NEW ISSUE-BOOK-ENTRY ONLY

Ratings (See "CREDIT RATINGS"): **Fitch:** **AAA**
Moody's: **Aaa**
S&P: **AAA**

LOUDOUN WATER

Loudoun County Sanitation Authority (Virginia)
$70,935,000
Water and Sewer System Revenue Refunding Bonds, Series 2024

Dated: Date of Delivery | Due: January 1, as set forth on inside cover

Security	The Series 2024 Bonds will be limited obligations of the Authority payable generally from the Authority's Net Revenues derived from the ownership or operation of the Authority's water and wastewater system, and income from investments in certain funds and accounts held under the Master Indenture of Trust dated as of June 1, 1992, between the Authority and U.S. Bank Trust Company, National Association, as successor trustee (the "Trustee"), as previously supplemented and amended (the "Master Indenture"), and as further supplemented by the Nineteenth Supplemental Indenture of Trust dated as of October 1, 2024 (the "Supplemental Indenture" and, collectively with the Master Indenture, the "Indenture"), between the Authority and the Trustee. The Series 2024 Bonds, the premium, if any, and the interest on them are not secured by the faith and credit of the Commonwealth of Virginia or any of its political subdivisions, including the Authority and the County of Loudoun, Virginia. See **"SOURCES OF PAYMENT AND SECURITY FOR THE SERIES 2024 BONDS."**
Redemption	See inside cover of this Official Statement and the section entitled **"DESCRIPTION OF THE SERIES 2024 BONDS."**
Authorization	A resolution adopted by the Board of Directors of the Authority on September 12, 2024.
Purpose	The proceeds of the Series 2024 Bonds will be used, together with other available funds (i) refund all or a portion of certain outstanding bonds of the Authority, and (ii) pay the costs of issuance of the Series 2024 Bonds. See **"APPLICATION OF PROCEEDS."**
Tax Matters	Assuming compliance with certain covenants and subject to the qualifications described in **"TAX MATTERS,"** in the opinion of Bond Counsel, under current law, interest on the Series 2024 Bonds (i) is excludable from the gross income of their owners for purposes of federal income taxation, (ii) is not a specific item of tax preference for purposes of the federal alternative minimum tax, and (iii) is exempt from income taxation by the Commonwealth of Virginia and any of its political subdivisions. Such interest may be subject to other federal income tax consequences as described in **"TAX MATTERS."**
Interest Payment Dates	Semi-annually on January 1 and July 1, beginning January 1, 2025.
Regular Record Date	The 15th day of the month preceding each payment date.
Registration	Book-Entry Only; The Depository Trust Company. See **"APPENDIX G - Book-Entry Only System."**
Denomination	$5,000 or multiples thereof.
Closing/Delivery Date	On or about October 23, 2024.
Bond Counsel	McGuireWoods LLP, Richmond, Virginia.
Financial Advisor	Davenport & Company LLC, Richmond, Virginia.
Registrar/Paying Agent	U.S. Bank Trust Company, National Association.
Issuer Contact	Director of Finance of the Authority, (571) 291-7700.

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

This Official Statement is dated October 9, 2024.

Loudoun County Sanitation Authority (Virginia)

$70,935,000
Water and Sewer System Revenue Refunding Bonds, Series 2024

MATURITIES, AMOUNTS, INTEREST RATES, PRICES AND YIELDS

Year of Maturity (January 1)	Principal Amount	Interest Rate	Price	Yield	CUSIP† Number (Base: 545904)
2028	$4,010,000	5.000%	2.430%	107.836%	PA6
2029	4,215,000	5.000	2.480	109.964	PB4
2030	4,420,000	5.000	2.550	111.833	PC2
2031	4,645,000	5.000	2.630	113.451	PD0
2032	4,885,000	5.000	2.700	114.933	PE8
2033	5,130,000	5.000	2.750	116.393	PF5
2034	5,380,000	5.000	2.820	117.534	PG3
2035	5,645,000	5.000	2.890	118.503	PH1
2036	5,925,000	5.000	2.950*	117.923*	PJ7
2037	6,225,000	5.000	2.980*	117.634*	PK4
2038	2,210,000	5.000	3.040*	117.058*	PL2
2039	2,320,000	5.000	3.130*	116.201*	PM0
2040	2,435,000	4.000	3.220*	106.725*	PN8

$5,140,000 3.000% Term Bonds due January 1, 2042, Priced at 91.152% to Yield 3.700% CUSIP Number 545904 PQ1**

$8,350,000 3.500% Term Bonds due January 1, 2045, Priced at 93.908% to Yield 3.940% CUSIP Number 545904 PT5**

* Priced to first optional redemption date of January 1, 2035.

Optional Redemption

The Series 2024 Bonds maturing on or before January 1, 2035, are not subject to redemption prior to their respective maturities. The Series 2024 Bonds maturing on or after January 1, 2036, are subject to redemption at the option of the Authority from any money available for such purpose at any time on or after January 1, 2035 in whole or in part in increments of $5,000 or any integral multiple of $5,000, at the redemption price of 100% of the principal amount of the Series 2024 Bonds to be redeemed, together with accrued interest to the date fixed for redemption.

Mandatory Sinking Fund Redemption

The Series 2024 Bonds maturing on January 1, 2042, are subject to mandatory sinking fund redemption in part, on January 1 in the years and in the amounts set forth below, at a redemption price equal to 100% of the principal amount of such Series 2024 Bonds to be redeemed plus the unpaid interest accrued thereon to the date fixed for redemption, all in the manner provided in the Indenture:

Year	Amount
2041	$2,535,000
2042 (Final Maturity)	2,605,000

The Series 2024 Bonds maturing on January 1, 2045, are subject to mandatory sinking fund redemption in part, on January 1 in the years and in the amounts set forth below, at a redemption price equal to 100% of the principal amount of such Series 2024 Bonds to be redeemed plus the unpaid interest accrued thereon to the date fixed for redemption, all in the manner provided in the Indenture:

Year	Amount
2043	$2,685,000
2044	2,785,000
2045 (Final Maturity)	2,880,000

† Please see the last paragraph on page (i) regarding the use of CUSIP numbers in this Official Statement.

LOUDOUN COUNTY SANITATION AUTHORITY

P.O. Box 4000
44865 Loudoun Water Way
Ashburn, Virginia 20147
(571) 291-7700

DIRECTORS

Terrence Allen, Chairman
Brent Campbell, Vice Chairman
Jim Bonfils
Tony Buffington
Shaun Kelley
Keith Moody
Martin Sultan
Jack Vega
Charles Yudd

SENIOR STAFF

Brian Carnes, General Manager
Mark E. Peterson, Deputy General Manager Administration
Alton Echols, Deputy General Manager Operations and Maintenance
Sally Dehler, Director of Finance

GENERAL COUNSEL AND BOND COUNSEL

McGuireWoods LLP

FINANCIAL ADVISOR

Davenport & Company LLC

INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS

Yount, Hyde & Barbour

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THE SERIES 2024 BONDS ARE EXEMPT FROM REGISTRATION UNDER THE SECURITIES ACT OF 1933, AS AMENDED. THE SERIES 2024 BONDS ARE ALSO EXEMPT FROM REGISTRATION UNDER THE SECURITIES LAWS OF THE COMMONWEALTH OF VIRGINIA.

NO DEALER, BROKER, SALESMAN OR OTHER PERSON HAS BEEN AUTHORIZED BY THE AUTHORITY 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 AUTHORITY. THIS OFFICIAL STATEMENT DOES NOT CONSTITUTE AN OFFER TO SELL OR THE SOLICITATION OF AN OFFER TO BUY, NOR SHALL THERE BE ANY SALE OF THE BONDS BY ANY PERSON IN ANY JURISDICTION IN WHICH IT IS UNLAWFUL FOR SUCH PERSON TO MAKE AN OFFER, SOLICITATION OR SALE. THIS OFFICIAL STATEMENT IS NOT TO BE CONSTRUED AS A CONTRACT OR AGREEMENT BETWEEN THE AUTHORITY AND THE PURCHASERS OR OWNERS OF ANY OF THE SERIES 2024 BONDS. THE INFORMATION AND EXPRESSIONS OF OPINION IN THIS OFFICIAL STATEMENT ARE SUBJECT TO CHANGE WITHOUT NOTICE, AND NEITHER THE DELIVERY OF THIS OFFICIAL STATEMENT NOR ANY SALE MADE UNDER IT WILL, UNDER ANY CIRCUMSTANCES, CREATE ANY IMPLICATION THAT THERE HAS BEEN NO CHANGE IN THE AFFAIRS OF THE AUTHORITY SINCE THE DATE OF THIS OFFICIAL STATEMENT.

This Official Statement contains certain projections or estimates, as well as assumptions made by and information currently available to the Authority. When information presented herein is not a recitation of historical fact, it constitutes "forward looking statements." When used in this Official Statement, the words, "anticipate," "estimate," "expect" and similar expressions are intended to identify projections and estimates. Such statements are subject to certain risks, uncertainties and assumptions. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those anticipated, estimated or expected. The assumptions and expectations concerning the receipt in future years of Net Revenues that secure the Series 2024 Bonds are subject to various uncertainties that may adversely affect the amount of such Net Revenues. Hence, readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof.

All quotations from, and summaries and explanations of, provisions of law and documents herein do not purport to be complete and reference is made to such laws and documents for full and complete statements of their provisions. Any statements made in this Official Statement involving estimates or matters of opinion, whether or not expressly so stated, are intended merely as estimates or opinions and not as representations of fact.

Certain persons participating in this offering may engage in transactions that stabilize, maintain or otherwise affect the price of the Series 2024 Bonds, including transactions to (i) overallot in arranging the sales of the Series 2024 Bonds and (ii) make purchases and sales of Series 2024 Bonds, for long or short account, on a when-issued basis or otherwise, at such prices, in such amounts and in such manner beyond the control of the Authority.

CUSIP (Committee on Uniform Securities Identification Procedures) numbers have been assigned by an organization not affiliated with the Authority, and the Authority is not responsible for the selection or use of the CUSIP numbers in this Official Statement or otherwise. The CUSIP numbers included in this Official Statement are included solely as a convenience and no representation is made as to the correctness of such CUSIP numbers. CUSIP numbers assigned to securities may be changed during the term of such securities based on a number of factors including, but not limited to, the refunding or defeasance of such issue or the use of secondary market financial products. The Authority has not agreed to, and there is no duty or obligation to, update this Official Statement to reflect any change or correction in the CUSIP numbers set forth above.

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TABLE OF CONTENTS

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$70,935,000
LOUDOUN COUNTY SANITATION AUTHORITY (VIRGINIA)
Water and Sewer System Revenue Refunding Bonds,
Series 2024

INTRODUCTION

The purpose of this Official Statement, including its cover and appendices, is to set forth information relating to the Loudoun County Sanitation Authority, d/b/a Loudoun Water (the "Authority"), its water and wastewater system (as more fully described hereinafter, the "System"), and its Water and Sewer System Revenue Refunding Bonds, Series 2024 (the "Series 2024 Bonds").

