|---|---|---|---|---|---|---|
| | **Operating Expenses** | | | | | | |
| 1. | Gas Recovery (1) | $ (123,000,000) | $ (126,700,000) | $ (130,500,000) | $ (134,400,000) | $ (138,400,000) | $ (142,600,000) |
| 2. | O&M Expenses | (144,172,391) | (160,822,512) | (165,647,188) | (170,616,603) | (175,735,101) | (181,007,155) |
| 3. | Payment in Lieu of Taxes | (20,170,693) | (21,143,767) | (22,641,011) | (24,241,717) | (25,595,657) | (26,555,366) |
| 4. | **Total Operating Expenses** | $ (287,343,084) | $ (308,666,279) | $ (318,788,199) | $ (329,258,321) | $ (339,730,758) | $ (350,162,521) |
| | | | 12% | 3% | 3% | 3% | 3% |

FY 2023 and FY 2024 Operating Expenses are based on DPU's approved budgets. Through discussions with DPU staff, the impact from recent, above-trend inflation has been captured in the FY 2023 and FY 2024 operating budgets. However, in order to account for expected growing utility costs and inflation and other utility initiatives, cost escalation rates have been developed for System O&M expenses in FY 2025 through FY 2028. For the purpose of the Forecast Statement, O&M expenses have been assumed to increase at an annual rate of approximately 3.0% over the forecast period. The DPU's payment in lieu of taxes (PILOT) in FY 2023 through FY 2028 has been estimated in a manner consistent with the calculation approach identified in the City's Ordinances.

### 7. Capital Improvement Plan

The DPU's Capital Improvement Plan (CIP) identifies the anticipated capital expenditures for the natural gas, water, and wastewater Systems. In order to provide a more realistic projection of capital expenditures, the Financial Forecast assumes an 80% execution rate on the CIP. The 80% spend factor represents a conservative projection of CIP execution, which typically ranges between 60-70%.

Table 6 summarizes the DPU's CIP over the forecast period.

## TABLE 6: CAPITAL IMPROVEMENT PLAN

| Line No. | Description | FY 2023 Estimated (2) | FY 2024 Forecast | FY 2025 Forecast | FY 2026 Forecast | FY 2027 Forecast | FY 2028 Forecast |
|---|---|---|---|---|---|---|---|
| | **Capital Improvement Plans** | | | | | | |
| 1. | Natural Gas Projects | | | | | | |
| | Gas New | | $ 9,273,088 | $ 6,867,040 | $ 6,971,760 | $ 7,077,200 | $ 7,360,000 |
| | Gas Replacement | | 18,895,045 | 17,924,459 | 16,746,157 | 16,756,082 | 16,412,000 |
| | Total | $ 24,848,030 | $ 28,168,133 | $ 24,791,499 | $ 23,717,917 | $ 23,833,282 | $ 23,772,000 |
| 2. | Water Projects (1) | | | | | | |
| | Water Plant & Pumping | | $ 37,309,520 | $ 56,003,990 | $ 56,261,413 | $ 24,118,280 | $ 4,200,636 |
| | Water Transmission | | 2,887,686 | 2,119,200 | 2,477,509 | 14,090,430 | 5,459,440 |
| | Water Distribution | | 21,796,863 | 18,784,158 | 18,257,511 | 18,601,404 | 18,750,774 |
| | Total | $ 26,664,417 | $ 61,994,068 | $ 76,907,348 | $ 76,996,432 | $ 56,810,114 | $ 28,410,850 |
| 3. | Wastewater Projects (1) | | | | | | |
| | Treatment Plant | | $ 41,985,401 | $ 52,324,912 | $ 35,231,793 | $ 8,980,055 | $ - |
| | CSO Projects | | 40,908,351 | 22,304,672 | 15,600,000 | 9,600,000 | 4,000,000 |
| | Sanitary Sewer | | 49,639,896 | 44,769,496 | 44,291,896 | 43,683,896 | 41,467,896 |
| | Total | $ 46,533,381 | $ 132,533,648 | $ 119,399,080 | $ 95,123,689 | $ 62,263,951 | $ 45,467,896 |
| 4. | *Total Capital Expenitures* | $ 98,045,828 | $ 222,695,849 | $ 221,097,927 | $ 195,838,038 | $ 142,907,348 | $ 97,650,746 |

(1) Includes adjustment for capitalized labor.

(1) Includes adjustment for capitalized labor.
(2) Estimated based on actual spending through June of 2023.

The DPU's CIP for the natural gas utility includes projects to serve new development as well as infrastructure repair and replacement. Projects for the water utility include improvements to the water transmission system, distribution system, treatment facilities, and funding for infrastructure repair and replacement. Projects for the wastewater utility include improvements to wastewater treatment plant, sanitary conveyance and collection system, combined sewer system, and funding for infrastructure repair and replacement. The CIP also includes annual funding for vehicle and equipment replacement.

As seen in Table 6, the DPU identified $978.2 million in capital project costs over the forecast period. It is assumed that these capital expenditures will be funded through a combination of debt and equity. Specifically, the primary sources of capital funding include grants, rate financed capital, capital contributions, construction fund monies, and future revenue bonds.

## TABLE 7: CAPITAL FINANCING PLAN

| Line No. | Description | FY 2023 Estimated (2) | FY 2024 Forecast | FY 2025 Forecast | FY 2026 Forecast | FY 2027 Forecast | FY 2028 Forecast |
|---|---|---|---|---|---|---|---|
| | **Capital Spending** | | | | | | |
| 1. | Natural Gas | $ 24,848,030 | $ 28,168,133 | $ 24,791,499 | $ 23,717,917 | $ 23,833,282 | $ 23,772,000 |
| 2. | Water | 26,664,417 | 61,994,068 | 76,907,348 | 76,996,432 | 56,810,114 | 28,410,850 |
| 3. | Wastewater | 46,533,381 | 132,533,648 | 119,399,080 | 95,123,689 | 62,263,951 | 45,467,896 |
| 4. | *Subtotal Funding Uses* | $ 98,045,828 | $ 222,695,849 | $ 221,097,927 | $ 195,838,038 | $ 142,907,348 | $ 97,650,746 |
| | **CIP Funding Sources** | | | | | | |
| 5. | Grant Funding | $ - | $ 73,992,155 | $ 29,150,200 | $ 15,000,000 | $ 4,780,028 | $ - |
| 6. | Construction Fund | 32,275,376 | 44,313,189 | 33,364,117 | - | - | - |
| 7. | Rate Financed Capital | 59,031,956 | 32,000,000 | 34,500,000 | 46,500,000 | 45,000,000 | 42,853,368 |
| 8. | Capital Reserve Fund | - | 35,000,000 | 55,000,000 | 36,254,607 | 12,825,380 | 12,807,482 |
| 10. | Revenue Bonds | - | 20,379,001 | 53,083,610 | 98,083,431 | 80,301,940 | 41,989,896 |
| 12. | VA CWSRF Loans | 6,738,497 | 17,011,503 | 16,000,000 | - | - | - |
| 13. | *Subtotal Funding Sources* | $ 98,045,828 | $ 222,695,849 | $ 221,097,927 | $ 195,838,038 | $ 142,907,348 | $ 97,650,746 |
| | *Equity Financed* | 60% | 63% | 54% | 50% | 44% | 57% |
| | *Debt Financed* | 40% | 37% | 46% | 50% | 56% | 43% |

(1) Construction fund includes monies available from prior bond issuance. Capital Reserve includes available reserves and projected future cash capital contributions from both Chesterfield and Hanover counties, provided by DPU staff. The Capital Reserve also includes use of projected future cash collections from connection fees.

As shown in Line Number 6 of Table 7, the capital financing plan for FY 2023 through FY 2025 includes outstanding proceeds available in the DPU's construction fund. These outstanding proceeds are from the City's most recent sale of revenue bonds in 2020. Except for a new loan from the Virginia Resource Authority (VRA), the capital expenditures for FY 2023 were financed internally through rates and available bond proceeds. Going forward, the DPU expects to continue spending down its available bond proceeds in the Construction Fund supplemented by rate financed capital, reserves, additional draw downs on VRA loans, grant funding, and revenue bonds. The new money portion of the Series 2023 Bonds are anticipated to be used for projects in both FY 2024 and FY 2025. The DPU has also secured several grants to offset funding needs in both the natural gas and wastewater utilities over the forecast period. The capital financing plan also assumes the issuance of additional revenue bonds in FY 2026 through FY 2028. Specifically, it has been assumed the DPU will issue approximately $98 million in revenue bonds in FY 2026 (second half of fiscal year), approximately $80 million in revenue bonds in FY 2027 (second half of fiscal year), and approximately $42 million in revenue bonds in FY 2028 (second half of fiscal year). These future revenue bond issuances assume a rate of 5.0%, term of 30 years, and 1% issuance costs.

## 8. Debt Service Obligations

The DPU's capital structure includes debt obligations. Current outstanding debt obligations include General Obligation bonds, revenue bonds, and VRA loans. The DPU's outstanding revenue bonds and VRA loans are considered Senior Debt and qualify as Bonds per the Master Indenture. The DPU's general obligation debt is considered Subordinate Debt. Debt service payments identified below in Table 8 are based on schedules provided by DPU staff.

### TABLE 8: EXISTING DEBT SERVICE

| Line No. | Description | FY 2023 *Estimated* | FY 2024 *Forecast* | FY 2025 *Forecast* | FY 2026 *Forecast* | FY 2027 *Forecast* | FY 2028 *Forecast* |
|---|---|---|---|---|---|---|---|
| | **Existing Debt Service** | | | | | | |
| | Senior Debt | | | | | | |
| | Revenue Bonds (1) (2) | | | | | | |
| 1. | Gas | $ 20,138,464 | $ 19,924,211 | $ 21,510,923 | $ 21,463,205 | $ 21,409,360 | $ 21,290,557 |
| 2. | Water | 14,990,297 | 14,744,760 | 15,665,774 | 15,663,416 | 15,666,225 | 15,662,929 |
| 3. | Wastewater | 27,293,291 | 27,048,457 | 28,848,128 | 28,547,785 | 28,173,722 | 27,422,526 |
| 4. | *Subtotal: Senior Debt* | $ 62,422,052 | $ 61,717,429 | $ 66,024,825 | $ 65,674,405 | $ 65,249,307 | $ 64,376,012 |
| | Subordinate Debt | | | | | | |
| | General Obligation Bonds | | | | | | |
| 5. | Gas | $ 2,522,408 | $ 2,375,285 | $ - | $ - | $ - | $ - |
| 6. | Water | 1,522,703 | 1,433,889 | - | - | - | - |
| 7. | Wastewater | - | - | - | - | - | - |
| 8. | *Subtotal: Subordinate Debt* | $ 4,045,111 | $ 3,809,174 | $ - | $ - | $ - | $ - |
| 9. | **Total Existing Debt Service** | **$ 66,467,164** | **$ 65,526,602** | **$ 66,024,825** | **$ 65,674,405** | **$ 65,249,307** | **$ 64,376,012** |
| | *% Change* | | *-1.4%* | *0.8%* | *-0.5%* | *-0.6%* | *-1.3%* |

(1) Includes VRA loans that are considered senior debt per the Master Indenture.
(2) Does not take into account the Series 2023B Bond.

The City worked with its financial advisors, underwriters, municipal advisors, and other independent consultants (Financing Team) to evaluate various financing strategies for the Series 2023 Bonds. The Series 2023 Bonds will include a new money issuance and will defease a portion of the Series 2020A Bonds. The

Sources and Uses of Funds for the Series 2023 Bonds, provided by the City's Financial Advisor, are shown in Table 9.

### TABLE 9: SOURCES AND USES OF SERIES 2023 BONDS

| Description | Tax-Exempt New Money Series | Tax-Exempt Advanced Refunding | Total |
|---|---|---|---|
| **Sources:** | | | |
| Bond Proceeds: | | | |
| Par Amount | $ 71,540,000.00 | $ 39,325,000.00 | $ 110,865,000.00 |
| Net Premium | 2,832,501.00 | 6,611,739.00 | 9,444,240.00 |
| **Total Sources** | **$ 74,372,501.00** | **$ 45,936,739.00** | **$ 120,309,240.00** |
| **Uses:** | | | |
| Project Fund Deposits | | | |
| Gas Fund New Money | $ 24,226,232.00 | | $ 24,226,232.00 |
| Water Fund New Money | $ 27,401,416.00 | | $ 27,401,416.00 |
| Wastewater Fund New Money | $ 21,834,963.00 | | $ 21,834,963.00 |
| Refunding Escrow Deposits | | $ 45,441,025.00 | $ 45,441,025.00 |
| Estimated Issuance Costs | | | |
| Cost of Issuance | $ 548,496.00 | $ 301,504.00 | $ 850,000.00 |
| Underwriter's Discount | 357,700.00 | 196,625.00 | 554,325.00 |
| | $ 906,196.00 | $ 498,129.00 | $ 1,404,325.00 |
| Other Uses of Funds: | | | |
| Rounding Proceeds | $ 3,694.00 | $ (2,415.00) | $ 1,279.00 |
| **Total Uses** | **$ 74,372,501.00** | **$ 45,936,739.00** | **$ 120,309,240.00** |

It is expected the City will need to issue additional debt for natural gas, water, and wastewater projects over the remainder of the Forecast Period. Major projects include ongoing infrastructure repair and replacement, projects to address emerging regulatory requirements, and improvements to the water and wastewater treatment plants, combined sewer overflows, and distribution and collection systems. For planning purposes, the Financial Forecast assumes a revenue bond issuance of approximately $98 million in FY 2026 (second half of fiscal year), approximately $80 million in FY 2027 (second half of fiscal year), and approximately $42 million in FY 2028 (second half of fiscal year). The City has also secured two VRA loans in the amount of $25 million (with $1.25 million in principal forgiveness) and $16 million. The $25 million loan has a term of 20 years at 0.5%. The $16 million loan has a term of 20 years with no interest.

Table 10 presents the DPU's debt service on existing obligations after the refunding, the Series 2023 Bonds, and future debt service.

## TABLE 10: TOTAL DEBT SERVICE

| Line No. | Description | FY 2023 Forecast | FY 2024 Forecast | FY 2025 Forecast | FY 2026 Forecast | FY 2027 Forecast | FY 2028 Forecast |
|---|---|---|---|---|---|---|---|
| | **Existing Debt Service (with Refunding)** | | | | | | |
| | Senior Debt | | | | | | |
| | Revenue Bonds (1) (2) | | | | | | |
| 1. | Gas | $ 20,138,464 | $ 19,715,811 | $ 21,094,122 | $ 21,046,403 | $ 20,992,558 | $ 20,873,756 |
| 2. | Water | 14,990,297 | 14,501,626 | 15,179,506 | 15,177,148 | 15,179,957 | 15,176,660 |
| 3. | Wastewater | 27,293,291 | 26,805,323 | 28,361,860 | 28,061,516 | 27,687,453 | 26,936,258 |
| 4. | *Subtotal: Senior Debt* | $ 62,422,052 | $ 61,022,760 | $ 64,635,487 | $ 64,285,067 | $ 63,859,969 | $ 62,986,674 |
| | Subordinate Debt | | | | | | |
| | General Obligation Bonds | | | | | | |
| 5. | Gas | $ 2,522,408 | $ 2,375,285 | $ - | $ - | $ - | $ - |
| 6. | Water | 1,522,703 | 1,433,889 | - | - | - | - |
| 7. | Wastewater | - | - | - | - | - | - |
| 8. | *Subtotal: Subordinate Debt* | $ 4,045,111 | $ 3,809,174 | $ - | $ - | $ - | $ - |
| 9. | **Total Existing Debt Service** | **$ 66,467,164** | **$ 64,831,933** | **$ 64,635,487** | **$ 64,285,067** | **$ 63,859,969** | **$ 62,986,674** |
| | **Proposed Debt Service** | | | | | | |
| | Senior Debt | | | | | | |
| | Revenue Bonds | | | | | | |
| 10. | Gas | $ - | $ 907,828 | $ 2,033,112 | $ 2,395,665 | $ 3,123,847 | $ 3,851,180 |
| 11. | Water | - | 1,026,812 | 2,299,580 | 3,660,830 | 5,908,583 | 6,796,019 |
| 12. | Wastewater | - | 818,221 | 1,832,433 | 3,426,474 | 6,482,235 | 8,990,543 |
| 13. | *Subtotal: Revenue Bond Senior Debt* | $ - | $ 2,752,861 | $ 6,165,125 | $ 9,482,968 | $ 15,514,665 | $ 19,637,742 |
| | SRF Loans | | | | | | |
| 14. | Gas | $ - | $ - | $ - | $ - | $ - | $ - |
| 15. | Water | - | - | - | - | - | - |
| 16. | Wastewater | - | 1,250,828 | 2,050,828 | 2,050,828 | 2,050,828 | 2,050,828 |
| 17. | *Subtotal: SRF Loan Senior Debt* | $ - | $ 1,250,828 | $ 2,050,828 | $ 2,050,828 | $ 2,050,828 | $ 2,050,828 |
| 18. | **Total Proposed Debt Service** | **$ -** | **$ 4,003,689** | **$ 8,215,953** | **$ 11,533,797** | **$ 17,565,493** | **$ 21,688,571** |
| 19. | **Total Debt Service** | **$ 66,467,164** | **$ 68,835,622** | **$ 72,851,440** | **$ 75,818,864** | **$ 81,425,462** | **$ 84,675,245** |
| | *% Change* | | *3.6%* | *5.8%* | *4.1%* | *7.4%* | *4.0%* |

(1) Includes VRA loans that are considered senior debt per the Master Indenture.
(2) Does not take into account the Series 2023B Bond.

## 9. Conclusions

The following conclusions have been made by Raftelis regarding the covenant requirements of the Master Indenture given the assumptions outlined in this report:

- Compliance with the Rate Covenant is demonstrated on the Forecast Statement since the ratio calculated using Net Revenues Available for debt service is greater than the sum of 115% of Annual Debt Service with respect to the Bonds (as defined in the Master Indenture) plus 100% of the Annual Debt Service with respect to Other System Indebtedness (as defined in the Master indenture) and Subordinate Debt (as defined in the Master Indenture) in each year of the forecast.
- These qualifications are based upon a reasonable forecast of revenue, expenses, and debt service at the time of this report, with the expectation that the City Council will take the measures necessary on an annual basis to implement such rate increases necessary to maintain the level of financial sufficiency outlined in this report.

Raftelis Financial Consultants, Inc.
J. Bart Kreps

Vice President

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# APPENDIX F

## AUDITED FINANCIAL STATEMENTS FOR THE FISCAL YEAR ENDED JUNE 30, 2022

# THE CITY OF RICHMOND, VIRGINIA
# ANNUAL FINANCIAL STATEMENTS
# FOR THE FISCAL YEAR ENDED JUNE 30, 2022

The enclosed Financial Statements were reproduced from the City's audited financial statements in the Comprehensive Annual Financial Report for the year ended June 30, 2022.

## INDEX TO FINANCIAL SECTION

# INDEPENDENT AUDITORS' REPORT

The Honorable Members of the City Council
City of Richmond, Virginia

## Report on the Financial Statements

### *Opinions*

We have audited the accompanying financial statements of the governmental activities, the business-type activities, the aggregate discretely presented component units, each major fund, and the aggregate remaining fund information of the City of Richmond, Virginia (the City), as of and for the year ended June 30, 2022, and the related notes to the financial statements, which collectively comprise the City's basic financial statements as listed in the table of contents.

In our opinion, based on our audits and the reports of other auditors, the financial statements referred to above present fairly, in all material respects, the respective financial position of the governmental activities, the business-type activities, the aggregate discretely presented component units, each major fund, and the aggregate remaining fund information of the City, as of June 30, 2022, and the respective changes in financial position, and, where applicable, cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

We did not audit the financial statements of the following aggregate discretely presented component units: Richmond School Board, Richmond Economic Development Authority, and Richmond Behavioral Health Authority, which represents 64 percent, 384 percent, and 83 percent, respectively of the assets and deferred outflows of resources, fund balance/net position, and revenues for the aggregate discretely presented component units. We also did not audit the financial statements of the Richmond Retirement System, which represents 72 percent, 89 percent and 4 percent, respectively, of the assets and deferred outflows of resources, fund balance/net position, and revenues of the aggregate remaining fund information of the City. Those statements were audited by other auditors whose reports has been furnished to us, and our opinion, insofar as it relates to the amounts included for Richmond School Board, Richmond Economic Development Authority, Richmond Behavioral Health Authority and Richmond Retirement system, is based solely on the report of the other auditors.

### *Basis for Opinions*

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the City and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions. The financial statements of Richmond Retirement System were not audited in accordance with *Government Auditing Standards.*

***Emphasis of Matter***

*Change in Accounting Principle*

As discussed in Note 1 to the financial statements, effective July 1, 2021, the City adopted new accounting guidance for leases. The guidance requires lessees to recognize a right-to-use lease asset and corresponding lease liability and lessors to recognize a lease receivable and corresponding deferred inflow of resources for all leases with lease terms greater than twelve months. Our opinion is not modified with respect to this matter.

***Responsibilities of Management for the Financial Statements***

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the City's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

***Auditors' Responsibilities for the Audit of the Financial Statements***

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the City's internal control. Accordingly, no such opinion is expressed.

- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.

- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the City's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters that we identified during the audit.

***Required Supplementary Information***

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the required supplementary information as listed in the table of contents, be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with GAAS, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

***Supplementary Information***

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the City's basic financial statements. The accompanying combining and individual fund statements and budgetary comparison schedules are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with GAAS. In our opinion, the accompanying combining and individual fund statements and budgetary comparison schedules are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

***Other Information***

Management is responsible for the other information included in the annual report. The other information comprises the introductory and statistical sections but does not include the basic financial statements and our auditors' report thereon. Our opinions on the basic financial statements do not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit of the basic financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the basic financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

**Other Reporting Required by *Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated January 30, 2023, on our consideration of the City's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the City's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the City's internal control over financial reporting and compliance.

CliftonLarsonAllen LLP

**CliftonLarsonAllen LLP**

Arlington, Virginia
January 30, 2023

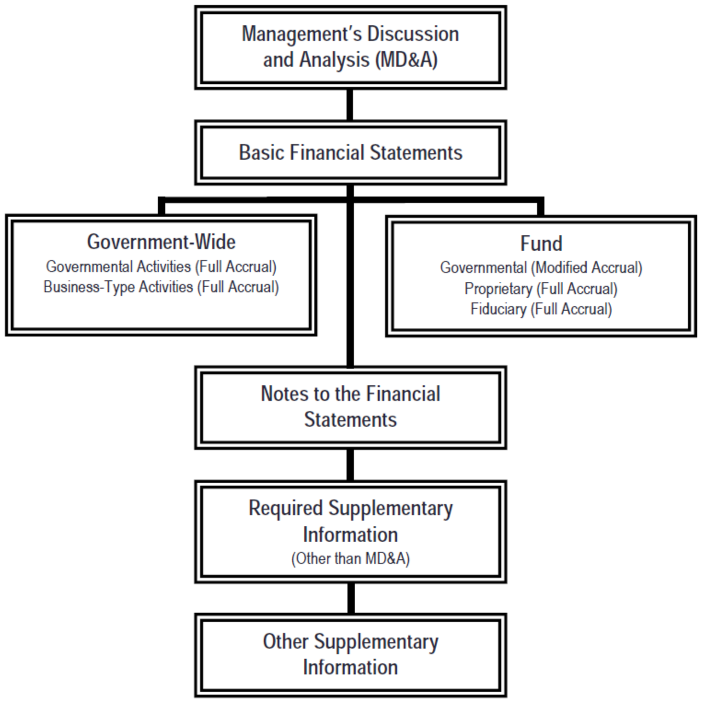
The following discussion and analysis provided by the City's management presents a narrative overview and analysis of the financial activities of the City through the presentation of its Annual Comprehensive Financial Report for the Fiscal Year ended June 30, 2022. City management encourages readers to consider the information presented here in conjunction with the information presented in the Transmittal Letter at the front of this report and the City's Basic Financial Statements which follow this section.

**FINANCIAL HIGHLIGHTS FOR FISCAL YEAR 2022**

- The City's General Fund reported an ending Fund Balance of $206.2 million, an increase of $44.1 million or 27.2 percent compared to the prior year. Of the total General Fund balance: $11.5 thousand is Nonspendable, $25.2 million is Committed to Revenue Stabilization, $158.2 thousand committed to School Board Operations, $15.3 million is Assigned to subsequent years' Expenditures, $17.6 million to Capital Reserve, $0.3 million for the Arts, $16.8 million for School Facilities, $2.7 million for Unspent Building Code Fees, $547.6 thousand for COVID-19 Contingencies, $1.8 million for Special Purpose, $18.0 million for Tax Rebate, and $107.9 million is Unassigned. The Unassigned Fund Balance represents 13.9 percent of actual Expenditures and Transfers out of $776.4 million.
- The City's total taxable assessed value for Real and Personal Property including Machinery and Tools increased by $5.4 billion or 18.5 percent.
- The City's General Obligation Bond ratings were reaffirmed at Aa1 by Moody's and AA+ by both Fitch Ratings and Standard and Poor's, with a stable outlook.
- At the end of the Fiscal Year, the City's Assets and Deferred Outflows of Resources exceeded Liabilities and Deferred Inflows of Resources by $1,361.1 million. Net Position was comprised mainly of $1,073.3 million attributable to the City's Net Investment in Capital Assets, $108.6 million in Restricted and $179.2 million in Unrestricted.
- Net Position for Governmental Activities increased $150.6 million or 52.8 percent compared to the prior year.
- For this Fiscal Year, General Fund Revenues and Financing Sources were $820.4 million. General Fund Expenditures and Other Financing Uses were $776.4 million. City Taxes accounted for 74.3 percent of Revenue.
- The City's Business-Type Activities Net Position increased by $47.0 million or 5.4 percent.

## OVERVIEW OF THE FINANCIAL STATEMENTS

The City's Annual Comprehensive Financial Report consists of three sections: Introductory, Financial and Statistical. As illustrated in the following chart, the financial section of this report consists of five components: Management's Discussion and Analysis (this section), the Basic Financial Statements, Notes to the Financial Statements, Required Supplementary Information and Other Supplementary Information.




The City's financial statements present a focus on the City as a whole (Government-Wide) as well as the major individual funds. The Government-Wide financial statements provide both long-term and short-term information about the City's overall financial status. The Fund financial statements focus on the individual parts of the City government, reporting the operations of the City in more detail than the government-wide statements. Both perspectives, Government-Wide and individual Fund, allow the user to address relevant questions, broaden the basis for comparisons year to year or government to government and enhance the City's accountability.

### Government-Wide Financial Statements

The Government-Wide financial statements are designed to provide readers with a broad overview of the City's finances in a manner similar to a private-sector business. Government-Wide financial reporting consists of two statements: the Statement of Net Position and the Statement of Activities. The Statement of Net Position includes all of the City's Assets and Liabilities, both short-term and long-term, while the Statement of Activities reports all of the current year's Revenues and Expenses as soon as the underlying event for recognition occurs, regardless of the timing of the related cash flows. Over time, the increases or decreases in the City's Net Position can be an indicator of the City's financial condition. Annual Comprehensive Financial Report users should also consider additional non-financial factors in assessing the overall health of the City.

The City's Government-Wide financial statements are divided into three categories:

- **Governmental Activities** – Most of the City's basic services including Police, Fire, Economic and Community Development, Parks, Recreation and Community Facilities, Social Services and General Administration are reported here. The majority of these activities are supported by property taxes, other local taxes and federal and state funding.
- **Business-Type Activities** – The City's Gas, Water, Wastewater, Stormwater, Parking and Cemeteries are reported here. Fees are charged to customers to help cover the costs of providing these services.

- **Component Units** – Five separate legal entities are included in this report: Richmond School Board, Richmond Economic Development Authority, Richmond Ambulance Authority, Richmond Behavioral Health Authority and Richmond Redevelopment and Housing Authority. Although legally separate, these component units are important because the City is financially accountable for them, and may provide significant operating or capital funding, or both.

**Fund Financial Statements**

The Fund financial statements provide detailed information about the City's most significant funds and not the City as a whole. Funds are an accounting tool that the City uses to track resources that are segregated for specific activities or objectives. Some funds are required by state law or by bond covenants. Other funds are established to control and manage money for particular purposes or to show that the City is using specific revenue sources such as taxes and grants for their intended purposes. The City has three types of funds: Governmental, Proprietary and Fiduciary.

- **Governmental Funds** – The General Fund, Debt Service Fund, Capital Projects Fund, Special Revenue funds and Permanent Funds are Governmental Funds. These Funds' statements focus on near-term inflows and outflows of spendable resources as well as balances of spendable resources available at the end of the Fiscal Year. Additional information is provided accompanying these statements that explains the relationship between the long-term focused Government-Wide statements and the short-term focused Governmental Fund statements.
- **Proprietary Funds** – Services for which the City charges customers a fee are generally reported in Proprietary Funds. Like the Government-Wide statements, Proprietary Fund statements provide both long and short-term financial information. The City maintains two types of Proprietary Funds:
    - **Enterprise Funds** – Similar to Business-Type Activities included in the Government-Wide statements, the Enterprise Fund financial statements provide more detail and additional information such as Cash-Flow.
    - **Internal Service Funds** – The City uses Internal Service Funds to report activities that provide supplies and services for the City's other programs and activities.
- **Fiduciary Funds** – Fiduciary Funds are used to account for resources held for the benefit of parties outside the government. These Fiduciary activities are excluded from the City's Government-Wide financial statements because the City cannot use these assets to finance its operations. The City maintains three Fiduciary Funds:
    - **Trust Funds –** Provides Retirement and Disability Benefits for all vested full time employees under a City deferred compensation plan created in accordance with the Internal Revenue Code Section 457.
    - **Private Purpose Funds --** Reports trust arrangements, other than pension and investment trusts, under which principal and income benefit individuals, private organizations, or other governments.
    - **Custodial Funds** – Reports fiduciary activity resources that are not held in a trust agreement or equivalent arrangement that meets specific criteria. Many activities that are now reported in agency funds will be reported in custodial funds.

**Notes to the Financial Statements**

The notes to the financial statements provide information that is essential for a full understanding of the information provided in the Government-Wide and Fund financial statements. The notes also present certain Required Supplementary Information.

**GOVERNMENT-WIDE ANALYSIS**

**Net Position**

FY2022, Total Assets for the Primary Government were $3,867.9 million, an increase from prior year total Assets by $151.3 million. Total Assets for only Governmental Activities were $1,912.8 million, up by $124.1 million or 6.9 percent. Total Assets from Business-Type Activities decreased by $27.3 million and were still predominant in FY2022, accounting for 50.5 percent of total Primary Government Assets compared to 51.9 percent in FY2021.

Total Liabilities were $2,499.2 million up $(229.3) million from $2,728.5 million in FY2021. Total Liabilities associated with Governmental Activities increased by $(181.7) million up (11.1) percent while total Liabilities associated with Business-Type Activities decreased $(47.6) million or (4.4) percent.

Total Net Position was $1,361.1 million up $197.5 million over the prior year's balance. Table 1 summarizes the City's Government-Wide Net Position at June 30, 2022 and 2021.

**Table 1**
**City of Richmond's Schedule of Net Position**
**As of the Fiscal Years Ended June 30, 2022 and 2021**
**(In Millions, rounded)**

| | Governmental Activities | | Business-Type Activities | | Total Primary Government | |
|---|---|---|---|---|---|---|
| | 2022 | 2021 | 2022 | 2021 | 2022 | 2021 |
| Current and Other Assets | $ 596.8 | $ 479.8 | $ 516.0 | $ 537.6 | $ 1,112.8 | $ 1,017.5 |
| Capital Assets, Net | 1,316.0 | 1,308.9 | 1,439.1 | 1,390.2 | 2,755.1 | 2,699.1 |
| Total Assets | 1,912.8 | 1,788.7 | 1,955.1 | 1,927.8 | 3,867.9 | 3,716.6 |
| Deferred Outflow of Resources | 97.2 | 150.0 | 28.3 | 39.3 | 125.5 | 189.3 |
| Current and Other Liabilities | 419.5 | 303.3 | 107.6 | 96.8 | 527.1 | 400.1 |
| Long-Term Obligations Outstanding | 1,038.6 | 1,336.5 | 933.5 | 991.9 | 1,972.1 | 2,328.4 |
| Total Liabilities | 1,458.1 | 1,639.8 | 1,041.1 | 1,088.7 | 2,499.2 | 2,728.5 |
| Deferred Inflows of Resources | 116.3 | 14.0 | 16.7 | - | 133.0 | 14.0 |
| Net Position: | | | | | | |
| Net Investment in Capital Assets | 456.8 | 418.0 | 616.6 | 590.0 | 1,073.3 | 1,008.0 |
| Restricted | 77.1 | 73.7 | 31.5 | 31.7 | 108.6 | 105.4 |
| Unrestricted | (98.3) | (206.7) | 277.4 | 256.9 | 179.2 | 50.2 |
| Total Net Position | $ 435.6 | $ 285.0 | $ 925.5 | $ 878.5 | $ 1,361.1 | $ 1,163.6 |

Note - Immateriall rounding differences between the tables in the MD&A and the Exhibits in the Financial Statements may exist.

**Activities**

In FY2022, total Primary Government Revenues were $1,333.6 million, which reflects an increase over prior year. Program Revenues (Charges for Service, Grants, and Contributions) of $714.8 million accounted for 53.6 percent of all Primary Government Revenues, while property and other local taxes attributable to Governmental Activities accounted for $597.0 million, most of the remainder. Total Revenues for all Governmental Activities were $891.5 million. Governmental Activities' Program Revenues of $275.1 million accounted for 30.9 percent.

Total Expenses for Primary Government were $1,136.0 million. Four activities: General Government, Public Safety and Judiciary, Education, and Business-Type Activities accounted for the following amounts and percentages: $104.8 million (9.2 percent), $225.5 million (19.9 percent), $188.5 million (16.6 percent), and $362.2 million (31.9 percent), respectively. Table 2 summarizes the City's Government-Wide Activities for the years ended June 30, 2022 and 2021.

**Table 2**
**City of Richmond's Schedule of Activities**
**As of the Fiscal Years Ended June 30, 2022 and 2021**
**(In Millions, rounded)**

| | Governmental Activities | | Business-Type Activities | | Total Primary Government | |
|---|---|---|---|---|---|---|
| **Revenues:** | 2022 | 2021 | 2022 | 2021 | 2022 | 2021 |
| Program Revenues: | | | | | | |
| Charges for Services | $ 228.2 | $ 236.8 | $ 418.8 | $ 351.7 | $ 646.9 | $ 588.6 |
| Operating Grants and Contributions | 34.2 | 44.1 | 0.1 | 0.3 | 34.3 | 44.4 |
| Capital Grants and Contributions | 12.7 | 14.6 | 21.0 | 13.7 | 33.6 | 28.4 |
| General Revenues: | | | | | | |
| Property Taxes | 453.7 | 410.7 | - | - | 453.7 | 410.7 |
| Other Taxes | 143.3 | 124.4 | - | - | 143.3 | 124.4 |
| Investment Income | 0.1 | 0.3 | 1.0 | 1.0 | 1.1 | 1.2 |
| Miscellaneous | 19.4 | 44.5 | 1.4 | 2.0 | 20.7 | 46.5 |
| Total Revenues | 891.5 | 875.4 | 442.2 | 368.9 | 1,333.6 | 1,244.2 |
| **Expenses:** | | | | | | |
| Primary Government | | | | | | |
| General Government | 104.8 | 106.7 | - | - | 104.8 | 106.7 |
| Public Safety and Judiciary | 225.5 | 287.5 | - | - | 225.5 | 287.5 |
| Highway, Street, Sanitation and Refuse | 110.1 | 84.5 | - | - | 110.1 | 84.5 |
| Human Services | 73.6 | 116.3 | - | - | 73.6 | 116.3 |
| Culture and Recreation | 32.2 | 51.3 | - | - | 32.2 | 51.3 |
| Education | 188.5 | 186.6 | - | - | 188.5 | 186.6 |
| Transportation | 8.3 | 7.3 | - | - | 8.3 | 7.3 |
| Interest and Fiscal Charges | 30.7 | 30.1 | - | - | 30.7 | 30.1 |
| Business-Type Activities | - | - | 362.2 | 311.5 | 362.2 | 311.5 |
| Total Expenses | $ 773.9 | $ 870.2 | $ 362.2 | $ 311.5 | $ 1,136.0 | $ 1,181.8 |
| Income Before Transfers | 117.7 | 5.2 | 80.0 | 57.3 | 197.7 | 62.3 |
| Transfers | 33.0 | 37.9 | (33.0) | (37.9) | - | - |
| Changes in Net Position | 150.6 | 43.1 | 47.1 | 19.4 | 197.7 | 62.3 |
| Net Position, Beginning of Year | 285.0 | 241.9 | 878.5 | 859.1 | 1,163.5 | 1,101.0 |
| Net Position, End of Year | $ 435.6 | $ 285.0 | $ 925.6 | $ 878.5 | $ 1,361.1 | $ 1,163.3 |

Note - Immaterial rounding differences between the tables in the MD&A and the Exhibits in the Financial Statements may exist.

## GENERAL FUND

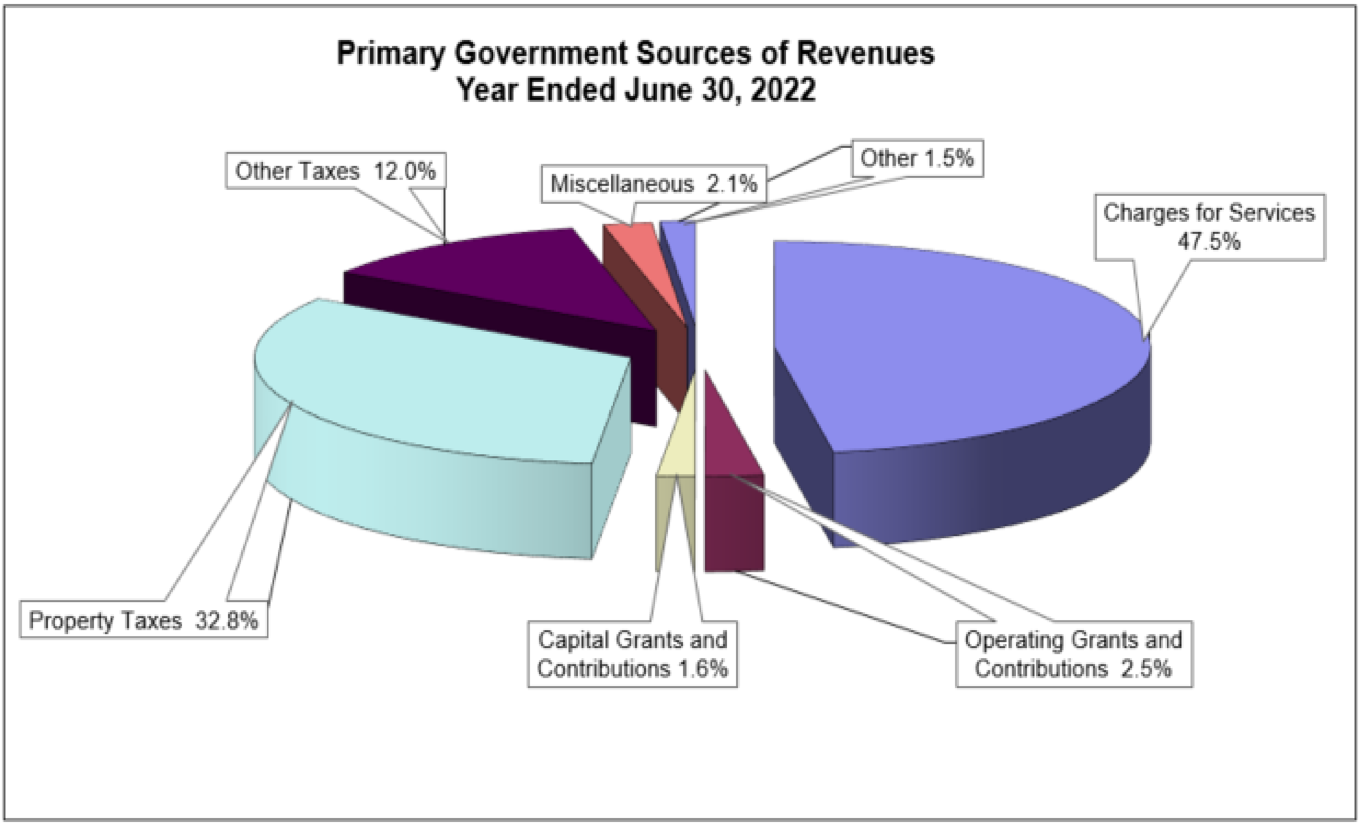
The General Fund is the City's largest governmental Fund and, therefore, deserves special attention. Total Revenues and Other Financing Sources totaled $820.4 million in FY2022, an increase of $34.1 million from the prior year. Property and other local taxes accounted for $602.1 million or 74.3 percent of total Revenues

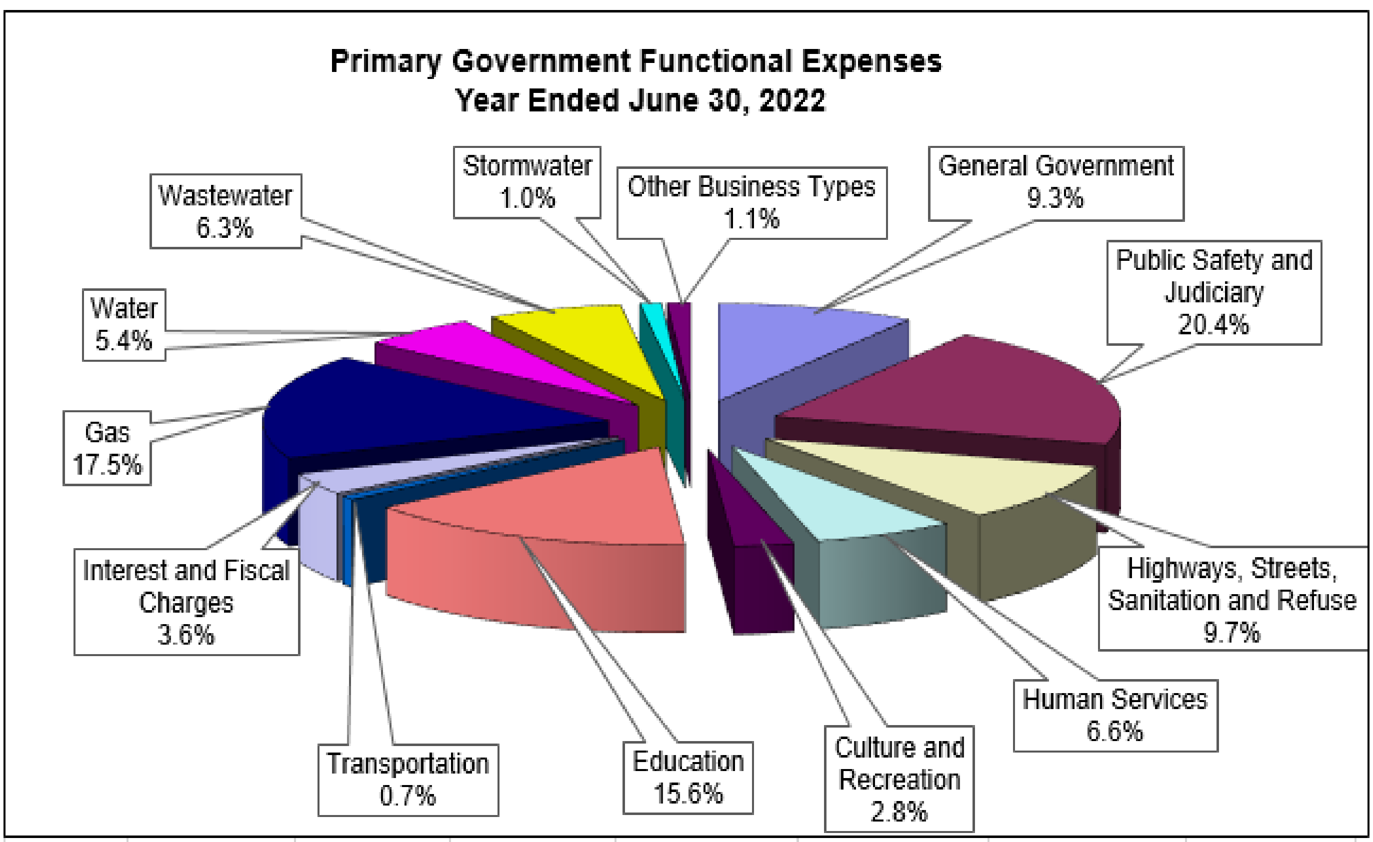
On the other side of the ledger, Expenditures and Transfers Out totaled $776.4 million, a decrease of $(2.5) million or (0.3) percent, from the prior year. Public Safety & Judiciary and Education, the two largest program areas, totaled $394.3 million, or 58.6 percent of total General Fund Expenses.