The Series 2024 Bonds are being issued pursuant to (i) the Virginia Water and Waste Authorities Act, Chapter 51, Title 15.2 of the Code of Virginia of 1950, as amended (the "Act"), (ii) a resolution adopted by the Board of Directors of the Authority on September 12, 2024 (the "Resolution"), and (iii) the Master Indenture of Trust dated as of June 1, 1992, between the Authority and U.S. Bank Trust Company, National Association, as successor trustee (the "Trustee"), as previously supplemented and amended (the "Master Indenture"), and as further supplemented by the Nineteenth Supplemental Indenture of Trust dated as of October 1, 2024 (the "Supplemental Indenture" and, collectively with the Master Indenture, the "Indenture"), between the Authority and the Trustee, which also serves as Paying Agent (the "Paying Agent").

Certain capitalized terms used in this Official Statement are defined in Appendix A, and a summary of certain provisions of the Indenture appears in Appendix B.

PLAN OF REFUNDING

The Series 2024 Bonds are being issued to (i) refund all or a portion of certain outstanding bonds of the Authority, and (ii) pay the costs of issuance of the Series 2024 Bonds.

The Bonds to be refunded by the Series 2024 Bonds are more particularly described in the following table (collectively, the "Refunded Bonds"). The Authority is refunding the Refunded Bonds to obtain present value debt service savings.

Summary of Refunded Bonds

Loudoun County Sanitation Authority (Virginia) Water and Sewer System Revenue and Refunding Bonds, Series 2015

Year of Maturity (January 1)	**Principal Amount to be Refunded**	**Interest Rate**	**CUSIP† Suffix (545904)**	**Redemption Date**	**Redemption Price**
2028	$4,540,000	5.000%	MD3	January 1, 2025	100%
2029	4,770,000	5.000	ME1	January 1, 2025	100
2030	5,005,000	4.000	MF8	January 1, 2025	100
2031	5,210,000	4.000	MG6	January 1, 2025	100
2032	5,425,000	4.000	MH4	January 1, 2025	100
2033	5,640,000	4.000	MJO	January 1, 2025	100
2034	5,860,000	4.000	MK7	January 1, 2025	100
2035	6,090,000	4.000	ML5	January 1, 2025	100
2036	6,335,000	4.000	MM3	January 1, 2025	100
2037	6,590,000	4.000	MN1	January 1, 2025	100
2038	2,530,000	4.000	MP6	January 1, 2025	100
2039	2,630,000	4.000	MQ4	January 1, 2025	100
2042	8,535,000	4.000	MR2	January 1, 2025	100
2045	9,600,000	4.000	MS0	January 1, 2025	100

† Please see page (i) regarding the use of CUSIP numbers in this Official Statement.

Upon issuance of the Series 2024 Bonds, a portion of the proceeds, together with other available funds, will be deposited in an Escrow Fund (the "Escrow Fund") established with the Trustee under the Indenture. The Trustee will deposit such funds as cash or use them to purchase noncallable Government Obligations as required by the Master Indenture, the principal and interest payments on which will be sufficient to pay the principal of and interest on the Refunded Bonds as and when due through their respective redemption dates. See **"APPLICATION OF PROCEEDS."** The sufficiency of the moneys and investments deposited in the Escrow Fund will be verified by The Arbitrage Group, Inc. (the "Verification Agent"). See **"VERIFICATION OF MATHEMATICAL COMPUTATIONS."**

Upon the irrevocable deposit of cash and such securities to the Escrow Fund and the Authority's irrevocable instruction to the Trustee to pay or redeem the Refunded Bonds in full on their respective redemption dates, the Refunded Bonds will be discharged and no longer deemed to be Outstanding under the Indenture. Thereafter, the Refunded Bonds will be payable solely from the Escrow Fund and will no longer be secured by the Indenture, including its lien on the Net Revenues.

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APPLICATION OF PROCEEDS

The proceeds received from the sale of the Series 2024 Bonds and other funds of the Authority will be applied as follows:

Sources of Proceeds:	
Series 2024 Bonds	$70,935,000.00
Net Original Issue Premium	7,553,069.05
Interest Fund Contribution	1,081,166.67
Debt Service Reserve Fund Release	567,146.36
Total Sources of Proceeds	$80,136,382.08
Uses of Proceeds:	
Escrow Deposit for Redemption of Refunded Bonds	$79,645,520.91
Costs of Issuance(1)	490,861.17
Total Uses of Proceeds	$80,136,382.08

(1) Includes underwriter's discount and legal, printing, rating agency, trustee, and other fees and expenses of the issuance and offering of the Series 2024 Bonds.

SOURCES OF PAYMENT AND SECURITY FOR THE SERIES 2024 BONDS

General

The Series 2024 Bonds will be limited obligations of the Authority payable (except to the extent payable from the proceeds of the Series 2024 Bonds or the income, if any, derived from the investment thereof) solely from the Authority's Net Revenues derived from the ownership or operation of the System, and income from investments in certain funds and accounts held under the Indenture.

The Series 2024 Bonds, the premium, if any, and the interest on them will not be deemed to constitute a pledge of the faith and credit of the Commonwealth of Virginia (the "Commonwealth") or any of its political subdivisions, including the County of Loudoun, Virginia (the "County"). Neither the faith and credit nor the taxing power of the Commonwealth or any county, city, town or other political subdivision of the Commonwealth, including the County, is pledged to the payment of the principal of or premium, if any, or interest on the Series 2024 Bonds. The issuance of the Series 2024 Bonds does not directly, indirectly or contingently obligate the Commonwealth or any county, city, town or other political subdivision of the Commonwealth, including the County, to levy any taxes or to make any appropriation for the payment of the Series 2024 Bonds. The Authority has no taxing power.

Under the Indenture, the Authority has pledged to the Trustee as security for the payment of the principal of and premium, if any, and interest on the Authority's Bonds and Parity Indebtedness, on an equal and ratable basis, all of the Net Revenues derived from the ownership and operation of the System, subject only to the right of the Authority to use such revenues for other purposes, including the payment of Operating Expenses. The Authority's Bonds are further secured by amounts in the Project Fund, the Bond Fund and the Debt Service Reserve Fund held under the Master Indenture.

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

Revenue Covenant

The Authority covenants (the "Revenue Covenant") under the Indenture to establish, fix, charge, collect and revise the rates, fees and charges for the use of and for the services furnished by the System, so that in each Fiscal Year (i) Net Revenues are not less than the sum of (A) 1.2 times Senior Debt Service (which includes debt service on the Authority's Bonds and Parity Indebtedness) for the Fiscal Year, (B) Subordinate Debt Service for the Fiscal Year and (C) any amounts required to be deposited in the Repair and Replacement Fund during the Fiscal Year, and (ii) either (A) Net Revenues less 50% of Availability Charges are not less than Senior Debt Service for the Fiscal Year or (B) Net Revenues less 50% of Availability Charges plus 50% of Authority Reserves are not less than 1.5 times Senior Debt Service for the Fiscal Year. In the event the Replacement Reserve Requirement is increased or funds on deposit in the Repair and Replacement Fund are less than the Replacement Reserve Requirement, the Indenture requires the Authority to increase the balance in the Repair and Replacement Fund to the Replacement Reserve Requirement in approximately equal installments over a period not longer than sixty months.

If the Authority (i) as of the end of any Fiscal Year is not in compliance with the Revenue Covenant, (ii) fails for three consecutive months to make the deposits to the Interest Account and the Principal Account of the Bond Fund which are required by the Indenture or (iii) is required to transfer money from the Debt Service Reserve Fund to the Bond Fund because of a deficit in the Bond Fund and the amount so transferred is not replenished within 30 days, then the Authority will immediately request the Consulting Engineer to submit a written report and recommendations with respect to increases in the Authority's rates, fees and charges and improvements in the operations of and the services rendered by the System and the Authority's accounting and billing procedures necessary to bring the Authority into compliance, in the case of an event described in clause (i) or (ii) of the foregoing, with the Revenue Covenant in its entirety and, in the case of an event described in clause (iii) of the foregoing, with the requirements of clause (ii)(A) of the Revenue Covenant. The report and recommendations will be filed with the Trustee and the Authority, in the case of an event described in clause (i) or (ii) of the foregoing, within 120 days from the date of discovery of noncompliance with the Revenue Covenant and, in the case of an event described in clause (iii) of the foregoing, within 180 days after the date of transfer from the Debt Service Reserve Fund.

If the Authority promptly revises its rates, fees, charges, operations and service in conformity with the report and recommendations of the Consulting Engineer and otherwise follows such recommendations to the extent permitted by law so that when its actions become fully effective, the Authority will be in compliance with the Revenue Covenant, then any failure to meet the Revenue Covenant will not constitute an Event of Default under the Indenture. See **"THE AUTHORITY – Rate Regulation."**

Debt Service Reserve Fund

The Indenture requires the Authority to maintain in the Debt Service Reserve Fund, which secures the Bonds, an amount (the "Debt Service Reserve Requirement") equal to the least of (i) the maximum principal and interest due on the Bonds then Outstanding in the Authority's then current or any future Fiscal Year, (ii) 10% of the original proceeds (excluding accrued interest) of the Bonds, and (iii) 125% of the average annual principal and interest due on the Bonds then Outstanding in the Authority's then current and each future Fiscal Year. Principal and interest due on each January 1 is reflected in the preceding Fiscal Year. Upon the issuance of the Series 2024 Bonds, the amounts in the Debt Service Reserve Fund will equal the Debt Service Reserve Requirement. See **"Debt Service Reserve Fund"** in Appendix B.

Outstanding Bonds and Parity Indebtedness

Currently, the Authority has three series of Bonds Outstanding under the Master Indenture (not including the Series 2024 Bonds). Set forth in the following chart are the issue dates, original principal amounts and outstanding principal amounts of the series of Bonds Outstanding:

Series of Bonds	Issue Date	Original Principal Amount	Outstanding Principal Amount as of December 31, 2023
Water and Sewer System Revenue and Refunding Bonds, Series 2015 (the "Series 2015 Bonds")	August 19, 2015	$117,235,000	$95,420,000 (1)
Water and Sewer System Revenue Refunding Bonds, Series 2019 (the "Series 2019 Bonds")	October 31, 2019	23,095,000	18,750,000
Water and Sewer System Revenue and Refunding Bonds, Series 2021 (the "Series 2021 Bonds")	August 19, 2021	76,055,000	72,945,000
Total:		$216,385,000	$187,115,000

(1) Upon issuance of the Series 2024 Bonds and the refunding of the Refunded Bonds, there will be $12,775,000 aggregate principal amount outstanding on the Series 2015 Bonds.

Currently, the Authority has three issues of Parity Indebtedness Outstanding under the Master Indenture. Set forth in the following chart is the issue date, original principal amount and outstanding principal amount of the Parity Indebtedness Outstanding:

Outstanding Parity Debt	Issue Date	Original Principal Amount	Outstanding Principal Amount as of December 31, 2023
Water and Sewer System Revenue Bonds, Variable Rate Series 2005 (Parity Indebtedness) ("2005 Parity Debt")	December 22, 2005	$25,000,000	$9,520,000
Water and Sewer System Revenue Bond, Series 2011	June 23, 2011	102,000	42,452
Water and Sewer System Revenue Bond, Series 2013	April 30, 2013	7,339,000	4,428,688
Total:		$32,441,000	$13,991,140

The Master Indenture permits the Authority to issue, subject to certain restrictions, one or more series of Additional Bonds, equally and ratably secured with the Series 2024 Bonds and the Outstanding Bonds, to pay the cost of (i) acquiring, renovating, equipping or constructing improvements, extensions, additions or replacements to the System or (ii) refunding any Bonds or other Authority obligations.

The Authority may also incur Parity Indebtedness under the Master Indenture. Parity Indebtedness is secured equally and ratably secured with the Series 2024 Bonds, the Outstanding Bonds, any Additional Bonds, except that Parity Indebtedness is not secured by the Debt Service Reserve Fund, the Project Fund or the Bond Fund. The Master Indenture permits the Authority to issue Parity Indebtedness on terms and conditions similar to those required for the issuance of Additional Bonds. See **"Additional Bonds"** and **"Parity Indebtedness"** in Appendix B.

Subordinate Debt

The Authority may also incur Subordinate Debt secured by a pledge of Net Revenues that is expressly made subordinate to the pledge of Net Revenues securing the Bonds and any Parity Indebtedness or that is unsecured. The Authority's payment obligation under its service contracts constitutes Subordinate Debt. See **"THE AUTHORITY – Service Contracts"** and Note 6 in **Appendix C – Audited Financial Statements**.

BONDHOLDERS' REMEDIES IN EVENT OF DEFAULT

In case of an Event of Default under the Indenture (see **"Events of Default"** and **"Remedies; Rights of Bondholders"** in Appendix B), the Trustee may, and upon the request of the holders of 25% in aggregate principal amount of Bonds and Parity Indebtedness then outstanding and upon indemnification as provided in the Indenture will, proceed to protect and enforce its rights and the rights of the holders of the Bonds and Parity Indebtedness by declaring the entire unpaid principal of and interest on the Bonds and Parity Indebtedness due and payable or by instituting a mandamus or other suit, action or proceeding at law or in equity, including any action for specific performance of any agreement contained in the Indenture. The mandamus remedy, however, may be impracticable and difficult to enforce. Furthermore, the right to enforce payment of Bonds or Parity Indebtedness 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") permits "municipalities," if insolvent or otherwise unable to pay their debts as they become due, to file a voluntary petition for the adjustment of debts, provided that such municipality is "specifically authorized, in its capacity as a municipality or by name, to be a debtor…." Bankruptcy Code, Section 109(c)(2). Current Virginia statutes do not expressly authorize the Authority or municipalities generally to file under Chapter 9. Chapter 9 does not authorize the filing of involuntary petitions against municipalities such as the Authority.

Bankruptcy proceedings by the Authority could have adverse effects on holders of Bonds and Parity Indebtedness, including (i) delay in the enforcement of their remedies, (ii) subordination of their claims to claims of those supplying goods and services to the Authority after the initiation of bankruptcy proceedings and to the administrative expenses of bankruptcy proceedings, and (iii) imposition without their consent of a plan of reorganization reducing or delaying payment of the Bonds and Parity Indebtedness. The Bankruptcy Code contains provisions intended to ensure that, in any plan of reorganization not accepted by at least a majority of any class of creditors such as the holders of the Bonds and Parity Indebtedness, such class of creditors will have the benefit of their original claim or the "indubitable equivalent" thereof, although such "equivalent" may not provide for payment of the Bonds and Parity Indebtedness in full. The effect of these and other provisions of the Bankruptcy Code cannot be predicted and may be significantly affected by judicial interpretation.

DESCRIPTION OF THE SERIES 2024 BONDS

General

The Series 2024 Bonds will bear interest at the rate or rates and will mature on the dates and in the amounts shown on the front cover of this Official Statement.

The Series 2024 Bonds will be dated the date of their delivery and will bear interest from that date. Interest on all Series 2024 Bonds will be payable semi-annually on January 1 and July 1 of each year, with the first interest payment to be due on January 1, 2025. The record date for the Series 2024 Bonds is the 15th of the month preceding the next payment date. Interest on the Series 2024 Bonds is calculated on the basis of a 360-day year, comprised of 12 months of 30 days each.

The Series 2024 Bonds are issuable only as fully registered bonds and are issuable in the denomination of $5,000, or any integral multiple of $5,000. The Authority has engaged U.S. Bank Trust Company, National

Association to act as Trustee and Paying Agent for the Series 2024 Bonds and has appointed the Paying Agent as its registrar and transfer agent.

Optional Redemption

The Series 2024 Bonds maturing on or before January 1, 2035, are not subject to redemption prior to their respective maturities. The Series 2024 Bonds maturing on or after January 1, 2036, are subject to redemption at the option of the Authority from any money available for such purpose at any time on or after January 1, 2035, in whole or in part in increments of $5,000 or any integral multiple of $5,000, at the redemption price of 100% of the principal amount of the Series 2024 Bonds to be redeemed, together with accrued interest to the date fixed for redemption.

Mandatory Sinking Fund Redemption

The Series 2024 Bonds maturing on January 1, 2042, are subject to mandatory sinking fund redemption in part, on January 1 in the years and in the amounts set forth below, at a redemption price equal to 100% of the principal amount of such Series 2024 Bonds to be redeemed plus the unpaid interest accrued thereon to the date fixed for redemption, all in the manner provided in the Indenture:

Year	Amount
2041	$2,535,000
2042 (Final Maturity)	2,605,000

The Series 2024 Bonds maturing on January 1, 2045, are subject to mandatory sinking fund redemption in part, on January 1 in the years and in the amounts set forth below, at a redemption price equal to 100% of the principal amount of such Series 2024 Bonds to be redeemed plus the unpaid interest accrued thereon to the date fixed for redemption, all in the manner provided in the Indenture:

Year	Amount
2043	$2,685,000
2044	2,785,000
2045 (Final Maturity)	2,880,000

Notice of Redemption

Notice of redemption will be mailed by the Trustee to DTC at least 30 and not more than 60 days before the redemption date. Failure to mail any such notice or any defect in it will not affect the validity of the proceedings for redemption of any Series 2024 Bond with respect to which no failure or defect has occurred. Notice of redemption will be given to the beneficial owners (the "Beneficial Owners") of the Series 2024 Bonds as described in **Appendix G - Book-Entry Only System.**

Each notice of redemption will contain, among other things, the CUSIP identification number and the number of the Series 2024 Bonds (or portions thereof) being called for redemption, the redemption date and price and the address at which the Series 2024 Bonds are to be surrendered for payment of the redemption price. Such notice may state that the redemption of the Series 2024 Bonds to be redeemed is conditioned upon the occurrence of certain future events, including, without limitation, the deposit with the Trustee of moneys sufficient to effect the redemption on or before the date fixed therefor.

Any defect in such notice or the failure to mail any such notice to the registered owner of any Series 2024 Bond called for redemption will not affect the validity of the proceedings for the redemption of any other Series 2024 Bond. Any defect in such notice or the failure to mail any such notice to the MSRB will not affect the validity of the proceedings for the redemption of the Series 2024 Bonds. As long as the book-entry only system is used for determining ownership of the Series 2024 Bonds, the Authority shall send notice to DTC or its nominee, or its successor. Any failure of DTC or its nominee or of a Direct Participant or Indirect Participant, each as hereinafter defined, to notify a Direct Participant, Indirect Participant or Beneficial Owner, as hereinafter defined, of any Series 2024 Bond called for redemption will not affect the validity of the proceedings for the redemption of such Series 2024 Bond.

Selection of Series 2024 Bonds for Redemption

If less than all of the Series 2024 Bonds are called for optional redemption, the maturities to be called will be as directed by the Authority in such manner as the Authority determines to be in its best interest. If less than all of any maturity of the Series 2024 Bonds is called for redemption, the Series 2024 Bonds within each maturity to be redeemed will be selected by the Paying Agent in a manner in which the Paying Agent determines to be appropriate and fair.

Effect of Redemption

After the date on which any Series 2024 Bonds have been called for redemption and sufficient sums for their payment on the date fixed for redemption are held by the Paying Agent, interest on such Series 2024 Bonds will cease to accrue and the registered owners of such Series 2024 Bonds will be entitled to look only to the Paying Agent for payment.

Book-Entry Only System

Appendix G contains a description of the procedures and recordkeeping of The Depository Trust Company ("DTC") with respect to beneficial ownership interests in the Series 2024 Bonds, payments of principal and interest on the Series 2024 Bonds to DTC, its nominee, Direct Participants, Indirect Participants or Beneficial Owners (each as defined in Appendix G), confirmation and transfer to beneficial ownership interests in the Series 2024 Bonds and other bond-related transactions by and between DTC, Direct Participants, Indirect Participants and Beneficial Owners. Such description is based solely on information furnished by DTC and the Authority makes no representations about such information. So long as DTC or its nominee, Cede & Co., is the registered owner of the Series 2024 Bonds, any such notices of redemption will be mailed solely to DTC and distribution of such notices to Direct Participants and Indirect Participants will be the sole responsibility of DTC, and distribution of such notices to Beneficial Owners will be the sole responsibility of the Direct Participants and Indirect Participants. See **Appendix G – Book-Entry Only System**.

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DEBT SERVICE REQUIREMENTS

The following table sets forth the annual debt service requirement for the Outstanding Bonds and Parity Indebtedness upon the issuance of the Series 2024 Bonds.

			Series 2024 Bonds			
Fiscal Year Ending December 31	Outstanding[(1)(2)] Senior Debt Service	Less: Refunded Bond Debt Service	Principal	Interest	Total Debt Service	Combined Total Debt Service
2024	$19,143,843	$1,621,750	$ -	$ 622,266	$ 622,266	$18,144,359
2025	19,144,258	3,243,500	-	3,294,350	3,294,350	19,195,108
2026	19,147,081	3,243,500	-	3,294,350	3,294,350	19,197,931
2027	19,146,556	7,783,500	4,010,000	3,294,350	7,304,350	18,667,406
2028	19,146,112	7,786,500	4,215,000	3,093,850	7,308,850	18,668,462
2029	19,143,091	7,783,000	4,420,000	2,883,100	7,303,100	18,663,191
2030	14,701,181	7,787,800	4,645,000	2,662,100	7,307,100	14,220,481
2031	14,697,281	7,794,400	4,885,000	2,429,850	7,314,850	14,217,731
2032	14,690,081	7,792,400	5,130,000	2,185,600	7,315,600	14,213,281
2033	14,690,081	7,786,800	5,380,000	1,929,100	7,309,100	14,212,381
2034	14,679,881	7,782,400	5,645,000	1,660,100	7,305,100	14,202,581
2035	9,471,744	7,783,800	5,925,000	1,377,850	7,302,850	8,990,794
2036	9,462,969	7,785,400	6,225,000	1,081,600	7,306,600	8,984,169
2037	5,143,731	3,461,800	2,210,000	770,350	2,980,350	4,662,281
2038	5,144,500	3,460,600	2,320,000	659,850	2,979,850	4,663,750
2039	5,153,800	3,460,400	2,435,000	543,850	2,978,850	4,672,250
2040	5,148,100	3,461,000	2,535,000	446,450	2,981,450	4,668,550
2041	5,137,500	3,457,200	2,605,000	370,400	2,975,400	4,655,700
2042	5,142,000	3,459,000	2,685,000	292,250	2,977,250	4,660,250
2043	3,461,000	3,461,000	2,785,000	198,275	2,983,275	2,983,275
2044	3,458,000	3,458,000	2,880,000	100,800	2,980,800	2,980,800
2045	-	-	-	-	-	-
2046	-	-	-	-	-	-
2047	-	-	-	-	-	-
Totals	$245,052,790	$113,653,750	$70,935,000	$33,190,691	$104,125,691	$235,524,731

(1) Includes all Outstanding Bonds and Parity Indebtedness. Numbers may not add to totals due to rounding. Dollar amounts of debt service shown for each Fiscal Year in this table exclude principal and interest due on January 1 of the indicated year and include principal and interest due on January 1 of the immediately succeeding year. The Authority has other contractual payment obligations that are subordinate to Bond Debt Service and that are not shown in the table. See **"SOURCES OF PAYMENT AND SECURITY FOR THE SERIES 2024 BONDS – Subordinate Debt."**

(2) Interest on the 2005 Parity Debt is variable and is calculated assuming an interest rate of 4.5% per annum. Actual interest rates will vary.