**Table 3**
**City of Richmond's Budgetary Comparison**
**General Fund**
**For the Fiscal Years Ended June 30, 2022 and 2021**
**(In Millions, rounded)**

| | Original Budget | | Amended Budget | | Actual | | Positive (Negative) Variance | |
|---|---|---|---|---|---|---|---|---|
| | 2022 | 2021 | 2022 | 2021 | 2022 | 2021 | 2022 | 2021 |
| **Revenues:** | | | | | | | | |
| Property Taxes | $ 414.8 | $ 385.5 | $ 426.3 | $ 387.4 | $ 456.6 | $ 415.2 | $ 30.2 | $ 27.7 |
| Other Taxes | 148.5 | 156.7 | 148.5 | 138.1 | 145.5 | 130.5 | (3.0) | (7.6) |
| Intergovernmental | 86.1 | 85.2 | 123.0 | 125.7 | 83.1 | 118.1 | (39.9) | (7.4) |
| Miscellaneous | 104.0 | 104.5 | 105.6 | 111.4 | 125.5 | 110.5 | 20.0 | (0.9) |
| Other Financing Sources | 19.4 | 12.1 | 20.6 | 0.2 | 9.8 | 12.1 | (10.8) | 11.9 |
| Total Revenues and Other Financing Sources | $ 772.7 | $ 744.1 | $ 823.9 | $ 762.8 | $ 820.4 | $ 786.3 | $ (3.4) | $ 23.6 |
| **Expenses:** | | | | | | | | |
| General Government | $ 60.7 | $ 59.1 | $ 94.2 | $ 60.5 | $ 62.7 | $ 53.5 | $ 31.5 | $ 6.9 |
| Public Safety and Judiciary | 213.0 | 209.4 | 217.9 | 250.3 | 207.2 | 246.2 | 10.7 | 4.1 |
| Highway, Street, Sanitation and Refuse | 36.0 | 35.6 | 43.0 | 43.9 | 39.2 | 44.2 | 3.8 | (0.3) |
| Human Services | 62.9 | 62.1 | 68.0 | 63.5 | 59.2 | 57.6 | 8.9 | 5.9 |
| Culture and Recreation | 24.1 | 23.6 | 26.3 | 23.6 | 27.7 | 23.3 | (1.3) | 0.3 |
| Education | 187.1 | 190.2 | 187.1 | 187.2 | 187.1 | 187.5 | - | (0.3) |
| Non-Departmental | 79.9 | 75.9 | 93.9 | 70.6 | 88.2 | 75.4 | 5.7 | (4.6) |
| Other Financing Uses | 109.1 | 88.2 | 109.2 | 92.8 | 105.0 | 91.4 | 4.2 | 1.2 |
| Total Expenses and Other Financing Uses | $ 772.8 | $ 744.1 | $ 839.7 | $ 792.3 | $ 776.4 | $ 778.9 | $ 63.5 | $ 13.2 |

Note - Immaterial rounding differences between the tables in the MD&A and the Exhibits in the Financial Statements may exist.


Primary Government Sources of Revenues
Year Ended June 30, 2022
Other Taxes 12.0%
Miscellaneous 2.1%
Other 1.5%
Charges for Services 47.5%
Property Taxes 32.8%
Capital Grants and Contributions 1.6%
Operating Grants and Contributions 2.5%


Primary Government Functional Expenses
Year Ended June 30, 2022
Stormwater 1.0%
Other Business Types 1.1%
General Government 9.3%
Wastewater 6.3%
Public Safety and Judiciary 20.4%
Water 5.4%
Gas 17.5%
Interest and Fiscal Charges 3.6%
Highways, Streets, Sanitation and Refuse 9.7%
Human Services 6.6%
Transportation 0.7%
Education 15.6%
Culture and Recreation 2.8%

## CAPITAL ASSETS

The Department of Public Utilities' spent $103.6 million during the fiscal year to expand, upgrade, and renew its Infrastructure. The Gas Utility invested approximately $5.3 million to support our expanding market base and $21.1 million in upgrades to existing Infrastructure. The Water Utility invested approximately $28.7 million in upgrades to existing infrastructure including $7.2 million of investments in major plant, pumping and transmission improvements. The Wastewater Utility invested approximately $41.8 million in upgrades to existing infrastructure, of which $3.8 million was spent on major plant improvements. The Storm water Utility invested $6.7 million to upgrade the existing Infrastructure.

**Table 4**
**City of Richmond's Capital Assets**
**As of the Fiscal Years Ended June 30, 2022 and 2021**
**(In Millions, rounded)**

| | Governmental Activities | | Business-Type Activities | | Total | |
|---|---|---|---|---|---|---|
| | 2022 | 2021 | 2022 | 2021 | 2022 | 2021 |
| Capital Assets Not Being Depreciated: | | | | | | |
| Land and Land Improvements | $ 105.5 | $ 105.5 | $ 26.3 | $ 26.3 | $ 131.8 | $ 131.8 |
| Construction In Progress | 136.2 | 245.6 | 48.8 | 36.1 | 185.0 | 281.7 |
| Works of Art/Historical Treasures | 8.3 | 8.7 | - | - | 8.3 | 8.7 |
| Total Assets Not Being Depreciated | 250.0 | 359.8 | 75.1 | 62.4 | 325.1 | 422.2 |
| Capital Assets Being Depreciated: | | | | | | |
| Infrastructure | 1,043.9 | 1,026.6 | - | - | 1,043.9 | 1,026.6 |
| Buildings and Structures | 1,140.2 | 994.3 | 2,066.8 | 2,250.2 | 3,207.0 | 3,244.5 |
| Right of Use Land & Land Rights | | | 14.5 | | 14.5 | |
| Right of Use Equipment and Other Assets | 8.4 | | - | | - | |
| Equipment and Other Assets | 146.7 | 142.1 | 384.4 | 35.5 | 531.1 | 177.6 |
| Improvements Other Than Buildings | 33.9 | 33.8 | - | - | 33.9 | 33.8 |
| Total Other Assets | 2,373.1 | 2,196.9 | 2,465.7 | 2,285.7 | 4,830.4 | 4,482.5 |
| Less Accumulated Depreciation For: | | | | | | |
| Infrastructure | 681.1 | 659.2 | - | - | 681.1 | 659.2 |
| Buildings and Structures | 492.3 | 465.3 | 830.5 | 969.5 | 1,322.8 | 1,434.8 |
| Equipment and Other Assets | 114.3 | 107.6 | 271.0 | 2.5 | 385.3 | 110.1 |
| Right of Use Land & Land Rights | | | 0.2 | | 0.2 | |
| Right of Use Equipment and Others | 2.3 | | - | | - | |
| Improvements Other Than Buildings | 16.9 | 15.8 | - | - | 16.9 | 15.8 |
| Total Accumulated Depreciation | 1,307.0 | 1,247.9 | 1,101.7 | 972.0 | 2,406.3 | 2,219.9 |
| Total Capital Assets Being Depreciated, Net | 1,066.1 | 948.9 | 1,364.0 | 1,313.7 | 2,424.1 | 2,262.6 |
| Total Capital Assets, Net | $ 1,316.0 | $ 1,308.7 | $ 1,439.1 | $ 1,376.1 | $ 2,749.1 | $ 2,684.8 |

Note - Immaterial rounding differences between the tables in the MD&A and the Exhibits in the Financial Statements may exist.

Additional capital asset information can be found in Note 6.

## LONG-TERM OBLIGATIONS

As of June 30, 2022, the City had a total of $1.78 billion of outstanding Bonds, Notes and Bond Premiums, a decrease of $78.9 million compared to the previous year. Outstanding debt of the City's Governmental Activities at year end was $871.6 million, while the Business-Type Activities outstanding debt (primarily Utilities and Parking operations) was $908.2 million.

During FY2022, the City did not issue any new bonds or notes, but did make draws and advances on existing available credit facilities. The City drew an additional $32.3 million on the Series 2021A Line of Credit Bond Anticipation Note bringing the outstanding balance at fiscal year end to $60.0 million. Proceeds were used to provide interim financing for ongoing City and Stormwater Utility capital projects. In the subsequent fiscal year, the outstanding $60.0 million was refinanced into long-term general obligation bonds.

The City's Wastewater Utility also made $3.9 million of draws on its Series 2021A Utility Revenue Bond issue, bringing the outstanding principal balance on this bond issue to $4.7 million at June 30, 2022. This bond issue financing is being provided by the Commonwealth's Virginia Resources Authority at a zero percent interest rate. More detailed information about the City's long-term Liabilities is presented in Note 7 of the notes to the financial statements.

**Table 5**
**City of Richmond's Long-Term Obligations**
**For the Fiscal Year Ended June 30, 2022**
**(In Thousands, rounded)**

| | Balance July 1, 2021 | Additions | Deletions | Balance June 30, 2022 | Not Due Within One Year | Due Within One Year |
|---|---|---|---|---|---|---|
| **Primary Government - Governmental Activities** | | | | | | |
| General Obligation Bonds | $ 777,077.3 | $ - | $ 49,469.6 | $ 727,607.8 | $ 671,169.4 | $ 56,438.3 |
| General Obligation Bond - Direct Borrowing | 12,593.7 | - | 6,069.4 | 6,524.3 | 6,524.3 | - |
| Total General Obligation Bonds | 789,671.0 | - | 55,538.9 | 734,132.1 | 677,693.7 | 56,438.4 |
| Line of Credit - Bond Anticipation Note - | 23,948.2 | 28,651.8 | - | 52,600.0 | - | 52,600.00 |
| General Obligation Serial Equipment Notes | 11,233.0 | - | 2,058.0 | 9,175.0 | 7,097.0 | 2,078.0 |
| Total General Obligation Notes | 35,181.2 | 28,651.8 | 2,058.0 | 61,775.0 | 7,097.0 | 54,678.0 |
| HUD Section 108 Notes | 9,811.0 | - | 685.0 | 9,126.0 | 8,426.0 | 700.0 |
| Premium on Debt Issued | 78,787.7 | - | 12,183.3 | 66,604.4 | 55,882.4 | 10,722.0 |
| Total Obligations | $ 913,450.9 | $ 28,651.8 | $ 70,465.2 | $ 871,637.5 | $ 749,099.1 | $ 122,538.5 |
| Compensated Absences | $ 21,394.1 | $ 21,091.0 | $ 19,780.6 | $ 22,704.5 | $ 15,461.9 | $ 7,242.6 |
| Net Other Post Employment Benefit Obligations | $ 103,697.9 | $ 7,574.0 | $ 91,064.8 | $ 20,207.1 | $ 20,207.1 | $ - |
| Net Pension Liability | $ 342,688.3 | $ 74,495.5 | $ 201,674.2 | $ 215,509.7 | $ 215,509.7 | $ - |

**Table 6**
**City of Richmond's Long-Term Obligations**
**For the Fiscal Year Ended June 30, 2022**
**(In Thousands, rounded)**

| **Primary Government - Business-Type Activities** | Balance July 1, 2021 | Additions | Deletions | Balance June 30, 2022 | Not Due Within One Year | Due Within One Year |
|---|---|---|---|---|---|---|
| General Obligation Bonds: | | | | | | |
| Utilities | | | | | | |
| General Obiligation Bonds | $ 11,382.0 | $ - | $ 3,741.7 | $ 7,640.4 | $ 3,755.7 | $ 3,884.7 |
| General Obiligation Bond - Direct Borrowing | 1,065.2 | - | 88.6 | 976.5 | 872.9 | 103.6 |
| Total Utilities General Obligation Debt | 12,447.2 | - | 3,830.3 | 8,616.9 | 4,628.6 | 3,988.3 |
| Non-Major Enterprise Funds | | | | | | |
| General Obiligation Bonds | 44,220.5 | - | 3,918.8 | 40,301.8 | 36,800.6 | 3,501.2 |
| General Obiligation Bond - Direct Borrowing | 1.3 | - | 0.6 | 0.8 | 0.8 | - |
| Premium on Non-Major Debt, Net | 1,120.5 | - | 188.0 | 932.5 | 932.5 | - |
| Total Non-Major Enterprise Funds General Obligation Debt | 45,342.2 | - | 4,107.3 | 41,235.1 | 37,733.9 | 3,501.2 |
| Total General Obligation Debt | 57,789.5 | - | 7,937.7 | 49,852.0 | 42,362.4 | 7,489.6 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Revenue Bonds: | | | | | | |
| Public Utility Revenue Bonds | 779,160.0 | - | 26,595.0 | 752,565.0 | 725,720.0 | 26,845.0 |
| Public Utility Revenue Bond - Direct Borrowing | 41,586.1 | 3,867.8 | 3,934.4 | 41,519.4 | 37,503.1 | 4,016.3 |
| Premium on Public Utility Debt, Net | 60,163.4 | - | 5,493.6 | 54,669.7 | 54,669.7 | - |
| Total Revenue Bonded Debt | 880,909.5 | 3,867.8 | 36,023.1 | 848,754.2 | 817,892.7 | 30,861.2 |
| Total Bonded Debt | $ 938,699.0 | $ 3,867.8 | $ 43,960.8 | $ 898,606.2 | $ 860,255.2 | $ 38,350.8 |
| Compensated Absences: | | | | | | |
| Gas | $ 1,117.5 | $ 1,059.5 | $ 1,036.4 | $ 1,140.6 | $ 759.0 | $ 381.6 |
| Water | 858.5 | 804.6 | 797.0 | 866.2 | 576.4 | 289.8 |
| Wastewater | 837.0 | 804.9 | 775.5 | 866.5 | 576.6 | 289.9 |
| Storm water | 285.0 | 279.7 | 263.6 | 301.0 | 200.3 | 100.7 |
| Stores Operating Fund | 20.5 | 17.6 | 19.2 | 19.0 | 12.6 | 6.4 |
| Cemeteries | 51.4 | 61.5 | 46.6 | 66.3 | 45.1 | 21.2 |
| Other Non-major Enterprise Funds | 95.3 | 51.0 | 91.4 | 54.9 | 37.4 | 17.5 |
| Total Compensated Absences | $ 3,265.3 | $ 3,079.0 | $ 3,029.7 | $ 3,314.4 | $ 2,207.4 | $ 1,107.1 |
| Net Other Post Employment Benefit Obligations | $ 16,445.4 | $ 1,469.5 | $ 13,994.2 | $ 3,920.8 | $ 3,920.8 | $ - |
| Net Pension Liability | $ 57,089.9 | $ 14,454.4 | $ 29,882.1 | $ 41,662.1 | $ 41,662.1 | $ - |

## ECONOMIC FACTORS

The City of Richmond's employment market is a broadly diverse mix of business types that includes manufacturing and construction, healthcare, financial, legal, professional, and other business services. Being the capital of the Commonwealth of Virginia, the City also benefits from a large and growing number of Federal and State jobs based in the City. Key private sector employers within the City include the three Fortune 1000 headquarters of Dominion Energy, Universal Corporation, and New Market Corporation. The largest private employers in the greater Richmond metropolitan area include Capital One Financial Corporation, VCU Health System, HCA Health System, Dominion Energy, Truist Financial Corporation, Amazon.com, and the Federal Reserve Bank of Richmond. Major colleges and universities found within Richmond include Virginia Commonwealth University, University of Richmond, Virginia Union University, and Reynolds Community College, which provide a steady stream of talented graduates to support the growth of local businesses.

Richmond has displayed steady population growth over the last decade with the 2020 Census population reflecting 11% growth, adding 22,396 new residents to the population during the last 10 years. The overall Richmond metropolitan region now includes a population of more than 1.3 million in central Virginia. After the unemployment spike following the start of the COVID-19 pandemic, the City of Richmond's unemployment has returned to pre-pandemic comparable level of 3.4 percent unemployment rate in September, 2022. The City's current unemployment rate is slightly above the Virginia state average and similar to the national average.

In the post-pandemic era, Richmond has enjoyed strong gains in the housing market.The city added 644 new housing units in 2021, and is on pace to have a more significant incease for 2022. The assessed values of Richmond's taxable real estate reported strong growth over the fiscal year. The assessed value of taxable real estate in the City grew over 13.4 percent in FY 2022, from $28.0 billion to $31.8 billion. Current and Delinquent Real Estate tax collections grew from $329.6 million to $367.6 million during the fiscal year.

In December of 2021 issued a Request for Interest for the Diamond District Project which seeks to redevelop 67.57 acres of under-developed, publicly-owned property along the I-95 east coast corridor into a mixed-use, mixed-income entertainment destination. The City has been preparing for a redevelopment of this strategic site for a number of years and, in the process, has relocated city functions, demolished buildings, and remediated the site with the exception of the baseball stadium and the Arthur Ashe Junior Athletic Center. The City has selected RVA Diamond Partners LLC as the development team to partner with the City to fulfill the vision for the Diamond District.

In May of 2022, the City of Richmond adopted the Strategic Plan for Equitable Economic Development (SPEED). SPEED focuses on community, innovation, and industry. The plan outlines tangible steps toward addressing long-standing inequities that have only been exacerbated by the COVID-19 pandemic, including racial disparities in education, poverty, housing, and health. Each of the plan's initiatives are designed to build a more equitable, inclusive, and sustainable economy for Richmond. The plan establishes five aggressive economic development goals through Fiscal Year 2026: $3 billion in capital investment for economic development projects;

3,000 announced new jobs with annual salaries at or about $52,000; reduce the poverty rate by 5 percentage points; public and private sector real estate development activities that generate $25 million in annual real estate tax revenue; and 2,500 postsecondary credentials awarded to Richmond residents.

In November of 2022, the Economic Development Authority in collaboration with the Greater Richmond Convention Center Authority, issued a Request for Interest to solicit creative development responses from financially capable and experienced development teams interested in purchasing and redeveloping approximately 9.4 acres of under-utilized, EDA-owned property in Richmond's City Center Innovation District ("City Center"). The vision for City Center is to redevelop the area to become a mixed-use, mixed-income urban innovation district destination anchored by a headquarter hotel supporting the Greater Richmond Convention Center along with commercial, educational, and residential development to create a dynamic downtown.

**CONTACTING THE CITY'S FINANCIAL MANAGEMENT**

This financial report is designed to provide City residents, taxpayers, customers, investors and creditors with a general overview of the City's finances and to demonstrate the City's accountability for the funds it receives and disburses. Questions concerning this report or requests for additional financial information should be directed to the Director of Finance, City of Richmond, 900 East Broad Street, 10th floor Suite 1003, Richmond, Virginia 23219.

# *BASIC FINANCIAL*

# *STATEMENTS*

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**CITY OF RICHMOND, VIRGINIA**
**STATEMENT OF NET POSITION**
**June 30, 2022**

**Exhibit A, Continued**

| | Primary Government | | | |
|---|---|---|---|---|
| | Governmental Activities | Business-type Activities | Total | Component Units |
| **Assets** | | | | |
| Current Assets: | | | | |
| Cash and Cash Equivalents (Note 3) | $ 445,690,217 | $ 254,362,816 | $ 700,053,033 | $ 102,113,039 |
| Receivables (Net of Allowance for Doubtful Accounts): | | | | |
| Taxes and Licenses | 60,377,425 | - | 60,377,425 | - |
| Accounts Receivable | 37,701,403 | 83,726,130 | 121,427,533 | 10,478,424 |
| Leases Receivable | 1,180,097 | - | 1,180,097 | - |
| Internal Balances, Net | 1,874,798 | (1,874,798) | - | - |
| Due From Primary Government | - | - | - | 119,692 |
| Due From Other Governments (Note 5) | 9,115,586 | 10,080,989 | 19,196,575 | 45,679,486 |
| Inventories of Materials and Supplies | 287,769 | 20,713,496 | 21,001,265 | 374,101 |
| Prepaid Assets | 958,163 | 7,632,827 | 8,590,990 | 39,411,776 |
| Total Current Assets | 557,185,458 | 374,641,460 | 931,826,918 | 198,176,518 |
| **Non-Current Assets:** | | | | |
| Restricted Assets - Cash and Investments (Note 3) | 34,278,450 | 141,309,064 | 175,587,514 | 19,340,202 |
| Lease Receivable | 5,351,484 | - | 5,351,484 | - |
| Mortgage Loans Receivable | - | - | - | 60,370,974 |
| Capital Assets, Net (Note 6): | | | | |
| Land, Land Improvement and Works of Art/Historical | 113,762,360 | 26,342,255 | 140,104,615 | 10,377,730 |
| Infrastructure, Net | 362,815,959 | 1,022,537,843 | 1,385,353,802 | - |
| Buildings, Structures, Improvements, and Equipment, Net | 697,174,785 | 327,196,926 | 1,024,371,711 | 126,022,533 |
| Construction in Progress | 136,167,692 | 48,789,214 | 184,956,906 | 12,769,520 |
| Right of Use Assets, Net | 6,090,333 | 14,265,601 | 20,355,934 | 5,914,752 |
| Total Capital Assets, Net | 1,316,011,129 | 1,439,131,839 | 2,755,142,968 | 155,084,535 |
| Total Non-Current Assets | 1,355,641,063 | 1,580,440,903 | 2,936,081,966 | 234,795,711 |
| Total Assets | 1,912,826,521 | 1,955,082,363 | 3,867,908,884 | 432,972,229 |
| **Deferred Outflows of Resources** | | | | |
| Deferred Losses on Refunding | 19,529,072 | 12,989,722 | 32,518,794 | - |
| Pension/OPEB Related Activities (Note 11 and 12) | 77,637,055 | 15,302,888 | 92,939,943 | 119,957,847 |
| Total Deferred Outflows of Resources | $ 97,166,127 | $ 28,292,610 | $ 125,458,737 | $ 119,957,847 |
| **Liabilities** | | | | |
| Current Liabilities: | | | | |
| Combined RPS City Withholding | $ 6,745,439 | $ - | $ 6,745,439 | $ - |
| Accounts Payable | 48,393,514 | 39,406,114 | 87,799,628 | 14,590,264 |
| Accrued Liabilities | 5,666,248 | 2,837,590 | 8,503,838 | 40,340,166 |
| Accrued Wages | 4,660,029 | 1,493,558 | 6,153,587 | - |
| Right of Use Liabilities | 1,625,856 | 70,632 | 1,696,488 | - |
| Due To Component Units - Schools | 36,212,368 | - | 36,212,368 | - |
| Due To Other Governments | 2,491,850 | - | 2,491,850 | 2,487,723 |
| Due to Component Units - Other | - | - | - | 33,072 |
| Accrued Interest on Bonds and Notes Payable | 11,841,174 | 15,160,457 | 27,001,631 | - |
| Unearned Revenues | 163,262,115 | 8,440 | 163,270,555 | 34,241,733 |
| General Obligation Bonds, | | | | |
| Serial Notes Payable (Note 7) | 122,538,368 | 15,443,576 | 137,981,944 | 14,312,137 |
| Revenue Bonds Payable (Note 7) | - | 30,861,375 | 30,861,375 | - |
| Compensated Absences (Note 7) | 7,242,610 | 1,107,024 | 8,349,634 | 3,007,512 |
| Other Liabilities and Claims Payable | 8,803,241 | 1,216,753 | 10,019,994 | 3,803,094 |
| Total Current Liabilities | 419,482,812 | 107,605,519 | 527,088,331 | 112,815,701 |

**CITY OF RICHMOND, VIRGINIA**
**STATEMENT OF NET POSITION**
**June 30, 2022**

**Exhibit A, Concluded**

| | Primary Government | | | |
|---|---|---|---|---|
| | Governmental Activities | Business-type Activities | Total | Component Units |
| **Non-Current Liabilities** | | | | |
| Customers' Deposits | - | 9,436,105 | 9,436,105 | 699,352 |
| Right of use liabilities | 4,580,902 | 14,342,842 | 18,923,744 | - |
| General Obligation Bonds, | | | | |
| Serial Notes Payable (Note 7) | 749,099,111 | 44,042,345 | 793,141,456 | 5,030,000 |
| Revenue Bonds Payable (Note 7) | - | 817,892,819 | 817,892,819 | - |
| Compensated Absences (Note 7) | 15,461,887 | 2,207,377 | 17,669,264 | - |
| Other Liabilities and Claims Payable (Note 9) | 33,751,528 | - | 33,751,528 | 296,800,679 |
| Net Pension and OPEB Liability | 235,716,762 | 45,582,923 | 281,299,685 | 21,578,648 |
| Total Non-Current Liabilities | 1,038,610,190 | 933,504,411 | 1,972,114,601 | 324,108,679 |
| Total Liabilities | 1,458,093,002 | 1,041,109,930 | 2,499,202,932 | 436,924,380 |
| **Deferred Inflows of Resources** | | | | |
| Deferred Revenues | 18,591,434 | - | 18,591,434 | - |
| Prepaid Taxes | 164,879 | - | 164,879 | - |
| Deferred Inflow - Leases | 6,514,301 | - | 6,514,301 | 380,065 |
| Pension/OPEB Related Activities (Note 11 and 12) | 91,055,342 | 16,715,258 | 107,770,600 | 171,891,431 |
| Total Deferred Inflows of Resources | 116,325,956 | 16,715,258 | 133,041,214 | 172,271,496 |
| **Net Position** | | | | |
| Net Investment in Capital Assets | 456,762,911 | 616,561,763 | 1,073,324,674 | 129,764,553 |
| Restricted for (Note 8): | | | | |
| Capital Projects | 21,523,656 | - | 21,523,656 | 14,217,893 |
| Grants and donations | 40,149,749 | - | 40,149,749 | - |
| Restricted for Debt Service | 15,389,735 | 31,543,651 | 46,933,386 | - |
| Permanent Funds | - | - | - | 1,348,876 |
| Unrestricted | (98,252,361) | 277,444,371 | 179,192,010 | (201,597,122) |
| Total Net Position | $ 435,573,690 | $ 925,549,785 | $ 1,361,123,475 | $ (56,265,800) |

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

**CITY OF RICHMOND, VIRGINIA**
**STATEMENT OF ACTVITIES**
**For the Fiscal Year Ended June 30, 2022**

**EXHIBIT B**

| | | Program Revenues | | | Net (Expenses) Revenues and Changes in Net Position | | | |
|---|---|---|---|---|---|---|---|---|
| **Functions/Program Activities** | Expenses | Charges for Services | Operating Grants and Contributions | Capital Grants and Contributions | Governmental Activities | Business-type Activities | Totals | Component Units |
| **Primary Government:** | | | | | | | | |
| **Governmental:** | | | | | | | | |
| General Government | $ 104,797,108 | $ 95,005,747 | $ 7,862,446 | $ - | $ (1,928,915) | $ - | $ (1,928,915) | $ - |
| Public Safety and Judiciary | 225,465,586 | 26,438,053 | 5,385,257 | - | (193,642,276) | - | (193,642,276) | - |
| Highways, Streets, Sanitation and Refuse | 110,098,816 | 60,686,229 | 16,821,556 | 11,297,351 | (21,293,680) | - | (21,293,680) | - |
| Human Services | 73,714,517 | 43,809,375 | 1,543,172 | - | (28,361,970) | - | (28,361,970) | - |
| Culture and Recreation | 32,233,479 | 2,231,900 | 300,533 | - | (29,701,046) | - | (29,701,046) | - |
| Education | 188,514,656 | - | - | - | (188,514,656) | - | (188,514,656) | - |
| Transportation | 8,319,090 | - | - | - | (8,319,090) | - | (8,319,090) | - |
| Capital Outlay | - | 8,699 | - | (8,699) | 0 | - | 0 | - |
| Interest and Fiscal Charges | 30,709,686 | - | 2,288,386 | 1,398,500 | (27,022,800) | - | (27,022,800) | - |
| Total Governmental Activities | 773,852,938 | 228,180,003 | 34,201,350 | 12,687,152 | (498,784,433) | - | (498,784,433) | - |
| **Business-type:** | | | | | | | | |
| Gas | $ 205,625,040 | $ 218,631,706 | $ - | $ 763,540 | $ - | $ 13,770,206 | $ 13,770,206 | $ - |
| Water | 61,101,221 | 75,808,208 | 82,390 | 17,849,103 | - | 32,638,480 | 32,638,480 | - |
| Wastewater | 71,624,465 | 93,819,301 | - | 1,923,181 | - | 24,118,017 | 24,118,017 | - |
| Stormwater | 11,263,483 | 13,096,189 | - | 418,393 | - | 2,251,099 | 2,251,099 | - |
| Cemeteries | 2,081,530 | 1,979,309 | - | - | - | (102,221) | (102,221) | - |
| Parking | 10,517,294 | 15,431,613 | - | - | - | 4,914,319 | 4,914,319 | - |
| Total Business-type Activities | 362,213,033 | 418,766,326 | 82,390 | 20,954,217 | - | 77,589,900 | 77,589,900 | - |
| Total Primary Government | $ 1,136,065,971 | $ 646,946,329 | $ 34,283,740 | $ 33,641,369 | $ (498,784,433) | $ 77,589,900 | $ (421,194,533) | $ - |
| **Component Units:** | | | | | | | | |
| School Board | 448,314,808 | 2,240,201 | 200,214,919 | 2,200,000 | - | - | - | (243,659,688) |
| Richmond Economic Development Authority | 2,002,860 | 999,007 | 790,384 | - | - | - | - | (213,469) |
| Richmond Ambulance Authority | 21,098,301 | 12,648,571 | 892,590 | - | - | - | - | (7,557,140) |
| Richmond Behavioral Health Authority | 75,812,498 | 18,326,490 | - | - | - | - | - | (57,486,008) |
| Richmond Redevelopment and Housing Authority | 78,911,205 | 9,919,039 | 61,977,889 | 21,341,039 | - | - | - | 14,326,762 |
| Total Component Units | $ 626,139,672 | $ 44,133,308 | $ 263,875,782 | $ 23,541,039 | $ - | $ - | $ - | (294,589,543) |
| General Revenues: | | | | | | | | |
| City Taxes | | | | | | | | |
| Real Estate | | | | | 364,450,861 | - | 364,450,861 | - |
| Sales Tax | | | | | 44,689,387 | - | 44,689,387 | - |
| Personal Property | | | | | 61,582,798 | - | 61,582,798 | - |
| Machinery and Tools | | | | | 14,313,100 | - | 14,313,100 | - |
| General Utility Sales | | | | | 17,898,426 | - | 17,898,426 | - |
| State Communication Taxes | | | | | 11,017,266 | - | 11,017,266 | - |
| Bank Stock | | | | | 4,278,305 | - | 4,278,305 | - |
| Prepared Food | | | | | 45,762,510 | - | 45,762,510 | - |
| Cigarette Tax | | | | | 2,579,506 | - | 2,579,506 | - |
| Lodging Tax | | | | | 8,130,205 | - | 8,130,205 | - |
| Admissions | | | | | 1,909,783 | - | 1,909,783 | - |
| Real Estate Taxes - Delinquent | | | | | 5,712,148 | - | 5,712,148 | - |
| Personal Property Taxes - Delinquent | | | | | 7,591,720 | - | 7,591,720 | - |
| Penalties and Interest | | | | | 5,286,509 | - | 5,286,509 | - |
| Property Rental 1% | | | | | 99,631 | - | 99,631 | - |
| Vehicle Rental Tax | | | | | 1,298,495 | - | 1,298,495 | - |
| Telephone Commissions | | | | | 350,057 | - | 350,057 | - |
| Total City Taxes | | | | | 596,950,707 | - | 596,950,707 | - |
| Intergovernmental Revenue | | | | | - | - | - | 138,016,642 |
| Payment From Primary Government - Unrestricted | | | | | - | | - | 196,366,150 |
| Investment Earnings | | | | | 83,342 | 985,279 | 1,068,621 | 122,947 |
| Miscellaneous | | | | | 19,361,204 | 1,373,748 | 20,734,952 | 9,081,831 |
| Transfers | | | | | 32,997,988 | (32,997,988) | - | - |
| Total General Revenues and Transfers | | | | | 649,393,241 | (30,638,961) | 618,754,280 | 343,587,570 |
| Changes in Net Position | | | | | 150,608,808 | 46,950,939 | 197,559,747 | 48,998,027 |
| Net Position - Beginning of Year | | | | | 284,964,882 | 878,598,846 | 1,163,563,728 | (105,263,827) |
| Net Position - End of Year | | | | | $ 435,573,690 | $ 925,549,785 | $ 1,361,123,475 | $ (56,265,800) |

The accompanying notes are in integral part of the financial statements.

**CITY OF RICHMOND, VIRGINIA**
**BALANCE SHEET**
**GOVERNMENTAL FUNDS**
**June 30, 2022**

**EXHIBIT C, Continued**

| | General | Debt Service | Capital Projects Fund | Other Governmental Funds | Total Governmental Funds |
|---|---|---|---|---|---|
| **Assets** | | | | | |
| Cash and Cash Equivalents (Note 3) | $ 346,575,462 | $ 652,686 | $ - | $ 41,764,528 | $ 388,992,676 |
| Receivables (Net of Allowance for Doubtful Accounts): | | | | | |
| Taxes and Licenses | 60,377,425 | - | - | - | 60,377,425 |
| Accounts Receivable, Net | 18,727,580 | 2,216,000 | - | 8,653,953 | 29,597,533 |
| Account Receivable - Leases | 6,531,581 | - | - | - | 6,531,581 |
| Due From Other Funds (Note 4) | 54,582,479 | - | - | - | 54,582,479 |
| Due From Other Governments (Note 5) | 343,350 | - | 3,694,183 | 5,078,053 | 9,115,586 |
| Prepaid Assets | 11,496 | - | - | - | 11,496 |
| Restricted Assets - Cash and Investments (Note 3) | - | 12,521,049 | 21,523,656 | 233,745 | 34,278,450 |
| Total Assets | 487,149,373 | 15,389,735 | 25,217,839 | 55,730,279 | 583,487,226 |
| **Liabilities:** | | | | | |
| Accounts Payable | 29,920,869 | - | 3,139,250 | 6,419,673 | 39,479,792 |
| Accrued Liabilities | 1,392,923 | - | - | 941,845 | 2,334,768 |
| Accrued Wages | 3,478,470 | - | 62,375 | 719,292 | 4,260,137 |
| Due To Component Units - Schools | 36,212,368 | - | - | - | 36,212,368 |
| Due To Other Governments | 2,491,850 | - | - | - | 2,491,850 |
| Due To Other Funds (Note 4) | - | - | 45,855,670 | 589,981 | 46,445,651 |
| Unearned Revenue | 148,965,164 | - | 7,387,212 | 6,909,739 | 163,262,115 |
| Total Liabilities | 222,461,644 | - | 56,444,507 | 15,580,530 | 294,486,681 |
| **Deferred Inflows of Resources** | | | | | |
| Unavailable Revenue - Property Taxes | 51,759,388 | - | - | - | 51,759,388 |
| Prepaid Taxes | 164,879 | - | - | - | 164,879 |
| Deferred Inflow - Leases | 6,514,301 | - | - | - | 6,514,301 |
| Total Deferred Inflows of Resources | 58,438,568 | - | - | - | 58,438,568 |
| **Fund Balances (Note 8):** | | | | | |
| Nonspendable | 11,496 | - | - | - | 11,496 |
| Restricted | - | 15,389,735 | 21,523,656 | 40,149,749 | 77,063,140 |
| Committed | 25,329,469 | - | - | - | 25,329,469 |
| Assigned | 73,045,704 | - | - | - | 73,045,704 |
| Unassigned | 107,862,492 | - | (52,750,324) | - | 55,112,168 |
| Total Fund Balances | 206,249,161 | 15,389,735 | (31,226,668) | 40,149,749 | 230,561,977 |
| Total Liabilities, Deferred Inflows of Resources and Fund Balances | $ 487,149,373 | $ 15,389,735 | $ 25,217,839 | $ 55,730,279 | $ 583,487,226 |

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

**CITY OF RICHMOND, VIRGINIA**
**RECONCILIATION OF THE STATEMENT OF NET POSITION TO THE BALANCE SHEET**
**GOVERNMENTAL FUNDS**

**June 30, 2022**

**EXHIBIT C, Concluded**

| | | |
|---|---|---|
| Total Fund Balances for Governmental Funds | | $ 230,561,977 |
| Amounts reported for Governmental Activities in the Statement of Net Position are different because: | | |
| Capital assets used in governmental activities are not financial resources and, therefore, are not reported in the funds. Those assets consist of: | | |
| Land, Works of Art/Historical Treasures | 113,398,971 | |
| Infrastructure, net | 362,815,959 | |
| Buildings, structures, improvements, and equipment, net | 665,821,829 | |
| Construction in progress | 135,894,856 | |
| Right of use assets | 4,879,252 | 1,282,810,867 |
| Other Assets used in governmental activities are not considered current financial resources and, therefore, are not reported in the governmental funds | | |
| Deferred loss on refunding debt | 19,528,632 | |
| Deferred Outflows Pension and OPEB | 75,955,277 | 95,483,909 |
| Some of the City's assets will be collected after year-end, but are not available soon enough to pay for the current period's expenditures and, therefore, are reported as unavailable revenue in the funds. | | - |
| Taxes | 33,167,954 | 33,167,954 |
| Long-term liabilities, including bonds payable, are not due and payable in the current period and, therefore, are not reported in the governmental funds. Those liabilities consist of: | | |
| Accrued Interest | (11,831,598) | |
| Right of use liabilities | (4,973,835) | |
| Governmental bonds, notes payable, and line of credit | (862,380,732) | |
| Compensated Absences | (21,287,505) | |
| Pension and OPEB related - Deferred Inflow of Resources | (87,921,176) | |
| Pension and OPEB related - Net Pension Liability | (231,360,599) | (1,219,755,445) |
| Internal service funds are used by the City to charge costs of certain activities to individual funds. The net position of the internal service funds are reported as components of Governmental Activities | | 13,304,428 |
| Net Position of Governmental Activities | | $ 435,573,690 |

**CITY OF RICHMOND, VIRGINIA**
**STATEMENT OF REVENUES, EXPENDITURES, AND CHANGES IN FUND BALANCES**
**GOVERNMENTAL FUNDS**
**For the Fiscal Year Ended June 30, 2022**