THE AUTHORITY

History and Statutory Powers

The Authority is a public body politic and corporate and an instrumentality of the Commonwealth of Virginia, organized under the Act. The Authority was created by an act of the Board of Supervisors of the County and was chartered by the State Corporation Commission on May 27, 1959.

The Act and the Authority's Articles of Incorporation provide that the Authority is authorized, among other things, (i) to acquire, construct, improve, operate and maintain a water system for supplying and distributing water in the County and a sewer system and sewage disposal system for the County, (ii) to issue bonds of the Authority payable solely from revenues to pay all or part of the cost of a water system, sewer system and sewage disposal system, (iii) to fix, revise, charge and collect rates, fees and charges for the use and services of any system operated by the Authority, and (iv) to enter into contracts with any unit, including counties, cities and other authorities, relating to the furnishing of services of the Authority. The Act also provides that the Authority is subject in all respects to the jurisdiction of the Virginia State Water Control Board under the provisions of the State Water Control Law.

Certain general economic, demographic, and financial information about the County is included in Appendix D.

Governance and Management

The Authority is governed by a Board of Directors consisting of nine members appointed by the Board of Supervisors of Loudoun County, Virginia, as follows:

Directors	Occupation	Term Expires
Terrence Allen	Equity Trader, Retired Real Estate Professional	December 31, 2026
Jim Bonfils	Information Technology Professional	December 31, 2025
Tony Buffington	Real Estate Agent	December 31, 2027
Brent Campbell	Principal, Real Estate Advisory Firm	December 31, 2026
Shaun Kelley	Executive VP and Chief Credit Officer National Cooperative Bank	December 31, 2024
Keith Moody	President and Co-Founder, LinkVisum Consulting Group	December 31, 2027
Martin Sultan	Professional Engineer, Retired	December 31, 2025
Jack Vega	Civil Engineer	December 31, 2024
Charles Yudd	Deputy County Administrator	December 31, 2027

Terrence Allen and Brent Campbell are the Chairman and Vice Chairman, respectively, of the Authority.

Jewell R. Lilly is Board Secretary and joined the Authority in December 2004.

The day-to-day functions of the Authority are performed by a staff of approximately 354 employees.

Brian Carnes is Treasurer and General Manager of the Authority and joined the Authority in 2007. He received a Bachelor of Science degree in Business Administration from James Madison University and a Master of Business Administration from Frostburg State University.

Mark E. Peterson is Deputy General Manager Administration for the Authority. Mr. Peterson joined the Authority in 2010. He received a Bachelor of Landscape Architecture degree from Michigan State University and a Masters in Urban and Regional Planning degree from Michigan State University.

Alton Echols is Deputy General Manager Operations and Maintenance and joined the Authority in 2013. He received a Bachelor of Science degree in Engineering Technology and a Masters degree in Engineering Management, both from Old Dominion University. Alton is also a licensed Professional Engineer in the Commonwealth of Virginia.

Sally Dehler is the Director of Finance for the Authority and joined the Authority in 2022. Ms. Dehler previously held positions as Director of Financial Services and Human Resources at Virginia Regional Transit, Senior Financial Analyst at Xerox/Conduent, Miller & Chevalier and Covance, and auditor at Coopers & Lybrand. She holds a Bachelor of Accountancy degree from Villanova University and a Masters of Business Administration from George Mason University.

Service Area

The Authority is chartered to serve all unincorporated areas of the County. The Authority's central service area is 135 square miles (the entire County is approximately 522 square miles). The incorporated towns within the County operate water supply and wastewater systems independently of the Authority. Growth in demand for the Authority's services has occurred mainly in the eastern part of the County near Washington Dulles International Airport, an area that includes the Broad Run and Occoquan Watersheds and comprises approximately 117 square miles (the "Central Service Area"). The Central Service Area is adjacent to Fairfax County (east), the Potomac River (north), Goose Creek (west) and Prince William County (south).

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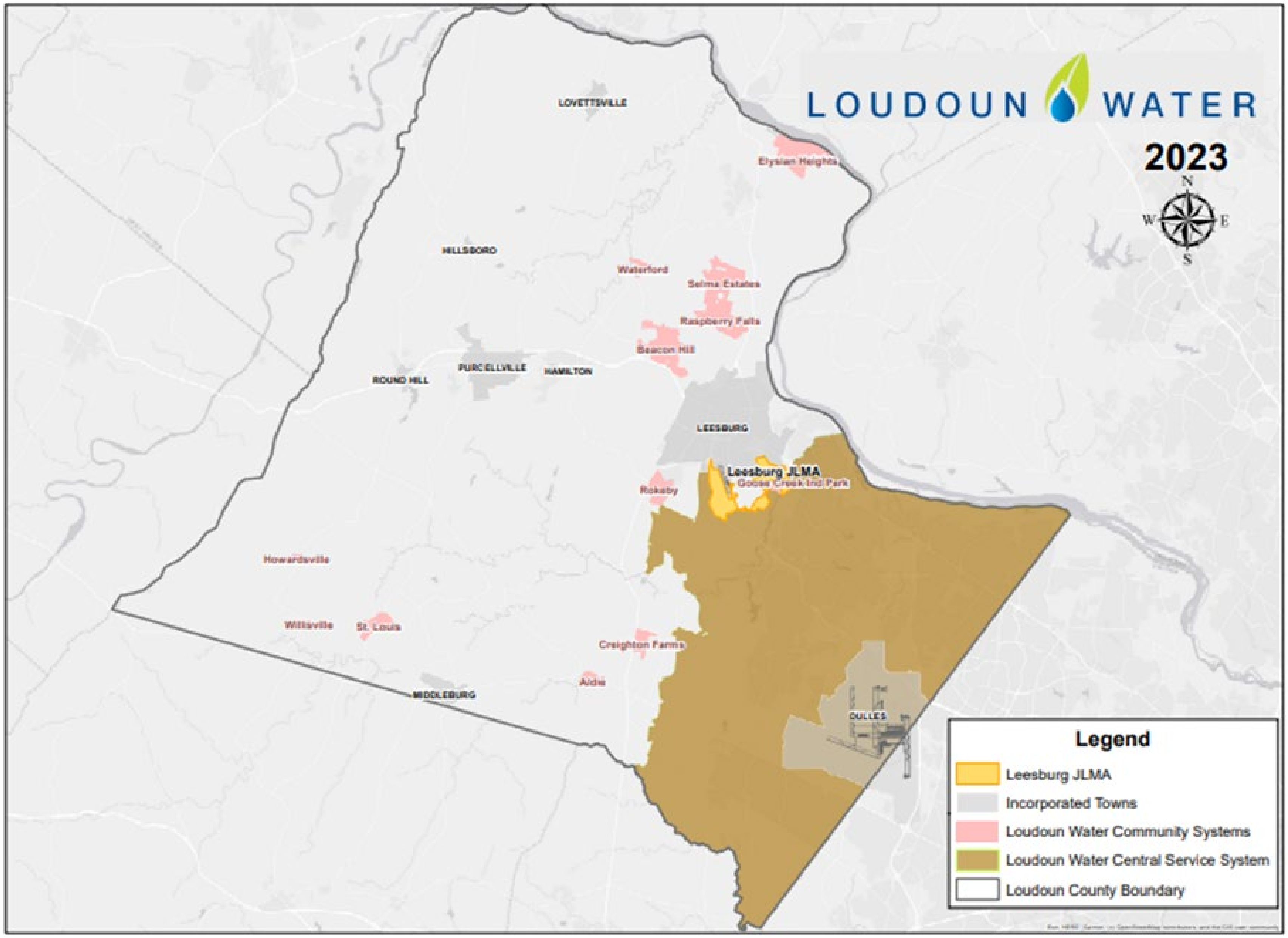
Map of Service Area



Existing Facilities and Resources

The Authority's existing System serves approximately 338,119 residents through approximately 86,670 connections in the Dulles North and South portions of the County, as well as the eastern portion of the County. The System consists of a network of approximately 1,467 miles of water lines and approximately 1,369 miles of sanitary sewer lines, 22 miles of reclaimed water lines, a 1 million gallon water storage facility, a 2 million gallon water storage facility, four 2.5 million gallon water storage facilities and two 3 million gallon water storage facilities.

Water. The Authority owns and operates the 20 million gallons per day (MGD) Trap Rock Water Treatment Facility that officially opened in May 2019. Current production at the facility is about 10 MGD. This facility is part of the Authority's Potomac River Water Supply and Raw Water Storage Plan, effectively securing the water supply for the Authority's customers for the next 30 years. As part of the plan, untreated Potomac River water will be banked in retired quarries. It is the Authority's goal to have the first quarry ready for its new life as a reservoir in 2028.

The Authority also contracts with Fairfax Water for wholesale water purchases. Under various agreements with Fairfax Water, the Authority has secured 50 million gallons per day (MGD) of water capacity rights. Those rights will continue as long as the Fairfax Water system is in existence and operation.

Wastewater. The Authority owns and operates the Broad Run Water Reclamation Facility (BRWRF), an 11 MGD advanced wastewater treatment facility that serves eastern Loudoun County. Operations began in May 2008 and the cleaned water is returned to Broad Run which joins the Potomac River about 4.5 miles downstream. Construction is underway to expand the facility to 16.5 MGD, and is expected to be complete in 2024.

In 1998, the Authority, District of Columbia Water and Sewer Authority ("DCWater"), and the District of Columbia executed an amendment to their 1963 agreement to which DCWater agreed to provide the Authority with 13.8 MGD of allocated wastewater treatment capacity at the Blue Plains Wastewater Treatment Plant, with corresponding transmission entitlements of 31.9 MGD peak capacity in the Potomac Interceptor. Blue Plains supplements the BRWRF treatment capacity.