**EXHIBIT D, Continued**

| | General | Debt Service | Capital Projects Fund | Other Governmental Funds | Total |
|---|---|---|---|---|---|
| **Revenues** | | | | | |
| City Taxes | | | | | |
| Real Estate | $ 364,442,735 | $ - | $ - | $ - | $ 364,442,735 |
| Sales Tax | 44,689,387 | - | - | - | 44,689,387 |
| Personal Property | 64,524,543 | - | - | - | 64,524,543 |
| Machinery and Tools | 14,313,100 | - | - | - | 14,313,100 |
| Utility Sales Tax Gas | 5,016,694 | - | - | - | 5,016,694 |
| Utility Sales Tax Electric | 13,600,827 | - | - | - | 13,600,827 |
| Utility Sales Tax Telephone | 776 | - | - | - | 776 |
| State Communications Taxes | 11,017,266 | - | - | - | 11,017,266 |
| Bank Stock | 4,278,305 | - | - | - | 4,278,305 |
| Prepared Food | 45,762,510 | - | - | - | 45,762,510 |
| Cigarette Tax | 2,579,506 | - | - | - | 2,579,506 |
| Lodging Tax | 8,130,205 | - | - | - | 8,130,205 |
| Admission | 1,909,783 | - | - | - | 1,909,783 |
| Real Estate Taxes - Delinquent | 5,714,370 | - | - | - | 5,714,370 |
| Personal Property Taxes - Delinquent | 7,591,720 | - | - | - | 7,591,720 |
| Penalties and Interest | 6,735,486 | - | - | - | 6,735,486 |
| Property Rental 1% | 99,631 | - | - | - | 99,631 |
| Vehicle Rental Tax | 1,298,495 | - | - | - | 1,298,495 |
| Telephone Commissions | 350,057 | - | - | - | 350,057 |
| Total City Taxes | 602,055,396 | - | - | - | 602,055,396 |
| Licenses, Permits and Privilege Fees | 50,681,523 | - | - | - | 50,681,523 |
| Intergovernmental | 83,075,860 | 1,398,500 | 7,999,992 | 74,003,531 | 166,477,883 |
| Service Charges | 32,328,964 | - | - | 3,357,535 | 35,686,499 |
| Fines and Forfeitures | 8,251,618 | - | - | 170,484 | 8,422,102 |
| Utility Payments | 23,469,741 | - | - | - | 23,469,741 |
| Investment Income | - | 2,396 | 46,676 | 34,297 | 83,369 |
| Lease Revenue | - | - | - | 432,031 | 432,031 |
| Miscellaneous | 10,753,320 | - | 3,532,119 | 4,599,615 | 18,885,054 |
| Total Revenues | 810,616,422 | 1,400,896 | 11,578,787 | 82,597,493 | 906,193,598 |
| **Expenditures** | | | | | |
| Current: | | | | | |
| General Government | 62,723,715 | - | - | 14,873,254 | 77,596,969 |
| Public Safety and Judiciary | 207,236,650 | - | - | 9,902,429 | 217,139,079 |
| Highways, Streets, Sanitation and Refuse | 39,232,613 | - | - | 55,498,425 | 94,731,038 |
| Human Services | 59,158,462 | - | - | 12,929,124 | 72,087,586 |
| Culture and Recreation | 27,683,368 | - | - | 1,433,612 | 29,116,980 |
| Education | 187,142,096 | - | - | - | 187,142,096 |
| Non-Departmental | 88,151,311 | - | - | - | 88,151,311 |
| Capital Outlay | - | - | 50,708,011 | - | 50,708,011 |
| Debt Service: | | | | | |
| Principal Retirement | - | 56,157,819 | - | - | 56,157,819 |
| Interest Payments | - | 31,805,500 | - | - | 31,805,500 |
| Debt Issuance costs | - | 833 | - | - | 833 |
| Total Expenditures | 671,328,215 | 87,964,152 | 50,708,011 | 94,636,844 | 904,637,222 |
| Excess (Deficiency) of Revenues Over (Under) Expenditures | 139,288,207 | (86,563,256) | (39,129,224) | (12,039,351) | 1,556,376 |
| **Other Financing Sources** | | | | | |
| Issuance of Bonds and Notes | - | - | 28,651,791 | - | 28,651,791 |
| Receipts from EDA | - | 1,437,262 | - | - | 1,437,262 |
| Transfers In - Other Funds | 9,828,247 | 86,141,812 | 8,971,210 | 12,624,405 | 117,565,674 |
| Transfers Out - Other Funds | (105,037,498) | - | (143,120) | (3,093,392) | (108,274,010) |
| Total Other Financing Sources, Net | (95,209,251) | 87,579,074 | 37,479,881 | 9,531,013 | 39,380,717 |
| Net Change in Fund Balances | 44,078,956 | 1,015,818 | (1,649,343) | (2,508,338) | 40,937,093 |
| Fund Balances - Beginning of Year | 162,170,205 | 14,373,917 | (29,577,325) | 42,658,087 | 189,624,884 |
| Fund Balances - End of Year | $ 206,249,161 | $ 15,389,735 | $ (31,226,668) | $ 40,149,749 | $ 230,561,977 |

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

**CITY OF RICHMOND, VIRGINIA**
**RECONCILIATION OF THE STATEMENT OF REVENUES, EXPENDITURES, AND CHANGES IN THE FUND BALANCES OF GOVERNMENTAL FUNDS TO THE STATEMENT OF ACTIVITIES**
**GOVERNMENTAL FUNDS**
**For the Fiscal Year Ended June 30, 2022**

**EXHIBIT D, Concluded**

| | | |
|---|---|---|
| Amounts reported for Governmental Activities in the Statement of Activities are different because: | | |
| Net change in Fund Balances - Total Governmental Funds | | $ 40,937,093 |
| Governmental funds report capital outlays as expenditures. However, in the Statement of Activities the cost of those assets is allocated over their estimated useful lives and reported as depreciation expense.This is the amount by which depreciation exceeded capital outlay in the current period. | | |
| Purchase/Disposal of Assets | 53,771,811 | |
| Depreciation expense | (52,034,468) | 1,737,343 |
| The issuance of long term debt (e.g., bonds and leases) provides current financial resources to governmental funds, while the repayment of the principal of long-term debt consumes current financial resources of governmental funds. Neither transaction, however, has any effect on net position. Also, governmental funds report the effect of issuance premiums, discounts, and similar items when debt is first issued, whereas these amounts are deferred and amortized in the Statement of Activities. These amounts are the net effect of these differences in the treatment of long-term debt and related items. | | |
| Proceeds from borrowing, net of escrow payments | (28,651,791) | |
| Principal payments of bonds, net of payments on behalf of Component Units | 56,156,015 | |
| Amortization of bond premiums and refunding | 9,170,121 | 36,674,345 |
| Some revenues in the Statement of Activities do not provide of current financial resources and, therefore, are not reported as revenues in the governmental funds. | | |
| Change in Deferred Tax Revenue | (2,941,745) | (2,941,745) |
| Some expenditures in the Statement of Activities do not require the use of current financial resources and, therefore, are not reported as expenditures in the governmental funds. | | |
| Change in Accrued Interest | 1,012,407 | |
| Change in Compensated Absences | (772,829) | |
| Change in Net Pension and OPEB Obligations | 71,351,110 | 71,590,688 |
| Internal Service Funds are used by the City to charge costs of certain activities to individual funds. The net revenue of Internal Service Funds is reported as a component of Governmental Activities. | | 2,611,084 |
| Change in Net Position of Governmental Activities | | $ 150,608,808 |

**CITY OF RICHMOND, VIRGINIA**
**STATEMENT OF NET POSITION**
**PROPRIETARY FUNDS**
**June 30, 2022**

**EXHIBIT E-1**

| | Enterprise Funds | | | | | | Internal Service Funds |
|---|---|---|---|---|---|---|---|
| | Gas | Water | Wastewater | Stormwater | Other | Total | |
| **Assets** | | | | | | | |
| Current Assets: | | | | | | | |
| Cash and Cash Equivalents (Note 3) | $ 15,178,577 | $ 107,693,285 | $ 121,162,367 | $ - | $ 10,328,587 | $ 254,362,816 | $ 56,697,541 |
| Accounts Receivables (Net of Allowance for Doubtful Accounts) | 31,150,294 | 26,926,895 | 19,776,877 | 4,345,863 | 1,526,201 | 83,726,130 | 8,103,868 |
| Due From Other Funds (Note 4) | 1,112,069 | 1,063,069 | 4,049,980 | - | - | 6,225,118 | - |
| Due From Other Governments (Note 5) | - | 7,729,363 | 2,069,630 | 281,996 | - | 10,080,989 | - |
| Inventories of Materials and Supplies | 14,717,834 | - | - | - | - | 14,717,834 | 6,283,431 |
| Prepaid Expenses and Other Current Assets | 2,533,577 | 2,193,856 | 2,794,805 | - | 45 | 7,522,283 | 1,057,211 |
| Total Current Assets | 64,692,351 | 145,606,468 | 149,853,659 | 4,627,859 | 11,854,833 | 376,635,170 | 72,142,051 |
| Noncurrent Assets: | | | | | | | |
| Restricted Cash | 14,477,093 | 15,673,668 | 111,158,303 | - | - | 141,309,064 | - |
| Capital Assets (Note 6): | | | | | | | |
| Land | 219,200 | 878,307 | 1,101,261 | - | 22,456,955 | 24,655,723 | 2,049,921 |
| Buildings and Structures | 710,033,131 | 557,077,534 | 736,677,055 | 23,353,355 | 36,131,729 | 2,063,272,804 | 53,148,135 |
| Equipment and Other Assets | 47,010,671 | 114,511,115 | 145,981,800 | 41,497,660 | 3,875,861 | 352,877,107 | 127,502,587 |
| Construction in Progress | 2,885,423 | 8,394,670 | 33,514,323 | 3,994,798 | - | 48,789,214 | 272,836 |
| Less: Accumulated Depreciation | (344,735,886) | (285,831,226) | (407,288,719) | (12,098,530) | (17,066,114) | (1,067,020,475) | (148,692,433) |
| ROU Assets Land & Land Rights | - | - | - | - | 14,482,020 | 14,482,020 | - |
| ROU Assets-Equip & Other Assets | - | - | - | - | - | - | 1,567,894 |
| Less: Accumulated amortization | - | - | - | - | (216,419) | (216,419) | (356,813) |
| Total capital assets, net accumulated depreciation and amortization | 415,412,539 | 395,030,400 | 509,985,720 | 56,747,283 | 59,664,032 | 1,436,839,974 | 35,492,127 |
| Total Noncurrent Assets | 429,889,632 | 410,704,068 | 621,144,023 | 56,747,283 | 59,664,032 | 1,578,149,038 | 35,492,127 |
| **Total Assets** | 494,581,983 | 556,310,536 | 770,997,682 | 61,375,142 | 71,518,865 | 1,954,784,208 | 107,634,178 |
| **Deferred Outflows of Resources** | | | | | | | |
| Losses on Refunding of Debt | 4,883,651 | 3,138,970 | 4,967,101 | - | - | 12,989,722 | 440 |
| Pension /OPEB Related Activities (Note 11 and 12) | 5,250,352 | 3,642,719 | 4,222,525 | 1,285,863 | 850,826 | 15,252,285 | 1,732,381 |
| Total Deferred Outflows of Resources | 10,134,003 | 6,781,689 | 9,189,626 | 1,285,863 | 850,826 | 28,242,007 | 1,732,821 |
| **Liabilities** | | | | | | | |
| Current Liabilities: | | | | | | | |
| Combined RPS City Withholding | - | - | - | - | - | - | 6,745,439 |
| Accounts Payable | 22,386,109 | 5,872,136 | 8,529,518 | 1,053,373 | 1,090,746 | 38,931,882 | 9,376,162 |
| Accrued Liabilities | 131,760 | 1,409,366 | 1,015,389 | 260,360 | 18,597 | 2,835,472 | 3,333,595 |
| Accrued Wages | 506,202 | 390,874 | 396,380 | 129,993 | 59,870 | 1,483,319 | 410,131 |
| Due To Other Funds (Note 4) | - | - | - | 5,408,442 | 1,874,798 | 7,283,240 | 7,078,706 |
| Accrued Interest on Bonds Payable | 4,957,893 | 3,459,688 | 6,148,427 | 2,161 | 592,288 | 15,160,457 | 9,576 |
| General Obligation Bonds and Notes Payable (Note 7) | 2,422,391 | 1,462,326 | - | 8,057,626 | 3,501,233 | 15,443,576 | 2,144,818 |
| Revenue Bonds Payable (Note 7) | 9,454,590 | 7,522,365 | 13,884,420 | - | - | 30,861,375 | - |
| Compensated Absences (Note 7) | 381,613 | 289,803 | 289,914 | 100,724 | 38,619 | 1,100,673 | 460,386 |
| Other Liabilities & Claims Payable | - | - | - | 1,216,753 | 14,421,914 | 15,638,667 | 10,036,164 |
| Total Current Liabilities | 40,240,558 | 20,406,558 | 30,264,048 | 16,229,432 | 21,598,065 | 128,738,661 | 39,594,977 |
| Noncurrent Liabilities: | | | | | | | |
| Customers' Deposits | 7,058,367 | 2,377,738 | - | - | - | 9,436,105 | - |
| General Obligation Bonds and Notes Payable (Note 7) | 2,341,924 | 1,413,750 | - | 2,552,921 | 37,733,750 | 44,042,345 | 7,111,929 |
| Revenue Bonds Payable (Note 7) | 258,068,008 | 184,974,176 | 374,850,635 | - | - | 817,892,819 | - |
| Compensated Absences (Note 7) | 758,971 | 576,374 | 576,596 | 200,324 | 82,481 | 2,194,746 | 975,588 |
| Net Pension and OPEB Liability | 17,269,700 | 10,801,610 | 12,195,187 | 4,177,985 | 881,812 | 45,326,294 | 4,624,585 |
| NC Other Liabilities & Claims Payable | - | - | - | - | - | - | 33,751,528 |
| Total Noncurrent Liabilities | 285,496,970 | 200,143,648 | 387,622,418 | 6,931,230 | 38,698,043 | 918,892,309 | 46,463,630 |
| **Total Liabilities** | 325,737,528 | 220,550,206 | 417,886,466 | 23,160,662 | 60,296,108 | 1,047,630,970 | 86,058,607 |
| **Deferred Inflows of Resources** | | | | | | | |
| Pension & OPEB Related Activities (Note 11 and 12) | 6,026,051 | 4,317,130 | 4,406,912 | 1,454,932 | 538,268 | 16,743,293 | 3,106,131 |
| Total Deferred Inflows of Resources | 6,026,051 | 4,317,130 | 4,406,912 | 1,454,932 | 538,268 | 16,743,293 | 3,106,131 |
| **Net Position** | | | | | | | |
| Net Investment in Capital Assets | 147,870,949 | 207,552,672 | 215,525,708 | 39,656,851 | 3,663,718 | 614,269,898 | 27,273,759 |
| Restricted - Debt Service | 10,170,710 | 7,609,264 | 13,763,677 | - | - | 31,543,651 | - |
| Unrestricted | 14,910,748 | 123,062,953 | 128,604,545 | (1,611,440) | 7,871,597 | 272,838,403 | (7,071,498) |
| Total Net Position | $ 172,952,407 | $ 338,224,889 | $ 357,893,930 | $ 38,045,411 | $ 11,535,315 | $ 918,651,952 | $ 20,202,261 |

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

| Reconciliation of Enterprise Funds Net Position to Business-Type of Net Position | |
|---|---|
| Net Position as Shown on Statement of Net Position - Proprietary Fund | 918,651,952 |
| The Allocation of Internal Service Fund to Various Activities, Funds, Etc. as it Relates to Business-Type Activities | 6,897,833 |
| Net Position Shown on Government-Wide Statement of Net Position | $ 925,549,785 |

**CITY OF RICHMOND, VIRGINIA**
**STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN THE NET POSITION**
**PROPRIETARY FUNDS**
**For the Fiscal Year Ended June 30, 2022**

**EXHIBIT E-2**

| | Enterprise Funds | | | | | | Internal Service Funds |
|---|---|---|---|---|---|---|---|
| | Gas | Water | Wastewater | Stormwater | Other | Total | |
| **Operating Revenues** | | | | | | | |
| Charges for Goods and Services | $ 218,147,016 | $ 75,385,511 | $ 93,819,301 | $ 13,096,189 | $ 17,410,922 | $ 417,858,939 | $ 133,744,076 |
| **Operating Expenses** | | | | | | | |
| Purchased Gas | 126,109,288 | - | - | - | - | 126,109,288 | - |
| Intragovernmental Goods and Services Sold | - | - | - | - | - | - | 10,953,324 |
| Salaries and Wages and Benefits | 16,499,552 | 13,457,699 | 12,393,020 | 4,355,809 | 323,732 | 47,029,812 | 12,904,688 |
| Data Processing | - | - | - | - | - | - | 9,854,350 |
| Materials and Supplies | 1,719,723 | 1,846,646 | 1,133,493 | 255,049 | 42,547 | 4,997,458 | 1,834,057 |
| Rents and Utilities | 525,086 | 4,453,682 | 4,921,710 | 195,923 | 739,790 | 10,836,191 | 2,560,829 |
| Maintenance and Repairs | 18,311,694 | 8,128,741 | 6,394,038 | 3,571,416 | 1,890,020 | 38,295,909 | 3,443,260 |
| Depreciation and Amortization | 23,873,079 | 18,739,423 | 22,116,650 | 1,905,489 | 1,814,163 | 68,448,804 | 5,350,628 |
| Claims and Settlements | - | - | - | - | 20,100 | 20,100 | 72,952,808 |
| Uncollectible Expense | 353,556 | 355,178 | 236,187 | 30,378 | - | 975,299 | - |
| Miscellaneous Operating Expenses | 12,785,463 | 17,067,694 | 21,474,010 | 869,174 | 6,226,578 | 58,422,919 | 10,985,182 |
| Total Operating Expenses | 200,177,441 | 64,049,063 | 68,669,108 | 11,183,238 | 11,056,930 | 355,135,780 | 130,839,126 |
| Operating Income (Loss) | 17,969,575 | 11,336,448 | 25,150,193 | 1,912,951 | 6,353,992 | 62,723,159 | 2,904,950 |
| **Non-Operating Revenues (Expenses)** | | | | | | | |
| Interest on Long-Term Debt | (9,728,090) | (6,866,975) | (11,937,416) | (75,495) | (1,541,894) | (30,149,870) | (247,599) |
| Interest Income | 157,334 | 114,810 | 713,135 | - | - | 985,279 | 2,963 |
| Interest Expense | (39,411) | (12,756) | - | - | - | (52,167) | - |
| Miscellaneous Revenues (Expenses) | 13,160 | 210,379 | 1,118,807 | 100,669 | - | 1,443,015 | 85,305 |
| Total Non-Operating Revenues (Expenses), Net | (9,597,007) | (6,554,542) | (10,105,474) | 25,174 | (1,541,894) | (27,773,743) | (159,331) |
| Net Income Before Contributions and Transfers | 8,372,568 | 4,781,906 | 15,044,719 | 1,938,125 | 4,812,098 | 34,949,416 | 2,745,619 |
| Capital Contributions | 764,140 | 17,849,103 | 1,923,181 | 418,393 | - | 20,954,817 | 203,835 |
| Transfers In - Other Funds | - | - | - | - | - | - | 236,583 |
| Transfers Out - Other Funds | (2,131,517) | (3,738,069) | (3,658,661) | - | - | (9,528,247) | - |
| Change in Net Position | 7,005,191 | 18,892,940 | 13,309,239 | 2,356,518 | 4,812,098 | 46,375,986 | 3,186,037 |
| Net Position - Beginning of Year, as restated | 165,947,216 | 319,331,949 | 344,584,691 | 35,688,893 | 6,723,217 | 872,275,966 | 17,016,224 |
| Net Position - End of Year | $ 172,952,407 | $ 338,224,889 | $ 357,893,930 | $ 38,045,411 | $ 11,535,315 | $ 918,651,952 | $ 20,202,261 |

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

Reconciliation of Enterprise Funds Change in Net Position per statement above to the Statement of Activities change in net position for Business-Type Activities

| | |
|---|---|
| Changes in net position as Shown on Statement of Net Position - Proprietary Funds | 46,375,986 |
| The Allocation of Internal Service Fund to Various Activities, Funds, Etc. as it Relates to Business-Type Activities | 574,953 |
| Change in Net Position as Shown on Government-Wide Statement of Activities | $ 46,950,939 |

**CITY OF RICHMOND, VIRGINIA**
**STATEMENTS OF CASH FLOWS**
**PROPRIETARY FUNDS**
**For the Fiscal Year Ended June 30, 2022**

**EXHIBIT E-3**

| | Enterprise Funds | | | | | | Internal |
|---|---|---|---|---|---|---|---|
| | Gas | Water | Wastewater | Stormwater | Other | Total | Service Funds |
| **Cash Flows from Operating Activities** | | | | | | | |
| Receipts from Customers | $ 194,953,495 | $ 69,947,425 | $ 89,348,001 | $ 12,799,833 | $ 18,326,578 | $ 385,375,332 | $ 133,372,793 |
| Payments to Suppliers | (154,053,653) | (25,130,659) | (25,891,547) | (4,908,700) | (8,908,542) | (218,893,101) | (105,325,589) |
| Payments to Employees | (15,797,839) | (13,152,963) | (13,162,958) | (4,279,767) | (2,168,137) | (48,561,664) | (13,275,843) |
| Payments to Other Funds | (6,455,724) | (6,045,026) | (8,197,285) | - | - | (20,698,035) | - |
| Receipts from Other Funds | - | - | - | - | - | - | (225,573) |
| Other Receipts or (Payments) | (102,510) | 68,025 | 1,118,807 | (58,653) | - | 1,025,669 | 76,461 |
| Net Cash Provided By Operating Activities | 18,543,769 | 25,686,802 | 43,215,018 | 3,552,713 | 7,249,899 | 98,248,201 | 14,622,249 |
| **Cash Flows from Noncapital Financing Activities** | | | | | | | |
| Transfers In - Other Funds | (4,933,257) | (2,216,629) | (2,539,684) | - | - | (9,689,570) | - |
| Transfers Out - Other Funds | (2,131,517) | (3,738,069) | (3,658,661) | - | - | (9,528,247) | - |
| Due From Other Funds | 202,390 | 278,027 | 315,581 | (946,742) | - | (150,744) | (445,018) |
| Due to Other Funds | - | - | - | - | 364,171 | 364,171 | 1,217,312 |
| Net Cash Provided By (Used In) Noncapital Financing Activities | (6,862,384) | (5,676,671) | (5,882,764) | (946,742) | 364,171 | (19,004,390) | 772,294 |
| **Cash Flows from Capital and Related Financing Activities** | | | | | | | |
| Acquisition of Capital Assets/ROU Assets | (24,853,245) | (27,213,887) | (40,241,900) | (6,229,645) | (68,546) | (98,607,223) | (4,229,018) |
| Proceeds from Bond Sale | - | - | 3,867,832 | 3,600,000 | - | 7,467,832 | - |
| Capital Grants and Contributions | 764,140 | 12,588,037 | 1,226,847 | 735,311 | | | |
| Repayments of Revenue Bonds, General Obligation Bonds | (11,646,996) | (8,932,584) | (13,691,506) | (635,618) | (4,107,425) | (39,014,129) | (2,124,111) |
| Repayments of Notes Payables | - | - | - | - | - | - | 203,835 |
| Interest Paid on Long-Term Debt | (11,298,291) | (7,924,976) | (13,912,201) | (76,019) | (1,587,160) | (34,798,647) | (247,038) |
| Net Cash Used in Capital and Related Financing Activities | (47,034,392) | (31,483,410) | (62,750,928) | (2,605,971) | (5,763,131) | (164,952,167) | (6,396,332) |
| **Cash Flows from Investing Activities** | | | | | | | |
| Interest Earned on Operating Funds | 157,334 | 114,810 | 713,135 | - | - | 985,279 | - |
| Interest Paid on Customers' Deposits | (39,411) | (12,756) | - | - | - | (52,167) | - |
| Net Cash Provided By Investing Activities | 117,923 | 102,054 | 713,135 | - | - | 933,112 | - |
| Net Increase (Decrease) in Cash and Cash Equivalents | (35,235,084) | (11,371,225) | (24,705,539) | - | 1,850,939 | (69,460,909) | 8,998,211 |
| Cash and Cash Equivalents at July 1, 2021 | 64,890,754 | 134,738,178 | 257,026,209 | - | 8,477,648 | 465,132,789 | 47,699,330 |
| Cash and Cash Equivalents at June 30, 2022 | $ 29,655,670 | $ 123,366,953 | $ 232,320,670 | $ - | $ 10,328,587 | $ 395,671,880 | $ 56,697,541 |
| **Reconciliation of Operating Income** | | | | | | | |
| To Net Cash Provided by Operating Activities | | | | | | | |
| Operating Income | $ 17,969,575 | $ 11,336,448 | $ 25,150,193 | $ 1,912,951 | $ 6,353,992 | $ 62,723,159 | $ 2,904,950 |
| Adjustment to Reconcile Operating Income to Net Cash Provided by Operating Activities: | | | | | | | |
| Depreciation and amortization | 23,873,079 | 18,739,423 | 22,116,650 | 1,905,489 | 1,814,163 | 68,448,804 | 5,350,628 |
| Gain/(Loss) on Disposal of Capital Assets | - | - | - | - | 647,475 | 647,475 | - |
| Pension Expense | 759,197 | 355,740 | (794,237) | 86,704 | (1,812,635) | (1,405,231) | (825,399) |
| Miscellaneous Revenues (Expenses) | 13,160 | 210,379 | 1,118,807 | 100,669 | (45) | 1,442,970 | 85,304 |
| (Increase) Decrease in Assets and Increase (Decrease) in Liabilities: | | | | | | | |
| Accounts Receivable | (22,839,966) | (5,082,909) | (4,235,108) | (425,302) | 268,173 | (32,315,112) | (380,127) |
| Inventories of Material and Supplies | (9,255,606) | - | - | - | - | (9,255,606) | (657,329) |
| Prepaid Expenses | (107,228) | (33,056) | (18,807) | - | - | (159,091) | 1,227,772 |
| Accounts Payable | 8,319,597 | 432,984 | (116,473) | 7,324 | 10,537 | 8,653,969 | 6,825,202 |
| Accrued Liabilities | (95,490) | (137,498) | (35,480) | (31,542) | (5,576) | (305,586) | (376,196) |
| Customers' Deposits | (115,671) | (142,353) | - | - | - | (258,024) | - |
| Compensated Absences | 23,122 | 7,644 | 29,473 | 16,064 | (26,185) | 50,118 | 467,444 |
| Other Liabilities | - | - | - | (19,644) | - | (19,644) | - |
| Total Adjustments | 574,194 | 14,350,354 | 18,064,825 | 1,639,762 | 895,907 | 35,525,042 | 11,717,299 |
| Net Cash Provided by Operating Activities | $ 18,543,769 | $ 25,686,802 | $ 43,215,018 | $ 3,552,713 | $ 7,249,899 | $ 98,248,201 | $ 14,622,249 |

The accompanying notes are an integral part of the basic financial statements

**CITY OF RICHMOND, VIRGINIA**
**STATEMENT OF FIDUCIARY NET POSITION**
**June 30, 2022**

**EXHIBIT F-1**

| | Pension & Other Employee Benefit Trust Funds | Social Welfare Private-Purpose Trust Fund | Custodial Funds |
|---|---|---|---|
| **Assets** | | | |
| Cash and Cash Equivalents | $ 7,596,077 | $ 2,483,514 | $ 1,322,897 |
| Receivables: | | | |
| Accounts Receivable | 2,126,272 | - | - |
| Total Receivables | 2,126,272 | - | - |
| Investments at fair value: | | | |
| US Equities | 154,982,400 | - | - |
| International Equities | 94,702,935 | - | - |
| Fixed Income | 160,036,366 | - | - |
| Real Estate | 80,440,837 | - | - |
| Diversifying Assets | 46,753,288 | - | - |
| Private Debt | 50,448,181 | - | - |
| Private Equity | 35,887,783 | - | - |
| Pooled Investment Funds | 8,234,777 | - | - |
| Total investments | 631,486,567 | - | - |
| Other Assets | 209,699 | - | - |
| **Total Assets** | **$ 641,418,615** | **$ 2,483,514** | **$ 1,322,897** |
| **Liabilities** | | | |
| DROP Payable | $ 11,077,546 | $ - | $ - |
| Accounts Payable | 2,240,167 | - | 569,012 |
| Investment Expense Payable | 355,597 | - | - |
| Retirement & Death Benefit Payable | 353,069 | - | - |
| Due To Other Governments | - | - | 93,093 |
| Due to Others | - | 2,483,514 | 663,407 |
| **Total Liabilities** | **14,026,379** | **2,483,514** | **1,325,512** |
| **Net Position** | | | |
| Restricted for: | | | |
| Pensions | 619,157,459 | - | - |
| Postemployment benefits, Other Than Pensions | 8,234,777 | - | - |
| Individuals, Organizations, Other governments | - | - | (2,615) |
| **Total Net Position** | **$ 627,392,236** | **$ -** | **$ (2,615)** |

The accompanying notes are an integral part of the basic financial statements.

**CITY OF RICHMOND, VIRGINIA**
**STATEMENT OF CHANGES IN FIDUCIARY NET POSITION**
**For the Fiscal Year Ended June 30, 2022**

**EXHIBIT F-2**

| | Pension & Other Employee Benefit Trust Funds | Social Welfare Private-Purpose Trust Fund | Custodial Funds |
|---|---|---|---|
| **Additions** | | | |
| Contributions: | | | |
| Individuals | $ 1,777,663 | $ - | $ 1,109,231 |
| City of Richmond | 58,698,396 | - | - |
| RBHA | 1,549,004 | - | - |
| Other | 97,362 | - | - |
| Total Contributions | 62,122,425 | - | 1,109,231 |
| Investment earnings/(loss): | | | |
| Net increase in fair value of investments | (48,024,116) | - | - |
| Interest, dividends, other | 2,804,556 | - | - |
| Total Investment Earnings | (45,219,560) | - | - |
| Less Investment Costs | | | |
| Investment activity costs | 1,720,011 | - | - |
| Net Investment Loss | (46,939,571) | - | - |
| License and fees collected for State | - | - | 39,193 |
| Miscellaneous | - | 233,673 | - |
| Total Additions | 15,182,854 | 233,673 | 1,148,424 |
| **Deductions** | | | |
| Benefits paid to participants or bbeneficiaries | 79,220,501 | - | 1,082,643 |
| Refunds of member contributions | 80,936 | - | - |
| Payments to state | - | - | 41,825 |
| Administrative expense | 1,528,707 | 41,219 | - |
| Other | 60,895 | - | |
| Total Deductions | 80,891,039 | 41,219 | 1,124,468 |
| **Change in Net Position** | (65,708,185) | 192,454 | 23,956 |
| Net Position - July 1, 2021 | 693,100,421 | (192,454) | (26,571) |
| Net Position - June 30, 2022 | $ 627,392,236 | $ - | $ (2,615) |

The accompanying notes are an integral part of the basic financial statements.

**CITY OF RICHMOND, VIRGINIA**
**STATEMENT OF NET POSITION**
**COMPONENT UNITS**
**6/30/2022**

**EXHIBIT G-1**

| | School Board | Richmond Economic Development Authority | Richmond Ambulance Authority | Richmond Behavioral Health Authority | Richmond Redevelopment and Housing Authority | Total |
|---|---|---|---|---|---|---|
| **Assets** | | | | | | |
| Cash and Cash Equivalents | $ 38,996,536 | $ 10,676,682 | $ 1,641,624 | $ 23,786,614 | $ 39,675,918 | $ 114,777,374 |
| Due From Primary Government | - | 119,692 | - | - | - | 119,692 |
| Due From Other Governments | 43,716,834 | - | - | 1,962,652 | - | 45,679,486 |
| Accounts Receivable | 1,119,016 | - | 3,071,471 | 2,387,327 | 3,900,610 | 10,478,424 |
| Other Current Assets | - | 59,487 | - | - | 828,542 | 888,029 |
| Financed purchase notes receivable current portion | - | 573,581 | - | - | 5,761,028 | 6,334,609 |
| Lease receivable, current portion | - | 333,699 | - | - | - | 333,699 |
| Inventories of Materials and Supplies | 113,417 | - | 260,684 | - | - | 374,101 |
| Prepaid Expenses and Other Current Assets | 25,400 | - | 628,153 | 457,311 | | 1,110,864 |
| Investments | 1,675,867 | - | 5,000,000 | - | - | 6,675,867 |
| Net Pension Asset | 5,193,828 | - | - | - | - | 5,193,828 |
| Mortage Loans Receivable and | | | | | | |
| Other Non-Current Assets | - | - | - | - | 54,609,946 | 54,609,946 |
| Capital Assets: | - | - | - | - | - | - |
| Land | - | 1,612,388 | - | 861,203 | 7,904,139 | 10,377,730 |
| Buildings and Structures | - | 29,991,206 | 1,038,872 | 18,134,076 | 137,985,926 | 187,150,080 |
| Leasehold Improvements | - | - | - | 3,297,556 | - | 3,297,556 |
| Other Non-Current Assets | - | 135,145 | - | - | - | 135,145 |
| Equipment | 80,869,035 | - | 11,017,072 | 7,063,894 | 24,202,915 | 123,152,916 |
| Less: Accumulated Depreciation | (52,862,495) | (20,315,785) | (8,686,557) | (9,915,850) | (103,878,555) | (195,659,242) |
| Right to Use Assets | 1,876,257 | - | - | 15,135,937 | - | 17,012,194 |
| Less: Accumulated Depreciation | (1,181,592) | - | - | (1,969,772) | - | (3,151,364) |
| Leased capital asset, net | - | 1,476,580 | - | - | 12,121,485 | 13,598,065 |
| Financed purchase notes receivable, less current portion | - | 19,395,675 | - | - | - | 19,395,675 |
| Lease receivable, less current portion | - | 56,959 | - | - | - | 56,959 |
| Loans receivabke, net | - | 9,226,040 | - | - | - | 9,226,040 |
| Accrued interest receivable | - | 1,156,521 | - | - | - | 1,156,521 |
| Construction in Progress | - | 54,651 | - | 593,384 | | 648,035 |
| Total Capital Assets | 28,701,205 | 42,789,380 | 3,369,387 | 33,200,428 | 78,335,910 | 186,396,310 |
| Total Assets | 119,542,103 | 54,552,521 | 13,971,319 | 61,794,332 | 183,111,954 | 432,972,229 |
| Deferred Outflows of Resources | | | | | | |
| Deferrals related to OPEB | 12,275,616 | - | - | 659,393 | 365,731 | 13,300,740 |
| Deferrals related to Pension | 98,869,684 | - | - | 5,071,383 | 2,716,040 | 106,657,107 |
| Total Deferred Outflows of Resources | 111,145,300 | - | - | 5,730,776 | 3,081,771 | 119,957,847 |
| **Liabilities** | | | | | | |
| Accounts Payable | 9,014,870 | 87,207 | 864,516 | 1,890,038 | 2,733,633 | 14,590,264 |
| Accrued Liabilities | 31,387,396 | 82,878 | 165,985 | 2,028,408 | 1,521,356 | 35,186,023 |
| Accrued Interest | - | - | - | 20,295 | - | 20,295 |
| Due To Primary Government | - | 33,072 | - | - | - | 33,072 |
| Due To Other Governments | 2,234,051 | - | - | - | 253,672 | 2,487,723 |
| Unearned Revenues | 5,966,701 | - | 1,018,351 | 26,490,486 | 766,195 | 34,241,733 |
| Current portion of long-term liabilities | - | - | - | 1,919,486 | - | 1,919,486 |
| Customers' Deposits | - | 125,540 | - | - | 573,812 | 699,352 |
| Bonds, Notes Payable and Capital Leases | - | - | - | - | - | - |
| Current portion of recoverable Grant Payable | - | 730,000 | - | - | - | 730,000 |
| Other Current Liabilities | - | - | 16,866 | - | 1,119,770 | 1,136,636 |
| Compensated Absences | - | - | - | 2,219,946 | 787,566 | 3,007,512 |
| Accrued helathcare claimes | 5,133,848 | - | - | - | - | 5,133,848 |
| Non-Current Liabilities: | - | - | - | - | - | - |
| Due within one year | 3,125,999 | - | - | - | - | 3,125,999 |
| Due in more than one year | 251,620,761 | - | - | 14,312,137 | - | 265,932,898 |
| Bonds, Notes Payable and Capital Leases | - | - | - | - | 5,030,000 | 5,030,000 |
| Other Noncurrent Liabilities | - | - | 16,972 | - | 15,699,636 | 15,716,608 |
| Net Other Postemployment Benefit Obligations | - | - | - | 4,020,864 | - | 4,020,864 |
| Net Pension Liability | - | - | - | 7,924,535 | 9,633,249 | 17,557,784 |
| Lease Payable | - | 1,469,283 | - | - | - | 1,469,283 |
| Recoverable grants payable | - | 24,885,000 | - | - | - | 24,885,000 |
| Total Liabilities | 308,483,626 | 27,412,980 | 2,082,690 | 60,826,195 | 38,118,889 | 436,924,380 |
| **Deferred Inflow of Resources** | | | | | | |
| Deferrals related to OPEB | 25,350,845 | - | - | 194,011 | 149,763 | 25,694,619 |
| Deferrals related to Pension | 142,931,087 | - | - | 3,031,997 | 233,728 | 146,196,812 |
| Leases | - | 380,065 | - | - | - | 380,065 |
| Total Deferred Inflows of Resources | 168,281,932 | 380,065 | - | 3,226,008 | 383,491 | 172,271,496 |
| **Net Position** | | | | | | |
| Net Investment in Capital Assets | 26,274,532 | 4,849,757 | 3,335,549 | 16,968,805 | 78,335,910 | 129,764,553 |
| Restricted for: | | | | | | |
| Capital Projects | 7,728,718 | 6,489,175 | - | - | 9,295,053 | 23,512,946 |
| Permanent Funds: | 1,348,876 | - | - | - | - | 1,348,876 |
| Special Revenue Funds: | 1,152,988 | - | - | - | - | 1,152,988 |
| Nutrition Service funds | 1,253,156 | - | - | - | - | 1,253,156 |
| Unrestricted | (283,836,425) | 15,420,544 | 8,553,080 | (13,495,900) | 60,060,382 | (213,298,319) |
| Total Net Position | $ (246,078,155) | $ 26,759,476 | $ 11,888,629 | $ 3,472,905 | $ 147,691,345 | $ (56,265,800) |

The accompanying notes are an integral part of the basic financial statements.

EXHIBIT G-2

**CITY OF RICHMOND, VIRGINIA**
**STATEMENT OF ACTIVITIES**
**COMPONENT UNITS**
**For the Fiscal Year Ended June 30, 2022**

| | | Program Revenues | | | Net (Expenses) Revenues and Changes in Net Position | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Functions/Program Activities | Expenses | Charges for Services | Operating Grants and Contributions | Capital Grants and Contributions | School Board | Richmond Economic Development Authority | Richmond Ambulance Authority | Richmond Behavioral Health Authority | Richmond Redevelopment and Housing Authority | Total |
| School Board | $ 448,151,356 | $ 2,240,201 | $ 200,214,919 | $ 2,200,000 | $ (243,496,236) | $ - | $ - | $ - | $ - | $ (243,496,236) |
| Richmond Economic Development Authority | 1,229,021 | 999,007 | 790,384 | - | - | 560,370 | - | - | - | 560,370 |
| Richmond Ambulance Authority | 20,861,396 | 12,648,571 | 892,590 | - | - | - | (7,320,235) | - | - | (7,320,235) |
| Richmond Behavioral Health Authority | 75,456,977 | 18,326,490 | - | - | - | - | - | (57,130,487) | - | (57,130,487) |
| Richmond Redevelopment and Housing Authority | 78,911,205 | 9,919,039 | 61,977,889 | 21,341,039 | - | - | - | - | 14,326,762 | 14,326,762 |
| Total Component Units | $ 624,609,955 | $ 44,133,308 | $ 263,875,782 | $ 23,541,039 | $ (243,496,236) | $ 560,370 | $ (7,320,235) | $ (57,130,487) | $ 14,326,762 | $ (293,059,826) |
| General Revenues: | | | | | | | | | | |
| Payment From Primary Government | | | | | 187,142,096 | 547,030 | 4,000,000 | 4,677,024 | - | 196,366,150 |
| Intergovernmental Revenue Not Restricted to Specific Programs | | | | | 89,058,171 | (56,929) | - | 48,565,004 | - | 137,566,246 |
| Investment Earnings | | | | | - | - | - | - | 76,346 | 76,346 |
| Gain/(loss) on Disposal of Assets | | | | | - | - | (236,905) | - | - | (236,905) |
| Miscellaneous Other Income | | | | | 2,744,935 | 738,542 | 23,601 | 509,801 | 5,095,260 | 9,112,139 |
| Interest Expense | | | | | (163,452) | (773,839) | - | (355,521) | - | (1,292,812) |
| Interest Income | | | | | | 32,694 | 10,246 | 3,661 | - | 46,601 |
| Total General Revenues | | | | | 278,781,750 | 487,498 | 3,796,942 | 53,399,969 | 5,171,606 | 341,637,765 |
| Changes in Net Position | | | | | 35,285,514 | 1,047,868 | (3,523,293) | (3,730,518) | 19,498,368 | 48,577,939 |
| Net Position - Beginning of Year | | | | | (281,363,669) | 25,711,608 | 15,411,922 | 7,203,423 | 128,192,977 | (104,843,739) |
| Net Position - End of Year | | | | | $ (246,078,155) | $ 26,759,476 | $ 11,888,629 | $ 3,472,905 | $ 147,691,345 | $ (56,265,800) |

The accompanying notes are an integral part of the basic financial statements.

## 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The City of Richmond, Virginia (City) was founded by William Byrd in 1737, established as a town in May 1742, and incorporated as a City on July 19, 1782. The City operates on a Mayoral-Council form of government and provides all municipal services to its residents. The more significant of the City's accounting policies are described below.

### A. Financial Reporting Entity

The City's financial statements are prepared in conformity with Generally Accepted Accounting Principles (GAAP) in the United States of America as applicable to government units. The Governmental Accounting Standards Board (GASB) is the accepted standard-setting body for establishing governmental accounting and financial reporting principles. The City's financial reporting entity is defined and its financial statements are presented in accordance with GAAP, which defines the distinction between the City as a Primary Government and its related entities. Accordingly, these financial statements present the City and its component units, entities for which the City is considered to be financially accountable, hereafter referred to as the reporting entity. The City has two types of Component Units – Blended and Discretely. The Blended Component Units are separate legal entities, in substance, that are part of the City's operations; thus, financial data from these units are combined with that of the City and reported in the appropriate fund type. Each Blended Component Unit has a June 30 fiscal year-end. The Discretely presented Component Units, on the other hand, are reported in a separate column in the Government-Wide financial statements to emphasize that they are legally separate from the primary government. Each Discretely presented Component Unit has a June 30 fiscal year-end, except for the Richmond Redevelopment and Housing Authority, which has a September 30 fiscal year-end.

**Blended Component Units**

The City reports on one Blended Component Unit, the Richmond Retirement System (RRS) which is reported as a Fiduciary Pension Trust Fund.

The Richmond Retirement System (RRS)

The purpose of the RRS is to manage retirement plans for the City. RRS is fiscally dependent upon the City and provides services primarily to the City's employees. RRS issues a publicly available annual financial report that includes financial statements and required supplementary information. That report can be requested at 900 East Broad Street, Richmond, VA 23219 or may be accessed on the RRS website at the following address:

http://www.rva.gov/retirement-system/annual-reports.

**Discretely Presented Component Units**

The Component Unit column in the Government-Wide financial statements comprises financial data on the City's Discretely presented Component Units. The governing bodies of all Component Units are appointed by the City Council, except the School Board of the City of Richmond, which is elected. The following Component Units are included in the reporting entity because they are financially accountable to the City and there is a financial burden and/or a benefit relationship between the City and the Component Unit.

The School Board of the City of Richmond (School Board)

The School Board administers the Richmond Public School system. The City Council approves the School Board's annual operating budget and provides a major portion of the funding through annual appropriations. Complete financial statements of the School Board may be obtained from the administrative offices located at 301 North Ninth Street, Richmond, VA 23219.

**Proprietary Component Units**

Economic Development Authority of the City of Richmond, Virginia (EDA)

The EDA promotes industry and develops trade by inducing entities to locate in or remain in the City. The City annually provides significant operating subsidies to the EDA, thus, a financial burden/benefit relationship exists between the entities. Complete financial statements for EDA may be requested at 501 E. Franklin Street, Richmond, VA 23219.

Richmond Ambulance Authority (RAA)

RAA provides emergency and non-emergency medical care and transportation services for the City. The City annually provides significant operating subsidies to RAA, thus, a financial burden relationship exists between the City and RAA. Complete financial statements for RAA may be requested at Post Office Box 26286, Richmond, VA 23260.

Richmond Behavioral Health Authority (RBHA)

RBHA provides behavioral health services to residents of the City under Sections 15.1-1676 of the *Code of Virginia* (1950), as amended. The City annually provides significant operating subsidies to RBHA, thus, a financial burden relationship exists between the City and RBHA. Complete financial statements for RBHA may be obtained from the administrative offices located at 107 S. 5th Street, Richmond, VA 23219.

Richmond Redevelopment and Housing Authority (RRHA)

RRHA is responsible for operating a low-income housing program, which provides housing for eligible families, for operating redevelopment and conservation programs in accordance with the City's Master Plan, and for the delivery of services to citizens of low-income housing and urban renewal areas through the encouragement and development of social and economic opportunities. The City Council appoints the Commissioners of RRHA and is financially accountable for RRHA's operations. RRHA's September 30 fiscal year-end Audited Financial Statements are included in the City's Component Unit combining financial statements. Complete financial statements for RRHA may be obtained from the administrative offices located at 901 Chamberlayne Avenue, Richmond, VA 23220.

RRHA and the City have different fiscal years, which can result in timing differences in transactions between RRHA and the City as noted in the basic financial statement balances for Due To and From Primary Government and Component Units.

**Joint Ventures**

Greater Richmond Transit Company (GRTC)

The City retains an ongoing financial responsibility for the Greater Richmond Transit Company, which under a joint venture agreement between the City and the County of Chesterfield, Virginia, provides mass transportation for passengers on a regional basis and associated para-transit service mandated by the Americans with Disabilities Act for the purposes of providing continuous service within and between the jurisdictions of the City, Chesterfield County and Henrico County. Greater Richmond Transit Company, a public service corporation incorporated on April 12, 1973, is governed by a six-member board of directors; three of which are appointed by the City and three by the County of Chesterfield. MV Contract Transportation Inc., is under contract with the Greater Richmond Transit Company to provide the executive management team that manages the operations of the 100 percent owned subsidiary, Old Dominion Transit Management Company, which does business as GRTC Transit System.

Fare revenues and route subsidies pay all costs associated with each locality utilizing the GRTC Transit System services only to the extent that each locality operates routes within their jurisdiction. The City expended $8,051,731 for operating subsidies for bus routes and para-transit services within the City for the year ended June 30, 2022. The City also expended $267,359 for local match funds needed to secure 80 percent of Federal grant funds that are used for the Company's capital purchases. Complete financial statements for the Greater Richmond Transit Company can be obtained from the Finance Department, GRTC Transit System, 301 East Belt Boulevard, Richmond, VA 23224.

**Jointly Governed Organizations**

*Capital Region Airport Commission* (Commission) was created in 1975 under Chapter 380 (as amended by Chapter 410) of the *Code of Virginia* (Code) when the City and the County of Henrico adopted a resolution declaring a need for the Commission. Since that time, the Counties of Chesterfield and Hanover have become Commission participants.

The Commission is comprised of a fourteen-member board of directors, with four members each appointed by the City, County of Henrico and County of Chesterfield and two members appointed by the County of Hanover. The Commission generates its revenues from service charges to users of the Airport facilities to recover the costs of maintaining, repairing and operating the Airport. Virginia law requires that the Commission submit an annual budget showing estimated revenues and estimated expenditures to the governing bodies. If the Commission's budget contains estimated expenditures which exceed estimated revenues, the governing bodies are required to fund the deficit in proportion to their financial interest in the Commission. If, however, actual revenues are less than estimated revenues identified in the budget (resulting in a deficit), the City and Counties may, at their discretion, appropriate funds necessary to fund the deficit. The City did not provide funding to the Commission during the fiscal year ended June 30, 2022.

*Central Virginia Transportation Authority* (CVTA) was created by the 2020 Virginia General Assembly (Code of Virginia Chapter 33.2-3702) to serve the following Richmond metropolitan jurisdictions: Town of Ashland, Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, Powhatan, and City of Richmond. The purpose of the CVTA is to administer transportation funding generated through the imposition of an addition regional 0.7 percent of state sales and use tax, and wholesale gas tax of 7.6 cents per galllon for gasoline and 7.7 cents per gallon of diesel fuel. Funds received through the Authority are used to address transportation-related purposes that benefit localities in the Richmond Region. CVTA funds are allocated with 35% retained by the Authority for large regional projects, 15% to the Greater Richmond Transit Authority (GRTC) to provide transit services for the region and 50% returned, proportionally, to each locality to address local transportation needs. The City recieved $13,819,222 in funding for City transportation capital projects from the CVTA during the fiscal year ended June 30, 2022.

*Central Virginia Waste Management Authority (*CVWMA*)* was created pursuant to the Virginia Water and Waste Authorities Act (Chapter 51, Title 15.2 of the Code of Virginia (1950), as amended). CVWMA's purpose is to plan, acquire, construct, reconstruct, improve, extend, operate, contract for and maintain any garbage and refuse collection, transfer and disposal program or system, including waste reduction, waste material recovery, recycling as mandated by law or otherwise, resource recovery, waste incineration, landfill operation, ash management, sludge disposal from water and wastewater treatment facilities, household hazardous waste management and disposal, and similar programs within one or more political subdivisions which are members of the CVWMA. The City is a member of the CVWMA. The CVWMA is governed by a Board of Directors consisting of one or more representatives appointed by each of the thirteen member cities, town and counties. The City appointed three of the twenty-member board of directors. The City provided $2,849,799 in funding to CVWMA for the fiscal year ended June 30, 2022.

The *Greater Richmond Partnership (*GRP*)* is comprised of members from the City and the counties of Chesterfield, Hanover, and Henrico. Together in partnership with the business leadership of the area, the GRP's purpose is to further economic development of the metropolitan Richmond area. The City has one member on the board that is an elected official and one alternate member. The City provided $385,000 in funding to GRP for the year ended June 30, 2022.

The *Richmond Metropolitan Convention and Visitors Bureau (*RMCVB) – also "DBA" Richmond Region Tourism - serves the City and the Counties of Chesterfield, Hanover, Henrico and New Kent by promoting conventions, tourism and development in the Metropolitan Richmond area in order to increase revenues, provide increased employment and improve the economic health of all jurisdictions involved. The City has three representatives serving on the RMCVB Board of Directors. The City contributed $1,797,281 to RMCVB for the year ended June 30, 2022.

The *Richmond Regional Planning District Commission (*RRPDC*)* is comprised of representatives from nine local jurisdictions which include Counties of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, Powhatan, the City of Richmond, and the Town of Ashland. The major functions of the RRPDC are to promote regional cooperation; coordinate the activities and policies of local member governments; resolve service delivery challenges involving more than one government within the region; and provide planning assistance to local governments. The City has seven representatives serving on the RRPDC. The City provided funding to RRPDC in the amount of $124,763 for the year ended June 30, 2022.

The *Greater Richmond Convention Center Authority (*GRCCA*)*, a political subdivision of the Commonwealth of Virginia, was created on January 9, 1998 pursuant to the Public Recreational Facilities Authority Act, Chapter 56 of Title 15.2, *Code of Virginia*. The GRCCA was created to acquire, finance, expand, renovate, construct, lease, operate, and maintain the facility and grounds of a visitors and convention center. The political subdivisions participating in the incorporation of the GRCCA are the City and the Counties of Chesterfield, Hanover and Henrico. The GRCCA is governed by a five-member commission comprised of the chief administrative officer of each of the four incorporating political subdivisions and the President/CEO of the Retail Merchants Association of Counties of Chesterfield, Hanover and Henrico. The City contributed $9,857,175 in transient occupancy tax revenue for the year ending June 30, 2022.

### B. Basis of Presentation

#### Government-Wide and Fund Financial Statements

The basic financial statements include both Government-Wide (based on the City as a whole) and the Fund financial statements, including the major individual funds of the Governmental Funds (General, Capital Projects and Debt Service Funds) and Proprietary Funds (Gas, Water, Wastewater and Storm water), as well as the Fiduciary Funds and the Component Units. Both the Government-Wide and fund financial statements categorize primary activities as either governmental or business-type. In the Government-Wide Statement of Net Position, both the governmental and business-type activities columns are presented on an aggregated basis by column and are reflected on a full accrual, economic resource measurement focus basis, which incorporates long-term assets and receivables as well as long-term debt and obligations. Each presentation provides valuable information that can be analyzed and compared (between years and between governments) to enhance the usefulness of the information.

The Government-Wide Statement of Activities reflects both the gross and net cost per functional category (e.g. Public Safety, Public Works, Human Services, etc.) that are otherwise being supported by general government revenues (property, sales and use taxes, certain intergovernmental revenues, fines, permits and charges, etc.). The Statement of Activities reduces gross expenses (including depreciation) by directly related program revenues, operating and capital grants, and contributions. Program revenues include charges to customers or applicants who purchase, use, or directly benefit from goods, services or privileges provided by a given function and grants and contributions that are restricted to meeting the operation or capital requirements of a particular function or segment. Taxes and other items not specifically restricted to the various programs are reported as general revenues. Operating grants presented include operating-specific and discretionary (either operating or capital) grants, while the capital grants column reflects capital-specific grants.

In the Fund financial statements, financial transactions, and accounts of the City are organized on the basis of funds. The operation of each fund is considered to be an independent fiscal and separate accounting entity, with a self-balancing set of accounts recording cash and/or other financial resources together with all related liabilities and residual equities or balances, and changes therein, which are segregated for the purpose of carrying on specific activities or attaining certain objectives in accordance with special regulations and restrictions, or limitations. GAAP sets forth minimum criteria (percentage of the assets and deferred outflows of resources, liabilities and deferred inflows of resources, revenues or expenditures/expenses of either fund category or the governmental and enterprise combined) for the determination of major funds. The Non-Major Funds are combined in a single column in the fund financial statements and detailed in the combining statements. The Governmental Fund financial statements are presented on current financial resources measurement focus and modified accrual basis of accounting. This is the manner in which these funds are normally budgeted. Since the Governmental Fund financial statements are presented on a different measurement focus and basis of accounting than the Government-Wide financial statements' governmental activities column, a reconciliation is presented, which briefly explains the adjustments necessary to reconcile the fund financial statements to the governmental activities column of the Government-Wide financial statements.

Internal Service Funds of the City, which traditionally provide services primarily to other funds of the government, are presented in summary form as part of the Proprietary Fund financial statements. In the Government-Wide financial statements, assets, deferred outflows of resources, liabilities, deferred inflows of resources, revenues and expenses of the funds are allocated to either the governmental or business-type activities, based on their predominate use of the fund's services. To the extent possible, the costs of these services are reflected in the appropriate functional activity (e.g., Public Safety and Judiciary, Human Services, etc.). See Exhibits E-1 and E-2 for specific allocation of the Stores and Transportation Division Internal Service Fund results to the business-type activities.

The City's Fiduciary Funds are presented in the fund financial statements by type (Pension and Agency). Since by definition these assets are being held for the benefit of a third party (e.g. private parties, pension participants, etc.) and cannot be used to address activities or obligations of the City, these funds are not incorporated into the Government-Wide financial statements.

The following is a brief description of the specific funds used by the City:

**Governmental Funds**

Governmental Funds are those through which most governmental functions typically are financed. The City reports the following Governmental Funds:

- *General Fund (Major Fund)* **–** The General Fund is the City's primary operating fund. It accounts for and reports all financial resources of the City's general government not accounted for and reported in another fund.
- *Debt Service Fund (Major Fund)* **–** The Debt Service Fund accounts for and reports the accumulation of resources for and the payment of principal and interest and fiscal charges not being financed by proprietary funds or financial resources that are restricted, committed, or assigned to expenditures for principal and interest. The Debt Service Fund reports resources if legally mandated. Financial resources that are being accumulated for principal and interest maturing in future years also are reported in the Debt Service Fund.
- *Capital Projects Fund (Major Fund)* – The Capital Projects Fund is used to account for and report financial resources that are restricted, committed, or assigned for capital outlays, including the acquisition or construction of capital facilities and other capital assets approved by City Council. The Capital Projects Fund excludes those types of capital-related outflows financed by proprietary funds or for assets that will be held in trust for individuals, private organizations, or other governments. Its principal source of funding is the sale of General Obligation Bonds.
- *Special Revenue Funds* **–** Special Revenue Funds are used to account for and report the proceeds of specific revenue sources (other than expendable trust or major capital projects) that are legally restricted, committed, or assigned to expenditures for specified purposes other than debt service or capital projects. Each fund is established on a functional basis and may include one or more grants or other funding sources.
- *Permanent Funds* – Permanent Funds are used to account for and report resources that are restricted to the extent that only earnings, not principal, may be used for purposes that support the City programs, that is, for the benefit of the government or its citizenry.

**Proprietary Funds**

Proprietary Funds are accounted for on the flow of economic resources measurement focus and use the accrual basis of accounting. Under this method, revenues are recorded when earned and expenses are recorded at the time liabilities are incurred. The City reports the following Proprietary Funds:

- *Enterprise Funds* - Enterprise Funds are used to report activities for which a fee is charged to external users for goods and services. The City maintains seven Enterprise Funds consisting of the Gas, Water, Wastewater and Storm water (all of which are considered Major Funds), Cemeteries, and Parking Enterprise (which are combined into a single, aggregated presentation as Non-Major Proprietary Funds).

  A description of the major Enterprise Utility Funds are as follows:

  - *Gas* – The Gas Utility provides natural gas service to the City and surrounding counties. Operation of the Gas Utility is designed to be self-supporting through user charges.

  - *Water* – The Water Utility provides retail water service to the City and surrounding counties. Operation of the Water Utility is designed to be self-supporting through user charges.
  - *Wastewater* – The Wastewater Utility provides wastewater service to the City and portions of the surrounding counties. Operation of the Wastewater Utility is designed to be self-supporting through user charges.
  - *Stormwater Utility* – The Stormwater Utility provides storm water service to the City. Operation of the Storm water Utility is designed to be self-supporting through user charges.
- *Internal Service Funds* - Internal Service Funds account for operations that provide services to City departments/agencies on a cost reimbursement basis. The city maintains eight Internal Service Funds consisting of Fleet Management, Radio Management, Health Self-Insurance, Information Technology, Risk Management, Electric Utility, and Stores and Transportation, which exclusively serves the City's Major Proprietary Funds.
- *Fiduciary Funds* - Fiduciary Funds account for assets held by the City in a trustee capacity or as an agent for individuals, private organizations or other governments.
  - *Pension Trust Funds* – For accounting measurement purposes, the Pension Trust Funds are accounted for in essentially the same manner as Proprietary Funds. The Trust Funds consist of the City's Retirement Plan and OPEB Trust.
  - *Private-Purpose Trust Fund* - Reports trust arrangements, other than pension and investment trusts, under which principal and income benefit individuals, private organizations, or other governments.
  - *Custodial Funds* **–** Reports fiduciary activity resources that are not held in a trust agreement or equivalent arrangement that meets specific criteria.

**Reconciliation of Government-Wide and Fund Financial Statements**

A summary reconciliation of the difference between total fund balances, as reflected on the Governmental Funds' Balance Sheet, and total net position for governmental activities, as shown on the Government-Wide Statement of Net Position, is presented in a schedule accompanying the Governmental Funds' Balance Sheet. The assets and deferred outflows of resources and liabilities and deferred inflows of resources elements, which comprise the reconciliation differences, stem from Governmental Funds, using the current financial resources measurement focus and the modified accrual basis of accounting, while the government-wide financial statements use the economic resources measurement focus and the accrual basis of accounting. A summary reconciliation of the differences between net change in total fund balances as reflected on the Governmental Funds' Statement of Revenues, Expenditures, and Changes in Fund Balances and the change in net position for governmental activities, as shown on the Government-Wide Statement of Activities, is presented in a schedule accompanying the Governmental Funds' Statement of Revenues, Expenditures, and Changes in Fund Balances. The revenue and expense elements, which comprise the reconciliation differences, stem from the governmental funds using the current financial resources measurement focus and the modified accrual basis of accounting, while the Government-Wide financial statements use the economic resources measurement focus and the accrual basis of accounting.

**C. Basis of Accounting**

The accounting and financial reporting treatment applied to a fund is determined by its measurement focus. All Governmental Funds are accounted for using the current financial resources measurement focus wherein only current assets and current liabilities are included on the Balance Sheet in the fund statements whereas long-term assets and long-term liabilities are included in the Government-Wide statements. Operating statements of the Governmental Funds present increases (e.g. revenues and other financial sources) and decreases (e.g. expenditures and other financing uses) in fund balances.

Revenues are recognized in the accounting period in which they become both measurable and available to finance expenditures of the fiscal period. Revenues from taxes are generally considered available if received within two months after the fiscal year end. Revenue from categorical and other grants are generally considered available when all eligibility criteria have been met and if received within one year. Expenditures are recorded when the related liability is incurred and payment is due, except for principal and interest on long-term debt, and compensated absences and claims.

The Government-Wide financial statements are reported and accounted for on the economic resources measurement focus and the accrual basis of accounting, which include all assets and deferred outflows of resources and liabilities and deferred inflows of resources associated with governmental and business-type activities. Assets and liabilities associated with fiduciary activities are included in the Statement of Fiduciary Net Position. Revenues are recorded when earned and expenses are recorded at the time liabilities are incurred, regardless of when the related cash flows take place. Non-exchange transactions, in which the City either gives or receives value without directly receiving or giving equal value in exchange, include sales and income taxes, real estate and personal property taxes, grants, entitlements, and donations. On an accrual basis, revenue from sales taxes are recognized when the underlying exchange transaction takes place. Revenue from property taxes is recognized in the fiscal year for which the taxes are levied. Revenue from grants, entitlements, and donations is recognized in the fiscal year in which all eligibility requirements have been satisfied.

Operating revenues and expenses in the Proprietary Funds result from providing goods and services in connection with their principal ongoing operations (e.g., charges for services). Operating expenses for the Enterprise and Internal Service Funds include the cost of services, administrative expenses, contractual services, and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as non-operating revenues and expenses.

The Pension Trust Funds' contributions from members, recorded under the full accrual basis of accounting, are recorded when the employer makes payroll payments on behalf of Plan members. The Custodial Funds use the full accrual basis of accounting and do not measure the results of operations.

### D. Cash and Cash Equivalents

Cash and cash equivalents are stated at cost, which approximates fair value. Cash and cash equivalents include cash on hand, checking and savings accounts, and short-term investments, with original maturities of one year or less from the date of acquisition. For the purpose of the Statement of Cash Flows, the City considers cash and highly liquid investments, including restricted assets, with a maturity of three months or less, as cash and cash equivalents.

### E. Investments

Investments are reported at fair value, which is based on quotations obtained from readily available sources.

### F. Allowances for Doubtful Accounts

The City calculates its allowances for doubtful accounts using historical collection data, specific account analysis, and management's judgment.

Allowances for doubtful accounts at June 30, 2022, were as follows:

| | | |
|---|---|---|
| General Fund and Governmental Activities | $ | 14,825,942 |
| Enterprise Funds | | 17,738,294 |
| Total Allowances for Doubtful Accounts | $ | 32,564,236 |

### G. Inventories

Inventories on hand at June 30, 2022, have been reported on the Government-Wide Statement of Net Position. Inventories of consumable supplies are recorded at cost determined on a first in, first out basis. Inventories in the Proprietary Funds are accounted for under the lower of cost, determined by using weighted average cost or first-in, first-out methods, or market.

### H. Capital Assets

Capital assets and improvements include substantially all land and works of art/historical treasures, buildings, equipment, water distribution and sewage collection systems, and other elements of the City's infrastructure having a minimum useful life of two years and having an initial cost of more than $5,000. Capital assets, which are used for general governmental purposes and are not available for expenditure, are accounted for and reported in the government-wide financial statements. Infrastructure elements include the roads, bridges, curbs and gutters, streets and sidewalks, park land, and improvements.

Capital assets are stated at historical cost or estimated historical cost based on appraisals or on other acceptable methods when historical cost is not available. Donated capital assets are stated at their acquisition value as of the date of the donation. Accumulated depreciation and amortization are reported as reductions of capital assets.

Capital asset depreciation has been provided over the estimated useful lives using the straight-line method as follows:

| | |
|---|---|
| Governmental: | |
| Infrastructure | 20 to 50 years |
| Buildings and structures | 20 to 50 years |
| Equipment and other assets | 2 to 20 years |
| Enterprise Funds: | |
| Gas production, distribution, equipment | 17 to 34 years |
| Water pumping, treatment, distribution, equipment | 20 to 50 years |
| Sewage gathering and treatment equipment | 20 to 50 years |
| Cemeteries | 2 to 20 years |
| Buildings and structures | 20 to 60 years |
| Equipment and other assets | 2 to 20 years |

### I. Construction Period Interest

The City adopted *GASB Statement No. 89 Accounting for Interest Cost Incurred before the End of a Construction Period.* The objectives of this Statement are (1) to enhance the relevance and comparability of information about capital assets and the cost of borrowing for a reporting period and (2) to simplify accounting for interest cost incurred before the end of a construction period. This Statement also reiterates that in financial statements prepared using the current financial resources measurement focus, interest cost incurred before the end of a construction period should be recognized as an expenditure on a basis consistent with governmental fund accounting principles.

### J. Compensated Absences

The City's general employees earn vacation pay in varying amounts and can accumulate vacation pay based on length of service. All general employees earn sick pay at the same rate regardless of the length of service. Sworn officers earn both vacation pay and sick pay based on length of service and employment date.

Earning rates for vacation pay and sick pay and maximum vacation accumulation hours are as follows:

| | Vacation Pay Bi-weekly Earning Rate Min-Max Hours | Sick Pay Bi-weekly Earning Rate Hours | Maximum Vacation Accumulation Hours |
|---|---|---|---|
| General Employees | 3.7 - 7.4 | 3.7 | 192.0 - 384.0 |
| Sworn Shift Employees | 5.2 - 11.1 | 5.2 - 7.4 | 268.0 - 576.0 |

Maximum vacation accumulated hours is payable at the date of separation. Employees leaving City employment are paid all accumulated unused vacation pay up to the maximum limit. The unused balance of sick leave is not paid at the date of separation.

The current portions of the Governmental Activities' compensated absences liabilities are recorded as accrued liabilities when they are expected to be liquidated within the next year. The current and noncurrent portions are recorded in the Government-Wide financial statements. The amount of vacation recognized as expense is the amount earned during the year. Compensated absences are reported in the Governmental Funds only if they have matured, for example, as a result of employee resignations and retirements.

**K. Judgment and Claims**

The City is self-insured with respect to risks including, but not limited to, property damage and personal injury. The City is self-insured with respect to payments for workers' compensation, general liability, automobile liability, public officials or police professional liability claims. The City also carries commercial insurance in a number of smaller more defined risk areas such as employees' faithful performance, money and securities, unmanned aerial vehicles, cyber insurance and medical professional liability. In the fund financial statements, expenditures for judgments and claims, including estimates of claims that have been incurred but not reported, are recorded in the Risk Management agency within the Internal Services Fund. The City is self-insured with respect to payments for health care and is reported in the Health Self-Insurance Internal Service Fund (ISF).

**L. Deferred Outflows and Inflows of Resources**

In addition to assets, the Balance Sheet and Statement of Net Position reports a separate section for deferred outflows of resources. This separate financial statement element represents a consumption of net position that applies to a future period(s) and, therefore, will not be recognized as an outflow of resources (expense/expenditure) until then. The City has deferred outflows of resources related to pensions and OPEB related activities and the unamortized losses on refunding of debt, resulting from the difference in the carrying value of refunded debt and its reacquisition price. This amount is deferred and amortized over the shorter of the life of the refunded or refunding debt.

In addition to liabilities, the Balance Sheet and Statement of Net Position reports a separate section for deferred inflows of resources. This separate financial statement element represents an acquisition of net position that applies to a future period(s) and, therefore, will not be recognized as an inflow of resources (revenues) until that time. The City has deferred inflows of resources related to unavailable revenues, pensions, prepaid taxes, and others reported under the modified accrual basis of accounting in the Governmental Funds' Balance Sheet. The Governmental Funds report unavailable revenues from property taxes, from federal and state governments, and other sources as appropriate. These amounts are deferred and recognized as revenues in the period the amounts become available or earned.

**M. Restricted Assets**

In accordance with applicable covenants of certain Enterprise Fund bond issues, cash and other assets have been appropriately restricted. Cash has also been restricted to the extent of customers' deposits, unexpended bond proceeds or by grantor's requirements. When both restricted and unrestricted resources are available for use, it is the City's policy to use restricted resources first and then unrestricted resources, as they are needed.

**N. Categories of Fund Balance**

GAAP establishes the categories state and local governments must use to categorize fund balance, as follows:

**Nonspendable –** Amounts that cannot be spent due to either their physical form or as a result of a legal or contractual obligation (such as inventory or the corpus of an endowment fund).

**Restricted –** Amounts constrained to specific purposes by either a third party (such as grantors, bondholders, or creditors) or by law through constitutional provisions or enabling legislation.

**Committed –** Amounts constrained to specific purposes by formal action (adoption of an ordinance) by the government's highest level of decision-making authority (City Council). Committed amounts do not lapse nor can they be used for any other purpose unless the government takes the same level of action (adoption of another ordinance) to remove or change the constraint.

City Council, through Ordinance No. 2010-181-163 adopted September 27, 2010, created a new reservation of fund balance called the Revenue Stabilization Fund for the purpose of helping the City manage through the immediate effects of economic factors including, but not limited to, revenue reductions and unanticipated cuts in state funding, and to set aside $2 million in Fiscal Year 2010 as a reservation of fund balance. During 2012, City Council adopted Resolution No. 2012-R41-69, which amended the policy. To state, "The Mayor will prepare and administer General Fund budgets such that funding will be budgeted annually for a Revenue Stabilization and Contingency Fund (the "RSCF") until the RSCF reaches a minimum of $10,000,000. On December 11, 2017, the City Council further strengthened this policy by adopting Ordinance No. 2017-215 which sets the target balance of the Committed RSCF to 3.0 percent of budgeted General Fund expenditures. Accordingly, an appropriation from the RSCF cannot be proposed unless; (a) projected general fund revenue reflects a 0.5 percent or greater decrease from current year's authorized budget due to a catastrophic, unforeseen or unavoidable event or (b) expenses increase by 0.5 percent or greater over the current year's authorization due to a catastrophic, unforeseen or unavoidable event. These events must be quantifiable and distinguishable from other events that may occur during the normal course of government operations. If funds are withdrawn from the RSCF, a plan must be put in place within 60 days to replenish the fund to the required minimum level. The City shall dedicate up to one half of any year end surplus or other one time revenue toward reaching the targeted goal.

**Assigned –** Amounts constrained by the City's expressed intent to use resources for specific purposes. Intent can be expressed by the governing body or by an official or body to which the governing body has delegated the authority. Resolution No. 2011-65-69 and Chapter 8 of the City Charter provided that the Director of Finance is in charge of the financial affairs of the City, and to that end, he/she shall have authority and shall be responsible for the management of City finances in a professionally accountable and responsible manner. In order for assigned funds to be expended for the assigned purpose, an ordinance would need to be adopted by City Council. Assigned funds lapse at the end of the fiscal year in which they were assigned. With the exception of the General Fund, this is the residual fund balance of the classification of all Governmental Funds with positive balances.

**Unassigned** – Amounts that are available for any purpose. These amounts are reported only in the General Fund, although unassigned fund balance may be expressed as a negative amount in the other governmental funds.

As required by GAAP, the City has adopted a spending policy indicating that when multiple categories of fund resources are available, they will be expended in a specific order beginning first with restricted resources and continuing in a descending order using unassigned resources last. On December 11, 2017, City Council adopted Ordinance No. 2017-215, which amended the fund balance policy, to further increase the required level of unassigned fund balance from 10.00 percent to 13.67 percent of budgeted General Fund expenditures.

### O. Net Position

Net position represents the difference between assets and deferred outflows of resources and liabilities and deferred inflows of resources. Net position is comprised of three components:

**Net Investment in Capital Assets –** Consists of the historical cost of capital assets net of any accumulated depreciation and outstanding debt which was used to finance those assets.

**Restricted –** Consists of assets where limitations are imposed on their use through enabling legislation adopted by the City or through external restrictions imposed by creditors, grantors, or the laws and regulations of other governments.

**Unrestricted –** Net position not reported as net investment in capital assets or restricted assets.

### P. Internal and Intra-entity Activity

In the process of aggregating data for the Statement of Net Position and the Statement of Activities, some amounts reported as interfund activity and balances in the funds have been eliminated or reclassified. Eliminations are made in the Statement of Net Position to minimize the *grossing-up* effect on assets and liabilities within the governmental and business-type activities columns of the Primary Government. Amounts reported in the funds as interfund receivables and payables are eliminated in the governmental and business-type activities columns of the government-wide financial statements, except for net residual amounts due between governmental and business type activities, which are presented as internal balances. Also, eliminations are made in the Statement of Activities to remove the *doubling-up* effect of Internal Service Fund activity.

Payments from a fund receiving revenue to a fund through which the revenue is to be expended are reported as operating transfers. Such payments include transfers for debt service and capital construction. In the Government-Wide financial statements, resource flows between the Primary Government and the Discretely presented Component Units are reported as if they were external transactions.

**Q. Advances to Other Funds**

Movement of money representing a loan extending beyond one year are recorded as advances to other funds.

**R. Estimates and Assumptions**

A number of estimates and assumptions relating to the reporting of revenues, expenditures, assets, liabilities, and the disclosure of contingent liabilities were used to prepare these basic financial statements in conformity with GAAP. Actual results could differ from those estimates.

**S. Identification of Major Revenue Sources Susceptible to Accrual**

In the Governmental Funds, property taxes, sales taxes, franchise taxes, licenses, intergovernmental grants, and interest associated with the current fiscal period are all considered to be susceptible to accrual and so have been recognized as revenues of the current fiscal period. All other revenue items are considered to be measurable and available only when the City receives cash.

**T. Permanent Funds**

Principal portion of permanent funds are reported as nonspendable while the net revenue of Permanent Funds is available for expenditure. Authorization for spending the investment income is derived from the specifications as prescribed by the donor.

**U. Unearned Revenues**

Unearned revenue represents a liability related to amounts received but not yet earned or an asset for which an enforceable lien is in place but the tax has not been received. At the government-wide level, unearned revenue is primarily comprised of money received from federal and/or state grants in advance of services to be provided. At the fund level, unearned revenue is primarily comprised of taxes with an enforceable lien but not available, prepaid taxes and money received from federal and/or state grants in advance of services to be provided.

**V. Adoption of New Accounting Pronouncements**

During the year ended June 30, 2022, the City implemented the provisions of the following GASB statements:

In June 2017, the Governmental Accounting Standards Board (GASB) issued GASB **Statement No. 87, Leases**. This standard requires the recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and as inflows of resources or outflows of resources recognized based on the payment provisions of the contract. It 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 standard, 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.

The Entity adopted the requirements of the guidance effective July 1, 2021, and has applied the provisions of this standard to the beginning of the period of adoption.

In January 2020, ***GASB Statement No. 92, Omnibus 2020*** was issued. The objectives of this Statement are to enhance comparability in accounting and financial reporting and to improve the consistency of authoritative literature by addressing practice issues that have been identified during implementation and application of certain GASB Statements. This Statement addresses a variety of topics and includes specific provisions about the following five categories:

1. Leases - The amended guidance clarifies the requirements for interim reporting by stating that the effective date of Statement No. 87, Leases, and Implementation Guide 2019-03, Leases, is for fiscal years beginning after December 15, 2019 and for all reporting periods thereafter.

2. Intra-entity Transfer of Assets - The updated guidance is intended to eliminate conflicting guidance for intra-entity transfers of capital and financial assets between a government employer or nonemployee contributing entity and a pension plan or other post-employment benefit (OPEB) plan.

3. For Post-employment Benefit - Statement No. 84, *Fiduciary Activities*, requires a government to recognize a liability to the beneficiaries of a fiduciary activity when an event has occurred that compels the government to disburse fiduciary resources. The amendments clarify that this requirement also applies to assets that are accumulated for purposes of providing pensions or OPEB through defined benefit pension plans or defined benefit OPEB plans that aren't administered through trusts that meet the scope criteria of Statement No. 73, *Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68*, and Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans*. This amendment is effective for reporting periods beginning after June 15, 2020.

4. Government Acquisitions - The amended guidance states that the liabilities and assets related to the acquired entity's asset retirement obligations (AROs) should be measured using the accounting and financial reporting requirements per Statement No. 83, *Certain Asset Retirement Obligations*, when the AROs are within the scope of Statement No. 83. This amendment is effective for government acquisitions occurring in reporting periods beginning after June 15, 2020.

5. Risk Financing and Insurance - Related Activities of Public Entity Risk Pools-This amendment clarifies guidance in Statement No. 10, *Accounting and Financial Reporting for Risk Financing and Related Insurance Issues*. When applying the reinsurance guidance, amounts recoverable from reinsurers or excess insurers related to paid claims and claim adjustment expenses *may* be reported as reduction of expenses. This amendment became effective upon issuance of Statement No. 92.

***GASB Statement No. 93, Replacement of Interbank Offered Rates*** was issued in March 2020 and effectively addresses the accounting implications of the replacement of IBOR by clarifying exceptions for some hedging derivative instruments, termination provisions and removes LIBOR as an appropriate benchmark interest rate. It also identifies the Secured Overnight Financing Rate and the Effective Federal Funds Rate as appropriate benchmark interest rates for the qualitative evaluation of the effectiveness of an interest rate swap and provides an exception to the lease modifications guidance in Statement 87 for certain lease contracts that are amended solely to replace an IBOR as the rate upon which variable payments depend.

### W. Future Accounting Pronouncements

Issued in May 2020, **GASB *Statement No. 96 Subscription Based Information Technology Arrangements*** provides guidance on the accounting and financial reporting for subscription-based information technology arrangements (SBITAs) for government end users. This Statement 1) defines a SBITA; 2) establishes that a SBITA results in a right-to-use subscription 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 government should recognize the subscription liability at the commencement of the subscription term, which is when the subscription asset is placed into service. The subscription liability should be initially measured at the present value of subscription payments expected to be made during the subscription term. Future subscription payments should be discounted using the interest rate the SBITA vendor charges the government, which may be implicit, or the government's incremental borrowing rate if the interest rate is not readily determinable. The subscription asset should be initially measured as the sum of 1) the initial subscription liability amount, 2) payments made to the SBITA vendor before commencement of the subscription term, and 3) capitalized implementation costs, less any incentives received from the SBITA vendor at or before the commencement of the subscription term. A government should recognize amortization of the subscription asset as an outflow of resources over the subscription term. The City will implement this statement in July 2023.

Issued on April 20, 2020 ***GASB Statement No. 94 Public-Private and Public- Public Partnerships and Availability Payment Arrangements*** is designed to improve local and state governments' accounting for P3 arrangements including those outside the scope of GASB Statement No. 60, Accounting and Financial Reporting for Service Concession Arrangement and Statement No. 87 Leases. Statement No. 94 defines a P3 and provides both P3 and APA guidance. For all P3s Statement 94 provides specific guidance from the perspective of both a government that transfers right to another party and a governmental operator that receives those right. Statement 94 requires governments to account for APAs related to those activities and in which ownership of the asset transfers by the end of the contract as a financed purchase of the underlying infrastructure or other nonfinancial asset. It also requires a government to report an APA that is related to operating or maintaining a nonfinancial asset as an outflow of resources (for example, an expense in the period to which payments relate).

In April 2022, **GASB Statement No. 99, Omnibus 2022** was issued. The objectives of this Statement are to enhance comparability in accounting and financial reporting and to improve the consistency of authoritative literature by addressing (1) practice issues that have been identified during implementation and application of certain GASB Statements and (2) accounting and financial reporting for financial guarantees.

The City will implement the various provisions of this statement as required by the individual components of the statement.

In June 2022, **GASB Statement No. 100, Accounting Changes and Error Corrections – an Amendment of GASB Statement No. 62** was issued. The primary objective of this Statement is to enhance accounting and financial reporting requirements for accounting changes and error corrections to provide more understandable, reliable, relevant, consistent, and comparable information for making decisions or assessing accountability. The statement defines accounting changes, prescribes the accounting and financial reports for 1) each type of accounting changes and 2) error corrections, the associated note disclosures, and addresses how the information that is affected by a change in accounting principle or error correction should be presented in requires supplementary information (RSI) and supplementary information (SI).

In June 2022, **GASB Statement No. 101, Compensated Absences** was issued. The objective of this Statement is to better meet the information needs of financial statement users by updating the recognition and measurement guidance for compensated absences. That objective is achieved by aligning the recognition and measurement guidance under a unified model and by amending certain previously required disclosures. This Statement amends the existing requirement to disclose the gross increases and decreases in a liability for compensated absences to allow governments to disclose only the net change in the liability (as long as they identify it as a net change). In addition, governments are no longer required to disclose which governmental funds typically have been used to liquidate the liability for compensated absences.

## 2. REAL AND PERSONAL PROPERTY TAXES

Real and personal property taxes are levied on a calendar year basis on January 1, the assessment date, with an assessed value as of that date. Real property taxes become a lien on the property as of assessment. Personal property tax on motor vehicles acquiring or losing situs (location where property is principally parked or garaged) throughout the year are prorated on a monthly basis. For partial months in situs, assessments, abatement, and refunds are rounded to the nearest full month.

Personal property taxes may be paid without penalty and interest on or before August 5 or 60 days from the date the vehicle acquired situs in Richmond. Effective January 1, 2011, real estate taxes are billed on a semi-annual basis. These taxes may be paid without penalty and interest on or before January 14 and June 14. Penalty for late payment is 10 percent or $10, whichever is greater not to exceed the full amount of the tax. In 2022, the interest rate for unpaid taxes was 10 percent.

The City bills and collects its own property taxes. Delinquent property taxes may be sent to collection services. Property taxes levied January 1, 2022, are intended to finance operations of the fiscal year ended June 30, 2022. The real estate taxes assessed and due on January 14, 2022, and June 14, 2022, are intended to finance operations of the fiscal year ended June 30, 2022.

## 3. CASH AND CASH EQUIVALENTS AND INVESTMENTS

### A. Cash and Cash Equivalents – Primary Government

At June 30, 2022, cash on hand, cash items and petty cash totaled approximately $48,138 and the carrying value of the City's demand deposits, savings accounts, and time certificates of deposit with institutions totaled $58,505,338 and is included in cash and cash equivalents. The City's deposits of $73,979,716 were covered by federal depository insurance or insured in accordance with provisions of the Virginia Security for Public Deposit Act (The Act). This Act requires financial institutions holding public deposits in excess of amounts covered by federal insurance to pledge collateral in the amount of 50 percent of excess deposits, while savings and loans are required to collateralize 100 percent of excess deposits. The State Treasury Board can assess additional collateral from participating financial institutions to cover collateral shortfalls in the event of default and is responsible for monitoring compliance with the collateralization and reporting requirements of the Act and for notifying local governments of compliance by financial institutions. All funds, unless otherwise classified as restricted, are deposited into pooled bank accounts; the major account defined as the General Fund concentration account. As disbursements are made from the payroll, budget and social services bank accounts, funds from the general fund concentration account are automatically transferred to those bank accounts to cover those disbursements on a daily basis. All cash classified as restricted are related to grantor or debtor requirements.

All cash of the City is maintained in accounts collateralized in accordance with the Virginia Security for Public Deposits Act (The Act), Section 2.2-4400 et. Seq. of the Code of Virginia or covered by Federal Depository Insurance Corporation (FDIC). Under the Act, banks holding public deposits in excess of the amounts insured by the FDIC must pledge collateral of 50 percent of the excess deposits to a collateral pool in the name of the State Treasury Board. Savings and loan institutions are required to collateralize 100 percent of deposits in excess of the FDIC limits and are considered insured.

### B. Investments

*Investment Policy:*
City policy is consistent with the statutes of the Commonwealth of Virginia governing investment, wherein permissible investments include obligations of the Commonwealth, the United States, its agencies and instrumentalities, time certificates of deposit, bankers' acceptances, repurchase agreements, demand notes, commercial paper, the State Treasurer's Local Government Investments Pool (The Virginia LGIP), and the State Non-Arbitrage Program (SNAP). As of June 30, 2022, all non-system investments were in either LGIP or SNAP, which were both rated AAAm, and the length of the investments for both programs was less than 90 days. Additionally, the City is authorized to place investments of the RRS in common stocks, corporate debt securities, U.S. Government and Agency Securities, international stocks and bonds, money market, and mutual funds. At no time, shall more than 35 percent of the portfolio be invested in commercial paper. No more than 5 percent of the portfolio shall be invested in the commercial paper of a single entity.

*Custodial credit risk for deposits:*

At June 30, 2022, the City did not have any deposits that were not covered by depository insurance or collateralized under the Virginia Security for Public Deposits Act.