Service Contracts

Potomac Interceptor. The 85th and 86th Congresses of the United States, by Public Laws 85-703 and 86-515, approved August 28, 1958, and June 12, 1960 (i) provided for the connection of Virginia sewers and sewerage systems with the sewerage systems of the District of Columbia to protect the Potomac River and its tributaries from pollution, and (ii) authorized the construction of the Potomac Interceptor (connecting Virginia and District of Columbia sewers and sewerage systems) from Washington Dulles International Airport to the District of Columbia to provide service for the expected community growth and development.

The Potomac Interceptor crosses the northern portion of the Authority's service area and carries sewage to the Blue Plains Wastewater Treatment Plant owned and operated by DCWater. On October 27, 1963, by Agreement No. DCF-A-2351 (the "Sewage Disposal Agreement"), between the Authority and the District of Columbia, the Authority was authorized to connect its sewers and sewerage systems with those of the District of Columbia using the Potomac Interceptor through metered connections. The Sewage Disposal Agreement provided the Authority a maximum capacity equal to 17.93 MGD until the year 2000, and a flow capacity computed in MGD beyond the year 2000.

The District of Columbia created DCWater in 1996 to assume management of the facilities of the District's Public Works Water and Sewer Utility Administration, including the Potomac Interceptor and the Blue Plains Wastewater Treatment Plant. DCWater also assumed the District's obligations under the Sewage Disposal Agreement.

In 1998, the Authority, DCWater and the District of Columbia executed an amendment to the Sewage Disposal Agreement (the "Amendment Agreement") pursuant to which DCWater agreed to provide the Authority 13.8 MGD allocated wastewater treatment capacity at the Blue Plains Wastewater Treatment Plant, with corresponding transmission entitlements allocating 31.9 MGD of peak capacity in the Potomac Interceptor to the Authority.

The Amendment Agreement provides that the Authority will pay DCWater for capital expenses based on this allocated capacity. In addition, the Authority pays for operation and maintenance costs based on actual flows. The Authority paid DC Water approximately $10.5 million for capital expenses and $9.8 million for operation and maintenance costs plus $608,834 pursuant to an operation and maintenance cost reconciliation process in Fiscal Year 2023.

Fairfax County Water Authority Water Service Agreements. The Authority has entered into a Water Service Agreement No. 2 dated as of June 30, 1989 (the "Water Service Agreement No. 2"), with the Fairfax County Water Authority ("Fairfax Water") for the purchase by the Authority from Fairfax Water of the exclusive right to require Fairfax Water to deliver treated water for purchase ("capacity") and to reserve future phased capacity within the Fairfax Water plant and facility. The Authority purchased an initial 10 MGD of capacity in 1989, an additional 5 MGD of capacity in 1994, and an additional 5 MGD of capacity in 1996. Upon the Authority's commitment to purchase each phase of additional capacity, within the specified time frame, the exclusive right of the Authority to that capacity continues indefinitely.

The Water Service Agreement No. 2 obligates the Authority to pay Fairfax Water equal monthly payments over the then remaining life of the payment schedule established on the 30th day of each month with respect to each phase of capacity that the Authority exercises its option to receive. The initial monthly amounts are based on the estimated sum that Fairfax Water determines for each phase based on the estimated capital costs of constructing the water supply treatment and transmission facilities. If actual costs are greater than the estimated payments, the Authority will pay the difference to Fairfax Water within thirty days or over a period of five years at an interest rate of 6.61%. If the actual final costs are less than the estimated payments, Fairfax Water will pay to the Authority the difference within thirty days or over a period of five years at an interest rate of 6.61%. The Authority is currently paying Fairfax Water $6,366 per month with respect to future storage capacity at the Randolph Reservoir. If the Authority exercises options for additional capacity, new monthly amounts would be charged to the Authority based on the estimated costs expected to be incurred in connection with Fairfax Water's delivery of such additional capacity. The Authority's payments are reimbursement payments to Fairfax Water in acquiring or constructing existing or planned water supply treatment and transmission facilities which are or will be used to provide the reserved capacities to the Authority.

The Water Service Agreement No. 2 permits the Authority to prepay the payments respecting such capital costs due for capacity entitlement. The Authority exercised this prepayment option and used a portion of the proceeds of certain previously issued Bonds to prepay this capital obligation.

In addition to the capital cost reimbursements, the Authority pays for water delivered by Fairfax Water an amount equal to the number of gallons of water delivered in each Fiscal Year multiplied by the cost of operation and maintenance expenses of the Potomac River Supply and Treatment Facilities plus one half of the operation and maintenance expenses of all other water production and transmission facilities during such Fiscal Year divided by the total quantity of water produced by Fairfax Water during such Fiscal Year. The rate is an estimate based on Fairfax Water's budget for the Fiscal Year and the amount of water expected to be sold to the Authority. The Authority is billed and pays monthly and when the audit for the Fiscal Year is performed, the Authority and Fairfax Water reconcile the payments based on the actual expenses and water purchased. If the Authority purchases water in excess of its capacity rights, Fairfax Water may charge it a reasonable charge in excess of the regular rate.

On June 10, 2004, the Authority entered into Water Service Agreement No. 5 (the "Water Service Agreement No. 5") with Fairfax Water for 30 MGD of additional treatment capacity. The Authority's portion of actual final costs are paid monthly in arrears upon determination of the prior calendar year's costs. Water Service Agreement No. 5 will continue for so long as Fairfax Water's system remains in existence and operation.

On February 12, 2015, the Authority entered into Water Service Agreement No. 6 (the "Water Service Agreement No. 6") with Fairfax Water for an additional 10 MGD of transmission capacity from the Fox Mill Pumping Station to the Route 50/Route 28 interchange and 10 MGD of transmission capacity from the Route 50/Route 28 interchange to the Loudoun County line.

Under the various agreements described in this Section, the Authority currently has 50 MGD of water capacity rights available to it from Fairfax Water.

Fairfax County Sewer Service Agreement.

On September 19, 2002, the Authority entered into a Sewer Service Agreement (the "Sewer Service Agreement") with Fairfax County, Virginia ("Fairfax County") pursuant to which the Authority agreed to send a maximum of 1 MGD of wastewater from a portion of the Occoquan Watershed within Loudoun County (the "Cub Run Flows") through the Fairfax County Integrated Sewer System (the "Fairfax Sewer System") to be treated by the Upper Occoquan Service Authority's ("UOSA") Millard H. Robbins, Jr. Regional Water Reclamation Plant. Under the Sewer Service Agreement, the Authority purchased 1 MGD of capacity in the Fairfax Sewer System, with the capacity costs shared such that the unit cost of treatment and conveyance capacity provided is the same for both Fairfax County and the Authority.

The Authority pays Fairfax County on a quarterly basis the proportionate cost for the Cub Run Flows delivered and treated under the Sewer Service Agreement at a wholesale rate that is determined by Fairfax County. Such wholesale rate includes actual costs incurred by Fairfax County for the treatment of the Cub Run Flows, together with the proportionate operation and maintenance costs of the Fairfax Sewer System associated with the Cub Run Flows. The Authority is also responsible for its proportionate share of extraordinary treatment facility and sewer system upgrades on a cash basis within 90 days of substantial completion of such upgrades. In addition, the Sewer Service Agreement obligates the Authority to provide, operate and maintain two metered connections to the Fairfax Sewer System at its sole cost and expense to convey the Cub Run Flows.

In connection with the Sewer Service Agreement, the Authority, Fairfax County and UOSA entered into an Acknowledgement and Consent Regarding Sewer Service Agreement dated September 19, 2002 (the "Acknowledgement"), in order to provide assurances that the Cub Run Flows, when and as delivered by Fairfax County to UOSA for treatment, conform to the provisions of UOSA's service agreement, UOSA's policy, and all applicable federal, state and local pretreatment programs, law, ordinances and regulations. In addition, UOSA provided its consent under the Acknowledgement to the Sewer Service Agreement and recognized its obligation to accept and treat the Cub Run Flows for so long as such flows are delivered to UOSA by the Authority.

Rate Regulation

The Act provides that the Authority's rates and charges are subject to the jurisdiction of the State Corporation Commission of Virginia (the "SCC"). On November 15, 1963, in Case No. 16516, the SCC ruled that it had no jurisdiction to review or revise rates of such authorities, except that upon the application of a bondholder, the SCC may require that rates be sufficient to comply with an authority's statutory requirements. This decision was not appealed. The Authority's counsel has advised the Authority that the decision of the Supreme Court of Virginia in Myers v. Moore, 204 Va. 409 (decided June 10, 1963), supports the SCC's ruling in this matter and that any exercise of jurisdiction by the SCC would have to be in accordance with the provisions of the Act. Subject to the foregoing, the Authority's Board of Directors has sole power to set rates, subject to the statutory requirement for a public hearing.

Historical Information Regarding the System

General. The following table summarizes the historical average daily flows.

Summary of Historical Flows (MGD)

Year	Average Day	Max Day Demand	Wastewater
2014	22.4	34.5 (August)	15.9
2015	22.6	36.5 (August)	15.3
2016	24.7	39.8 (July)	16.1
2017	23.7	40.0 (June)	16.7
2018	23.6	41.0 (July)	17.0
2019	25.5	39.8 (July)	17.9
2020	24.8	44.2 (July)	18.9
2021	26.1	43.7 (August)	20.7
2022	26.5	40.7 (August)	20.9
2023	28.2	46.8 (September)	21.6

Source: Loudoun County Sanitation Authority, d/b/a Loudoun Water.

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The following table shows the ten largest customers of the Authority and their total water and wastewater service charges in Fiscal Year 2023.

Customer	2023 Total Service Charges	% of Total
Hayden Technologies LLC	$1,444,060	1.21%
Loudoun County Public Schools	1,354,574	1.13
VA Data Inc.	1,074,777	0.90
VA Data Services	733,626	0.61
Newberry 1 Condominiums	564,370	0.47
Equinix	557,808	0.47
Amberlea at South Riding	549,053	0.46
Cuisine Solutions	517,285	0.43
Wheeler Survey Company LLC	509,734	0.43
Aligned Energy Data Centers LLC	489,015	0.41
TOTAL	$7,794,302	6.52%

Source: Loudoun County Sanitation Authority, d/b/a Loudoun Water.

The following table summarizes the historical number of connections to the System.

Summary of Historical Connections

			Change in ERCs	
Year	Customer Accounts	ERCs[1]	No.	%
2014	71,606	96,148	3,937	4.27%
2015	74,190	100,440	4,449	4.46
2016	76,375	103,867	3,330	3.41
2017	78,692	107,800	3,833	3.79
2018	80,651	111,333	3,856	3.28
2019	82,387	116,358	5,025	4.51
2020	83,623	120,171	3,813	3.28
2021	84,820	123,679	3,508	2.92
2022	85,569	125,990	2,311	1.87
2023	86,670	128,460	2,470	1.96

(1) Equivalent Residential Connections ("ERCs") are determined based upon the size of a water meter by comparing the average usage of a particular meter size to the usage of a typical 5/8" residential water meter.
Source: Loudoun County Sanitation Authority, d/b/a Loudoun Water.