*Custodial credit risk for investments:*

As of June 30, 2022, the City holds its investment securities primarily in external investment pools and thus is not subject to custodial credit risk disclosure.

*Concentration Risk:*
As of June 30, 2022, the City does not have concentration of credit risk, as no investments were with any one issuer representing more than 5 percent of total investments.

A summary of deposits and investments held by the Government-Wide at June 30, 2022, is as follows:

| | Government-Wide |
|---|---|
| Deposits | |
| Cash on hand | $ 48,138 |
| Demand deposits | 58,505,338 |
| Investments | |
| LGIP | 654,439,750 |
| Trusts | 12,707,163 |
| Money markets | 149,940,158 |
| Total deposits and investments | $ 875,640,547 |

**Reconciliation of Cash Schedule to Statements of Net Position**:

| | Government-Wide | Fiduciary Funds Statement of Net Position | | | |
|---|---|---|---|---|---|
| | Statement of Net Position | Pension and Other Employee Benefit Trust | Social Welfare Private Purpose Trust | Custodial Funds | Total |
| Cash and Cash Equivalents | $ 700,053,033 | $ 7,596,077 | $ 2,483,514 | $ 1,322,897 | $ 711,455,521 |
| Investments | - | 631,486,567 | - | - | 631,486,567 |
| Restricted assets | 175,587,514 | - | - | - | 175,587,514 |
| Total | $ 875,640,547 | $ 639,082,644 | $ 2,483,514 | $ 1,322,897 | $ 1,518,529,602 |

Cash has been restricted to the extent of customers' deposits, unexpended bond proceeds or by grantor's requirements and cash set aside for future debt payments as required by debt covenants.

The Richmond Retirement System (RRS) categorizes the fair value measurements of its assets within the fair value hierarchy established by Generally Accepted Accounting Principles (GAAP) outlined in GASB Statement No. 72. The following table shows the RRS fair value measurements as of June 30, 2022.

**Investments Measured at Fair Value**

| | Fair Value at June 30, 2022 | Quoted Prices in Active Markets (Level 1) | Significant Other Observable Inputs (Level 2) | Significant Unobservable Inputs (Level 3) |
|---|---|---|---|---|
| **U.S. Equities** | | | | |
| Consumer Spending | $ 8,990,537 | $ 8,990,537 | $ - | $ - |
| Energy and Industrials | 12,101,913 | 12,101,913 | - | - |
| Information Technology | 6,508,799 | 6,508,799 | - | - |
| Financials | 11,835,804 | 11,835,804 | - | - |
| Healthcare | 10,074,785 | 10,074,785 | - | - |
| Other | 5,086,660 | 5,086,660 | - | - |
| **Total U.S Equities** | 54,598,498 | 54,598,498 | - | - |
| International Equities | 43,232,371 | - | 43,232,371 | - |
| **US Fixed Income** | | | | |
| Real Estate | 21,038,165 | 200,037 | - | 20,838,128 |
| Diversifying Assets | 33,364,036 | - | - | 33,364,036 |
| Private Debt | 50,448,181 | - | - | 50,448,181 |
| Private Equity | 35,887,783 | - | - | 35,887,783 |
| **Total US Fixed Income** | 140,738,165 | 200,037 | - | 140,538,128 |
| **Total Investments Measured at Fair Value** | $ 238,569,034 | $ 54,798,535 | $ 43,232,371 | $ 140,538,128 |

| **Investments Measured at Net Asset Value (NAV)** | Fair Value | Unfunded Commitments | Redemption Frequency | Required Redemption Notice |
|---|---|---|---|---|
| US Equity Funds | 100,383,902 | $ - | Daily | 0 - 5 days |
| International Equities | 51,470,564 | - | Daily | 1 - 30 days |
| Global Fixed Income | 160,036,366 | - | Daily | 1 - 10 days |
| Real Estate Investment Trusts and Funds | 59,402,672 | - | Daily,Quarterly | 7-45 days |
| Diversifying Assets | 13,389,252 | - | Daily, Quarterly | 1 - 95 days |
| **Total Investments Measured at Net Asset Value (NAV)** | $ 384,682,756 | | | |
| **Total Investments at Fair Value** | $ 623,251,790 | | | |

Level 1 investments are valued at active market quoted prices.

Level 2 fixed income investments are valued using a pricing model that utilizes observed market inputs in determining the fair value as well as matrix yield curves.
Level 3 investments are valued by market assumptions that are based on unobservable inputs.

**1. U.S. Equities —** Shares held in common stock and mutual funds are classified in Level 1 of the fair value hierarchy and valued using price quotes on active markets for those securities. Units held in commingled funds are valued using the NAV practical expedient of the commingled fund as reported by the investment managers. The NAV practical expedient is based on the fair value of the underlying assets owned by the fund minus its liabilities and then divided by the number of units outstanding.

**2. International Equities** — International Equities include units in commingled funds that hold investments in securities of international issuers and emerging markets. Units held in these funds are valued using the NAV practical expedient as reported by the investment managers.

**3. U.S. Fixed Income** — Domestic fixed-income securities include investments in corporate bonds, U.S. Treasury obligations, mortgage-backed securities issued by federal agencies and collateralized mortgage obligations, and mutual funds with underlying investments in fixed-income securities. Investments in corporate bonds, mutual funds, and U.S. Treasury obligations are classified in Level 1 of the fair value hierarchy and valued using prices quoted on active markets for those securities.

Investments in mortgage-backed securities and other fixed-income investments are valued using pricing models maximizing the use of observable inputs for similar securities which includes basing value on yields currently available on comparable securities of issuers with similar credit ratings and are classified in Level 2 of the fair value hierarchy.

**4. Global Fixed Income** — Global Fixed Income securities include mutual funds invested in fixed-income securities of international issuers, mutual funds and commingled trusts invested in global fixed income securities. Investment managers have the ability to invest in a variety of industry spaces, such as government and corporate bonds, and across a multitude of countries, both developed and emerging markets. Investments in corporate bonds and mutual funds are classified in Level 1 of the fair value hierarchy and valued using prices quoted on active markets for those securities. Units held in commingled funds are valued using the NAV practical expedient of the commingled fund as reported by the investment managers.

**5. Real Estate Investment Trusts and Funds** — This category includes investments in real estate investment trusts (REITs) and real estate funds that invest in residential, office, retail, and industrial real estate or debt related to real estate acquisitions. Investments in REITs are classified in Level 1 of the fair value hierarchy and valued using prices quoted on active markets for those securities. Units held in real estate funds are valued using the NAV practical expedient of the commingled fund as reported by the investment managers. Real estate funds that are not valued at NAV practical expedient include significant unobservable inputs and are classified in Level 3 of the fair value hierarchy.

**6. Diversifying Assets** — This category consists of investments in fund of funds-of-funds and direct investments. Investment managers in the fund-of-funds category have the ability to invest in underlying managers that focus on a variety of different strategies such as long/short, event-driven, leveraging, and other derivative instruments. The RRS's direct fund managers focus on a global macro approach. Units held in investments valued using the NAV practical expedient are excluded from the fair value hierarchy and reported at the NAV provided by the investment managers. Investments in limited partnerships that are not valued at NAV are classified in Level 3 of the fair value hierarchy.

**Participation in External Investment Pools**

The City of Richmond has invested bond proceeds subject to rebate of arbitrage earnings in the Virginia State Non-Arbitrage Program (“SNAP”). SNAP is designed to assist local governments in complying with the arbitrage rebate requirements of the Tax Reform Act of 1986. These programs provide comprehensive investment management, accounting and arbitrage rebate calculation services for proceeds of general obligation and revenue tax-exempt bond financing of Virginia cities, counties and towns. As of June 30, 2022, the City had $118,348,877 in the SNAP short-term investment. SNAP is administered by the Commonwealth of Virginia Treasury Board. The Board is committed to managing certain risk limiting provisions to maintain a stable net asset value (NAV) at $1.00 per share, which is determined at the close of each business day. The goal of maintaining NAV is facilitated as follows:

a) SNAP is rated ‘AAAm’ by Standard & Poor’s and managed in a manner to comply with their ‘AAAm’ rating requirements.
b) The portfolio securities are valued by the amortized cost method, and on a daily basis this valuation is compared to the current market to monitor any variance.
c) Investments are limited to short-term, high-quality credits that can be readily converted into cash with limited price variation.

The City is a participant in the Local Government Investment Pool (LGIP) which is administered by the Commonwealth of Virginia Department of Treasury. As of June 30, 2022, the City had $601,990,504 in LGIP short-term investments. The Commonwealth's Department of Treasury is committed to managing certain risk limiting provisions to maintain a stable net asset value (NAV) at $1.00 per share, which is determined at the close of each business day. The goal of maintaining NAV is facilitated as follows:

a) The LGIP is rated ‘AAAm’ by Standard & Poor’s and managed in a manner to comply with their ‘AAAm rating requirements.
b) The portfolio securities are valued using the amortized cost method, and on a weekly basis this valuation is compared to the current market to monitor any variance.
c) Investments are limited to short-term, high-quality credits that can be readily converted into cash with limited price variation.

The City is also a participant in the Local Government Investment Pool - Extended Maturity (LGIP - EM) which is administered by the Commonwealth of Virginia Department of Treasury. As of June 30, 2022, the City's investment in the fund was valued at $52,449,246.

a) The LGIP-EM is rated AAAf / S1 by Standard & Poor's based on the fund's credit quality, market price exposure and management experience.
b) Investments are limited to high quality investment grade securities with the fund's duration target being 0.75 to 1.25 years.

**Healthcare OPEB Trust Plan Investment**

The City has invested funds with the Virginia Pooled OPEB Trust Fund (the "OPEB Trust Fund"), which was established to assist Virginia local governments in funding their future OPEB healthcare liabilities. The OPEB Trust Fund was established by the Virginia Association of Counties and the Virginia Municipal League and is an Internal Revenue Code, Section 115, governmental trust, offered to local governments to help defray future healthcare related expenses. The OPEB Trust Fund held total pooled investments of Virginia local governments, which makes it one of the largest pooled OPEB trust in the United States.

The primary benefits of participation in the trust include access to institutional investment fund managers offered through two diversified portfolios, the guidance of an investment consultant, economies of scale through pooling, and administrative services. Participants hold individual trust accounts wherein they can monitor the performance of their investments. As of June 30, 2022, the City of Richmond's investments in the OPEB Trust Fund had a market value of $8,234,777. The OPEB Trust Fund issues a separate audited financial report which may be obtained by visiting the website: valocalfinance.org/opeb/ or by contacting the VML/VACo Finance, 8 East Canal Street, Suite 100, Richmond, VA 23219.

## 4. INTERFUND RECEIVABLES, PAYABLES AND TRANSFERS

The City reports inter-fund balances among many of its funds, as follows:

| | | Due From | | | | | |
|---|---|---|---|---|---|---|---|
| | | Capital Projects | Non-Major Governmental | Non-Major Proprietary | Stormwater | Internal Service | Total |
| Due To | General | $ 45,855,670 | $ 589,981 | $ 1,874,798 | $ - | $ 6,262,030 | $ 54,582,479 |
| | Gas | - | - | - | 679,231 | 432,838 | 1,112,069 |
| | Water | - | - | - | 679,231 | 383,838 | 1,063,069 |
| | Wastewater | - | - | - | 4,049,980 | - | 4,049,980 |
| | Total | $ 45,855,670 | $ 589,981 | $ 1,874,798 | $ 5,408,442 | $ 7,078,706 | $ 60,807,597 |

The balances resulted from the time lag between the dates that inter-fund goods and services are provided or reimbursable expenditures occur and payments among funds are made. The City reports inter-fund transfers among many of its funds. Inter-fund transfers for the year ended June 30, 2022, consisted of the following:

Transfers are used to 1) move revenues from the fund that statute or budget requires to collect them to the fund that statute or budget requires to expend them, 2) move receipts restricted to debt service from the funds collecting the receipts to the Debt Service Fund as debt service payments become due or 3) to use unrestricted revenues collected in the General Fund to finance various programs accounted for in other funds in accordance with budgetary authorizations.

The City reports inter-fund transfers among many of its funds. Inter-fund transfers for the year ended June 30, 2022, consisted of the following:

| | | Transfer From | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | General Fund | Major Proprietary Funds: Gas | Water | Wastewater | Capital Projects Fund | Non- Major Governmental | Total |
| Transfer To | General | $ - | $ 2,131,517 | $ 3,738,069 | $ 3,658,661 | $ - | $ 300,000 | $ 9,828,247 |
| | Capital Projects | 7,158,942 | - | - | - | - | 1,812,268 | 8,971,210 |
| | Debt Service | 85,160,688 | - | - | - | - | 981,124 | 86,141,812 |
| | Internal Service Fund | 93,463 | - | - | - | 143,120 | - | 236,583 |
| | Non-Major Governmental | 12,624,405 | - | - | - | - | - | 12,624,405 |
| | Total | $ 105,037,498 | $ 2,131,517 | $ 3,738,069 | $ 3,658,661 | $ 143,120 | $ 3,093,392 | $ 117,802,257 |

## 5. DUE FROM OTHER GOVERNMENTS

Amounts due from other governments at June 30, 2022, are as follows:

| Primary Government | Federal | State | Other Localities | Total |
|---|---|---|---|---|
| General Fund | $ - | $ 343,350 | $ - | $ 343,350 |
| Capital Projects Fund | 3,018,639 | 675,544 | - | 3,694,183 |
| Non-Major Governmental Funds | 3,868,168 | 1,090,206 | 119,679 | 5,078,053 |
| Stormwater Fund | - | 281,996 | - | 281,996 |
| Water Fund | - | - | 7,729,363 | 7,729,363 |
| Wastewater Fund | - | 1,990,966 | 78,664 | 2,069,630 |
| | $ 6,886,807 | $ 4,382,062 | $ 7,927,706 | $ 19,196,575 |

## 6. CAPITAL ASSETS

### Primary Government – Governmental Activities

| | Balance July 1, 2021 | Additions | Deletions | Transfers | Balance June 30, 2022 |
|---|---|---|---|---|---|
| Capital Assets, Not Being Depreciated: | | | | | |
| Land and Land Improvements | $ 105,502,459 | $ - | $ - | $ - | $ 105,502,459 |
| Construction in Progress | 245,620,438 | 54,220,060 | 314,308 | (163,358,498) | 136,167,692 |
| Works of Art/Historical Treasurers | 8,733,227 | 12,000,000 | 12,473,326 | - | 8,259,901 |
| Total Capital Assets, not being depreciated | 359,856,124 | 66,220,060 | 12,787,634 | (163,358,498) | 249,930,052 |
| Capital Assets, Being Depreciated/Amortized | | | | | |
| Infrastructure | 1,026,629,269 | 520,606 | 84,613 | 16,876,164 | 1,043,941,426 |
| Building and Structures | 994,338,646 | 33,169 | - | 145,871,088 | 1,140,242,903 |
| Right of Use Assets | - | 8,358,214 | - | - | 8,358,214 |
| Equipment | 142,138,655 | 4,353,747 | 343,619 | 519,421 | 146,668,204 |
| Improvements Other Than Buildings | 33,796,435 | - | - | 91,825 | 33,888,260 |
| Total Capital Assets, being depreciated/amortized | 2,196,903,005 | 13,265,736 | 428,232 | 163,358,498 | 2,373,099,007 |
| Less Accumulated Depreciation/Amortized For: | | | | | |
| Infrastructure | 659,157,019 | 22,051,020 | 82,572 | - | 681,125,467 |
| Building and Structures | 465,286,656 | 27,053,897 | - | - | 492,340,553 |
| Right of Use Assets | - | 2,267,881 | - | - | 2,267,881 |
| Equipment | 107,641,086 | 7,038,283 | 343,619 | - | 114,335,750 |
| Improvements Other Than Buildings | 15,766,233 | 1,182,046 | - | - | 16,948,279 |
| Total Accumulated Depreciation/Amortized | 1,247,850,994 | 59,593,127 | 426,191 | - | 1,307,017,930 |
| Total Capital Assets, Being Depreciated, Net | 949,052,011 | (46,327,391) | 2,041 | 163,358,498 | 1,066,081,077 |
| Governmental Activities, Capital Assets, Net | $ 1,308,908,135 | $ 19,892,669 | $ 12,789,675 | $ - | $ 1,316,011,129 |

| | Balance July 1, 2021 | Additions | Deletions | Transfers | Balance June 30, 2022 |
|---|---|---|---|---|---|
| Capital Assets, Not Being Depreciated: | | | | | |
| Land and Land Improvements | $ 105,502,459 | $ - | $ - | $ - | $ 105,502,459 |
| Construction in Progress | 245,620,438 | 54,220,060 | 314,308 | (163,358,498) | 136,167,692 |
| Works of Art/Historical Treasurers | 8,733,227 | 12,000,000 | 12,473,326 | - | 8,259,901 |
| Total Capital Assets, not being depreciated | 359,856,124 | 66,220,060 | 12,787,634 | (163,358,498) | 249,930,052 |
| Capital Assets, Being Depreciated/Amortized | | | | | |
| Infrastructure | 1,026,629,269 | 520,606 | 84,613 | 16,876,164 | 1,043,941,426 |
| Building and Structures | 994,338,646 | 33,169 | - | 145,871,088 | 1,140,242,903 |
| Right of Use Assets | - | 8,358,214 | - | - | 8,358,214 |
| Equipment | 142,138,655 | 4,353,747 | 343,619 | 519,421 | 146,668,204 |
| Improvements Other Than Buildings | 33,796,435 | - | - | 91,825 | 33,888,260 |
| Total Capital Assets, being depreciated/amortized | 2,196,903,005 | 13,265,736 | 428,232 | 163,358,498 | 2,373,099,007 |
| Less Accumulated Depreciation/Amortized For: | | | | | |
| Infrastructure | 659,157,019 | 22,051,020 | 82,572 | - | 681,125,467 |
| Building and Structures | 465,286,656 | 27,053,897 | - | - | 492,340,553 |
| Right of Use Assets | - | 2,267,881 | - | - | 2,267,881 |
| Equipment | 107,641,086 | 7,038,283 | 343,619 | - | 114,335,750 |
| Improvements Other Than Buildings | 15,766,233 | 1,182,046 | - | - | 16,948,279 |
| Total Accumulated Depreciation/Amortized | 1,247,850,994 | 59,593,127 | 426,191 | - | 1,307,017,930 |
| Total Capital Assets, Being Depreciated, Net | 949,052,011 | (46,327,391) | 2,041 | 163,358,498 | 1,066,081,077 |
| Governmental Activities, Capital Assets, Net | $ 1,308,908,135 | $ 19,892,669 | $ 12,789,675 | $ - | $ 1,316,011,129 |

## Primary Government – Business-Type Activities

| | Balance July 1, 2021 | Additions | Deletions | Transfers | Balance June 30, 2022 |
|---|---|---|---|---|---|
| **Gas Utility** | | | | | |
| Capital Assets, Not Being Depreciated: | | | | | |
| Land | $ 219,200 | $ - | $ - | $ - | $ 219,200 |
| Construction in Progress | 3,228,028 | 26,425,807 | 26,768,412 | - | 2,885,423 |
| Total Capital Assets, not being depreciated | 3,447,228 | 26,425,807 | 26,768,412 | - | 3,104,623 |
| Capital Assets, Being Depreciated | | | | | |
| Plant-in-service | 731,196,159 | 26,768,412 | 920,769 | - | 757,043,802 |
| Total Capital Assets, being depreciated | 731,196,159 | 26,768,412 | 920,769 | - | 757,043,802 |
| Less Accumulated Depreciation For: | | | | | |
| Plant-in-service | 321,762,765 | 23,873,079 | 899,958 | - | 344,735,886 |
| Total Accumulated Depreciation | 321,762,765 | 23,873,079 | 899,958 | - | 344,735,886 |
| Total Capital Assets, Being Depreciated, Net | 409,433,394 | 2,895,333 | 20,811 | - | 412,307,916 |
| Gas Utility Capital Assets, Net | $ 412,880,622 | $ 29,321,140 | $ 26,789,223 | $ - | $ 415,412,539 |
| **Water Utility** | | | | | |
| Capital Assets, Not Being Depreciated: | | | | | |
| Land | $ 878,307 | $ - | $ - | $ - | $ 878,307 |
| Construction in Progress | 17,341,667 | 28,710,346 | 37,657,343 | - | 8,394,670 |
| Total Capital Assets, not being depreciated | 18,219,974 | 28,710,346 | 37,657,343 | - | 9,272,977 |
| Capital Assets, Being Depreciated | | | | | |
| Plant-in-service | 634,152,620 | 37,662,750 | 226,721 | - | 671,588,649 |
| Total Capital Assets, being depreciated | 634,152,620 | 37,662,750 | 226,721 | - | 671,588,649 |
| Less Accumulated Depreciation For: | | | | | |
| Plant-in-service | 267,318,524 | 18,739,423 | 226,721 | - | 285,831,226 |
| Total Accumulated Depreciation | 267,318,524 | 18,739,423 | 226,721 | - | 285,831,226 |
| Total Capital Assets, Being Depreciated, Net | 366,834,096 | 18,923,327 | - | - | 385,757,423 |
| Water Utility Capital Assets, Net | $ 385,054,070 | $ 47,633,673 | $ 37,657,343 | $ - | $ 395,030,400 |
| **Wastewater Utility** | | | | | |
| Capital Assets, Not Being Depreciated: | | | | | |
| Land | $ 1,101,261 | $ - | $ - | $ - | $ 1,101,261 |
| Construction in Progress | 20,383,547 | 41,815,617 | 28,684,841 | - | 33,514,323 |
| Total Capital Assets, not being depreciated | 21,484,808 | 41,815,617 | 28,684,841 | - | 34,615,584 |
| Capital Assets, Being Depreciated | | | | | |
| Plant-in-service | 854,102,062 | 28,684,841 | 128,048 | - | 882,658,855 |
| Total Capital Assets Being Depreciated | 854,102,062 | 28,684,841 | 128,048 | - | 882,658,855 |
| Less Accumulated Depreciation For: | | | | | |
| Plant-in-service | 385,256,834 | 22,116,650 | 84,765 | - | 407,288,719 |
| Total Accumulated Depreciation | 385,256,834 | 22,116,650 | 84,765 | - | 407,288,719 |
| Total Capital Assets, Being Depreciated, Net | 468,845,228 | 6,568,191 | 43,283 | - | 475,370,136 |
| Wastewater Utility Capital Assets, Net | $ 490,330,036 | $ 48,383,808 | $ 28,728,124 | $ - | $ 509,985,720 |

| | Balance July 1, 2021 | Additions | Deletions | Transfers | Balance June 30, 2022 |
|---|---|---|---|---|---|
| **Stormwater Utility** | | | | | |
| Capital Assets, Not Being Depreciated: | | | | | |
| Construction in Progress | $ 4,606,057 | $ 6,711,167 | $ 7,322,426 | $ - | $ 3,994,798 |
| Total Capital Assets, not being depreciated | 4,606,057 | 6,711,167 | 7,322,426 | - | 3,994,798 |
| Capital Assets, Being Depreciated | | | | | |
| Plant-in-service | 57,584,103 | 7,322,426 | 55,514 | - | 64,851,015 |
| Total Capital Assets, being depreciated | 57,584,103 | 7,322,426 | 55,514 | - | 64,851,015 |
| Less Accumulated Depreciation For: | | | | | |
| Plant-in-service | 10,248,555 | 1,905,489 | 55,514 | - | 12,098,530 |
| Total Accumulated Depreciation | 10,248,555 | 1,905,489 | 55,514 | - | 12,098,530 |
| Total Capital Assets, Being Depreciated, Net | 47,335,548 | 5,416,937 | - | - | 52,752,485 |
| Storm water Utility Capital Assets, Net | $ 51,941,605 | $ 12,128,104 | $ 7,322,426 | $ - | $ 56,747,283 |
| **Other Business-Type Activity:** | | | | | |
| Capital Assets, Not Being Depreciated: | | | | | |
| Land and Land Improvements | $ 22,456,955 | $ - | $ - | $ - | $ 22,456,955 |
| Total Capital Assets, not being depreciated | 22,456,955 | - | - | - | 22,456,955 |
| Capital Assets, Being Depreciated/Amortized | | | | | |
| Buildings and Structures | 36,807,355 | - | 675,626 | - | 36,131,729 |
| Equipment and Other Capital Assets | 3,875,861 | - | - | - | 3,875,861 |
| Right of Use Land & Land Rights | - | 14,482,020 | - | - | 14,482,020 |
| Total Capital Assets, being depreciated/amortized | 40,683,216 | 14,482,020 | 675,626 | - | 54,489,610 |
| Less-Accumulated Depreciation/Amortization For: | | | | | |
| Buildings and Structures | 12,881,743 | 1,424,561 | 28,151 | - | 14,278,153 |
| Equipment and Other Capital Assets | 2,614,778 | 173,183 | - | - | 2,787,961 |
| Right of Use Land & Land Rights | | 216,419 | | | 216,419 |
| Total Accumulated Depreciation/Amortization | 15,496,521 | 1,814,163 | 28,151 | - | 17,282,533 |
| Total Capital Assets, Being Depreciated/Amortized, Net | 25,186,695 | 12,667,857 | 647,475 | - | 37,207,077 |
| Other Business-Type Activity Capital Assets, Net | $ 47,643,650 | $ 12,667,857 | $ 647,475 | $ - | $ 59,664,032 |
| Enterprise Funds Capital Assets, Net | $ 1,387,849,983 | $ 150,134,582 | $ 101,144,591 | $ - | $ 1,436,839,974 |
| Internal Service Fund - Stores Utility, Net | $ 2,351,713 | $ (59,848) | $ - | $ - | $ 2,291,865 |
| Business-Type Activities, Capital Assets, Net | $ 1,390,201,696 | $ 150,074,734 | $ 101,144,591 | $ - | $ 1,439,131,839 |

## 7. OBLIGATIONS

Changes in obligations during the fiscal year ended June 30, 2022 are summarized below:

### Primary Government – Governmental Activities

| | Balance July 1, 2021 | Additions | Deletions | Balance June 30, 2022 | Not Due Within One Year | Due Within One Year |
|---|---|---|---|---|---|---|
| General Obligation Bonds | $ 777,077,339 | $ - | $ 49,469,563 | $ 727,607,776 | $ 671,169,432 | $ 56,438,344 |
| General Obligation Bond - Direct Borrowing | 12,593,668 | - | 6,069,367 | 6,524,301 | 6,524,301 | - |
| Total General Obligation Bonds | 789,671,007 | - | 55,538,930 | 734,132,077 | 677,693,733 | 56,438,344 |
| Line of Credit - BAN - Series 2021A | 23,948,209 | 28,651,791 | - | 52,600,000 | - | 52,600,000 |
| General Obligation Serial Equipment Notes | 11,233,000 | - | 2,058,000 | 9,175,000 | 7,097,000 | 2,078,000 |
| Total General Obligation Notes | 35,181,209 | 28,651,791 | 2,058,000 | 61,775,000 | 7,097,000 | 54,678,000 |
| HUD Section 108 Notes | 9,811,000 | - | 685,000 | 9,126,000 | 8,426,000 | 700,000 |
| Premium on Debt Issued | 78,787,716 | - | 12,183,314 | 66,604,402 | 55,882,378 | 10,722,024 |
| Total Obligations | $ 913,450,932 | $ 28,651,791 | $ 70,465,244 | $ 871,637,479 | $ 749,099,111 | $ 122,538,368 |
| Compensated Absences | $ 21,394,111 | $ 21,091,033 | $ 19,780,647 | $ 22,704,497 | $ 15,461,887 | $ 7,242,610 |
| Net Other Post Employment Benefit Liability | $ 103,697,889 | $ 7,573,967 | $ 91,064,761 | $ 20,207,095 | $ 20,207,095 | $ - |
| Net Pension Liability | $ 342,688,334 | $ 74,495,505 | $ 201,674,172 | $ 215,509,667 | $ 215,509,667 | $ - |

As of June 30, 2022, the City's Primary Government has total outstanding general obligation bonds and notes of $871,637,479. Of this total, directly borrowed debt of $77,425,301 includes bond and note amounts borrowed from Commercial Banks, the Commonwealth of Virginia (Virginia Resources Authority), and from the U.S. Department of Housing and Urban Development (HUD). During the FY2022, the City had in place a $60.0 million Line of Credit Bond Anticipation Note Facility (See details later in this Footnote) with a year-end outstanding balance of $60,000,000, which includes $52,600,000 borrowed for Governmental Activities capital projects and $7,400,000 borrowed for the City's Stormwater Utility capital needs. Borrowings on this facility will be converted to General Obligation Bonds in subsequent years.

See Note 12 for additional information regarding Other Post Employment Benefits (OPEB). The contributions for OPEB by the City are determined annually by the City’s Department of Budget & Strategic Planning and subsequently approved and adopted by City Council through the City’s budget process.

Long-term liabilities applicable to the City’s governmental activities are not due and payable in the current period and accordingly are not reported as fund liabilities in the governmental funds. Interest on long-term debt is not accrued in governmental funds, but rather is recognized as an expense when due. All liabilities, both current and long-term, are reported in the Statement of Net Position.

General Obligation Bonds and Notes are secured by the full faith and credit of the City and are payable from taxes levied on property located within the City. General Obligation Serial Equipment Notes and capital leases are payable from General Fund and Internal Service Fund revenues. The allocation of debt between Governmental Activities and Business-Type Activities is recorded on a debt by debt basis.

## Primary Government – Business-Type Activities

| | Balance July 1, 2021 | Additions | Deletions | Balance June 30, 2022 | Not Due Within One Year | Due Within One Year |
|---|---|---|---|---|---|---|
| Utilities-General Obligation Bonds | $ 11,382,044 | $ - | $ 3,741,653 | $ 7,640,391 | $ 3,755,674 | $ 3,884,717 |
| Utilities-General Obligation Bonds - Direct Borrowing | 1,065,165 | - | 88,618 | 976,547 | 872,921 | 103,626 |
| Utilities-General Oblig Equip Notes-Direct Borrowing | 2,781,000 | - | 547,000 | 2,234,000 | 1,680,000 | 554,000 |
| Utilities-Line of Credit BAN-Ser 2021A Direct Borrowing | 3,800,000 | 3,600,000 | - | 7,400,000 | - | 7,400,000 |
| Total Utilities General Obligation Bonds & Notes | 19,028,209 | 3,600,000 | 4,377,271 | 18,250,938 | 6,308,595 | 11,942,343 |
| Non-Major Enterprise Funds Bonds | 44,220,618 | - | 3,918,785 | 40,301,833 | 36,800,600 | 3,501,233 |
| Non-Major Enterprise Funds - Direct Borrowing | 1,332 | - | 633 | 699 | 699 | - |
| Premium on Non Major Debt, Net | 1,120,460 | - | 188,009 | 932,451 | 932,451 | - |
| Total Non-Major Enterprise Funds Bonds | 45,342,410 | - | 4,107,427 | 41,234,983 | 37,733,750 | 3,501,233 |
| Total Business-Type General Obligation Bonds | 64,370,619 | 3,600,000 | 8,484,698 | 59,485,921 | 44,042,345 | 15,443,576 |
| Public Utility Revenue Bonds | 779,159,996 | - | 26,594,996 | 752,565,000 | 725,720,000 | 26,845,000 |
| Public Utility Revenue Bond - Direct Borrowing | 41,586,076 | 3,867,832 | 3,934,430 | 41,519,478 | 37,503,103 | 4,016,375 |
| Public Utility Premium on Revenue Bond Debt, Net | 60,163,352 | - | 5,493,636 | 54,669,716 | 54,669,716 | - |
| Total Revenue Bonded Debt | 880,909,424 | 3,867,832 | 36,023,062 | 848,754,194 | 817,892,819 | 30,861,375 |
| Total Obligations | $ 945,280,043 | $ 7,467,832 | $ 44,507,760 | $ 908,240,115 | $ 861,935,164 | $ 46,304,951 |
| **Compensated Absences** | | | | | | |
| Gas | $ 1,117,462 | $ 1,059,530 | $ 1,036,408 | $ 1,140,584 | $ 758,971 | $ 381,613 |
| Water | 858,534 | 804,624 | 796,981 | 866,177 | 576,374 | 289,803 |
| Wastewater | 837,038 | 804,933 | 775,461 | 866,510 | 576,596 | 289,914 |
| Stormwater | 284,984 | 279,654 | 263,590 | 301,048 | 200,324 | 100,724 |
| Stores Operating Fund | 20,520 | 17,633 | 19,171 | 18,982 | 12,631 | 6,351 |
| Cemeteries | 51,341 | 61,493 | 46,637 | 66,197 | 45,087 | 21,110 |
| Parking Garages | 95,331 | 51,001 | 91,429 | 54,903 | 37,394 | 17,509 |
| Total Compensated Absences | $ 3,265,210 | $ 3,078,868 | $ 3,029,677 | $ 3,314,401 | $ 2,207,377 | $ 1,107,024 |
| Other Post Employment Benefit Liability | $ 16,445,423 | $ 1,469,576 | $ 13,994,221 | $ 3,920,778 | $ 3,920,778 | $ - |
| Net Pension Liability | $ 57,089,901 | $ 14,454,352 | $ 29,882,108 | $ 41,662,145 | $ 41,662,145 | $ - |

As of June 30, 2022, the outstanding debt of the City's Business-Type Activities (Enterprise Funds) totaled debt of $908,240,115 including $856,109,391 of publicly issued bonds and premiums and $52,130,025 of direct borrowings from the Commonwealth of Virginia's Virginia Resources Authority (VRA) and a Commercial Bank.

## Details of Bonds and Notes Outstanding

| | Interest Rates | Issue Date | Maturity Date | Original Issue | Balance at June 30, 2022 Governmental Activities | Enterprise Funds |
|---|---|---|---|---|---|---|
| ***General Obligation Bonds*** | | | | | | |
| Public Improvement Bonds 2010B (QSCB) | 5.27% | 11/16/2010 | 11/1/2029 | 14,980,000 | 14,980,000 | - |
| Public Improvement Bonds 2011A (VRA) | 0.00% | 6/1/2011 | 1/15/2032 | 225,000 | - | 112,500 |
| Public Improvement Refunding Bonds 2012B | 2.00% - 5.00% | 6/28/2012 | 7/15/2024 | 46,870,000 | 4,285,000 | - |
| Public Improvement Refunding Bonds 2012C | 0.35% - 2.85% | 6/28/2012 | 7/15/2023 | 100,030,000 | 6,103,976 | 7,641,024 |
| Public Improvement Bonds 2012 D (QSCB) | 4.15% | 6/28/2012 | 1/15/2033 | 7,500,000 | 7,500,000 | - |
| Public Improvement Bonds 2013A | 2.00% - 5.00% | 9/26/2013 | 3/1/2033 | 127,745,000 | 5,740,000 | - |
| Public Improvement Bonds 2013B | 3.00% - 4.80% | 9/26/2013 | 3/1/2033 | 11,295,000 | 7,745,000 | - |
| Public Improvement Bonds 2014A | 3.00% - 5.00% | 12/23/2014 | 3/1/2035 | 99,295,000 | 7,785,000 | - |
| Public Improvement Refunding Bonds 2014B | 5.00% | 12/23/2014 | 7/15/2026 | 25,605,000 | 21,865,000 | - |
| Public Improvement Refunding Bonds 2015A | 2.34% | 7/15/2015 | 7/15/2023 | 56,715,000 | 6,524,301 | 699 |
| Public Improvement Bonds 2015B | 3.00% - 5.00% | 12/8/2015 | 3/1/2038 | 62,795,000 | 47,650,000 | - |
| Public Improvement Bonds 2015C | 3.00% - 4.00% | 12/8/2015 | 6/1/2041 | 23,000,000 | 19,115,000 | - |
| Public Improvement Bonds 2017A (VRA) | 0.00% | 3/30/2017 | 7/15/2037 | 1,310,278 | - | 824,890 |
| Public Improvement Refunding Bonds 2017B | 3.00% - 5.00% | 7/14/2017 | 7/15/2037 | 185,070,000 | 155,825,000 | 7,260,000 |
| Public Improvement Refunding Bonds 2017C | 1.15% -3.13% | 7/14/2017 | 7/15/2031 | 43,965,000 | - | 32,980,000 |
| Public Improvement Refunding Bonds 2017D | 4.00% - 5.00% | 12/21/2017 | 3/1/2033 | 118,535,000 | 117,190,000 | - |
| Public Improvement Bonds 2018A | 2.00% - 5.00% | 8/15/2018 | 3/1/2041 | 46,890,000 | 41,480,000 | - |
| Public Improvement Refunding Bonds 2018B | 3.45% - 3.75% | 8/15/2018 | 3/1/2033 | 8,310,000 | 6,560,000 | - |
| Public Improvement Refunding Bonds 2019A | 2.60% - 5.00% | 10/23/2019 | 7/15/2039 | 132,885,000 | 116,350,000 | - |
| Public Improvement Refunding Bonds 2020A | 2.00% - 5.00% | 12/10/2020 | 7/15/2040 | 102,130,000 | 96,973,800 | 61,200 |
| Public Improvement Refunding Bonds 2020B | 0.95% - 2.00% | 12/10/2020 | 7/15/2034 | 51,020,000 | 50,460,000 | - |
| Public Improvement Bonds 2021A (VRA) | 0.00% | 6/24/2021 | 7/15/2041 | 965,950 | - | 39,157 |
| ***General Obligation Notes*** | | | | | | |
| Equipment Note - Series 2020A | 1.11% | 6/17/2020 | 6/1/2025 | 4,960,000 | 2,133,000 | 874,000 |
| Equipment Note - Series 2020B | 1.19% | 6/17/2020 | 6/1/2027 | 3,826,000 | 1,404,000 | 1,360,000 |
| Equipment Note - Series 2021 | 0.99% | 6/10/2021 | 6/1/2028 | 6,730,000 | 5,638,000 | - |
| Line of Credit BAN - Series 2021A | Variable | 1/28/2021 | 11/1/2022 | 60,000,000 | 52,600,000 | 7,400,000 |
| ***HUD Section 108 Notes*** | | | | | | |
| HUD Section 108 Note Series 2015A | 0.83% - 3.60% | 5/28/2015 | 8/1/2032 | 10,125,000 | 6,910,000 | - |
| HUD Section 108 Note Series 2019A | 2.54% - 3.64% | 3/28/2019 | 8/1/2038 | 2,607,000 | 2,216,000 | - |
| ***Revenue Bonds*** | | | | | | |
| Public Utility Revenue Bonds 2006 - VRA | 2.20% | 6/29/2006 | 1/15/2028 | 11,000,000 | - | 3,994,921 |
| Public Utility Revenue Bonds 2008A- VRA | 2.52% | 6/27/2008 | 1/15/2029 | 6,900,000 | - | 2,796,167 |
| Public Utility Revenue Bonds 2009B-VRA | 0.00% | 6/24/2009 | 7/15/2030 | 32,000,000 | - | 13,600,000 |
| Public Utility Revenue Bonds 2010A-VRA | 0.00% | 2/3/2010 | 7/15/2040 | 188,218 | - | 116,402 |
| Public Utility Revenue Bonds 2012A-VRA | 0.00% | 4/17/2012 | 1/15/2035 | 23,289,955 | - | 15,138,471 |
| Public Utility Revenue Refunding Bonds 2013A | 2.00% - 5.00% | 5/2/2013 | 1/15/2043 | 214,220,000 | - | 7,235,000 |
| Public Utility Revenue Bonds 2015A - VRA | 0.00% | 3/5/2015 | 1/15/2036 | 2,600,000 | - | 1,177,717 |
| Public Utility Revenue Refunding Bonds 2016A | 4.00% - 5.00% | 12/7/2016 | 1/15/2046 | 502,260,000 | - | 437,900,000 |
| Public Utility Revenue Bonds 2020A | 2.81% - 5.00% | 4/15/2020 | 1/15/2050 | 135,445,000 | - | 132,555,000 |
| Public Utility Revenue Refunding Bonds 2020B | 1.63% - 3.54% | 4/15/2020 | 1/15/2043 | 180,000,000 | - | 174,875,000 |
| Public Utility Revenue Bonds 2021A - VRA | 0.00% | 6/24/2021 | 1/15/2044 | 20,343,302 | - | 4,695,800 |
| Premiums on Debt Issued | | | | | 66,604,402 | 55,602,167 |
| Total Bonds and Notes | | | | | $ 871,637,479 | $ 908,240,115 |

The annual requirements to amortize to maturity all long-term debt outstanding (General Obligation Bonds, General Obligation Serial Equipment Notes, Public Utility Revenue Bonds, and Section 108 Promissory Notes) including interest payable is as follows:

**Governmental Activities:**

(In Thousands)

| | General Obligation Bonds (Bonds) | | General Obligation Bonds (Direct Borrowing) | | General Obligation Equip Notes (Direct Borrowing) | |
|---|---|---|---|---|---|---|
| **Fiscal Year** | **Principal** | **Interest** | **Principal** | **Interest** | **Principal** | **Interest** |
| 2023 | 56,439 | 28,344 | - | 153 | 2,078 | 96 |
| 2024 | 48,159 | 26,123 | 6,524 | 76 | 2,100 | 74 |
| 2025 | 49,725 | 23,896 | | - | 2,123 | 52 |
| 2026 | 47,000 | 21,596 | - | - | 1,418 | 30 |
| 2027 | 45,810 | 19,333 | | | 869 | 15 |
| 2028 - 2032 | 241,280 | 62,589 | - | - | 587 | 6 |
| 2033 - 2037 | 163,830 | 22,221 | - | - | | - |
| 2038 - 2042 | 75,365 | 3,740 | - | - | - | - |
| Subtotal | 727,608 | 207,842 | 6,524 | 229 | 9,175 | 273 |
| Premium | 66,604 | - | - | - | - | - |
| Total | $ 794,212 | $ 207,842 | $ 6,524 | $ 229 | $ 9,175 | $ 273 |

(In Thousands)

| | HUD Section 108 Notes (Direct borrowing) | | Line of Credit Bond Anticip Note (Direct Borrowing) | |
|---|---|---|---|---|
| **Fiscal Year** | **Principal** | **Interest** | **Principal** | **Interest** |
| 2023 | 700 | 279 | 52,600 | 212 |
| 2024 | 711 | 261 | - | - |
| 2025 | 725 | 241 | - | - |
| 2026 | 740 | 220 | - | - |
| 2027 | 751 | 197 | | |
| 2028 - 2032 | 3,902 | 618 | - | - |
| 2033 - 2037 | 1,336 | 116 | - | - |
| 2038 - 2042 | 261 | 9 | - | - |
| Total | $ 9,126 | $ 1,941 | $ 52,600 | $ 212 |

**Business-Type Activities:**

(In Thousands)

| | General Obligation Bonds (Bonds) | | General Obligation Bonds & Notes (Direct Borrowing) | | Line of Credit BAN (Direct Borrowing) | |
|---|---|---|---|---|---|---|
| **Fiscal Year** | **Principal** | **Interest** | **Principal** | **Interest** | **Principal** | **Interest** |
| 2023 | $ 7,386 | $ 1,394 | $ 658 | $ 26 | $ 7,400 | $ 30 |
| 2024 | 7,371 | 1,165 | 625 | 23 | | - |
| 2025 | 3,700 | 995 | 631 | 16 | | - |
| 2026 | 3,820 | 881 | 339 | 10 | | - |
| 2027 | 3,940 | 761 | 342 | 7 | | - |
| 2028 - 2032 | 21,726 | 1,882 | 323 | 3 | | - |
| 2033 - 2037 | - | - | 266 | - | | - |
| 2038 - 2042 | - | - | 27 | - | | - |
| Subtotal | 47,943 | 7,078 | 3,211 | 85 | 7,400 | 30 |
| Premium | 932 | - | - | | | - |
| Total | $ 48,875 | $ 7,078 | $ 3,211 | $ 85 | $ 7,400 | $ 30 |

(In Thousands)

| | Utility Revenue Bonds (Bonds) | | Utility Revenue Bonds (Direct Borrowing) | |
|---|---|---|---|---|
| **Fiscal Year** | **Principal** | **Interest** | **Principal** | **Interest** |
| 2023 | $ 26,845 | $ 31,404 | $ 4,016 | $ 156 |
| 2024 | 27,420 | 30,125 | 4,040 | 133 |
| 2025 | 31,930 | 29,022 | 4,965 | 108 |
| 2026 | 32,945 | 27,657 | 4,990 | 83 |
| 2027 | 33,945 | 26,231 | 5,016 | 57 |
| 2028 - 2032 | 190,590 | 107,733 | 14,946 | 39 |
| 2033 - 2037 | 186,080 | 63,551 | 3,524 | - |
| 2038 - 2042 | 134,555 | 30,830 | 22 | - |
| 2043 - 2047 | 69,025 | 10,516 | - | - |
| 2048 - 2052 | 19,230 | 1,559 | - | - |
| | | | | $ - |
| Subtotal | 752,565 | 358,628 | 41,519 | 576 |
| Premium | 54,670 | - | - | |
| Total | $ 807,235 | $ 358,628 | $ 41,519 | |

**Debt issued during the fiscal year ended June 30, 2022**

On January 28, 2021, the City established its $60,000,000 Series 2021A General Obligation Line of Credit Bond Anticipation Note Facility (the "Line of Credit") with a Commercial Bank. During the fiscal year ending June 30, 2022, the City drew an additional $32,251,791 on the Line of Credit to finance ongoing City and Stormwater Utility capital projects. The City pays monthly variable rate interest on the Line of Credit borrowings priced at 79% of LIBOR plus 47.5 basis points (1.31 percent on June 30, 2022). The Line of Credit has a final maturity of November 1, 2022 and the outstanding principal balance as of June 30, 2022, was $60,000,000. The City antcipates refinancing this debt into a long-term general obligation bond in the next several months.