Service Charges. Operating revenues are derived from the rates charged for water and wastewater service provided by the System. The average quarterly bill for a residential customer is shown below:

Historical Summary of Quarterly Continuing
Service Charges for Residential Water Service[1]

Year	Basic Charge	Rate Per 1000 Gals.	Quarterly Total[2]	% Increase
2014 [1]	29.73	2.16	75.09	3.0
2015 [1]	30.62	2.23	77.45	3.0
2016 [1]	31.53	2.30	79.83	3.0
2017 [1]	32.49	2.37	82.26	3.0
2018 [1]	33.45	2.44	84.69	3.0
2019	34.63	2.53	87.76	3.6
2020	35.84	2.62	90.86	3.5
2021	36.74	2.69	93.23	2.6
2022	37.84	2.77	96.01	3.0
2023	38.98	2.85	98.83	2.9

(1) Rates effective as of April 1st. All rates after 2018 are effective January 1.
(2) Assumes 21,000 gallons average quarterly use.
Source: Loudoun County Sanitation Authority, d/b/a Loudoun Water.

The following table shows the adopted rates for 2022, 2023 and 2024.

	Quarterly Consumption Range (gallons)	1/1/2022 Rate per 1,000 gallons	1/1/2023 Rate per 1,000 gallons	1/1/2024 Rate per 1,000 gallons
Residential:				
Tier 1	0 - 25,000[1]	$2.77	$2.85	$2.94
Tier 2	25,001 - 50,000[2]	7.69	7.92	8.16
Tier 3	> 50,000	10.30	10.61	10.93
Multifamily & Commercial:				
Tier 1	-[1]	3.64	3.75	3.86
Tier 2	-[2]	6.25	6.44	6.63
All Other Uses:[3]	all	7.69	7.92	8.16

(1) Tier 1 consumption range for multifamily and commercial accounts will be based on the reserved capacity purchased at the time availability charges are paid.
(2) Tier 2 consumption range for multifamily and commercial accounts will be based on consumption in excess of the reserved capacity purchased at the time availability charges are paid.
(3) Includes, but not limited to, fire hydrant special use, and construction water for which an availability charge has not been paid and irrigation/submeters.
Source: Loudoun County Sanitation Authority, d/b/a Loudoun Water.

Historical Summary of Quarterly Continuing
Service Charges for Residential Wastewater Service[1]

Year	Basic Charge	Rate Per 1000 Gals.	Quarterly Total	% Increase
2014 [1]	29.69	4.26	119.15	2.9
2015 [1]	30.59	4.39	122.78	3.0
2016 [1]	31.50	4.52	126.42	3.0
2017 [1]	32.46	4.66	130.32	3.1
2018 [1]	33.42	4.80	134.22	3.0
2019	34.60	4.97	138.97	3.5
2020	35.81	5.14	143.75	3.4
2021	36.71	5.27	147.38	2.5
2022	37.81	5.43	151.84	3.0
2023	38.94	5.59	156.33	3.0

(1) Rates effective as of April 1st. All rates after 2018 are effective January 1.
Source: Loudoun County Sanitation Authority, d/b/a Loudoun Water.

The Authority owns and operates nine community wastewater treatment systems and five community water systems as a part of the System. The service charges for these systems are the same as central system customers. Water and wastewater continuing quarterly service charges for jurisdictions in and near the County are shown in the following table, which also shows the Authority's charges for comparative purposes.

Comparative Continuing Quarterly Service Charges for
Residential Water and Wastewater Service as of January 1, 2024[1]

Virginia Jurisdiction	Quarterly Total
Loudoun County (the Authority)	$262.96
Prince William County	287.85
Fairfax County	318.71
Town of Leesburg (in town rate)	390.35
Town of Leesburg (out of town rate)	539.33

(1) Assumes 21,000 gallons average quarterly use.
Source: Loudoun County Sanitation Authority, d/b/a Loudoun Water.

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Availability Charges. The charges for connecting to the Authority's System include (i) the Availability Charge and (ii) a permit fee. The permit fee currently is $87 each (water and wastewater) for residential connections and $132 each (water and wastewater) for commercial and industrial customers.

Historical Summary of Availability Charges
for a Typical Residential Connection

Year	Water	Wastewater	Total	% Increase
2014(1)	6,514	7,896	14,410	0.0
2015(1)	6,514	7,896	14,410	0.0
2016(1)	6,514	7,896	14,410	0.0
2017(1)	6,766	8,209	14,975	3.9
2018(1)	6,766	8,209	14,975	0.0
2019	6,901	8,373	15,274	2.0
2020	7,039	8,541	15,580	2.0
2021	7,180	8,711	15,891	2.0
2022	7,395	8,972	16,367	3.0
2023	7,617	9,241	16,858	3.0

(1) Rates effective as of July 1st. Charges after 2018 are effective January 1.
Source: Loudoun County Sanitation Authority, d/b/a Loudoun Water.

Water and wastewater availability charges for jurisdictions in and near the County are shown in the following table, which also shows the Authority's charges for comparative purposes.

Comparative Water and Wastewater System Availability Charges
for Residential Connections as of January 1, 2024

Virginia Jurisdiction	Water Availability Charge	Wastewater Availability Charge	Total Availability Charge
Town of Leesburg (1)	$4,683	$7,292	$11,975
Fairfax County	4,800	8,678	13,478
Prince William County	4,800	11,700	16,500
Loudoun County (the Authority)	7,846	9,519	17,365

(1) There is no distinction between in town and out of town rates for availability charges.
Source: Loudoun County Sanitation Authority, d/b/a Loudoun Water.

Rate Study. The Authority is currently undergoing a periodic rate study with Stantec serving as the Authority's consultant. The rate study is expected to be finalized and acted on by the Board by December 2024. The staff of the Authority does not expect significant changes to its current rates and fees based on the rate study.

Historical Operating Summary. The following tables summarize certain selected information relating to charges of the Authority attributable to its water and wastewater services and its financial performance in the five Fiscal Years ended December 31, 2019, through December 31, 2023. Certain financial data contained in these tables for such Fiscal Years are derived from, and should be read in connection with, the Authority's audited financial statements. Audited financial statements for the Fiscal Year ended December 31, 2023, are included in Appendix C. The information presented in these tables is qualified in its entirety by the detailed information contained in the Authority's audited financial statements.

Historical Summary of Continuing Service Charges

Water:	2019	2020	2021	2022	2023
Water Continuing Service Revenue	$45,633,147	$46,280,789	$50,691,670	$52,050,199	$57,503,490
Water Sold (1,000 Gallons)	8,461,067	8,376,719	8,776,686	9,011,592	9,390,845
Average Rate per 1,000 Gallons	$5.39	$5.52	$5.78	$5.78	$6.12
Percentage Increase (Decrease) in Average Rate per 1,000 Gallons	12.3%	2.4%	4.5%	0.0%	6.0%
Wastewater:					
Wastewater Continuing Service Revenue	$49,239,167	$51,590,873	$55,927,713	$58,496,572	$61,851,733
Wastewater Treated (1,000 Gallons)	7,643,000	7,914,000	7,668,000	7,911,000	7,921,000
Average Rate per 1,000 Gallons	$6.44	$6.52	$6.52	$7.29	$7.39
Percentage Increase (Decrease) in Average Rate per 1,000 Gallons	5.06%	1.24%	1.19%	11.88%	1.38%

Source: Loudoun County Sanitation Authority, d/b/a Loudoun Water.

The Authority credits a portion of availability charges to contributed capital and a portion to non-operating revenue based on related interest costs.

Historical Summary of Availability Charges

	2019	2020	2021	2022	2023
Availability Receipts	$75,683,622	$58,784,335	$55,810,998	$40,393,436	$41,642,815
Oversizing Reimbursements	(3,932,627)	(2,171,812)	(1,867,506)	(1,286,587)	(2,058,332)
Less: Contributed Capital Transfer	(64,420,387)	(51,117,356)	(49,831,691)	(36,282,721)	(36,975,566)
Availability Revenue	$7,330,608	$5,495,167	$4,111,801	$2,824,128	$2,608,917

Source: Loudoun County Sanitation Authority, d/b/a Loudoun Water.

Revenues and Expenses

	2019	2020	2021	2022	2023
Operating Revenues:					
Sale of Water	$45,633,147	$46,280,789	$50,691,670	$52,050,199	$57,503,490
Sewage Disposal Fees	49,239,167	51,590,873	55,927,713	58,496,572	61,851,733
Other Operating Revenues	4,354,215	3,731,512	5,151,674	5,714,132	5,550,821
Total Operating Revenues	99,226,529	101,603,174	111,771,057	116,260,903	124,906,044
Operating Expenses:					
Personnel Services	29,674,102	32,326,145	31,851,149	41,666,238	39,827,029
Contractual Services	22,877,416	21,349,099	21,639,562	21,420,718	25,467,445
Other Operating Expenses	12,285,958	11,285,997	10,464,751	12,416,029	13,352,419
Total Operating Expenses Before Deprec./Amort.	64,837,476	64,961,241	63,955,462	75,502,985	78,646,893
Operating Income Before Deprec./Amort.	34,389,053	36,641,933	47,815,595	40,757,918	46,259,151
Depreciation/Amortization	59,588,417	59,591,159	65,149,468	63,724,425	67,578,845
Operating Income (Loss)	(25,199,364)	(22,949,226)	(17,333,873)	(22,966,507)	(21,319,694)
Non-Operating Revenues/(Expenses):					
Availability Fees	7,330,607	5,495,167	4,055,805	2,824,127	2,608,917
Investment Income	7,566,376	5,980,479	(1,594,623)	(7,552,616)	16,772,665
Interest Expense	(10,137,709)	(9,862,243)	(8,519,663)	(8,395,859)	(8,232,254)
(Loss) Gain on Disposal	40,894	(23,274)	47,240	100,517	261,272
Other Non-Operating Revenue/(Expense)	(139,969)	--	(294,232)	--	(6,669,931)
Total Non-Operating Income (Expense)	4,660,199	1,590,129	(6,305,473)	(13,023,831)	4,740,669
Net Income (Loss) before Capital Contributions	$(20,539,165)	$(21,359,097)	$(23,639,346)	$(35,990,338)	$(16,579,025)

Source: Loudoun County Sanitation Authority, d/b/a Loudoun Water.

Revenue Bond Coverage
(in $ thousands)

	2019	2020	2021	2022	2023
Gross Revenues[1]	$174,885	$161,673	$167,722	$159,482	$173,775
Operating Expenses[2]	(64,837)	(64,961)	(63,956)	(75,503)	(78,647)
Net Revenues Available for Debt Service	$110,048	$96,712	$103,766	$83,979	$95,128
1.2x Max Senior Debt Service	$25,692	$25,349	$20,879	$22,976	$22,976
Max Senior Debt Service Coverage	4.28x	3.82x	4.97x	3.66x	4.14x
Subordinate Debt Service	$537	$527	$527	$527	$527
Total Max Debt Service	$26,219	$25,876	$21,406	$23,503	$23,503
Total Max Debt Service Coverage[3]	4.20x	3.74x	4.85x	3.57x	4.05x

[1] Total Revenues including interest income and total availability receipts. Interest income as used in this table is accounted for on a cash basis and does not include unrealized gains or losses on investments. Interest income as used in the audited financial statements included in Appendix C, however, is accounted for on an accrual basis and includes unrealized gains and losses on investments.
[2] Operating Expenses exclusive of depreciation and amortization.
[3] Net Revenues Available for Debt Service divided by the sum of Senior Debt Service and Subordinated Debt Service.
Source: Loudoun County Sanitation Authority. d/b/a Loudoun Water.