On June 24, 2021, the City entered into a $20,343,302 Public Utility Revenue Bond Financing Agreement, Series 2021A, with the Virginia Resources Authority, the administrator for the Commonwealth of Virginia's Water Facilities Revolving Fund. The Series 2021A Public Utility Revenue Bond issue is an interest-free loan and thus, only the principal borrowed will be paid on the bond issue. Proceeds of the borrowing are being used to finance two capital projects of the City's Wastewater Utility. During the fiscal year ending 6/30/2021, the City drew an initial $886,551, and during the fiscal year ending 6/30/2022, the City has drawn another $3,867,832 of proceeds. The the remaining available proceeds of the loan are expected to be drawn during the next two years. Semi-annual principal payments on the loan are payable on January 15th and July 15th of each year, and as of June 30, 2022, the balance outstanding on the loan was $4,695,800.

***Defeasance of Debt***

On December 21, 2017, the City purchased U.S. Government Securities with proceeds of the General Obligation Public Improvement Refunding Bonds, Series 2017D to advance refund principal maturities of the Series 2013A, and 2014A General Obligation Bonds. These U.S. Government Securities were deposited into an irrevocable trust with an escrow agent to provide for all future debt service payments due on the refunded bonds. Accordingly, the trust account assets and the liability for the defeased bonds are not included in the City's financial statements. As of June 30, 2022, the principal amount of defeased bonds is $125,420,000. The call date for the Series 2013A Bonds is March 1, 2023 and for the Series 2014A is March 1, 2024.

On April 15, 2020, the City purchased U.S. Government Securities with proceeds of the Public Utility Revenue and Refunding Bonds, Series 2020B to advance refund principal maturities of the Series 2013A Public Utility Revenue Bonds. These U.S. Government Securities were deposited into an irrevocable trust with an escrow agent to provide for all future debt service payments due on the refunded bonds. Accordingly, the trust account assets and the liability for the defeased bonds are not included in the City's financial statements. As of June 30, 2022, the principal amount of defeased Public Utility Revenue bonds is $161,400,000. The call date for the Series 2013A Bonds is January 15, 2023.

On December 10, 2020, the City purchased U.S. Government Securities with proceeds of the General Obligation Public Improvement Refunding Bonds, Series 2020B to advance refund principal maturities of the Series 2012B, and 2014A General Obligation Bonds. These U.S. Government Securities were deposited into an irrevocable trust with an escrow agent to provide for all future debt service payments due on the refunded bonds. Accordingly, the trust account assets and the liability for the defeased bonds are not included in the City's financial statements. As of June 30, 2022, the principal amount of defeased bonds is $46,015,000. The call date for the Series 2012B Bonds is July 15, 2022 and for the Series 2014A is March 1, 2024.

***Legal Debt Limit***

Article VII, Section 10 of the Constitution of Virginia provides that the legal debt limit for cities for issuing General Obligation debt is ten (10.0) percent of the last preceding assessment for real estate taxes. At June 30, 2022, the City had a legal debt limit of $3,175,800,000 (10.0 percent of the taxable real estate value in the City) and the statutory capacity to issue additional General Obligation debt of approximately $2,312,214,252 (remaining legal debt margin).

***Authority to Issue Debt***

As of June 30, 2022, the City had a total of $417,559,978 of additional general obligation and revenue bonds authorized, but not issued, for funding Capital Improvement Projects and the acquisition of Equipment. Of these authorized, but not issued bonds and notes, $276,911,649 is earmarked for self-supporting Public Utility revenue bond funded projects, $42,124,330 for Stormwater Utility Projects, $87,500,000 for various General Fund supported capital projects and $11,023,999 for funding of equipment purchases.

***Bond Ratings***

The City of Richmond periodically has three bond rating firms provide credit evaluations of the City’s outstanding General Obligation and Public Utility Revenue bond debt. The current bond rating of the City’s outstanding bond debt by each firm is as follows:

| | |
|---|---|
| General Obligation Bonds | |
| Moody's | **Aa1** |
| Standard & Poor's | **AA+** |
| Fitch Ratings | **AA+** |
| | |
| Public Utility Revenue Bonds | |
| Moody's | **Aa1** |
| Standard & Poor's | **AA** |
| Fitch Ratings | **AA** |

***Subsequent Event***

On September 8, 2022, the City issued $57,990,000 of tax-exempt General Obligation Public Improvement Bonds, Series 2022A. Proceeds of the 2022A GO bonds, along with premiums received, were used to payoff the $60.0 million outstanding balance of the Series 2021A Line of Credit Bond Anticipation Note, as well as to finance $3.5 million of public safety vehicles. The Series 2022A GO bonds have coupon interest rates ranging from 4.0% to 5.0% with semiannual interest payable on March 1st and September 1st of each year. Serial annual principal payments in amounts of between $2,145,000 and $3,985,000 are are payable on March 1, of each year with a final principal payment due on March 1, 2042. At the time of the 2022A GO bond sale, Moody's, Standard and Poor's, and Fitch affirmed their Aa1, AA+, and AA+ credit ratings, respectively, of the City, with a stable outlook.

## 8. FUND BALANCES

Fund balances have been classified to reflect the limitations and restrictions placed on the respective funds. Fund balances at June 30, 2022, are composed of the following:

| | General Fund | Debt Service | Capital Projects Fund | Other Non-Major Governmental Funds |
|---|---|---|---|---|
| **Nonspendable:** | | | | |
| Prepaid | $ 11,496 | $ - | $ - | $ - |
| Total Nonspendable | 11,496 | - | - | - |
| **Restricted To:** | | | | |
| Capital Projects | - | 15,389,735 | 21,523,656 | - |
| NM Governmental Funds | - | - | - | 40,149,749 |
| Total Restricted | - | 15,389,735 | 21,523,656 | 40,149,749 |
| **Committed To:** | | | | |
| Budget and Revenue Stablization Contingency | 25,171,238 | - | - | - |
| School Board Operations | 158,231 | - | - | - |
| Total Committed | 25,329,469 | - | - | - |
| **Assigned To:** | | | | |
| Encumbrance Roll Forward | 15,347,849 | - | - | - |
| Capital Reserve | 17,554,851 | - | - | - |
| Percent fort the Arts | 306,396 | - | - | - |
| School Facilities | 16,833,415 | - | - | - |
| Unspent Building Code Fees | 2,703,156 | - | - | - |
| COVID-19 Contingencies | 547,557 | - | - | - |
| Special Purpose | 1,752,480 | | | |
| Tax Rebate | 18,000,000 | - | - | - |
| Total Assigned | 73,045,704 | - | - | - |
| **Unassigned:** | | | | |
| Total Unassigned | 107,862,492 | - | (52,750,324) | - |
| Total Fund Balances | $ 206,249,161 | $ 15,389,735 | $ (31,226,668) | $ 40,149,749 |

## 9. RISK MANAGEMENT

The City's non-health care related risk management activities are conducted through the Self Insurance agency within General Fund and have been accounted for in accordance with GAAP.

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. For all retained risks, claim expenditures and liabilities are reported when it is probable that a loss has occurred and the amount of loss can be reasonably estimated. These losses include an estimate of claims that have been incurred but not reported. There have been no significant reductions in insurance coverage since the prior year, and settled claims have not exceeded the amount of insurance coverage in any of the past three fiscal years.

For workers' compensation claims, the City assumes the first $2M for Heart, Lung and Cancer presumptive claims for Public Safety Officer and $1.5M for All Other employees and non-presumptive claims for Public Safety Officers. The City pays claims filed directly from appropriations to various agencies. Excess workers' compensation coverage provides protection for accidents exceeding the self-insured retentions noted above. Claims for indemnity benefits may be paid over a maximum period of 500 weeks with the exception of certain legally defined cases, which may be paid for the lifetime of the claimant.

The City is self-insured for the first $1.5M of any general liability, automobile liability, public officials or police professional liability claim. The City has purchased $10M in excess liability coverage over a $1.5M self-insured retention from States Self-Insurers Risk Retention Group (States), a public entity risk pool domiciled in the State of Vermont. Claims under the $1.5M self-insured retention are paid by the Risk Management agency within the General Fund.

The City's Department of Public Utilities (DPU) is a member of the Associated Electric Gas and Insurance Services, Ltd., a member-owned company based in New Jersey. In exchange for an annual premium, the utilities are provided insurance coverage to a limit of $35M per occurrence for excess liability with self-insured retention of $1M per occurrence for General and Employers' Liability, and $1M per occurrence for Pollution Liability. DPU is also a member of Energy Insurance Mutual Ltd., which provides excess liability coverage with limits of $100 million in excess of the $35 million underlying coverage.

The City also carries commercial insurance in a number of smaller, more defined risk areas such as employees' faithful performance, money and securities, and medical professional liability. The Risk Management Bureau recently secured Fiduciary coverage for the Richmond Retirement System Fund. The Risk Management Bureau also obtained Malicious Acts coverage.

During the fiscal year ended June 30, 2022, premiums for excess coverage and claims paid for self-insured coverage were recognized as revenue and recorded as expenditures or expenses in the appropriate Governmental and Proprietary Funds, respectively.

The City's aggregate actuarially determined liability for uninsured workers' compensation, general liability, and automobile liability at June 30, 2022, was $53,763,085 (undiscounted) and $42,554,769 (discounted at 3.50 percent). Changes in the aggregate for these liabilities for FY2021 and FY2022 were:

| Fiscal Year | Fiscal Year Liability | Current Year Claims and Changes in Estimates | Claims and Premium Payments | Balance at Fiscal Year End |
|---|---|---|---|---|
| 2021 | $ 38,228,155 | $ 15,074,183 | $ (12,195,116) | $ 41,107,222 |
| 2022 | $ 41,107,222 | $ 9,229,181 | $ (7,781,634) | $ 42,554,769 |

Workers' compensation, general liability, and automobile liability future payment projections for fiscal period July 1, 2022, through June 30, 2023, are as follows:

| Probability Level | Discounted | Undiscounted |
|---|---|---|
| 90.00% | $ 11,347,073 | $ 11,543,939 |
| 75.00% | $ 10,056,056 | $ 10,230,523 |
| Central Estimate | $ 8,653,114 | $ 8,803,241 |

## 10. HEALTH CARE PLAN

On July 1, 2010, the City began to self-insure health care for all eligible employees and retirees by contracting with providers for administrative services only. Services under these contracts include claims adjudication, disease management, lifestyle programs, and wellness initiatives. The Department of Human Resources manages the plan, ensures statutory compliance and makes recommendations to City Council, which has the authority to modify the provisions of the City's active and post-employment benefits program. In accordance with the Affordable Care Act (ACA), any employee who works an average of twenty (20) or more hours within a designated ''measurement period' will be eligible to enroll in the City-sponsored health care (with the exception of Seasonal Employees).

### Retiree Eligibility

Employees who retire as an active member in the Defined Benefit Plan and Enhanced Defined Benefit Plan and Constitutional employees are eligible for health insurance. Employees must:

- Be under age 65
- Have worked for the City for 15 years or more
- Have worked for the City for 10 or more years with 5 years of continuous participation on the health insurance program immediately prior to retirement

Sworn Police, Sworn Fire, Sworn VRS, and Executives currently are not in the defined contribution group are also able to participate in the post-retirement medical coverage even if they were hired after January 1, 1997.

Employees who retire as an active member in the Defined Contribution Plan are not eligible for post-retirement benefits and are only eligible for COBRA.

**City Subsidy**

The amount of subsidy is determined on a yearly basis and based on length of active service. There are three levels of subsidy:

| Years of Active Service | Subsidy |
|---|---|
| 25 + | 100.00% |
| 15 to 25 | 75.00% |
| 10 to 15 | 50.00% |
| Less than 10 | 0.00% |

**Benefits**

CIGNA Healthcare is contracted as the third-party administrator for the medical plans. The City offers three medical plan options: Premier, Classic and Choice Fund HDHP. In-network services for the Premier Plan are covered at 90 percent with a $20 office visit co-pay for Primary Care Physicians, and a $40 office visit co-pay for Specialists. In-network services for the Classic Plan are covered at 80 percent with a $25 office visit co-pay for Primary Care Physicians, and a $50 office visit co-pay for Specialists. In-network services for the Choice Fund HDHP are covered at 80% after the calendar year deductible is met. Out-of-network providers are covered at 50 percent. Wellness checkups and services are covered at 100 percent. Prescription drug coverage is included with all medical plans, utilizing a three tier co-pay structure and optional mail order to refill prescriptions. The City pays the full cost of the coverage for life for Line of Service Retirees.

The City purchases specific stop-loss insurance from Connecticut General Life Insurance Company (CIGNA) limiting claims against the self-insurance program to $300,000 per occurrence for individual claims, and an additional 125 percent aggregate stop loss limitation that has been subsequently canceled effective as of August 2014, for the City. The following table shows the amounts that have been accrued as a liability within the self-insurance fund based upon an estimate from the City's outside actuary, USI.

| | Health Insurance Primary Government | |
|---|---|---|
| | Fiscal Year 2022 | Fiscal Year 2021 |
| Unpaid Claims Beginning of Fiscal Year | $ 3,477,000 | $ 3,258,000 |
| Incurred Claims (including IBNR) | 48,806,134 | 48,806,134 |
| Claim Payments | (49,169,134) | (48,587,134) |
| Unpaid Claims End of Fiscal Year | $ 3,114,000 | $ 3,477,000 |

## 11. RETIREMENT PLANS

**Richmond Retirement System (RRS)**

**Defined Benefit Plan**

**A. Plan Description**

The RRS was established by action of the Richmond City Council on February 1, 1945. The City Council appoints five members and the Mayor appoints two members of the Board of Trustees to administer the RRS. However, City Council retains the authority to establish or amend benefit provisions. The RRS is currently not subject to the provisions of the Employee Retirement Income Security Act of 1974.

The RRS is a single-employer Defined Benefit Plan. The RRS has one participating employer, the City, including its component unit Richmond Behavioral Health Authority and a small portion of Richmond Public Schools. The plan covers all full-time permanent employees, with the exception of those elected officials and persons eligible for membership in the Judicial Retirement System and the Virginia Retirement System. A majority of the employees of the School Board participate in the Virginia Retirement System (VRS), which offers both agent and cost sharing multiple-employer retirement plan options to Virginia localities and acts as a common investment and administrative agent for certain political subdivisions in the Commonwealth of Virginia. Members are vested after five years of creditable service or at their normal retirement age (age 65 for General Employees; age 60 for Public Safety Employees). The plan is contributory for employees.

**B. Contribution Policy**

The City Code of 1993, as amended, requires the City to contribute to the RRS, annually, an amount as determined by the actuarial, expressed as a percentage of payroll, equal to the sum of the normal contribution and the actuarial determined contribution.

The actuarial determined contribution is the amount necessary to amortize the unfunded actuarial liability and any increase or decrease in the unfunded actuarial liability in future years due to changes in actuarial assumptions, changes in RRS provisions, including the granting of COLA increases, or actuarial gains or losses amortized over a closed period not to exceed 30 years, with payments increasing up to 4.00 percent per year for Fire and Police and level contributions for General Employees.

**C. Actuarial Methods and Assumptions Used to Determine Contribution Rates and Net Pension Liability (NPL)**

Actuarial determined contribution rates and net pension liability (NPL) are calculated as of July 1 two years prior to the end of the fiscal year in which contributions are reported. The following assumptions were used to determine contribution rates and NPL:

- Actuarial cost method – Entry Age Normal
- Amortization method – Level percent of pay over a closed period not to exceed 30 years for Police and Fire Employees; level dollar amount over a closed period, not to exceed 30 years for general members.
- Remaining amortization period – 11 years for remaining unfunded accrued liability as of July 1, 2020; Cost of VRIP is amortized over 3 years. Other new bases are amortized over 20 years.
- Asset valuation method – Five-year spread of actual over expected investment earnings with the restriction that the resulting value must be within 90%-110% of market value.
- Inflation rate - 2.5 percent.
- Salary increases General Employees – 2.50 percent to 4.00 percent.
- Salary Increases – Police and Fire Employees from 2.50 percent to 4.50 percent.
- Investment rate of return – 7.00 percent.
- For the fiscal years ended June 30, 2022 and 2021, the annual money-weighted rates of return were -6.0% and 24.0%, respectively. Annual money-weighted rate of return is calculated net of all investment management expenses and additional plan investment-related expenses that are reported by the Plan's custodian or were provided to the investment consultant by the RRS. The methodology used to determine the money-weighted rate of return is different from the calculation of the fiscal year rate of return. Cash flows have a larger impact on the money-weighted rate of return than the fiscal year rate of return, which uses a time-weighted calculation.
- For purposes of determining contribution rates, the difference between actual investment earnings and expected investment earnings is recognized over a five-year period, with the restriction that the actuarial asset value cannot be less than 90.00 percent or more than 110.00 percent of market value. This smoothing method is utilized in order to minimize the impact of short term market fluctuations on the RRS contribution rates and funded status. Fair market value of investments was used to determine NPL.

### D. Plan Membership

***As of June 30, 2021, membership in the RRS was comprised as follows:***

| | |
|---|---|
| Active vested Plan members | 1,160 |
| Active Non-vested Plan members | 219 |
| Terminated Vested Plan members | 1,541 |
| Retirees and beneficiaries receiving benefits | 4,214 |
| Total | 7,134 |

### E. Net Pension Liability

A detailed schedule of changes in the net pension liability is presented under required supplementary information. This information is intended to help users assess the extent of the City's obligation to the Defined Benefit Plan. The net pension liability of the City at June 30, 2022, for the RRS was as follows.

| | | |
|---|---|---|
| Total pension liability (TPL) | $ | 926,684,922 |
| Plan fiduciary net position | | 665,259,853 |
| City's net pension liability (NPL) | $ | 261,425,069 |
| Plan fiduciary net position as a percentage of the total pension liability | | 71.79% |
| Covered payroll | $ | 93,295,653 |
| City's net pension liability as a percentage of covered payroll | | 280.21% |

The plans net pension liability is calculated based on a measurement date of June 30, 2021.

### Expected Rate of Return and Target allocation

The long-term expected rate of return on RRS investments was determined using a building-block method in which best estimate ranges of expected future real rates of return (e.g., 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 percentage and by adding expected inflation.The target asset allocation identifies the optimal asset mix strategy for the RRS. To ensure compliance with the policy, a rebalancing strategy is used. RRS is in the multiyear process of phasing in its asset allocation. Best estimates of geometric return for each major asset class included in the pension plan's target assetallocation as of June 30, 2022 are summarized in the table below:

| Asset Class | 10-Yr. Assumptions 2021 Geometric Return | Target Asset Allocation |
|---|---|---|
| Broad U.S. equities | 6.60% | 29.00% |
| International equities | 6.50% | 16.00% |
| Diversifying assets | 4.10% | 6.00% |
| Private equity | 8.00% | 4.00% |
| Fixed income | 1.75% | 29.00% |
| Private Debt | 5.50% | 6.00% |
| Real estate (core) | 5.75% | 10.00% |

### F. Sensitivity of the Net Pension Liability

Changes in the discount rate affect the measurement of pension liabilities; therefore, a small change in the discount rate could result in a significant change in the NPL. As an illustration, the following table present the NPL for the RRS, calculated using the discount rate of 7.50 percent, as well as, what the City's NPL would be if it were calculated using a discount rate that is one percentage point lower (6.50 percent) or one percentage point higher (8.50 percent) than the current rate:

| | Sensitivity of the NPL to Changes in the Discount Rate | | |
|---|---|---|---|
| | 1.00% Decrease 6.50% | Current Discount Rate 7.50% | 1.00% Increase 8.50% |
| Plan Net Pension Liability | $ 348,039,815 | $ 261,425,069 | $ 186,733,751 |

### G. Summary of Deferred Outflows and Inflows of Resources

The City reports new deferred outflows of resources and deferred inflows of resources on its Statement of Net Position as a result of pension related activities required under GAAP. Deferred outflows of resources represent a consumption of net position that is applied to future periods and, thus, is not recognized as an outflow of resources or expense until a later year. Deferred inflows of resources are an acquisition of net position that is not recognized in the current year but are recognized as an inflow of resources or revenue in a future year. The component make up of deferred inflows of resources and deferred outflows of resources is as follows:..

**Summary of Deferred Outflows and Inflows of Resources - RRS**

| | Deferred Outflows of Resources | Deferred Inflows of Resources |
|---|---|---|
| Difference between expected and actual experience | $ - | $ 2,018,491 |
| Net difference between expected and actual investment earnings | | 53,294,586 |
| Change in assumptions | 14,912,748 | - |
| Employer contributions subsequent to the measurement date | 54,012,445 | - |
| Total | $ 68,925,193 | $ 55,313,077 |

Deferred outflows of resources for contributions subsequent to measurement date will be recognized in net pension liability in fiscal year ended 2023. The other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions are amortized over specific years and recognized in pension expense in future years as shown below:

**Amortization Schedule of Deferred Outflows and Inflows of Resources**

| Year Ended June 30, | | |
|---|---|---|
| 2023 | $ | 3,977,334 |
| 2024 | $ | (11,007,561) |
| 2025 | $ | (14,002,549) |
| 2026 | $ | (19,367,553) |
| 2027 | $ | - |
| Thereafter | $ | - |
| Total | $ | (40,400,329) |

For the year ended June 30, 2022, the City recognized RRS pension expense of $37,273,789.

The components of this pension expense include the following:

| PENSION EXPENSE - RRS | | |
|---|---|---|
| Service Cost | $ | 11,422,055 |
| Interest Cost | | 62,362,814 |
| Benefit Changes | | 465,126 |
| Experience Loss/(Gain) | | (408,551) |
| Contribution Employee | | (1,751,556) |
| Net Investment Income | | |
| Expected Return on Investments | | (37,781,132) |
| Investment Gain or Loss Expensed | | (19,367,555) |
| Administrative Expense | | 1,511,624 |
| Amortization | | 20,820,964 |
| Pension Expense | $ | 37,273,789 |

The Defined Benefit Plan is considered part of the City financial reporting entity and is included in the financial statements as a Pension Trust Fund.

**Defined Contribution Plan**

The RRS also offers a Defined Contribution 401(a) Plan as another retirement option to the City and RBHA. This plan is mandatory for general employees hired on/or after July 1, 2006, and optional for senior executives and public safety officers. The RRS is the administrator for this plan and has contracted with an independent, not-for-profit financial services organization to be the record keeper of the plan. The City contributes a percentage of an employee's creditable compensation, based on years of service, to a portable account for investment by the employee. This plan is non-contributory for employees. There are 2,011 city employees currently enrolled in the plan.

The Defined Contribution Plan is a 401(a) account which grows through contributions from the participating employers and investment earnings. The Defined Contribution Plan is funded entirely by employer contributions, and no employee contributions are required. Participating employers contribute a percentage of the member's salary to an account each pay period in accordance with the following schedule, which is based on years of creditable service:

- Less than 5 years of service 5.00 percent
- 5 to 10 years of service 6.00 percent
- 10 to 15 years of service 8.00 percent
- 15 or more years of service 10.00 percent

The contribution to the RRS plan by the City is determined annually by the City's Department of Budget & Strategic Planning and subsequently approved and adopted through the City's biennial budget process.

RRS Financial can be accessed at: www.richmondgov.com/retirement/publications.aspx

**Virginia Retirement System (VRS)**

**A. Plan Description**

The City contributes to the Virginia Retirement System (VRS), a cost-sharing and agent multiple-employer defined benefit pension plan administered by the VRS. City members include constitutional offices of the Sheriff, Courts, Registrar and Treasurer. Benefits vest after five years of service credit. Members earn one month of service credit for each month they are employed and their employer is paying into the VRS. Members are eligible to purchase prior public service, active duty military service, certain periods of leave and previously refunded VRS service as credit in their plan. There are three defined benefit plans for local government employees – Plan 1 and Plan 2 and Hybrid Plan.

- Members hired before July 1, 2010, and who were vested as of January 1, 2013, are covered under Plan 1. Non-hazardous duty members are eligible for an unreduced retirement benefit beginning at age 65 with at least five years of service credit or age 50 with at least 30 years of service credit. They may retire with a reduced benefit as early as age 55 with at least five years of service credit or age 50 with at least 10 years of service credit

- Members hired or rehired on or after July 1, 2010, and who were not vested on January 1, 2013, are covered under Plan 2. Non-hazardous duty members are eligible for an unreduced benefit beginning at their normal Social Security retirement age with at least five years of service credit or when the sum of their age and service equals 90. They may retire with a reduced benefit as early as age 60 with at least five years of service credit.
- Non-hazardous duty employees hired on or after January 1, 2014, are covered under the Hybrid Plan. The VRS Hybrid Retirement Plan combines features of a defined benefit and a defined contribution plan. Employees covered under the VRS Hybrid Plan are eligible for an unreduced benefit when they reach their normal Social Security retirement age or when their age and service equal the sum of 90. Benefits are payable monthly for life in an amount equal to 1.00 percent of their Average Final Salary (AFS) for each year of credited service. Hybrid members make mandatory contributions to the defined contribution component of the plan and may make additional voluntary contributions to the plan, which the employer is required to match. Employees vest in the matching employer contributions based upon a tiered schedule. Employees are 100.00 percent vested in all matching employer contributions upon reaching 4 years of creditable service.

The VRS Basic Benefit is a lifetime monthly benefit based on a retirement multiplier as a percentage of the member's average final compensation multiplied by the member's total service credit. Under Plan 1, average final compensation is the average of the member's 36 consecutive months of highest compensation. Under Plan 2, average final compensation is the average of the member's 60 consecutive months of highest compensation. The retirement multiplier for non-hazardous duty members is 1.70 percent. The retirement multiplier for sheriffs and regional jail superintendents is 1.85 percent. The retirement multiplier for eligible political subdivision hazardous duty employees other than sheriffs and jail superintendents is 1.70 percent or 1.85 percent as elected by the employer. The multiplier for Plan 2 members was reduced to 1.65 percent effective January 1, 2013, unless they are hazardous duty employees and their employer has elected the enhanced retirement multiplier. At retirement, members can elect the Basic Benefit, the Survivor Option, a Partial Lump-Sum Option Payment (PLOP) or the Advance Pension Option. A retirement reduction factor is applied to the Basic Benefit amount for members electing the Survivor Option, PLOP or Advance Pension Option or those retiring with a reduced benefit.

Eligible hazardous duty members in Plan 1 and Plan 2 are eligible for an unreduced benefit beginning at age 60 with at least 5 years of service credit or age 50 with at least 25 years of service credit. These members include sheriffs, deputy sheriffs and hazardous duty employees of political subdivisions that have elected to provide enhanced coverage for hazardous duty service. They may retire with a reduced benefit as early as age 50 with at least five years of service credit. All other provisions of the member's plan apply.

Retirees are eligible for an annual cost-of-living adjustment (COLA) effective July 1 of the second calendar year of retirement. Under Plan 1, the COLA cannot exceed 5.00 percent; under Plan 2, the COLA cannot exceed 3.00 percent. During years of no inflation or deflation, the COLA is 0.00 percent. The VRS also provides death and disability benefits. Title 51.1 of the Code of Virginia (1950), as amended, assigns the authority to establish and amend benefit provisions to the General Assembly of Virginia.

VRS issues a publicly available Comprehensive Annual Financial Report that includes financial statements and required supplementary information for the plans administered by VRS. A copy of the report may be obtained from the VRS website located http://www.varetire.org/publications/index.asp or by writing to the System's Chief Financial Officer at P.O. Box 2500, Richmond, VA, 23218-2500.

### B. Contribution Policy

The contribution requirement for active employees is governed by Section 51.1-145 of the Code of Virginia (1950), as amended, but may be impacted as a result of funding options provided by the Virginia General Assembly. Employees are required to contribute 5.00 percent of their compensation toward their retirement. Prior to July 1, 2012, all or part of the 5.0 percent member contribution may have been assumed by the employer. Beginning July 1, 2012, new employees were required to pay the 5.00 percent member contribution. In addition, for existing employees, employers were required to begin making the employee pay the 5.00 percent member contribution. This could be phased in over a period of up to 5 years. The employer is required to provide a salary increase equal to the amount of the increase in the employee-paid member contribution.

The City's contractually required contribution rate for the year ended June 30, 2022, was 12.64 percent of covered employee compensation. This rate was based on an actuarial determined rate from an actuarial valuation of June 30, 2020. This rate, when combined with employee contributions, is expected to finance the costs of benefits earned by the employee during the year, with an additional amount to finance any unfunded accrued liability. Contributions to the pension plan for the years ended June 30, 2022, and June 30, 2021, were $4,531,551 and $4,538,543, respectively.

### C. Plan Membership

At June 30, 2020, the valuation date, City membership in the VRS was comprised as follows:

| | |
|---|---|
| Active members | 530 |
| Inactive members | - |
| Members and their beneficiaries receiving benefits | 477 |
| Members active elsewhere in VRS | 280 |
| Inactive Non-vested members | 159 |
| Inactive Vested members | 110 |
| Total | 1,556 |

### D. Net Pension Liability

For the City of Richmond, the net pension liability was measured as of June 30, 2021. The total pension liability used to calculate the net pension liability was determined by an actuarial valuation performed as of July 1, 2020. A detailed schedule of changes in the net pension liability is presented under required supplementary information. This information is intended to help users assess the extent of the City's obligation to the Defined Benefit Plan. The net pension liability of the City at June 30, 2022, was as follows:

| | | |
|---|---|---|
| Total Pension Liability | $ | 148,472,523 |
| VRS Fiduciary Net Position | | 152,725,780 |
| Net Pension Liability/Asset | $ | (4,253,257) |
| Plan Fiduciary Net Position as a Percentage of Total Pension Liability | | 102.86% |
| Covered Payroll | $ | 24,088,930 |
| City's Net Pension Liability as a Percentage of Covered Payroll | | (17.66)% |

### E. Actuarial Methods and Assumptions

The City's net pension liability was measured as of June 30, 2021. The total pension liability used to calculate the net pension liability was determined by an actuarial valuation performed as of June 30, 2020, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all period included in the measurement and rolled forward to the measurement date of June 30, 2021.

**Actuarial Assumptions for General Employees**
The actuarial valuation used the Entry Age Normal actuarial cost method and the following assumptions

- Inflation — 2.50 percent
- Salary Increase — 3.50 percent to 5.35 percent
- Investment Rate of Return net of pension plan investment expense — 6.75 percent
- RP-2014 Mortality rate tables were used projected to 2020

**Actuarial Assumptions for Public Safety Employees**

The actuarial valuation used the Entry Age Normal actuarial cost method and the following assumptions

- Inflation 2.50 percent
- Salary Increase 3.50 percent to 4.75 percent
- Investment Rate of Return net of pension plan investment expense 6.75 percent
- RP-2014 Mortality rate tables were used projected to 2020

**Long Term Expected Rate of Return**

The long-term expected rate of return on pension System investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of pension System 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. The target asset allocation and best estimate of arithmetic real rates of return for each major asset class are summarized in the following table:

**Long Term Expected Rate of Return**

| | Target Allocation | Arithmetic Long-term Expected Rate of Return | Weighted Average Long-term Expected Rate of Return |
|---|---|---|---|
| Public Equity | 34.00% | 5.00% | 1.70% |
| Fixed Income | 15.00% | 0.57% | 0.09% |
| Credit Strategies | 14.00% | 4.49% | 0.63% |
| Real Assets | 14.00% | 4.76% | 0.67% |
| Private Equity | 14.00% | 9.94% | 1.39% |
| Multi Asset Public Strategies | 6.00% | 3.29% | 0.20% |
| Private Investment Partnership | 3.00% | 6.84% | 0.21% |
| | 100.00% | | 4.89% |
| | | Inflation | 2.50% |
| | | *Expected arithmetic nominal return | 7.39% |

* The above allocation provides a one year return of 7.14 percent. However, one year returns do not take into account the volatility present in each of the asset classes. In setting the long-term expected return for the system, stochastic projections are employed to model future returns under various economic conditions. The results provide a range of returns over various time periods that ultimately provide a median return of 7.11 percent, including expected inflation of 2.50 percent. The VRS Board elected a long-term rate of 6.75 percent which is roughly at the 40th percentile of expected long term results of the VRS fund asset allocation.

**Discount Rate**

The discount rate used to measure the total pension liability was 6.75 percent. The projection of cash flows used to determine the discount rate assumed that member contributions will be made per the VRS statutes and the employer contribution will be made in accordance with the VRS funding policy at rates equal to the difference between actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. From July 1, 2020, on, participating VRS employers are assumed to contribute 100.00 percent of the actuarial determined contribution rates. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore the Long -term expected rate of return was applied to all periods of projected benefit payments to determine the total pension liability.

## F. Summary of Deferred Outflows and Inflows of Resources VRS

The schedules presented below reflect information required under GAAP and were prepared using an actuarial valuation performed as of June 30, 2019. The valuation was based upon data furnished by the VRS staff concerning active, retired and inactive members, along with pertinent financial information. The projected cash flows used to determine the discount rate assumed that plan member contributions will be made per the VRS statutes and the employer contributions will be made in accordance with the policies established by VRS at rates equal to the difference between actuarial determined contribution rates adopted by the VRS board and the member rate.

Deferred outflows of resources represent a consumption of net position that is applied to future periods and thus is not recognized as an outflow of resources or expense until a later year. Deferred inflows of resources are an acquisition of net position that is not recognized in the current year but are recognized as an inflow of resources or revenue in a future year. The component make up of deferred inflows of resources and deferred outflows of resources is as follows:

**Summary of Deferred Outflows and Inflows of Resources - VRS**

| | Deferred Outflows of Resources | Deferred Inflows of Resources |
|---|---|---|
| Difference between expected and actual experience | $ - | $ 1,474,179 |
| Changes in assumptions | 2,788,301 | - |
| Net difference between projected and actual earnings on plan investments | - | 16,511,987 |
| Employer contribution subsequent to the measurement date | 4,531,551 | - |
| Total | $ 7,319,852 | $ 17,986,166 |

The deferred inflows of the VRS are amortized over a period of 4 years and are presented below to show the amount to be recognized in pension expense in future years. The deferred outflows made subsequent to the measurement date are not amortized. The $4,531,551 reported as deferred outflows of resources related to pensions resulting from the City's contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability in the Fiscal Year ending June 30, 2023. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense in future reporting periods as follows:

**Amortization Schedule of Deferred Outflows and Inflows of Resources**

| Year Ended June 30, | |
|---|---|
| 2023 | $ (3,287,004) |
| 2024 | (3,031,623) |
| 2025 | (3,845,921) |
| 2026 | (5,033,317) |
| 2027 | - |
| Thereafter | - |
| Total | $ (15,197,865) |

Changes in the discount rate affect the measurement of pension liabilities; therefore, a small change in the discount rate could result in a significant change in the NPL. To show the impact of a 1 percent change in the discount rate the following table is presented with a rate of 5.75 percent and 7.75 percent comparing the total change in the NPL for a 1 percentage increase or decrease.

| Sensitivity of the NPL to Changes in Discount Rate | 1.00% Decrease 5.75% | Current Discount Rate 6.75% | 1.00% Increase 7.75% |
|---|---|---|---|
| Plan Net Pension Liability | $ 14,138,607 | $ (4,253,257) | $ (19,484,768) |

For the year ended June 30, 2022, the City recognized VRS pension expense of $529,490. The components of this pension expense include the following:

| PENSION EXPENSE - VRS | |
|---|---|
| Service Costs | $ 3,642,964 |
| Interest on the total pension liability | 9,285,395 |
| Expensed portion of current-period difference between expected and actual experience in the total pension liability | (654,429) |
| Expensed portion of current period changes in assumptions | 1,429,898 |
| Member contributions | (1,282,683) |
| Projected earning on plan investments | (8,197,730) |
| Expensed portion of current-period differences between actual and projected earnings on plan investments | (5,033,319) |
| Administrative expenses | 84,660 |
| Other | 9,898 |
| Recognition of beginning deferred outflows of resources as pension expense | 2,684,821 |
| Recognition of beginning deferred inflows of resources as pension expense | (1,439,985) |
| Pension Expense | $ 529,490 |

**Aggregated Pension Expense**

For the year ended June 30, 2022, the City recognized total pension expense of $36,373,381 RRS accounted for $37,273,789 of the total and VRS accounted for the remainder of $529,490.

| | RRS | VRS | Total |
|---|---|---|---|
| Service Cost | $ 11,422,055 | $ 3,642,964 | $ 15,065,019 |
| Interest Cost | 62,362,814 | 9,285,395 | 71,648,209 |
| Benefit Changes | 465,126 | 1,429,898 | 465,126 |
| Experience Loss (Gain) | (408,551) | (654,429) | (1,062,980) |
| Member Contributions | (1,751,556) | (1,282,683) | (3,034,239) |
| Change in Assumptions | | | |
| Net Investment Income | | | |
| Expected Return on Investments | (37,781,132) | (8,197,730) | (45,978,862) |
| Investment Gain or Loss Expensed | (19,367,555) | (5,033,319) | (24,400,874) |
| Administrative Expense | 1,511,624 | 94,558 | 1,606,182 |
| Amortization | 20,820,964 | 1,244,836 | 22,065,800 |
| Pension Expense | $ 37,273,789 | $ 529,490 | $ 36,373,381 |

**12. OTHER POSTEMPLOYMENT BENEFITS**

From an accrual accounting perspective, the cost of postemployment healthcare benefits, like the cost of pension benefits, generally should be associated with the periods in which the cost occurs, rather than in the future year when it will be paid. In accordance with GAAP, the City recognizes the cost of postemployment healthcare in the year when the employee services are received, reports the accumulated liability from prior years, and provides information useful in assessing potential demands on the City's future cash flows. The City has employees participating in one of two OPEB Plans, The City of Richmond OPEB Plan and the Virginia Retirement System (VRS) OPEB Plan.

**Other Post Employment Benefit Plans**

**A. City of Richmond OPEB Plan Description**

The City provides continuous medical insurance coverage for some full-time employees who retire directly from the City, have continuously been enrolled in the health plans for 5 years prior to retirement, and are eligible to receive an early or regular retirement benefit from the City. In addition, they must be employed with the City for at least 10 years of creditable service at retirement. Dental insurance also continues after retirement at the retiree rate. The plan has been changed to only value participants who are currently retired and active members that were hired prior to January 1, 1997. Sworn Police, Sworn Fire, Sworn VRS, and Executives currently not in the defined contribution group are also able to participate in the post- retirement medical coverage even if they were hired after January 1, 1997. All other members hired after this date are assumed to pay the full cost of the program with no implicit rate subsidy and, therefore, have no liability reported under GAAP.

Retirees that become Medicare eligible are no longer eligible for the City retiree medical plan. Surviving spouses of retirees may elect to remain in the deceased member's health insurance plan for up to 36 months after the death of the member paying the same rate as the retiree, but without the City's contribution.