Management Discussion and Analysis

Total operating revenues for the Fiscal Year ended December 31, 2023, increased approximately $8.6 million, or 7.4% compared with total operating revenues for Fiscal Year 2022. This modest increase in revenue is attributed to the usage rate increase that went into effect on January 1, 2023 as well as an increase in water usage. Total operating expenses (before depreciation/amortization) for the Fiscal Year ended December 31, 2023, increased approximately $3.1 million, or 4.2% compared with total operating expenses (before depreciation/amortization) for Fiscal Year 2022. The increase in operating expenses can be attributed to modest increases in contractual services expenses.

For the Fiscal Year ending December 31, 2024, the Authority adopted a structurally balanced budget wherein current revenues are expected to pay for current expenditures. The Authority expects reserve balances to remain at a level that is above its stated policy level.

The Capital Improvements Program

In December 2023, the Authority adopted a Capital Improvements Program which contains a proposed schedule of projects and associated expenditures equaling approximately $765.2 million for System improvements over the next five-year period, as set forth below.

Proposed Capital Expenditures
(in millions)

2024	2025	2026	2027	2028
$140,780	$154,290	$183,640	$148,510	$138,010

Source: Loudoun County Sanitation Authority, d/b/a Loudoun Water.

The Capital Improvements Program is based on current needs as well as anticipated growth. If actual growth is less than anticipated, Net Revenues will be slightly lower, and capital improvements may be implemented at a slower rate. The overall Capital Improvements Plan may also be affected by unanticipated events and circumstances that could result in differences between projected and actual financial results. If actual customer growth, operating expenses or capital improvement costs are different than projected, rate and fee increases may be required to support the long-term Capital Improvements Program. Even with a slower rate of growth, should it occur, the Authority believes that revenues will be adequate to support the Capital Improvements Program as currently proposed. The Authority anticipates that it will fund approximately 80% of the current Capital Improvements Program with cash and 20% with debt and grant funding, but the Authority is not obligated to use these proportions and actual proportions will depend on a variety of factors including actual growth and economic performance.

Cybersecurity

The Authority relies on technology to conduct its operations and is therefore subject to various cybersecurity threats. Although security measures are in place, no system can guarantee complete protection from cyber threats. A successful attack could impact operations, and the costs associated with mitigation may be significant.

To mitigate these risks, the Authority has implemented a comprehensive cybersecurity program based on the NIST Cybersecurity Framework. Cybersecurity risks are actively managed under the governance of an internal cross-functional team. The Authority has developed and implemented industry best practices and policies, including periodic independent assessments, zero-trust architecture, and ongoing awareness training. The Authority's policies ensure regular scanning, patching, and penetration testing to identify and address vulnerabilities. Additionally, the Authority actively participates in industry cybersecurity groups to stay current on threat intelligence and to ensure that the Authority's practices continue to align with industry standards.

To strengthen its defenses, the Authority has deployed various security measures. The Authority has segregated its business (IT) networks and industrial control system (OT) networks to reduce risk. The Authority has also implemented network monitoring, segmentation, firewalls, encryption, antivirus software, multi-factor authentication, and vulnerability management tools, along with other physical and cybersecurity measures. Furthermore, the Authority conducts third-party risk assessments and has established disaster recovery and backup capabilities, along with incident response planning and exercises. Comprehensive cybersecurity insurance is also in place to mitigate financial risks associated with cyber incidents.

Environmental Regulations and Compliance

Overview. The Safe Drinking Water Act of 1974 ("SDWA"), which has been amended most significantly in 1986 and 1996, governs drinking water quality. It sets the limits for contaminants in drinking water. The Food and Drug Administration establishes limits for contaminants in bottled water, which must provide the same protection for public health as tap water. Under the SDWA, the Authority is required to test for the presence of several organisms and chemicals. The Authority submits the results to the Virginia Department of Health. The Authority meets or exceeds standards set by the United States Environmental Protection Agency ("EPA") and administered by the Virginia Department of Health. This accomplishment is a testament to the dedication and hard work of the Authority's team, who are committed to safeguarding the health and wellbeing of the community.

In addition to meeting regulatory requirements, the Authority is continuously striving to improve the quality of its water supply. This involves investing in infrastructure upgrades, implementing advanced treatment technologies, and adopting sustainable practices to protect water sources.

Water Quality. The Authority has tested for per- and polyfluoroalkyl substances ("PFAS") beginning in 2013, when PFAS chemicals were included in the Unregulated Contaminant Monitoring Rule ("UCMR 3"). Additionally, as a wholesale purchaser of drinking water from Fairfax Water, the Authority is working closely in the region to understand PFAS implications as a regional initiative. In addition to testing, the Authority is paying close attention to the EPA's PFAS drinking water regulatory process. Twenty-nine PFAS chemicals are included in the current UCMR 5 testing, which the Authority began in June 2023. In 2016, the EPA issued health advisories for PFOA and PFOS, two specific PFAS chemicals. Based on the new data and EPA's draft analyses, the levels at which negative health effects could occur are much lower than previously understood when EPA issued the 2016 health advisories for perfluorooctanoic acid ("PFOA") and perfluorooctane sulfonate ("PFOS"). The Authority is evaluating and will continue to evaluate treatment processes to treat PFAS in water and maintain high-quality drinking water for Authority customers.

Lead and Copper. The Authority's distribution system is lead free. In 2021, the EPA passed the Lead and Copper Rule Revisions, which require public water systems, beginning in October 2024, to develop and make publicly available a service line inventory, notify customers of service lines with lead or unknown materials, notify the public of a lead action level exceedance and comply with various reporting requirements. After starting with over 5,700 unknown service lines, the Authority will be reporting by the October deadline that all service lines in the Authority's system (both public and private side) are non-lead.

Environmental Priorities

The Authority has various projects and initiatives underway that demonstrate its commitment to environmental priorities, including but not limited to, the following.

Asset Management. The Authority is committed to protecting its critical water distribution system. The Authority is focused on reducing water loss through proactive water main leak detection and repairs, replacement of aging water mains through its Distribution System Sustainability Program and a meter management program. Asset Management enhances existing and creates new maintenance programs to improve levels of service to Authority customers, maintain the useful life of Authority assets, and reduce long-term expenses.

Water Supply Planning. Every five years, along with its regional partners, the Interstate Commission on the Potomac River Basin ("ICPRB") undertakes a long-term planning effort to predict potential water supply and demand scenarios that incorporates climate modeling. This effort is designed to help ensure that the region is resilient to drought. Authority staff participate in this process and the resulting study report provides a valuable analysis of the Authority's supplies and where it has any potential challenges. The Authority's current water supply assets and ongoing projects have positioned the Authority well for the foreseeable future.

Water Demand Management. The Authority promotes wise water use to its customers through multiple avenues, including education and outreach programs. Water demand management activities help the Authority keep demands on its system manageable during the most stressful seasonal periods and unexpected situations.

Outreach and Education. Partnering with area organizations, schools, community members and customers allows the Authority to share information about water and wastewater treatment, conservation, source water protection and more. The Authority's most recent effort is the planned opening of Reservoir Park, a project funded and constructed under a partnership between the Authority, which owns and maintains the 300-acre reservoir as a source of drinking water for Loudoun County residents, and NOVA Parks, a regional park authority in Northern Virginia. The innovative park design includes a welcome center, restroom building, crew facility, boat rental facility, several pavilions, trails, waterfront boardwalks, a bridge, plantings, site utilities, educational exhibits, and various other site features – all designed with stewardship and source water protection in mind.

Wastewater/Water Reclamation. Most of the wastewater the Authority collects from customers is treated by DC Water at their Blue Plains Advanced Wastewater Treatment Plant ("Blue Plains") through an agreement held between the authorities. Blue Plains has the capacity to treat up to 384 million gallons of sewage a day. To accommodate for future growth in the Authority's service area and to reduce the loading sent to Blue Plains, the Authority constructed the Broad Run Water Reclamation Facility ("BRWRF"), which is located on the Authority's Ashburn campus. The BRWRF was first opened in 2008 and currently treats about 4 MGD of sewage with a total current capacity of 11 MGD. Of the 4 MGD that is currently treated, about 1 MGD is distributed back to Authority customers as reclaimed water. BRWRF is being expanded to treat additional wastewater flows from anticipated growth. The expansion project will increase the overall treatment capacity of the BRWRF to 15 MGD.

Loudoun Water Pretreatment Program. The term "pretreatment" refers to the reduction, elimination or alteration of the amount or nature of pollutants from commercial and industrial facilities prior to discharging to a sanitary sewer collection and treatment system. The Authority's pretreatment program is a Clean Water Act mandated program that requires the Authority to control industrial and commercial discharges to its sanitary sewer collection and treatment system, thereby reducing the amount of pollutants released to the environment from the Authority's wastewater treatment plant. Wastewater from certain industrial and commercial sources may contain pollutants at levels that could interfere with or pass through the wastewater treatment processes.

The Authority's pretreatment program has the following objectives:

- Enforce all applicable Federal, State and Local Regulations to ensure the protection of public health and the environment.
- Maintain the quality of treated wastewater and biosolids so that they may be beneficially reused as "reclaimed water" and fertilizer.
- Protect the BRWRF from any pollutants that may interfere with treatment processes.
- Prevent the introduction of pollutants to the Authority's wastewater collection system that may pass through the BRWRF untreated and ultimately to the environment.

The Authority meets its objectives by establishing local discharge standards for pollutants of concern permitting Significant and Non-Significant Industrial Users, testing industrial user discharges for compliance with permit limits, and routinely conducting comprehensive facility inspections.

Wastewater Discharge Standards. The pretreatment program enforces discharge standards established by the EPA, known as Categorical Pretreatment Standards, as well as Local Limits that are specific to wastewater that flows into the BRWRF. The wastewater of some customers within the Authority's service area flows to Blue Plains and is held to Local Limits established by DC Water. Local Limits apply to non-domestic sources and are reviewed generally every five years. Industries may be required to pretreat their wastewater discharge if the pollutants exceed or have the potential to exceed the allowable discharge concentrations.

LITIGATION

There is no litigation pending or threatened to restrain or enjoin the issuance, sale, execution or delivery of the Series 2024 Bonds, or in any way contesting or affecting the validity of the Series 2024 Bonds, any proceeding of the Authority taken with respect to their issuance or sale, the Authority's ability to pledge and use the Net Revenues for the payment of the Series 2024 Bonds, the operation of the System, the existence or powers of the Authority, or the title of any officer of the Authority with respect to his position.

There is no litigation pending or, to the best knowledge of the Authority, threatened which would have a material adverse effect on the condition of the Authority, financial or otherwise, or its contractual arrangements with third parties for water supply or wastewater treatment.