Currently the plans offered to retirees provided by the Connecticut General Life Insurance Co. are the Open Access Plus Copay Plan-OAPA Premier Plan and the Open Access Plus Copay Plan-OAPB Classic Plan. Retirees that become Medicare Eligible are no longer eligible for the City of Richmond retiree medical plan.

For pre-Medicare coverage, retirees pay a portion of the early retiree rates based on years of service at retirement. The City pays a subsidy of premiums based on length of active service. This subsidy is determined on an annual basis. There are four levels of City subsidy.

| Years of Active Service | Monthly Subsidy |
|---|---|
| 25+ | $ 400 |
| 20 to 24 | $ 300 |
| 15 to 19 | $ 200 |
| 10 to 14 | $ 100 |
| Less than 10 | $ 0 |

The City pays the full cost of coverage of Line-of-Service retirees for life.

Employees may retire under the City of Richmond Retirement Plan with an unreduced pension benefit under the following age and service requirements based on the category of employee:

- General employees are eligible at age 65, with no service requirement
- General employees are eligible with 30 years of service regardless of age
- Police officers and firefighters are eligible at age 60, with no service requirement
- Police officers and firefighters are eligible with 25 years of service regardless of age

Employees may retire with a reduced pension benefit under the RRS under the following age and service requirements based on the category of employee:

- General employees are eligible at age 55, with five years of service
- Police officers and firefighters are eligible at age 50, with five years of service

The number of employee participants as of June 30, 2022, the effective date of the biennial OPEB valuation, follows.

There have been no significant changes in the number covered or the type of coverage since that date.

| | |
|---|---|
| Active Employees | 1,133 |
| Retired Employees | 114 |
| Total | 1,247 |

Pre-Medicare retirees who participate in the plan pay the full active rate less the contribution from the City of Richmond if they are eligible for the subsidy. Below are teh full cost of teh monthly premium rates projected at 7% of the valuation year:

| | OAPB Classic Plan | High Deductible Plan |
|---|---|---|
| Retiree Only | $1,193.50 | $ 982.87 |
| Retiree + Spouse | $2,387.02 | $1,965.71 |

**a. Funding Policy**

The City currently pays for post employment healthcare benefits on a pay-as-you-go basis. The City funds on a cash basis as benefits are paid. In February 2019, the City began participating in the Virginia Pooled OPEB Trust Fund, an irrevocable trust. The City began making contributions to the trust for investment purposes. In Fiscal Year 2022, $1,400,000 was contributed to this pooled investment trust and the assets of the trust have been segregated or restricted to provide for other post-retirement benefits in the future.

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**b. Actuarial Methods and Assumptions**

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employer and the plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing benefit costs between the employer and plan members to that point. Most included coverage is community-rated and annual premiums for community-rated coverage's were used as a proxy for claims costs without age adjustment.

Actuarial valuations of an ongoing plan involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Amounts determined, regarding the funded status of the plan and the annual required contributions of the employer, are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future.

The actuarial methods and assumptions used include techniques that are designed to reduce the effects of short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations. The required schedule of funding progress presents multi-year trend information about whether the actuarial value of plan assets is increasing or decreasing over time, relative to the actuarial accrued liability for benefits.

These estimates reflect the potential impact of the Patient Protection and Affordable Care Act (PPACA).

**The assumptions used in the basis of the June 30, 2022 valuation include**:

- Salary Increases – Not applicable
- Discount Rate – The discount rate is 4.09 percent per annum as of June 30, 2022 compared to the prior discount rate of 2.66 percent as of June 30, 2020.
- Valuation Date - June 30, 2022
- Expected Long – Term Rate of Return on Plan Assets – Not applicable
- Plan Participation – 45.00 percent of employees will elect coverage at retirement.
- Dependent Coverage – 30.00 percent of retirees who elect coverage at retirement will also cover their spouse at retirement.

- Administrative Expenses - The weighted average admin expense based on current retiree enrollment between plan designs is $149.00 per annum.
- Investment Policy - Not Applicable
- Coordination with Medicare - Not Applicable
- Age Variance - the medical claims aging table was updated to be based on the aging factors in the Dale Yamamoto study released by the Society of Actuaries in June 2013.

**Actuarial Methods:**

- Actuarial Method - Retiree postemployment benefit expenses are determined under the Entry Age Normal cost method.
- Asset Valuation Method – Market Value of Assets
- Amortization Period - For Statement 75 contribution calculations: 20 years (closed) beginning July 1, 2017 For Statement No. 75: Experience gains or losses are amortized over the average working lifetime of all participants which for the current period is 8 years. Plan amendments are recognized immediately. Investment gains or losses are amortized over a 5 year period. Changes in actuarial assumptions are amortized over the average working lifetime of all participants.
- Mortality Rates - were based on the PUB-2010 General Government Healthy, Disabled and Contingent Survivor Headcount Weighted Tables.Future mortality improvement to be generational with 75% MP-2921 Improvement Scale.These Mortality assumptions were chosen to match the mortality assumptions used in the June 30, 2021 Comprehensive Annual Financial Report for the Virginia Retirement System.
- The actuarial projections are based on established patterns of practice as promulgated by the Actuarial Standards Board.

**c. Annual Per Capita Healthcare Cost**

Effective for the July 1, 2020 actuarial valuation, an analysis of the City's claims experience was performed for the purposes of setting the retiree medical claims cost. The main purpose is to project the expected annual claims cost for current retirees and future retirees who are currently active. The Rate used for the June 30, 2022 evlauation was not changed.

Benefits are not provided to retirees eligible for Medicare. The annual projected medical claims costs were spread across the active and early retiree population using generally accepted actuarial judgment. It has been assumed that individuals will continue with coverage under their current plan design upon retirement. Furthermore, children and their associated costs have been excluded for purposes of the calculation because generally, retirees do not provide continued coverage to children.

June 30, 2022 annual per capita claim

| | Medical/RX* |
|---|---|
| Retiree Age 65 Pre-Medicare | $22,777 |
| Spouse Age 65 Pre-Medicare | $22,777 |

This claim is for a male at age 65. Medical claims are assumed to increase at the medical health care cost trend. The cost trend if 6.00% in 2022 grading uniformerly to 5.5% over 2 years and following the Geten Model thereafter.

### Net OPEB Liability

The cost trend rate which is 6.0% grading uniformly to 5.50% over a 2 year period. The following table shows the components of City's annual OPEB liability at June 30, 2022 using a measurement date as of June 30, 2022.

| | | |
|---|---|---|
| Total OPEB Liability | $ | 30,920,235 |
| Plan Fiduciary Net Position | | 8,234,777 |
| Net OPEB Liability - June 30 | $ | 22,685,458 |
| | | |
| Plan Fiduciary Net Position as a Percentage of Total OPEB Liability | | 36.30% |
| Covered Payroll | $ | 102,167,580 |
| Net OPEB Liability as a Percent of Covered Payroll | | 22.20% |

The table below shows the Net OPEB Liability measured as of June 30, 2022, which totals $22,685,458. The total OPEB Liability of $30,920,235 when combined with the Fiduciary Net Position of the OPEB Pooled Trust Assets 8,234,777 generates a $22,685,458 Net OPEB Liability. While the plan has been a pay-as-you-go plan, in 2020 the City began to invest Assets in a Pooled Investment Trust for the purpose of accumulating Assets to pay OPEB expenses.

| | Total OPEB Liability (a) | Fiduciary Net Position (b) | Net OPEB Liability (a) - (b) |
|---|---|---|---|
| Balances as of June 30, 2021 | $ 118,039,413 | $ 7,674,657 | $ 110,364,756 |
| Changes for the Year | | | |
| Service Cost | 5,854,572 | - | 5,854,572 |
| Interest on Total OPEB Liability | 3,188,970 | - | 3,188,970 |
| Benefit changes | (53,566,193) | - | (53,566,193) |
| Experience Losses (Gains) | (28,201,247) | - | (28,201,247) |
| Changes in Assumptions | (10,387,390) | - | (10,387,390) |
| Contributions - Employer | - | 5,407,890 | (5,407,890) |
| Contributions - Members | - | - | - |
| Net Investment Income | - | (830,909) | 830,909 |
| Benefits Paid | (4,007,890) | (4,007,890) | - |
| Administrative Expenses | - | (8,971) | 8,971 |
| Recognition of Prior Post-measurement Contribution | - | - | - |
| Other Changes | - | - | - |
| Amortization of or Change in Beginning Balances | - | - | - |
| Net Changes | (87,119,178) | 560,120 | (87,679,298) |
| Balances as of June 30, 2022 | $ 30,920,235 | $ 8,234,777 | $ 22,685,458 |

### The.Sensitivity of Net OPEB Liability to Changes in the Discount Rate

The following table represents the net OPEB liability calculated using the stated discount rate of 4.09%, as well as what the OPEB liability would be if it were calculated using a discount rate that is 1 percentage point lower or 1 percentage point higher than the assumed trend rate.

| Sensitivity of NOL to Change in Discount Rate | | | |
|---|---|---|---|
| | 1.00% Decrease 3.09% | Current Discount Rate 4.09% | 1.00% Increase 5.09% |
| **Net OPEB Liability** | $ 25,453,306 | $ 22,685,458 | $ 20,145,366 |

**f. Sensitivity of Net OPEB Liability to Changes in the Healthcare Cost Trend Rate**

The following table represents the net OPEB liability calculated using the stated health care cost trend assumption, as well as what the OPEB liability would be if it were calculated using a healthcare cost trend rate that is 1 percentage point lower or 1 percentage point higher than the assumed trend rate.

| Sensitivity of NOL to Change in Healthcare Cost Trend Rate | | | | | | |
|---|---|---|---|---|---|---|
| | 1.00% Decrease 6.50% | | Current Trend Rate 7.50% | | 1.00% Increase 8.50% | |
| **Net OPEB Liability** | $ | 19,608,584 | $ | 22,685,458 | $ | 26,297,932 |

**g. Summary of Deferred Inflows and Outflows of Resources for Richmond OPEB Plan**

| Summary of Deferred Outflows and Inflows of Resources - City of Richmond | | | | |
|---|---|---|---|---|
| | Deferred Outflows of Resources | | Deferred Inflows of Resources | |
| Experience Losses | $ | 12,215,635 | $ | 24,676,091 |
| Change of Assumptions | | 3,254,362 | | 9,088,966 |
| Investment Losses | | 842,747 | | - |
| Total | $ | 16,312,744 | $ | 33,765,057 |

The amounts reported as deferred outflows (inflows) of resources related to OPEBs will be recognized in OPEB expense and are amortized as follows:

| Amortization of Deferred Inflows & Deferred Outflows of Resources | | |
|---|---|---|
| Year Ending June 30: | | |
| 2023 | $ | 543,773 |
| 2024 | | 543,773 |
| 2025 | | 543,773 |
| 2026 | | (4,612,894) |
| 2027 | | (4,823,580) |
| Thereafter | | (9,647,158) |
| Total | $ | (17,452,313) |

The City does not issue a separate OPEB financial statement for its OPEB plan.

For the year ended June 30, 2022 the City recognized OPEB expense of $(44,192,431). The components of this OPEB expense include the following:

| OPEB EXPENSE | | |
|---|---|---|
| Service Cost | $ | 5,854,573 |
| Interest Cost | | 3,188,970 |
| Benefit Changes | | (53,566,193) |
| Experience Loss/(Gain) | | (3,525,156) |
| Contribution Employee | | - |
| Change in Assumptions | | (1,298,424) |
| Net Investment Income | | (11,838) |
| Expected Return on Investments | | - |
| Investment Gain or Loss Expensed | | - |
| Administrative Expense | | 8,971 |
| Amortization | | 5,156,666 |
| Pension Expense | $ | (44,192,431) |

**B. <u>Virginia Retirement System Group Life Insurance Other Post-Employment Benefits (VRS GLI OPEB)</u>**

**a. VRS Plan Description**

The Virginia Retirement System (VRS) Group Life Insurance Program (GLI) is a multiple employer, cost-sharing plan and provides coverage to state employees, teachers, and employees of participating political subdivisions. For the City of Richmond these eligible employees include Constitutional Officer Employees only.

The Group Life Insurance Program was established in July 1, 1960 pursuant to §51.1-500 et seq. of the Code of Virginia, as amended, and which provides the authority under which benefit terms are established or may be amended. The Group Life Insurance Program is a defined benefit plan that provides a basic group life insurance benefit for employees of participating employers. For purposes of measuring the net Group Life Insurance Program OPEB liability, deferred outflows of resources and deferred inflows of resources related to the Group Life Insurance Program OPEB, and Group Life Insurance Program OPEB expense, information about the fiduciary net position of the Virginia Retirement System (VRS) Group Life Insurance program OPEB and the additions to/deductions from the VRS Group Life Insurance Program OPEB's net fiduciary position have been determined on the same basis as they were reported by VRS. In addition, benefit payments are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

**Eligible Employees**

Basic group life insurance coverage is automatic upon employment for constitutional employees that elect the program. Coverage ends for employees who leave their position before retirement eligibility or who take a refund of their member contributions and accrued interest.

**Benefit Amounts**

The benefits payable under the Group Life Insurance Program have several components.

- Natural Death Benefit – The natural death benefit is equal to the employee's covered compensation rounded to the next highest thousand and then doubled.
- Accidental Death Benefit – The accidental death benefit is double the natural death benefit.
- Other Benefit Provisions – In addition to the basic natural and accidental death benefits, the program provides additional benefits provided under specific circumstances. These include:
    - Accidental dismemberment benefit
    - Safety belt benefit
    - Repatriation benefit

- Felonious assault benefit
- Accelerated death benefit option

**Reduction in Benefit Amounts**
The benefit amounts provided to members covered under the Group Life Insurance Program are subject to a reduction factor. The benefit amount reduces by 25 percent on January 1 following one calendar year of separation. The benefit amount reduces by an additional 25 percent on each subsequent January 1 until it reaches 25 percent of its original value.

**Minimum Benefit Amount and Cost-of-Living Adjustment (COLA)**
For covered members with at least 30 years of creditable service, there is a minimum benefit payable under the Group Life Insurance Program. The minimum benefit was set at $8,000 by statute in 2015. This amount is increased annually based on the VRS Plan 2 cost-of-living adjustment and is currently $8,616 as of June 30, 2021.

**b. Contributions**
The contribution requirements for the Group Life Insurance Program are governed by §51.1-506 and §51.1-508 of the Code of Virginia, as amended, but may be impacted as a result of funding provided to state agencies and school divisions by the Virginia General Assembly. The total rate for the Group Life Insurance Program was 1.31 percent of covered employee compensation. This was allocated into an employee and an employer component using a 60/40 split. The employee component was 0.80 percent and the employer component was 0.54 percent. Employers may elect to pay all or part of the employee contribution; however, the employer must pay all of the employer contribution. The City of Richmonds's contractually required employer contribution rate for the year ended June 30, 2022 was 0.5400 percent of covered employee compensation. This rate was based on an actuarial determined rate from an actuarial valuation as of June 30, 2019. The actuarial determined rate, when combined with employee contributions, was expected to finance the costs of benefits payable during the year, with an additional amount to finance any unfunded accrued liability. Contributions to the Group Life Insurance Program from the City were $138,121 and $134,912 for the years ended June 30, 2022, and June 30, 2021, respectively.

**c. Actuarial Assumptions**
The total GLI OPEB liability was based on an actuarial valuation as of June 30, 2020, using the Entry Age Normal actuarial cost method and the following assumptions, applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2021.

| | |
|---|---|
| Inflation | 2.50 percent |
| Salary increases, including inflation – | |
| General state employees | 3.50 percent to 5.35 percent |
| VaLORS employees | 3.50 percent to 4.75 percent |
| Locality – General employees | 3.50 percent to 5.35 percent |
| Locality – Hazardous Duty employees | 3.50 percent to 4.75 percent |
| Investment rate of return | 6.75 percent, net of investment expenses, including inflation* |

* Administrative expenses as a percent of the market value of assets for the last experience study were found to be approximately 0.06 percent of the market assets for all of the VRS plans. This would provide an assumed investment return rate for GASB purposes of slightly more than the assumed 6.75 percent. However, since the difference was minimal, and a more conservative 6.75 percent investment return assumption provided a projected plan net position that exceeded the projected benefit payments, the long-term expected rate of return on investments was assumed to be 6.75 percent to simplify preparation of the OPEB liabilities.

**Net Group Life Insurance (GLI) OPEB Liability**
The net OPEB liability (NOL) for the Group Life Insurance Program represents the program's total OPEB

liability determined in accordance with GASB Statement No. 74, less the associated fiduciary net position. As of the measurement date June 30, 2021, Net OPEB Liability (NOL) for the Group Life Insurance Program is as follows:

| | Group Life Insurance OPEB Program |
|---|---|
| Total GLI OPEB Liability | $ 4,431,972 |
| Plan Fiduciary Net Position | 2,989,557 |
| Employers' Net GLI OPEB Liability | $ 1,442,415 |
| | |
| Plan Fiduciary Net Position as a Percentage of Total GLI OPEB Liability | 67.45% |

At June 30, 2022, the City of Richmond reported a liability of $ 1,442,415 for its proportionate share of the Net GLI OPEB Liability. The Net GLI OPEB Liability was measured as of June 30, 2021 and the total GLI OPEB liability used to calculate the Net GLI OPEB Liability was determined by an actuarial valuation as of June 30, 2021. The City's proportion of the Net GLI OPEB Liability was based on the City's actuarial determined employer contributions to the Group Life Insurance Program for the year ended June 30, 2020 relative to the total of the actuarial determined employer contributions for all participating employers. At June 30, 2022, the City of Richmond proportion was 0.12389 percent as compared to 0.12607 percent at June 30, 2021.

For the year ended June 30, 2021, the City recognized GLI OPEB expense of $7,905. Since there was a change in proportionate share between measurement dates, a portion of the GLI OPEB expense was related to deferred amounts from changes in proportion.

**d. Deferred Inflows and Outflows**

At June 30, 2022, the City reported deferred outflows of resources and deferred inflows of resources related to the GLI OPEB program from the following sources:

**Summary of Deferred Outflows and Inflows of Resources - VRS GLI**

| | Deferred Outflows of Resources | Deferred Inflows of Resources |
|---|---|---|
| Difference between expected and actual experience | $ 164,513 | $ 10,990 |
| Net difference between projected and actual earnings on GLI OPEB program investments | - | 344,274 |
| Change of assumptions | 79,520 | 197,353 |
| Changes in proportionate share | - | 153,683 |
| Employer Contributions subsequent to the measurement date | 138,121 | - |
| Total | $ 382,154 | $ 706,300 |

The $138,121 reported as deferred outflows of resources related to the GLI OPEB resulting from the employer's contributions subsequent to the measurement date will be recognized as a reduction of the Net GLI OPEB Liability in the Fiscal Year ending June 30, 2023. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the GLI OPEB will be recognized in the GLI OPEB expense in future reporting periods as follows:

| Amortization of Deferred Inflows & Deferred Outflows of Resources | | |
|---|---|---|
| Year ended June 30, | | |
| 2023 | $ | (122,247) |
| 2024 | | (98,574) |
| 2025 | | (87,100) |
| 2026 | | (126,540) |
| 2027 | | (27,806) |
| Thereafter | | - |
| Total | $ | (462,267) |

**Discount Rate**
The discount rate used to measure the total GLI OPEB liability was 6.75 percent.

**Sensitivity of Net Group Life OPEB Liability to Changes in the Discount Rate**
The following table represents the VRS net OPEB liability calculated using the stated discount rate, as well as what the OPEB liability would be if it were calculated using a discount rate that is 1 percentage point lower or 1 percentage point higher than the assumed trend rate.

| Sensitivity of NOL to Changes in Discount Rate | 1.00% Decrease 5.75% | Current Discount Rate 6.75% | 1.00% Increase 7.75% |
|---|---|---|---|
| VRS Net Group Life OPEB Liability | $ 2,107,422 | $ 1,442,415 | $ 905,394 |

**e. Long-Term Expected Rate of Return**
The long-term expected rate of return on the VRS investments was determined using a log-normal distribution analysis in which best-estimate ranges of expected future real rates of return (expected returns, net of VRS 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. The target asset allocation and best estimate of arithmetic real rates of return for each major asset class are summarized in the following table:

| Asset Class (Strategy) | Target Allocation | Arithmetic Long Term Expected Rate of Return | Weighted Average Long Term Expected Rate of Return |
|---|---|---|---|
| Public Equity | 34.00% | 5.00% | 1.70% |
| Fixed Income | 15.00% | 0.57% | 0.09% |
| Credit Strategies | 14.00% | 4.49% | 0.63% |
| Real Assets | 14.00% | 4.76% | 0.67% |
| Private Equity | 14.00% | 9.94% | 1.39% |
| Multi-Asset Public Strategies | 6.00% | 3.29% | 0.20% |
| Private Investment Partnership | 3.00% | 6.84% | 0.21% |
| Total | 100.00% | | 4.89% |
| | | Inflation | 2.50% |
| | | * Expected arithmetic nominal return | 7.39% |

*The above allocation provides a one-year return of 7.14 percent. However, one-year returns do not take into account the volatility present in each of the asset classes. In setting the long-term expected return for the VRS, stochastic projections are employed to model future returns under various economic conditions. The results provide a range of returns over various time periods that ultimately provide a median return of 7.11 percent, including expected inflation of 2.50 percent. The VRS Board elected a long-term rate of 6.75 percent which is roughly at the 40th percentile of expected long term results of the VRS fund asset allocation.

VRS issues a publicly available comprehensive annual report that includes financial statements and OPEB information for the VRS Plan. A copy of the report can be obtained from the VRS website at http://www.varetire.org/publications/index.asp or by writing to VRS Chief Financial Officer at P.O. Box 2500 Richmond, VA 23218-2500.

## 13. DEFERRED COMPENSATION PLAN

The City offers its employees a deferred compensation plan (the Plan) created in accordance with Internal Revenue Code (IRC) Section 457. The Plan is available to all City employees and permits deferral until future years of up to 100% of salary with a maximum deferral of $19,500 for calendar year 2022 whichever is less. The compensation deferred is not available to employees until termination, retirement, death, an unforeseeable emergency, or a small balance account withdrawal. Employees are eligible to initiate a one-time disbursement of an account if the balance is greater than $1,000 but less than $5,000 and neither the employee nor the employer has contributed to the account for at least two years. If the balance is under $1,000, the participant is automatically notified by ICMA-RC and provided a form to request the distribution. In accordance with the amended provisions of IRC Section 457, all assets and income of the plan were transferred to a trust and are held for the exclusive benefit of participants and their beneficiaries. The City is the Trustee for the plan and has contracted with a nongovernmental third party administrator to administer the plan. This plan is reported in accordance with GAAP as an Other Employee Benefits Trust Fund.

The contributions to the plan for the year ended June 30, 2022 and the fair value of the plan investments were $16,010,277 and $134,782,813, respectively.

## 14. LEASES

The Entity leases equipment as well as certain operating and office facilities for various terms under long-term, non-cancelable lease agreements. The leases expire at various dates through 2088, including any applicable renewal options.

Total future lease payments under lease agreements are as follows:

| | Governmental Activities | | Business-Type Activities | | Total |
|---|---|---|---|---|---|
| | Principal | Interest | Principal | Interest | |
| 2023 | $ 1,591,732 | $ 195,659 | $ 70,632 | $ 431,438 | $ 2,289,461 |
| 2024 | 937,830 | 117,986 | 72,780 | 429,290 | 1,557,886 |
| 2025 | 970,585 | 64,186 | 74,994 | 427,076 | 1,536,841 |
| 2026 | 673,103 | 10,931 | 77,275 | 424,795 | 1,186,104 |
| 2027 | 502,130 | 4,242 | 79,625 | 422,445 | 1,008,442 |
| 2028-2032 | 1,531,378 | 5,454 | 435,960 | 2,074,389 | 4,047,181 |
| 2033 and thereafter | - | - | 13,602,208 | $14,471,862 | 28,074,070 |
| Total minimum lease payments | $ 6,206,758 | $ 398,458 | $ 14,413,474 | $18,681,295 | $ 39,699,985 |

Right-to-use assets acquired through outstanding leases are shown below, by underlying asset class.

| | Governmental Activities | | Business-Type Activities | |
|---|---|---|---|---|
| Equipment | $ | 2,008,929 | $ | - |
| Buildings and structures | | 6,349,285 | | - |
| Land and land use | | - | | 14,482,020 |
| Less: accumulated amortization | | 2,267,881 | | 216,419 |
| | $ | 6,090,333 | $ | 14,265,601 |

The Entity, acting as lessor, leases (described leased property) under long-term, non-cancelable lease agreements. The leases expire at various dates through 2055, including any applicable renewal options. During the year ended June 30, 2022, the Entity recognized $1,233,667 and $199,819 in lease revenue and interest revenue, respectively, pursuant to these contracts.

| | Governmental Activities | | | | | |
|---|---|---|---|---|---|---|
| | | Principal | | Interest | | Total |
| 2023 | $ | 1,180,097 | $ | 190,046 | $ | 1,370,143 |
| 2024 | | 744,790 | | 163,741 | | 908,531 |
| 2025 | | 536,742 | | 145,038 | | 681,780 |
| 2026 | | 393,026 | | 132,375 | | 525,401 |
| 2027 | | 287,624 | | 119,780 | | 407,404 |
| 2028-2032 | | 495,257 | | 513,501 | | 1,008,758 |
| 2033 and thereafter | | 2,894,045 | | 1,224,987 | | 4,119,032 |
| Total minimum lease payments | $ | 6,531,581 | $ | 2,489,468 | $ | 9,021,049 |

## 15. CONTINGENCIES, COMMITMENTS AND OTHER MATTERS

### A. Combined Sewer Overflow (CSO)

The City operates an advanced wastewater treatment facility with a service area of 81.3 square miles that collects and treats a dry weather flow up to 45 million gallons per day (MGD) and a combination of dry weather flow and combined storm water at flows up to 75 MGD. Within about 35% of the City's service area, the main lines and interceptor lines are combined sewers. A system of retention facilities, storage tunnels, intercepting and trunk sewers links the separate and combined systems with the wastewater treatment plant. There is a mechanical or hydraulic regulator structure at each of the twenty-five (25) CSO outfalls and each has the capacity to divert dry weather flow and some storm water flow to the wastewater treatment plant for complete treatment. Phases I and II of the City's CSO control plan are complete. Phase III began in 2006 and is currently being modified to comply with Acts of the Virginia General Assembly, Chpt. 634, 2020 Va. SB 1064, approved April 2, 2020 and made effective July I, 2020 ("2020 CSO Law"). The 2020 CSO Law establishes specific timeframes for the development and implementation of Interim and Final Plans to address combined sewer overflows (CSOs). Also in 2020, the State Special Order by Consent issued in 2005 was amended. The purpose of the Amendment was to revise certain provisions of the 2005 Order to align with requirements in the 2020 CSO Law.

The City has been cooperating with the Virginia State Water Control Board (Board) since the mid-1970's to address combined sewer overflow impacts and the discharge of partially treated sewage on the James River. The City developed a CSO control plan to meet CSO Policy (EPA's April 19, 1994 CSO Control Policy, published at 59 Fed Reg. 18688, and incorporated into the Clean Water Act pursuant to the Wet Weather Water Quality Act, Section 402(q) of the Clean Water Act, 33 U.S.C. sec. 1342) and most recently updated that control plan in 2007. As noted earlier, the 2020 CSO Law requires the City to make changes to its CSO control program. Specifically, the City must submit an Interim plan by July 2021, which was done, and the Plan must include projects that can be initiated within one year and completed no later than July 2027. The City must also develop and submit a Final Plan by July 2024 that includes projects that must be initiated by July 2025 and completed no later than July 2035.

The City CSO control plan was estimated at $295 million in 1995 dollars and is now estimated at between $833 million and $1.3 billion in 2022 dollars based upon initial scope of the Final Plan options ($336 million spent to date). Funding for the CSO control plan implementation is a combination of ratepayer dollars, state revolving loan funds, bond proceeds and state and federal grants. By agreement with the Board, the City is required to raise revenue for implementation of its CSO Control Plan by raising and maintaining sewer rates such that the annual sewer bill for a typical residential customer will be at least 1.25% of the median household income (MHI) supplemented by the availability of federal and state grants. The City's sewer rates have exceeded the 1.25% of MHI requirement since July 2009 and are at 1.65% of MHI as of July 2022.

### B. Grants

Federal grant programs in which the City participates are audited in accordance with the provisions of the Office of Management and Budget Circular A-133. Grant programs are subject to financial and compliance audits by the federal government, which may result in disallowed expenditures. Based on prior experience, City management believes such disallowances, if any, will be immaterial.

### C. Gas Utility Enterprise Fund

To ensure the continuity of natural gas supplies and transmission facilities, the City's Gas Utility Enterprise Fund has entered into various long-term supply and transmission contracts through the year 2048. The aggregate commitments under these contracts amounted to approximately $913 million at June 30, 2022.

## 16. DISCONTINUED OPERATIONS

The City did not have any operations which were discontinued during Fiscal Year 2021-2022.

## 17. SUBSEQUENT EVENTS

On July 25, 2022, City Council adopted Ordinance 2022-221, with the purpose of providing for cellective bargaining with certain City employees. The City employees and various unions are in the initial statges of organizing and the outcomes are not yet known.

On September 8, 2022, the City closed on the issuance of GO Bonds in the amount of $63.5M, with maturity dates ranging from March, 2023 to March, 2042 and coupon rates ranging between 4% and 5%. $60M of the proceeds were used to pay off an existing Line of Credit the City had drawn on to fund various City and stormwater capital projects. The remaining $3.5M will be used to purchase a number of ambulances over the next two years. The existing Line of Credit was closed with the payment from the proceeds of the Bonds and the City has since issued an RFP to open two new Lines of Credit, one in the amount of $70M to fund capital projects and one in the amount of $10M for planning and development of long term projects. The City anticipats it will close on the two new Lines of Credit in December, 2022.

# *REQUIRED SUPPLEMENTARY*

# *INFORMATION*

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**CITY OF RICHMOND, VIRGINIA**
**BUDGETARY COMPARISON SCHEDULE**
**GENERAL FUND**
**For the Fiscal Year Ended June 30, 2022**

**EXHIBIT H-1, Continued**

| | Original Budget | Final Budget | Actual | Variance with Final Budget Positive (Negative) |
|---|---|---|---|---|
| **Revenues** | | | | |
| **City Taxes** | | | | |
| Real Estate | $ 332,932,438 | $ 344,379,463 | $ 364,442,735 | $ 20,063,272 |
| Sales Tax | 36,880,579 | 36,880,579 | 44,689,387 | 7,808,808 |
| Personal Property | 62,611,623 | 62,611,623 | 64,524,543 | 1,912,920 |
| Machinery and Tools | 13,899,915 | 13,899,915 | 14,313,100 | 413,185 |
| Utility Sales Tax Gas | 5,100,000 | 5,100,000 | 5,016,694 | (83,306) |
| Utility Sales Tax Electric | 13,724,867 | 13,724,867 | 13,600,827 | (124,040) |
| Utility Sales Tax Telephone | 181,776 | 181,776 | 776 | (181,000) |
| State Communication Taxes | 14,440,680 | 14,440,680 | 11,017,266 | (3,423,414) |
| Bank Stock | 9,496,071 | 9,496,071 | 4,278,305 | (5,217,766) |
| Prepared Food | 35,448,556 | 35,448,556 | 45,762,510 | 10,313,954 |
| Cigarette Tax | 3,155,000 | 3,155,000 | 2,579,506 | (575,494) |
| Lodging Tax | 5,762,109 | 5,762,109 | 8,130,205 | 2,368,096 |
| Admission | 1,405,941 | 1,405,941 | 1,909,783 | 503,842 |
| Real Estate Taxes - Delinquent | 11,829,380 | 11,829,380 | 5,714,370 | (6,115,010) |
| Personal Property Taxes - Delinquent | 7,456,975 | 7,456,975 | 7,591,720 | 134,745 |
| Private Utility Poles and Conduits | 170,689 | 170,689 | - | (170,689) |
| Penalties and Interest | 6,438,684 | 6,438,684 | 6,735,486 | 296,802 |
| Titling Tax-Mobile Home | 9,807 | 9,807 | - | (9,807) |
| State Recordation | 1,000,000 | 1,000,000 | - | (1,000,000) |
| Property Rental 1% | 125,153 | 125,153 | 99,631 | (25,522) |
| Vehicle Rental Tax | 893,846 | 893,846 | 1,298,495 | 404,649 |
| Telephone Commissions | 355,000 | 355,000 | 350,057 | (4,943) |
| Total City Taxes | 563,319,089 | 574,766,114 | 602,055,396 | 27,289,282 |
| **Licenses, Permits, and Privilege Fees** | | | | |
| Business and Professional | 30,758,929 | 30,758,929 | 41,035,093 | 10,276,164 |
| Vehicle | 5,676,272 | 5,676,272 | 6,337,362 | 661,090 |
| Transfers, Penalties, Interest & Delinquent Collections | 9,515 | 9,515 | 32,358 | 22,843 |
| Utilities Right of Way Fees | 1,788,600 | 1,788,600 | 1,224,984 | (563,616) |
| Other Licenses, Permits and Fees | 1,587,399 | 1,587,399 | 2,051,726 | 464,327 |
| Total Licenses, Permits and Privilege Fees | 39,820,715 | 39,820,715 | 50,681,523 | 10,860,808 |
| **Intergovernmental** | | | | |
| State Shared Expense | 21,979,721 | 22,741,883 | 22,028,165 | (713,718) |
| Total State Block Grant | 3,580,516 | 3,580,516 | 3,135,265 | (445,251) |
| Department of Social Services | 14,656,199 | 14,930,199 | 13,265,176 | (1,665,023) |
| Federal Revenues | 25,240,963 | 61,138,734 | 27,275,546 | (33,863,188) |
| State Aid to Localities | 16,237,342 | 16,237,342 | 15,456,042 | (781,300) |
| Service Charges on Tax Exempt Property (State PILOT) | 3,698,683 | 3,698,683 | 1,001,618 | (2,697,065) |
| All Other Intergovernmental Revenues | 688,170 | 688,170 | 914,048 | 225,878 |
| Total Intergovernmental | $ 86,081,594 | $ 123,015,527 | $ 83,075,860 | $ (39,939,667) |

**CITY OF RICHMOND, VIRGINIA**
**BUDGETARY COMPARISON SCHEDULE**
**GENERAL FUND**
**For the Fiscal Year Ended June 30, 2022**

**EXHIBIT H-1, Continued**

| | Original Budget | Final Budget | Actual | Variance with Final Budget Positive (Negative) |
|---|---|---|---|---|
| **Service Charges** | | | | |
| Refuse Collection Fees | $ 15,836,941 | $ 15,836,941 | $ 16,661,321 | $ 824,380 |
| Safety Related Charges | 346,000 | 346,000 | 511,027 | 165,027 |
| Rental of Property | 208,648 | 208,648 | 383,144 | 174,496 |
| Building Service Charges | 556,017 | 556,017 | 953,027 | 397,010 |
| Inspection Fees | 8,312,784 | 8,312,784 | 9,761,376 | 1,448,592 |
| Recycling Proceeds | 2,054,092 | 2,054,092 | 2,064,830 | 10,738 |
| Health Related Charges | 125,000 | 125,000 | 117,985 | (7,015) |
| Other Sales - Income | 65,155 | 65,155 | 3,142 | (62,013) |
| Printing and Telecom Charges | 4,000 | 4,000 | (1,036) | (5,036) |
| Other Service Charges | 959,134 | 959,134 | 1,874,148 | 915,014 |
| Total Service Charges | 28,467,771 | 28,467,771 | 32,328,964 | 3,861,193 |
| **Fines and Forfeitures** | | | | |
| Richmond Public Library | 4,000 | 4,000 | 5,405 | 1,405 |
| Circuit Court | 41,836 | 41,836 | 51,512 | 9,676 |
| General District Court | 287 | 287 | - | (287) |
| Juvenile and Domestic Relations District Court | 6,738,616 | 6,738,616 | 8,194,701 | 1,456,085 |
| Total Fines and Forfeitures | 6,784,739 | 6,784,739 | 8,251,618 | 1,466,879 |
| **Utility Payments** | | | | |
| Utility Pilot Payment | 21,078,214 | 21,078,214 | 21,078,214 | - |
| Utility Payment - City Services | 2,243,094 | 2,243,094 | 2,243,094 | - |
| Utilities Payment for Collection Service | 235,000 | 235,000 | 148,433 | (86,567) |
| Total Utility Payments | 23,556,308 | 23,556,308 | 23,469,741 | (86,567) |
| **Miscellaneous Revenues** | | | | |
| Reimbursement of Interest on Long-term Debt | 1,606,082 | 1,606,082 | 1,169,503 | (436,579) |
| Internal Service Fund Payments | 248,845 | 248,845 | - | (248,845) |
| Miscellaneous Revenues | 2,959,788 | 4,506,276 | 9,414,415 | 4,908,139 |
| Other Payments to General Fund | 580,000 | 580,000 | 169,402 | (410,598) |
| Total Miscellaneous Revenues | 5,394,715 | 6,941,203 | 10,753,320 | 3,812,117 |
| Total General Fund Revenues | $ 753,424,931 | $ 803,352,377 | $ 810,616,422 | $ 7,264,045 |

**CITY OF RICHMOND, VIRGINIA**
**BUDGETARY COMPARISON SCHEDULE**
**GENERAL FUND**
**For the Fiscal Year Ended June 30, 2022**

**EXHIBIT H-1, Continued**

| | Original Budget | Final Budget | Actual | Variance with Final Budget Positive (Negative) |
|---|---|---|---|---|
| **Expenditures** | | | | |
| **Current** | | | | |
| **General Government** | | | | |
| City Council | $ 1,347,845 | $ 1,468,466 | $ 1,487,214 | $ (18,748) |
| City Clerk | 947,892 | 1,021,892 | 965,499 | 56,393 |
| Planning and Development Review | 11,659,415 | 13,628,861 | 10,846,988 | 2,781,873 |
| Assessor of Real Estate | 4,126,549 | 5,722,032 | 3,875,155 | 1,846,877 |
| City Auditor | 2,248,018 | 2,321,270 | 2,132,530 | 188,740 |
| Department of Law | 4,298,801 | 4,618,841 | 4,017,342 | 601,499 |
| General Registrar | 3,872,008 | 4,094,939 | 3,232,517 | 862,422 |
| Inspector General | 582,755 | 612,157 | 617,216 | (5,059) |
| Chief Administrative Officer | 904,437 | 1,006,844 | 1,016,904 | (10,060) |
| Citizen Service and Response | 2,479,071 | 2,870,510 | 2,585,594 | 284,916 |
| Budget and Strategic Planning | 1,358,788 | 1,673,106 | 1,076,695 | 596,411 |
| Department of Human Resources | 4,784,088 | 5,310,463 | 4,624,414 | 686,049 |
| Department of Finance | 10,273,687 | 24,687,147 | 14,310,343 | 10,376,804 |
| Procurement Services | 1,557,585 | 1,920,238 | 1,687,105 | 233,133 |
| Office of Press Secretary to Mayor | 139,366 | 114,366 | 170,909 | (56,543) |
| City Treasurer | 229,039 | 232,264 | 232,669 | (405) |
| Economic/Community Development | 3,095,149 | 5,024,037 | 3,847,122 | 1,176,915 |
| Housing and Community Development | 1,619,229 | 10,521,845 | 1,216,831 | 9,305,014 |
| Council Chief of Staff | 1,131,416 | 1,316,920 | 846,307 | 470,613 |
| Minority Business Development | 836,001 | 1,024,060 | 1,013,214 | 10,846 |
| Office of Community Wealth Building | 2,191,589 | 3,988,239 | 1,889,888 | 2,098,351 |
| City Mayors Office | 1,004,103 | 1,061,610 | 1,031,259 | 30,351 |
| Total General Government | 60,686,831 | 94,240,107 | 62,723,715 | 31,516,392 |
| **Public Safety and Judiciary** | | | | |
| Judiciary | 12,045,442 | 12,556,726 | 12,147,994 | 408,732 |
| Juvenile and Domestic Relations District Court | 473,909 | 488,556 | 411,560 | 76,996 |
| City Sheriff | 41,429,890 | 43,026,104 | 40,553,758 | 2,472,346 |
| Department of Police | 95,815,854 | 96,158,926 | 90,106,123 | 6,052,803 |
| Department of Emergency Communications | 6,587,923 | 6,792,869 | 5,915,122 | 877,747 |
| Department of Fire and Emergency Services | 54,761,361 | 56,699,931 | 55,801,792 | 898,139 |
| Animal Control | 1,932,887 | 2,185,782 | 2,300,301 | (114,519) |
| Total Public Safety and Judiciary | 213,047,266 | 217,908,894 | 207,236,650 | 10,672,244 |
| **Highways, Streets, Sanitation and Refuse** | | | | |
| Department of Public Works | 35,991,294 | 43,001,823 | 39,232,613 | 3,769,210 |
| **Human Services** | | | | |
| Office of DCAO for Human Services | 1,882,381 | 4,398,366 | 2,031,528 | 2,366,838 |
| Department of Social Services | 46,748,805 | 48,670,872 | 43,773,332 | 4,897,540 |
| Justice Services | 9,613,244 | 10,294,000 | 8,720,112 | 1,573,888 |
| Department of Public Health | 4,633,490 | 4,633,490 | 4,633,490 | - |
| Total Human Services | 62,877,920 | 67,996,728 | 59,158,462 | 8,838,266 |
| **Culture and Recreation** | | | | |
| Richmond Public Library | 5,656,459 | 6,338,002 | 6,370,161 | (32,159) |
| Department of Parks, Recreation and Community Facilities | 18,434,814 | 20,011,174 | 21,313,207 | (1,302,033) |
| Total Culture and Recreation | 24,091,273 | 26,349,176 | 27,683,368 | (1,334,192) |
| **Education** | | | | |
| Richmond Public Schools | 187,142,096 | 187,142,096 | 187,142,096 | - |
| Total Education | $ 187,142,096 | $ 187,142,096 | $ 187,142,096 | $ - |

**CITY OF RICHMOND, VIRGINIA**
**BUDGETARY COMPARISON SCHEDULE**
**GENERAL FUND**
**For the Fiscal Year Ended June 30, 2022**

**EXHIBIT H-1, Continued**

| | Original Budget | Final Budget | Actual | Variance with Final Budget Positive (Negative) |
|---|---|---|---|---|
| **Non-Departmental** | | | | |
| Payments to Other Government Agencies | $ 15,848,560 | $ 16,522,560 | $ 20,587,605 | $ (4,065,045) |
| Tax Relief | 4,041,755 | 4,041,755 | 3,972,403 | 69,352 |
| GRTC | 8,319,090 | 8,319,090 | 8,319,090 | - |
| RRS Contributions/Retiree's Health Care Program | 3,300,000 | 3,300,000 | 1,546,160 | 1,753,840 |
| Contributions | 48,347,461 | 61,704,160 | 53,726,053 | 7,978,107 |
| Total Non-Departmental | 79,856,866 | 93,887,565 | 88,151,311 | 5,736,254 |
| Total General Fund Expenditures | 663,693,546 | 730,526,389 | 671,328,215 | 59,198,174 |
| Excess of Revenues Over Expenditures | 89,731,385 | 72,825,988 | 139,288,207 | 66,462,219 |
| **Other Financing Sources** | | | | |
| Transfers In - Other Funds | 19,407,028 | 20,580,868 | 9,828,247 | (10,752,621) |
| Transfers Out - Other Funds | (109,138,413) | (109,188,098) | (105,037,498) | 4,150,600 |
| Total Other Financing Sources, Net | (89,731,385) | (88,607,230) | (95,209,251) | (6,602,021) |
| Excess (Deficiency) of Revenues and Other Financing Sources Over (Under) Expenditures and Other Financing Sources | - | (15,781,242) | 44,078,956 | 59,860,198 |
| Fund Balance - Beginning of Year, as restated | 162,170,205 | 162,170,205 | 162,170,205 | - |
| Fund Balance - End of Year | $ 162,170,205 | $ 146,388,963 | $ 206,249,161 | $ 59,860,198 |

This schedule is prepared on the basis of Generally Accepted Accounting Principles.

**CITY OF RICHMOND, VIRGINIA**
**NOTE TO BUDGETARY COMPARISON SCHEDULE**
**GENERAL FUND**
**For the Fiscal Year Ended June 30, 2022**

The City follows these procedures, which comply with legal requirements, in establishing the annual budget.

- The General, Special Revenue, and Debt Service Funds have legally adopted annual budgets. The Capital Projects Fund has a five-year spending plan which is legally adopted on an annual basis. On a day to be fixed by the City Council, but in no case earlier than the second Monday of February or later than the seventh day of April each year, the Mayor shall submit to the Council separate current expense budgets for the general operation of the City government, for the public schools, for each utility and a capital budget for the fiscal year commencing to the following July 1. The operating budget includes proposed expenditures and the means for financing those expenditures. The Capital Projects and Special Revenue Funds consist of multiple funds; however, the funds are budgeted for in total rather than by individual funds. Public hearings are conducted to obtain taxpayer comments.

- Prior to May 31, the budget is legally enacted through passage of an ordinance.

- The level of budgetary control is the department level for the City. City Council approval is not needed to transfer budget amounts within departments in the City budget; however, any revisions that alter total expenditures of any department or agency must be approved by the City Council.

- Formal budgetary integration is employed as management control during the year for all funds.

- Budgets for the General Fund, Debt Service Funds, Special Revenue Funds, and Capital Projects Fund are principally prepared on the modified accrual basis of accounting.

- Project budgets are utilized in the Capital Projects Fund, except for the Capital Projects Fund and the Special Revenue Funds that extend beyond all appropriations not encumbered nor obligated lapse at year-end. Appropriations for the Capital Projects Fund are continued until completion of applicable projects, even when projects extend for more than one fiscal year, or until repealed.

- Budgeted amounts are as originally adopted or as amended by the City Council.

- The following departments' expenditures exceeded appropriations for the year June 30, 2022:

| | |
|---|---|
| City Council | $ (18,748) |
| Inspector General | (5,059) |
| Chief Administrative Officer | (10,060) |
| Office of Press Secretary to Mayor | (56,543) |
| City Treasurer | (405) |
| Animal Control | (114,519) |
| Richmond Public Library | (32,159) |
| Department of Parks, Recreation and Community Facilities | (1,302,033) |
| Payments to Other Governmental Agencies | (4,065,045) |

## Richmond Retirement System

### Schedule of Changes in the Employers' Net Pension Liability and Related Ratios

### For The Last Ten Fiscal Years*

| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|---|---|
| **Total pension liability** | | | | | | | | |
| Service cost | $ 10,368,390 | $ 9,243,126 | $ 10,158,640 | $ 9,996,926 | $ 10,079,515 | $ 10,463,956 | $ 11,953,421 | $ 11,422,056 |
| Interest | 60,753,726 | 60,070,179 | 59,552,622 | 60,018,265 | 60,860,936 | 61,669,092 | 61,913,034 | 62,362,814 |
| Changes of benefit terms | 8,476,904 | - | - | - | - | - | 14,745,118 | 465,126 |
| Differences between expected and actual experience | 1,608,297 | (5,985,740) | 1,248,504 | 6,436,861 | 7,857,057 | (1,093,201) | (1,054,083) | (1,634,203) |
| Changes of assumptions | (26,079,951) | - | - | - | - | 60,156,926 | - | - |
| Benefit Payments, including refunds of member contributions | (65,549,787) | (66,618,770) | (67,107,482) | (67,563,176) | (68,238,675) | (69,249,672) | (70,847,439) | (72,431,409) |
| Net change in total pension liability | (10,422,421) | (3,291,205) | 3,852,284 | 8,888,876 | 10,558,833 | 61,947,101 | 16,710,051 | 184,384 |
| Total pension liability - beginning | 842,232,056 | 831,809,634 | 828,518,429 | 833,414,411 | 842,303,287 | 852,862,120 | 914,809,221 | 926,500,538 |
| Total pension liability - ending (a) | $ 831,809,635 | $ 828,518,429 | $ 832,370,713 | $ 842,303,287 | $ 852,862,120 | $ 914,809,221 | $ 931,519,272 | $ 926,684,922 |
| **Plan fiduciary net position** | | | | | | | | |
| Contributions - employer | $ 41,228,673 | $ 45,556,509 | $ 43,662,633 | $ 41,833,836 | $ 45,524,623 | $ 47,511,140 | 54,149,754 | $ 54,012,452 |
| Contributions - member | 2,062,759 | 2,290,451 | 1,920,452 | 2,096,642 | 1,919,758 | 1,894,851 | 1,941,132 | 1,751,556 |
| Net investment income | 74,451,688 | 15,263,407 | (1,456,427) | 61,263,751 | 37,988,323 | 24,568,402 | 9,556,654 | 134,618,905 |
| Benefit payments, including refunds of member contributions | (65,549,788) | (66,618,770) | (67,107,482) | (67,563,176) | (68,238,657) | (69,249,672) | (71,375,503) | (72,431,409) |
| Administrative expense | (1,283,342) | (1,218,004) | (1,128,623) | (1,112,650) | (1,181,564) | (1,250,142) | (1,309,142) | (1,511,623) |
| Other | - | (663,929) | - | - | - | (1,214,119) | | - |
| Net change in plan fiduciary net position | 50,909,990 | (5,390,336) | (24,109,447) | 36,518,403 | 16,012,483 | 2,260,460 | (7,037,105) | 116,439,881 |
| Plan fiduciary net position - beginning | 479,658,967 | 530,568,957 | 526,409,589 | 502,318,862 | 538,837,265 | 538,837,265 | 557,110,208 | 548,819,972 |
| Plan fiduciary net position - ending (b) | $ 530,568,957 | $ 525,178,621 | $ 502,300,142 | $ 538,837,265 | $ 554,849,748 | $ 541,097,725 | 550,073,103 | $ 665,259,853 |
| **City's net pension liability - ending (a) - (b)** | $ 301,240,678 | $ 303,339,808 | $ 330,070,571 | $ 303,466,022 | $ 298,012,372 | $ 373,711,496 | $ 381,446,168 | $ 261,425,069 |
| Plan fiduciary net position as a percentage of the total pension liability | 63.78% | 63.39% | 60.35% | 63.97% | 65.06% | 59.15% | 59.05% | 71.79% |
| **Covered payroll** | $ 107,834,516 | $ 109,038,530 | $ 104,977,759 | $ 104,668,019 | $ 105,442,140 | $ 106,031,020 | $ 101,964,037 | $ 93,295,563 |
| City's net pension liability as a percentage of covered payroll | 279.35% | 278.20% | 314.42% | 289.93% | 282.63% | 352.45% | 374.10% | 280.21% |

Financial information is reported as of the measurement date which is one year prior to the statement date as required by GASB statement number 68.

* Note - The above schedules are presented to illustrate the requirement for information covering the last Ten Fiscal years, however, until a full ten years is compiled, information is only presented for those years for which information is available.

**Richmond Retirement System Pension Plan**

**Schedule of Contributions**

| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|---|---|
| Actuarially determined employer contribution | 41,228,673 | 45,556,509 | 43,662,633 | 41,833,836 | 48,432,034 | 47,511,140 | 54,149,781 | 54,012,445 |
| Employer contributions in relation to the actuary determined contribution | 41,228,673 | 45,556,509 | 43,662,633 | 41,833,836 | 45,524,623 | 48,394,653 | 54,149,781 | 54,012,445 |
| Excess (Deficiency) | - | - | - | - | (2,907,411) | 883,513 | - | - |
| Covered payroll | 109,038,530 | 104,977,759 | 104,668,019 | 105,442,140 | 106,031,020 | 101,964,037 | 93,539,093 | 93,869,387 |
| Contributions as a percentage of covered payroll | 37.8% | 43.4% | 41.7% | 39.7% | 45.7% | 46.6% | 57.9% | 57.5% |

**Richmond Retirement System**
**Schedule of Investment Returns**

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|---|---|---|
| Annual money-weighted rate of return net of investment expense | 15.5% | 2.4% | (0.3)% | 12.2% | 7.1% | 5.1% | -1.0% | 24.0% | -6.0% |

## Notes to the Required Supplementary Pension Information

## Richmond Retirement System Pension Plan

### For the Year Ended June 30, 2022

**Methods and Assumptions Used to Determine Contribution Rates**:

The following changes were made to assumptions:

Remaining Amortization Period - Re-amortize unfunded liability over 11 years as of July 1, 2020. Cost of VRIP is amortized over 3 years. Other new bases are amortized over 20 years.

Inflation - 2.50%

Salary Increases - General Employees - 2.50% to 4.00%

Salary Increases - Police and Fire Employees - 2.50% to 4.50%

Investment Rate of Return - 7.00%

Retirement Age - General Employees - 20.00% in 1st year of unreduced retirement eligibility; 10.00% at age 55 increasing to 100.00% at age 75.

Retirement Age - Police and Fire Employees - 25.00% in 1st year of unreduced retirement eligibility; 10.00% at age 50 increasing to 100.00% at age 65.

Mortality-General Employees - Pub-2010 Below Median Income Table for General Employees

Mortality-Police and Fire Employees - Pub-2010 Below Median Income Table for Safety Employees

**VRS Pension Plan**
**Schedule of Changes in the Employers' Net Pension Liability and Related Ratios**
**For The Last Ten Fiscal Years***

| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|---|---|
| **Total pension liability** | | | | | | | | |
| Service cost | $ 3,295,894 | $ 3,421,683 | $ 3,583,801 | $ 3,589,830 | $ 3,421,014 | $ 3,595,008 | $ 3,579,068 | $ 3,642,964 |
| Interest | 7,369,694 | 7,689,675 | 8,037,966 | 8,348,430 | 8,446,921 | 8,750,975 | 9,045,496 | 9,285,395 |
| Differences between expected and actual expenses | (479,419) | 110,367 | (196,070) | (2,719,281) | (388,284) | 540,139 | (733,288) | (1,930,566) |
| Changes in assumptions | - | - | - | (1,083,113) | - | 3,837,631 | - | 4,218,199 |
| Deferred Inflow Expected vs Actual Experience | - | - | (496,058) | - | - | - | | - |
| Benefit Payments, including refunds of member contributions | (5,623,313) | (6,085,126) | (6,407,155) | (6,581,717) | (6,875,986) | (7,396,048) | (8,064,640) | (8,609,767) |
| Changes in assumptions | - | - | - | - | - | - | | |
| **Net change in total pension liability** | 4,562,856 | 5,136,599 | 4,522,484 | 1,554,149 | 4,603,665 | 9,327,705 | 3,826,636 | 6,606,225 |
| **Total pension liability - beginning** | 108,332,204 | 112,895,060 | 118,031,659 | 122,554,143 | 124,108,292 | 128,711,957 | 138,039,662 | 141,866,298 |
| **Total pension liability - ending (a)** | $ 112,895,060 | $ 118,031,659 | $ 122,554,143 | $ 124,108,292 | $ 128,711,957 | $ 138,039,662 | $ 141,866,298 | $ 148,472,523 |
| **Plan fiduciary net position** | | | | | | | | |
| Contributions - employer | $ 3,497,052 | $ 3,471,373 | $ 3,621,503 | $ 3,219,694 | $ 3,176,521 | $ 2,948,781 | 2,939,040 | 3,248,868 |
| Contributions - member | 1,276,061 | 1,258,265 | 1,393,001 | 1,401,096 | 1,346,018 | 1,301,296 | 1,312,202 | 1,282,683 |
| Net investment income | 13,713,152 | 4,552,450 | 1,793,841 | 12,562,007 | 8,403,155 | 7,924,514 | 2,372,966 | 33,364,323 |
| Benefit payments, including refunds of member contributions | (6,101,732) | (6,085,126) | (6,407,155) | (6,581,717) | (6,875,986) | (7,396,048) | (8,064,640) | (8,609,767) |
| Administrative expense | (74,396) | (62,657) | (64,054) | (72,905) | (72,921) | (79,792) | (82,204) | (84,660) |
| Other | 723 | (962) | (759) | (11,180) | (7,471) | (4,992) | (2,785) | (9,898) |
| **Net change in plan fiduciary net position** | 12,310,860 | 3,133,343 | 336,377 | 10,516,995 | 5,969,316 | 4,693,759 | (1,525,421) | 29,191,549 |
| **Plan fiduciary net position - beginning** | 88,099,002 | 100,409,862 | 103,543,205 | 103,879,582 | 114,396,577 | 120,365,893 | 125,059,652 | 123,534,231 |
| **Plan fiduciary net position - ending (b)** | $ 100,409,862 | $ 103,543,205 | $ 103,879,582 | $ 114,396,577 | $ 120,365,893 | $ 125,059,652 | $ 123,534,231 | $ 152,725,780 |
| **City's net pension liability / (asset) - ending (a) minus (b)** | $ 12,485,198 | $ 14,488,454 | $ 18,674,561 | $ 9,711,715 | $ 8,346,064 | $ 12,980,010 | $ 18,332,067 | $ (4,253,257) |
| Plan fiduciary net position as a percentage of the total pension liability | 88.9% | 87.7% | 84.8% | 92.2% | 93.5% | 90.6% | 87.1% | 102.9% |
| Covered payroll | $ 23,115,189 | $ 25,093,420 | $ 25,652,406 | $ 25,351,280 | $ 26,179,060 | $ 26,924,568 | $ 27,187,437 | $ 24,088,930 |
| City's net pension liability as a percentage of covered payroll | 54.0% | 57.7% | 72.8% | 38.3% | 31.9% | 48.2% | 67.4% | -17.7% |

* Note - The above schedules are presented to illustrate the requirement for information covering the last Ten Fiscal years, however, until a full ten years is compiled, information is only presented for those years for which information is available.

**VRS Pension Plan**

**Schedule of Contributions**

**For the Last Ten Fiscal Years**

| VRS | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|---|---|---|---|
| Contractually Required Contribution | 3,291,603 | 3,077,272 | 3,497,052 | 3,471,373 | 4,547,035 | 4,807,272 | 4,702,343 | 4,555,329 | 4,538,543 | 4,531,551 |
| Actuarially Determined Contribution | 3,291,603 | 3,077,272 | 3,497,052 | 3,471,373 | 3,621,503 | 3,219,694 | 3,176,521 | 3,027,531 | 3,301,487 | 3,331,911 |
| Excess (Deficiency) | - | - | - | - | 925,532 | 1,587,578 | 1,525,822 | 1,527,798 | 1,237,056 | 1,199,640 |
| Covered Payroll | 24,068,589 | 23,115,189 | 25,093,420 | 25,652,406 | 25,351,280 | 26,179,060 | 26,924,568 | 27,187,437 | 26,321,947 | 26,194,267 |
| Contributions as a percentage of covered payroll | 13.7% | 13.3% | 13.9% | 13.5% | 17.9% | 12.3% | 11.8% | 11.1% | 12.5% | 12.7% |

## Notes to Required Supplementary Tables VRS Pension Plan

**Changes in benefit terms -** Since the prior actuarial valuation, there have not been any actuarially significant changes to the VRS benefit provisions or actuarial assumptions.

## REQUIRED SUPPLEMENTARY INFORMATION

### NET OPEB LIABILITY

### CITY OF RICHMOND OPEB PLAN SCHEDULE OF CHANGES IN THE NET OPEB LIABILITY AND RELATED RATIOS

**For The Last Ten Fiscal Years***

| **Total OPEB Liability** | **2018** | **2019** | **2020** | **2021** | **2022** |
|---|---|---|---|---|---|
| Service cost | $ 4,021,865 | $ 4,222,958 | $ 4,434,106 | 5,702,876 | 5,854,572 |
| Interest | 2,425,532 | 2,532,946 | 2,553,264 | 3,058,492 | 3,188,970 |
| Change of Benefit Terms | - | - | 24,431,269 | - | (53,566,193) |
| Difference between expected and actual experience | - | - | 6,508,726 | - | (28,201,247) |
| Change in Assumptions | - | - | - | - | (10,387,390) |
| Benefit Payments/Refunds | (2,958,026) | (3,194,668) | (6,313,741) | (6,313,741) | (4,007,890) |
| **Net Change in Total OPEB Liability** | 3,489,371 | 3,561,236 | 31,613,624 | 2,447,627 | (87,119,178) |
| **Total OPEB Liability - beginning** | 76,927,555 | 80,416,926 | 83,978,162 | 115,591,786 | 118,039,413 |
| **Total OPEB Liability - ending (a)** | $ 80,416,926 | $ 83,978,162 | $ 115,591,786 | $ 118,039,413 | $ 30,920,235 |
| | | | | | |
| **Plan Fiduciary Net Position** | | | | | |
| Contributions - employer | $ 2,958,026 | $ 3,194,668 | $ 6,313,741 | $ 6,313,741 | $ 5,407,890 |
| Net Investment Income | - | - | - | - | (830,909) |
| Benefit Payments/Refunds | (2,958,026) | (3,194,668) | (6,313,741) | (6,313,741) | (4,007,890) |
| Administrative Expenses | - | - | - | - | (8,971) |
| **Net Changes in Plan Fiduciary Net Position** | $ 2,958,026 | $ 3,194,668 | - | 6,313,741 | 560,120 |
| | | | | | |
| **Plan Fiduciary Net Position - beginning** | - | - | - | - | 7,674,657 |
| **Plan Fiduciary Net Position - ending (b)** | - | - | - | - | 8,234,777 |
| **Net OPEB Liability - ending (a) - (b)** | $ 80,416,926 | $ 83,978,162 | $ 115,591,786 | $ 118,039,413 | $ 22,685,458 |
| **Plan Fiduciary Net Postion as a % of the Total OPEB Liability** | 0.00% | 0.00% | 0.00% | 0.00% | 36.30% |
| **Covered payroll** | $ 107,395,730 | $ 100,320,588 | $ 99,822,621 | $ 115,756,485 | $ 102,167,580 |
| **City's Net OPEB liability as a percentage of covered payroll** | 74.88% | 83.71% | 115.80% | 101.97% | 22.20% |

*Note - The above schedules are presented to illustrate the requirement for information covering the last Ten Fiscal Years. However, 2018 was the first year OPEB had to be reported so only five years are presented until a full ten years trend is compiled,

## REQUIRED SUPPLEMENTARY INFORMATION

### CITY OF RICHMOND OPEB PLAN SCHEDULE OF CONTRIBUTIONS
**For The Last Ten Fiscal Years**

| Fiscal Year Ending June 30: | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| Actuarially determined contribution | $ 9,228,017 | $ 8,371,014 | $ 13,670,345 | $ 14,207,750 | $ 14,379,755 |
| Contributions in relation to the actuarially determined contribution | 2,958,026 | 3,194,668 | 6,313,741 | 6,313,741 | 5,407,890 |
| Contribution deficiency (excess) | $ 6,269,991 | $ 5,176,346 | $ 7,356,604 | $ 7,894,009 | $ 8,971,865 |
| Covered payroll | **$ 100,320,588** | **$ 99,822,621** | **$ 115,756,485** | **$ 102,167,580** | **$ 87,509,297** |

### CITY OF RICHMOND OPEB PLAN SCHEDULE OF INVESTMENT RETURNS
**For The Last Ten Fiscal Years**

| | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| Annual money-weighted rate of return, net of investment expense | 0.00% | 0.00% | 0.00% | 0.00% | -10.19% |

*Note - The above schedules are presented to illustrate the requirement for information covering the last Ten Fiscal Years, however, until a full ten year trend is compiled, information is only presented for the years in which information is available.

# REQUIRED SUPPLEMENTARY INFORMATION

## Notes to Required Supplementary Information - City of Richmond OPEB Plan

Changes in plan actuarial assumptions and actuarial methods:

The discount rate was changed from the prior discount rate of 3.11% to 2.66% based on the S&P Municipal Bond 20 Year High Grade Rate Index as of June 30, 2020.

The medical claims aging table was updated to be based on the Yamamoto factors released in a study of the Society of Actuaries in June 2013.

The eligibility provisions were revised to include those employees hired between 1997 to 2006.

### VRS Group Life OPEB Plan

### SCHEDULE OF CITY OF RICHMOND SHARE OF NET OPEB LIABILITY

| | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|
| City of Richmond's Proportion % of the Net GLI OPEB Liability | 0.14% | 0.13% | 0.13% | 0.13% | 0.12% |
| City of Richmond's Proportionate Share of the NET GLI OPEB Liability | $ 2,083,000 | $ 2,061,000 | $ 2,124,000 | $ 2,103,902 | $ 1,442,415 |
| Covered Payroll | $ 25,351,280 | $ 25,589,505 | $ 25,944,554 | $ 25,577,974 | $ 25,577,974 |
| Employer's Proportionate Share of the NET GLI OPEB Liability as a Percentage of Covered Payroll | 8.22% | 8.05% | 8.19% | 8.23% | 5.64% |
| Plan Fiduciary Net Position as a Percentage of the total GLI OPEB Liability | 48.86% | 51.22% | 51.22% | 52.64% | 67.45% |

*Note - The above schedule is presented to illustrate the requirement for information covering the last Ten Fiscal Years, however, until a full ten year trend is compiled, information is only presented for the years in which information is available.

## REQUIRED SUPPLEMENTARY INFORMATION

### VRS OPEB GROUP LIFE PROGRAM
### SCHEDULE OF EMPLOYER CONTRIBUTIONS-
### For the Last Ten Fiscal Years*

| Date | Contractually Required Contribution | Contribution in Relation to Contractually Required Contribution | Contribution Deficiency/(Excess) | Covered Payroll | Contributions as a % of Covered Payroll |
|---|---|---|---|---|---|
| 2022 | $ 138,121 | $ 138,121 | $ - | $ 25,577,974 | 0.54% |
| 2021 | 138,121 | 138,121 | | 25,577,974 | 0.54% |
| 2020 | 134,912 | 134,912 | - | 25,944,554 | 0.52% |
| 2019 | 133,065 | 133,065 | - | 25,589,505 | 0.52% |
| 2018 | 133,566 | 132,787 | 779 | 25,351,280 | 0.52% |
| 2017 | 131,119 | 130,880 | 239 | 25,215,255 | 0.52% |
| 2016 | 120,448 | 121,276 | (828) | 25,093,420 | 0.48% |
| 2015 | 123,132 | 121,395 | 1,737 | 25,652,406 | 0.47% |
| 2014 | 118,809 | 118,003 | 806 | 24,751,869 | 0.48% |
| 2013 | 112,071 | 111,506 | 565 | 23,348,043 | 0.48% |

*The City was not required to report this data until 2018. Information is not available for years prior to 2013.

### Notes to Required Supplemental Information - VRS Group Life OPEB Plan
### For the Year Ended June 30, 2022

**Changes in benefit terms -** There have not been any significantly material actuarial changes to the VRS benefit provisions since the prior actuarial valuation

**Changes in assumptions -** Except for the discount rate**, t**here have been no significant changes in actuarial assumptions made since June 30, 2016 the date of the most recent experience study of the VRS. The discount rate was changed based on VRS Board action effective July 1, 2019. This rate was changed from 7.00 percent to 6.75 percent.

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**APPENDIX G**

**FORM OF BOND COUNSEL OPINION**

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__________ __, 2023

Mayor and City Council
City of Richmond
Richmond, Virginia

**City of Richmond, Virginia**
**$110,970,000 Public Utility Revenue and Refunding Bonds, Series 2023C**

Ladies and Gentlemen:

We have acted as bond counsel to the City of Richmond (the "City") in the Commonwealth of Virginia in connection with the issuance by the City of its Public Utility Revenue and Refunding Bonds, Series 2023C, in the aggregate principal amount of $110,970,000 (the "Bonds"), pursuant to: (i) the Charter of the City (the "City Charter"); (ii) Article VII of the Constitution of the Commonwealth of Virginia (the "Constitution"); (iii) the Public Finance Act of 1991 (Chapter 26 of Title 15.2 of the Code of Virginia, 1950, as amended) (the "Act"); (iv) Ordinance No. 2021-062 duly adopted by the City Council of the City (the "Council") on May 24, 2021, Ordinance No. 2022-080 duly adopted by the Council on May 9, 2022 and Resolution No. 2023-R045, duly adopted by the Council on July 24, 2023 (collectively, the "Authorizing Actions"); and (v) the Master Indenture of Trust dated as of April 1, 1998 (the "Master Indenture"), between the City and U.S. Bank Trust Company National Association, successor to SunTrust Bank and Crestar Bank, as Trustee (the "Trustee"), as previously supplemented and amended, and as further supplemented with respect to the Bonds by a Twenty-Fifth Supplemental Indenture of Trust dated as of September 1, 2023 (the "Twenty-Fifth Supplemental Indenture", and together with the Master Indenture, the "Indenture").

The Bonds are being issued (a) to finance or reimburse expenditures for certain improvements to and expansions of the System, (b) to refund a portion of the City's Public Utility Revenue Refunding Bonds, Series 2020B (Federally Taxable) (the "Refunded Bonds"), (c) to fund certain costs of issuance of the Bonds. The Bonds are equally and ratably secured on a parity basis as to certain revenues with the City's Outstanding Senior Debt. Additional bonds on a parity with the Bonds and the Senior Debt may be issued on the terms provided in the Master Indenture.

In such connection, we have reviewed the City Charter, the Constitution, the Act, the Authorizing Actions, the Indenture, the Tax Certificate of the City, dated the date hereof (the "Tax Certificate"), certificates of the City and others, an opinion of counsel to the City, and such other documents, opinions and matters to the extent we deemed necessary to render the opinions set forth herein.

Without undertaking to verify the same by independent investigation, we have relied on (a) computations provided by The Arbitrage Group, Inc., independent arbitrage consultants, the mathematical accuracy of which has been verified by them, relating to the yield of investments in the escrow fund established in connection with the refunding the Refunded Bonds, the sufficiency of such investments to pay when due the principal of and premium and interest on the Refunded Bonds and the yield on the Bonds and (b) certification by representatives of the City as to certain facts relevant to both our opinion and requirements of the Internal Revenue Code of 1986 (the "Code"), including (i) the proceedings authorizing the issuance of the Refunded Bonds, (ii) the use, investment and expenditure of the proceeds of the Refunded Bonds and (iii) the projects financed by the proceeds of the Refunded Bonds.

The opinions expressed herein are based on an analysis of existing laws, regulations, rulings and court decisions and cover certain matters not directly addressed by such authorities. Such opinions may be affected by actions taken or omitted or events occurring after original delivery of the Bonds on the date hereof. We have not undertaken to determine, or to inform any person, whether any such actions are taken or omitted or events do occur or any other matters come to our attention after original delivery of the Bonds on the date hereof. Accordingly, this letter speaks only as of its date and is not intended to, and may not, be relied upon or otherwise used in connection with any such actions, events or matters. Our engagement with respect to the Bonds has concluded with their issuance, and we disclaim any obligation to update this letter. We have assumed the genuineness of all documents and signatures provided to us and the due and legal execution and delivery thereof by, and validity against, any parties other than the City. We have assumed, without undertaking to verify, the accuracy of the factual matters represented, warranted or certified in the documents, and of the legal conclusions contained in the opinions, referred to in the second paragraph hereof. Furthermore, we have assumed compliance with all covenants and agreements contained in the Indenture and the Tax Certificate, including, without limitation, covenants and agreements of compliance with which it is necessary to assure that future actions, omissions or events will not cause interest on the Bonds to be included in gross income for federal income tax purposes.

We call attention to the fact that the rights and obligations under the Bonds, the Indenture and the Tax Certificate and their enforceability may be subject to bankruptcy, insolvency, receivership, reorganization, arrangement, fraudulent conveyance, moratorium and other laws relating to or affecting creditors' rights, to the application of equitable principles, and to the exercise of judicial discretion in appropriate cases. We express no opinion with respect to any indemnification, contribution, liquidated damages, penalty (including any remedy deemed to constitute or to have the effect of a penalty), right of set-off, arbitration, choice of law, choice of forum, choice of venue, non-exclusivity of remedies, waiver or severability provisions contained in the documents described in the second paragraph hereof. Finally, we express no opinion regarding any of the Parity Bonds other than the Bonds.

Based on and subject to the foregoing, and in reliance thereon, as of the date hereof, we are of the following opinions:

1. The Bonds have been duly authorized and issued in accordance with the Constitution and statutes of the Commonwealth of Virginia, including the City Charter and the Act, and constitute valid and binding limited obligations of the City payable solely from Net Revenues, except to the extent payable from the proceeds of the Bonds, the income derived from the investment thereof, which Net Revenues and other moneys have been pledged by the Master Indenture to secure payment of the Bonds. The Bonds are secured on a parity basis with the Parity Bonds and any additional bonds subsequently issued on a parity basis with the Bonds and the Parity Bonds as provided in the Master Indenture. The Bonds, the premium, if any, and the interest thereon do not constitute a pledge of the faith and credit of the Commonwealth of Virginia or of any political subdivision thereof, including the City.

2. The City is required to fix, revise, charge and collect rates, fees and other charges for the use of and the services furnished by the System so as to produce in each fiscal year Revenues sufficient to pay the cost of operation and maintenance of the System, the cost of replacements and improvements to the System and the principal of and premium, if any, and interest on the Bonds and all other indebtedness of the City payable from Revenues of the System, and to provide certain reserves therefor, all as provided in the Master Indenture.

3. The Master Indenture has been duly authorized, executed and delivered by the City and, assuming the due authorization, execution and delivery thereof by the Trustee, constitutes a valid and binding agreement of the City, and is enforceable against the City in accordance with its terms. The Master Indenture pledges to the Trustee as security for payment of the principal of and premium, if any, and interest on the Bonds Net Revenues derived from the ownership or operation of the System, moneys in certain funds created by the Master Indenture, income from investments and proceeds of insurance.

4. The Twenty-Fifth Supplemental Indenture is authorized and permitted by the Master Indenture and complies with its terms, has been duly authorized, executed and delivered by the City, constitutes a valid and binding agreement of the City, and is enforceable against the City in accordance with its terms.

5. Interest on the Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Code. Interest on the Bonds is not a specific preference item for purposes of the federal individual alternative minimum tax. We observe that, for tax years beginning after December 31, 2022, interest on the Bonds included in adjusted financial statement income of certain corporations is not excluded from the federal corporate alternative minimum tax. Interest on the Bonds is exempt from income taxation by the Commonwealth of Virginia. We express no opinion

regarding other tax consequences related to the ownership or disposition of, or the amount, accrual or receipt of interest on, the Bonds.

Very truly yours**,**

**APPENDIX H**

**FORM OF CONTINUING DISCLOSURE AGREEMENT**

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## APPENDIX H

## FORM OF CONTINUING DISCLOSURE AGREEMENT

This Continuing Disclosure Agreement (the "Disclosure Agreement") is executed and delivered by the City of Richmond, Virginia (the "City") in connection with the issuance by the City of its $110,970,000 Public Utility Revenue and Refunding Bonds, Series 2023C (the "Bonds"), pursuant to Article VII of the Constitution of Virginia, the Public Finance Act of 1991, being Chapter 26, Title 15.2, Code of Virginia of 1950, as amended, Ordinance No. 2021-062, adopted by the City Council (the "Council") on May 24, 2021, Ordinance No. 2022-080, adopted by the Council on May 9, 2022, and Resolution No. 2023-R045, adopted by the Council on July 24, 2023.

This Disclosure Agreement is being executed and delivered by the City for the benefit of the holders of the Bonds and in order to assist Wells Fargo Bank, National Association, as representative of the underwriters (the "Underwriters") in complying with the provisions of Section (b)(5)(i) of Rule 15c2-12 (the "Rule"), promulgated by the Securities and Exchanges Commission (the "SEC") under the Securities Exchange Act of 1934, as amended, by providing certain annual financial information and material event notices required by the Rule. The City hereby covenants and agrees as follows:

(A) **Annual Disclosure**. (1) The City shall provide annually certain financial information and operating data in accordance with the provisions of Section (b)(5)(i) of the Rule, as follows:

(a) audited financial statements, prepared in accordance with generally accepted accounting principles; and

(b) the operating data for the most recent fiscal year with respect to the City of the type appearing in portions of the City's Official Statement under the following headings or captions:

(i) Operational Summary and Asset Evaluation Natural Gas, Water & Wastewater System;

(ii) Natural Gas Utility Statistical Summary;

(iii) Water Utility Statistical Summary;

(iv) Wastewater Utility Statistical Summary;

(v) Results of Operations;

(vi) Statement of Historical Debt Service Coverage;

(vii) Average Monthly Bill Comparisons: Natural Gas Utility Comparisons; Water Utility Comparisons, and Wastewater Utility Comparisons; and

(viii) Debt Service Requirements for System Supported Long-Term Outstanding Indebtedness.

(2) The City shall annually provide the financial information and operating data described in subsection (1) above (the "Continuing Disclosure") within 220 days after the end of the City's fiscal year, commencing with the City's fiscal year in which the Bonds are issued, to the

Municipal Securities Rulemaking Board (the “MSRB”) for publication in its Electronic Municipal Market Access (“EMMA”) System, or as otherwise designated by the Rule and to the appropriate state information depository if any then exists (“SID”).

(3) Any of the Continuing Disclosure may be included by specific reference to other documents previously provided to the MSRB and to the SID, if any, or filed with the SEC; provided, however, that any final official statement incorporated by reference must be available from the MSRB.

(4) The City shall provide in a timely manner to the MSRB and to the SID, if any, notice specifying any failure of the City to provide the Continuing Disclosure by the date specified.

If the City fails to comply with any covenant or obligation specified in this Section, any holder (within the meaning of the Rule) of the Bonds then outstanding may, by notice to the City, proceed to protect and enforce its rights and the rights of the holders by an action for specific performance of the City’s covenant to provide financial information and operating data.

(B) **Event Disclosure**. The City shall provide in a timely manner not in excess of ten (10) business days to the MSRB and to the SID, if any, notice of the occurrence of any of the following events with respect to the Bonds;

(1) Principal and interest payment delinquencies;

(2) Non-payment related defaults, if material;

(3) Unscheduled draws on debt service reserves reflecting financial difficulties;

(4) Unscheduled draws on credit enhancement reflecting financial difficulties;

(5) Substitution of credit or liquidity providers, or their failure to perform;

(6) 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 or determinations with respect to the tax status of the security, or other material events affecting the tax-exempt status of the Bonds;

(7) Modifications to rights of Bondholders, if material;

(8) Bond calls, if material, and tender offers;

(9) Defeasance of all or any portion of the Bonds;

(10) Release, substitution, or sale of property securing repayment of the Bonds, if material;

(11) Rating changes;

(12) Bankruptcy, insolvency, receivership or similar event of the obligated person;

(13) The consummation of a merger, consolidation, or acquisition involving an obligated person or the sale of all or substantially all of the assets of the obligated person, 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;

(14) Appointment of a successor or additional trustee or the change of name of a trustee, if material;

(15) 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 security holders, if material; and

(16) 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.

(C) **Termination**. The covenants and obligations of the City specified in Sections (A) and (B) shall terminate upon the redemption, defeasance (within the meaning of the Rule) or payment in full of all the Bonds.

(D) **Amendment**. The City reserves the right to modify its obligations specified in Sections (A) and (B) without the consent of bondholders, provided that such modification is permitted by and complies with the Rule as it exists at the time of modification.

(E) **Additional Disclosure**. The City may from time to time disclose certain information and data in addition to the Continuing Disclosure. Notwithstanding anything herein to the contrary, the City shall not incur any obligation to continue to provide, or to update, such additional information or data.

(F) **Counterparts**. This Disclosure 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.

(G) **Governing Law**. This Disclosure Agreement will be construed and enforced in accordance with the laws of the Commonwealth of Virginia.

Dated: September __, 2023

**CITY OF RICHMOND, VIRGINIA**

By: ____________________________
Director of Finance

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# APPENDIX I

## SUMMARY OF REFUNDED BONDS

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## APPENDIX I

## SUMMARY OF REFUNDED BONDS

City of Richmond, Virginia

Public Utility Revenue Refunding Bonds, Series 2020B
(Federally Taxable)

| Bond | Maturity Date | Interest Rate | Par Amount | Redemption Date | Redemption Price |
|---|---|---|---|---|---|
| Serials | 01/15/2031 | 2.695% | $ 9,125,000 | 1/15/2031 | 100% |
| | 01/15/2032 | 2.795 | 9,370,000 | 1/15/2032 | 100 |
| | 01/15/2033 | 2.895 | 9,630,000 | 1/15/2033 | 100 |
| | 01/15/2034 | 2.945 | 9,915,000 | 1/15/2034 | 100 |
| | 01/15/2035 | 3.045 | 10,205,000 | 1/15/2035 | 100 |

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## APPENDIX J

## BOOK-ENTRY ONLY SYSTEM

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## APPENDIX J

## BOOK-ENTRY ONLY SYSTEM

The Depository Trust Company ("DTC") will act as securities depository for the Bonds. The Bonds will be issued as fully-registered securities registered in the name of Cede & Co. (DTC's partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered Bond certificate will be issued for the Bonds in the aggregate principal amount of each maturity 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 3.5 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 bond 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 securities transactions through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants"). DTC has a Standard & Poor's 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.

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.

Beneficial Owners of Bonds may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the Bonds, such as redemptions, tenders, defaults, and proposed amendments to the bond documents. For example, Beneficial Owners of Bonds may wish to ascertain that the nominee holding the Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the registrar and request that copies of notices be provided directly to them.

Redemption notices shall be sent to DTC. If less than all of the Bonds within an issue are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

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

Payments of principal of and interest 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 Paying Agent, on payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC, the Paying 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 on the Bonds to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the City or Paying 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 securities depository with respect to the Bonds at any time by giving reasonable notice to the City or Paying 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 to DTC.

The information in this section concerning DTC and DTC's book-entry system has been obtained from sources that the City believes to be reliable, but the City takes no responsibility for the accuracy thereof.

THE DESCRIPTIONS IN THIS OFFICIAL STATEMENT OF THE DEPOSITORY TRUST COMPANY, THE PROCEDURES AND RECORD KEEPING WITH RESPECT TO BENEFICIAL OWNERSHIP INTERESTS IN THE BONDS, PAYMENT OF PRINCIPAL OF AND INTEREST ON THE BONDS TO PARTICIPANTS IN DTC, OR TO EACH ACTUAL PURCHASER OF EACH BOND, CONFIRMATION AND TRANSFER OF BENEFICIAL OWNERSHIP INTERESTS IN THE BONDS OR OTHER RELATED TRANSACTIONS BY AND BETWEEN DTC, THE DTC PARTICIPANTS AND BENEFICIAL OWNERS ARE BASED SOLELY ON INFORMATION FURNISHED BY DTC TO THE CITY FOR INCLUSION IN THIS OFFICIAL STATEMENT. ACCORDINGLY, THE CITY DOES NOT AND CANNOT MAKE ANY REPRESENTATIONS CONCERNING THESE MATTERS AND NEITHER THE DTC PARTICIPANTS NOR THE BENEFICIAL OWNERS SHOULD RELY ON SUCH INFORMATION WITH RESPECT TO SUCH MATTERS, BUT SHOULD INSTEAD CONFIRM THE SAME WITH DTC OR THE DTC PARTICIPANTS, AS THE CASE MAY BE. THE CITY CANNOT GIVE ANY ASSURANCES THAT DTC, DTC PARTICIPANTS OR BANKS, BROKERS, DEALERS, TRUST COMPANIES AND OTHERS THAT CLEAR THROUGH OR MAINTAIN A CUSTODIAL RELATION WITH A DTC PARTICIPANT, EITHER DIRECTLY OR INDIRECTLY, WILL DISTRIBUTE PAYMENT OF PRINCIPAL OF, REDEMPTION

PREMIUM, IF ANY, AND INTEREST ON THE BONDS PAID TO DTC OR ITS NOMINEE, CEDE & CO., AS THE REGISTERED OWNER OF THE BONDS, OR ANY REDEMPTION OR OTHER NOTICES TO THE BENEFICIAL OWNERS OR THAT THEY WILL DO SO ON A TIMELY BASIS OR THAT DTC, THE DTC PARTICIPANTS OR THE INDIRECT PARTICIPANTS WILL SERVE AND ACT IN A MANNER DESCRIBED IN THIS OFFICIAL STATEMENT.

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