CREDIT RATINGS

As of the date of the Official Statement, the Series 2024 Bonds have been rated "AAA" by Fitch Ratings ("Fitch"); "Aaa" by Moody's Investors Service, Inc. ("Moody's"); and "AAA" by S&P Global Ratings ("S&P").

These ratings reflect only the views of Moody's, S&P and Fitch, respectively, and any explanation of the significance of such ratings may be obtained only from the rating agencies furnishing them. Generally, rating agencies base their ratings on such information and materials as they deem necessary and on investigations, studies and assumptions made by the rating agencies themselves. There is no assurance that the ratings will remain in effect for any given period of time or that the ratings may not be lowered or withdrawn entirely by one or more of these rating agencies if in its judgment circumstances so warrant. Any such downward change in or withdrawal of a rating may have an adverse effect on the market price or marketability of the Series 2024 Bonds.

FINANCIAL STATEMENTS

The financial statements of the Authority included as Appendix C to this Official Statement have been audited by Yount, Hyde & Barbour, Winchester, Virginia, independent auditors, as stated in their report thereon included in Appendix C. The auditors have not participated in the preparation of the Official Statement or reviewed it.

LEGALITY FOR INVESTMENT

Under the Act, the Series 2024 Bonds are securities in which all public officers and public bodies of the Commonwealth of Virginia and its political subdivisions, all insurance companies and associations, and all savings banks and savings institutions, including savings and loan associations, trust companies and beneficial and benevolent associations in the Commonwealth, may legally invest funds in their control. No representation is made as to the eligibility of the Series 2024 Bonds for investment or any other purpose under the laws of any other state.

CERTAIN LEGAL MATTERS

The issuance of the Series 2024 Bonds is subject to the delivery of the approving opinion of McGuireWoods LLP, Bond Counsel, substantially in the form set forth in Appendix F to this Official Statement. Since Bond Counsel has not prepared this Official Statement and has not verified its accuracy, completeness or fairness, their opinion will make no statement of any kind as to the Official Statement and will be limited to matters relating to the authorization and validity of the Series 2024 Bonds and to the tax-exempt status of interest on the Series 2024 Bonds under current federal and Virginia income tax laws. Certain legal matters will be passed on for the Authority by its general counsel, McGuireWoods LLP.

TAX MATTERS

Opinion of Bond Counsel – Federal Income Tax Status of Interest

Bond Counsel's opinion regarding the federal income tax status of the interest on the Series 2024 Bonds will state that, under current law and assuming continuing compliance with the Covenants (as hereinafter defined), interest on the Series 2024 Bonds (i) is excludable from gross income for purposes of federal income taxation under Section 103 of the Internal Revenue Code of 1986, as amended (the "Code") and (ii) is not a specific item of tax preference for purposes of the federal alternative minimum tax on individuals. However, such interest is included in the "adjusted financial statement income" (as defined in Section 56A of the Code) of certain corporations in determining the applicability and amount of the federal corporate alternative minimum tax under Section 55(b) of the Code.

Bond Counsel's opinion speaks as of its date, is based on current legal authority and precedent, covers certain matters not directly addressed by such authority and precedent, and represents Bond Counsel's judgment as to the excludability of interest on the Series 2024 Bonds for federal income tax purposes. Bond Counsel's opinion does not contain or provide any opinion or assurance regarding the future activities of the Authority or about the effect of future changes in the Code, the applicable regulations, the interpretation thereof or the enforcement thereof by the Internal Revenue Service (the "IRS") or the courts. The Authority has covenanted, however, to comply with the requirements of the Code.

Although Bond Counsel is of the opinion that interest on the Series 2024 Bonds is excludable from gross income for federal income tax purposes, the ownership or disposition of, or the accrual or receipt of interest on, Series 2024 Bonds may otherwise affect the federal tax liability of an owner of the Series 2024 Bonds. The nature and extent of these other federal tax consequences depend on the owner's particular tax status and levels of other income or deductions. Bond Counsel will express no opinion regarding any such other tax consequences and prospective purchasers of the Series 2024 Bonds should consult their own tax advisors with respect thereto.

See **"Proposed Form of Bond Counsel Opinion Letter"** in Appendix F hereto.

Reliance and Assumptions; Effect of Certain Changes

In delivering its opinion regarding the federal income tax treatment of interest on the Series 2024 Bonds, Bond Counsel is relying upon certifications of representatives of the Authority, the underwriters of the Series 2024 Bonds, the financial advisor to the Authority and other persons as to facts material to the opinion, which Bond Counsel has not independently verified.

In addition, Bond Counsel is assuming continuing compliance with the Covenants (as hereinafter defined) by the Authority. The Code and the regulations promulgated thereunder contain a number of requirements that must be satisfied after the issuance of the Series 2024 Bonds in order for interest on the Series 2024 Bonds to be and remain excludable from gross income for purposes of federal income taxation. These requirements include, by way of example and not limitation, restrictions on the use, expenditure and investment of the proceeds of the Series 2024 Bonds and the use of the property financed by such Series 2024 Bonds, limitations on the source of the payment of and the security for such Series 2024 Bonds and the obligation to rebate certain excess earnings on the gross proceeds of such Series 2024 Bonds to the United States Treasury. The Tax Certificate to be entered into by the Authority (the "Tax Certificate") with respect to the Series 2024 Bonds contains covenants (the "Covenants") under which the Authority has agreed to comply with such requirements. Failure by the Authority to comply with the Covenants could cause interest on the Series 2024 Bonds to become includable in gross income for federal income tax purposes retroactively to their date of issue. If such a failure occurs, the available enforcement remedies may be limited by applicable provisions of law and, therefore, may not be adequate to prevent interest on the Series 2024 Bonds from becoming includable in gross income for federal income tax purposes.

Bond Counsel has no responsibility to monitor compliance with the Covenants after the date of issue of the Series 2024 Bonds.

Certain requirements and procedures contained, incorporated or referred to in the Tax Certificate, including the Covenants, may be changed and certain actions may be taken or omitted under the circumstances and subject to the terms and conditions set forth in the Tax Certificate. Bond Counsel expresses no opinion concerning any effect on the excludability of interest on the Series 2024 Bonds from gross income for federal income tax purposes of any such subsequent change or action that may be made, taken or omitted upon the advice or approval of counsel other than Bond Counsel.

Certain Collateral Federal Tax Consequences

The following is a brief discussion of certain collateral federal income tax matters with respect to the Series 2024 Bonds. It does not purport to address all aspects of federal taxation that may be relevant to a particular owner thereof. Prospective purchasers of such Bonds, particularly those who may be subject to special rules, are advised to consult their own tax advisors regarding the federal tax consequences of owning or disposing of the Series 2024 Bonds.

Prospective purchasers of the Series 2024 Bonds should be aware that the ownership of tax-exempt obligations may result in collateral federal income tax consequences to certain taxpayers including, without limitation, banks and other financial institutions, certain insurance companies, dealers in tax-exempt obligations, certain corporations (including S corporations and foreign corporations), certain foreign corporations subject to the "branch profits tax," individual recipients of Social Security or Railroad Retirement benefits, owners of an interest in a financial securitization trust, taxpayers entitled to claim the refundable credit in Section 36B of the Code for coverage under a qualified health plan, taxpayers who may be deemed to have incurred or continued indebtedness to purchase or carry tax-exempt obligations and taxpayers attempting to qualify for the earned income tax credit.

Original Issue Discount

Series 2024 Bonds purchased in the initial public offering with yields higher than their applicable interest rates, as shown on the inside cover page hereof, have been sold with "original issue discount." Each such Series 2024 Bond is referred to below as an "OID Bond." The excess of (i) the stated amount payable at the maturity (excluding qualified stated interest) of any OID Bond over (ii) the issue price of the OID Bond as determined under Section 1273 of the Code (which may differ from the price shown on the inside front cover page of this Official Statement) constitutes the amount of original issue discount, which is treated in the same manner as interest on the Series 2024 Bonds for federal income tax purposes.

The Code provides that the amount of original issue discount accrues in accordance with a constant interest method based on the compounding of interest. In the case of an original owner of an OID Bond, the amount of original issue discount that is treated as having accrued on such OID Bond is added to the owner's adjusted basis in determining, for federal income tax purposes, gain or loss upon the disposition of the OID Bond (including its sale, redemption or payment at maturity). The amounts received upon such disposition that are attributable to accrued original issue discount will be excludable from the gross income of the owner for federal income tax purposes.

The accrual of original issue discount and its effect on the redemption, sale or other disposition of OID Bonds that are not purchased in the initial public offering may be determined according to rules that differ from those described above.

In addition, original issue discount that accrues in each year to an owner of an OID Bond is included in the calculation of the distribution requirements of certain regulated investment companies and may result in some of the collateral federal income tax consequences discussed in this section. Consequently, the owner of an OID Bond should be aware that the accrual of original issue discount in each year may result in additional distribution requirements or other collateral federal income tax consequences although such owner has not received cash attributable to such original issue discount in such year.

Prospective purchasers of OID Bonds should consult their own tax advisors with respect to the precise determination for federal income tax purposes of the original issue discount accrued upon sale or redemption of such OID Bonds (including OID Bonds not purchased in the initial public offering) and with respect to the state and local tax consequences of owning OID Bonds.

Bond Premium

Series 2024 Bonds purchased in the initial public offering with yields lower than their applicable interest rates, as shown on the inside cover page hereof, have been sold with "bond premium." Each such Series 2024 Bond is referred to below as an "OIP Bond." The excess of (i) the owner's basis in the OIP Bond immediately after acquisition over (ii) the amount payable at maturity (excluding qualified stated interest) as determined under Section 171 of the Code constitutes the amount of the bond premium. Under the Code, the bond premium is amortized based on the owner's yield over the remaining term of the OIP Bond (or, in the case of certain callable OIP Bonds, to an earlier call date that results in a lowest yield on the OIP Bond). The owner of an OIP Bond must amortize the bond premium by offsetting the qualified stated interest allocable to each interest accrual period against the bond premium allocable to that period. No deduction is allowed for such amortization of bond premium even though the owner is required to decrease the adjusted basis in the owner's OIP Bond by the amount of the amortizable bond premium, which will result in an increase in the gain (or decrease in the loss) recognized for federal income tax purposes upon a sale or disposition of the OIP Bond prior to its maturity.

Prospective purchasers of any OIP Bonds should consult their own tax advisors regarding the treatment of bond premium for federal income tax purposes, including various special rules relating thereto, and state and local tax consequences, in connection with the acquisition, ownership, sale, exchange, or other disposition of, and amortization of bond premium on, such OIP Bonds.

Information Reporting and Backup Withholding

Prospective purchasers should be aware that the interest on the Series 2024 Bonds is subject to information reporting to the IRS in a manner similar to interest paid on taxable obligations. In addition, interest on the Series 2024 Bonds may be subject to backup withholding if the interest is paid to an owner who or which (i) is not an "exempt recipient" and (ii) (A) fails to furnish an accurate U.S. taxpayer identification number in the manner required, (B) has been notified of a failure to report all interest and dividends required to be shown on federal income tax returns or (C) fails to certify under penalty of perjury that the owner is not subject to withholding. Individuals generally are not exempt recipients, although corporations and other entities generally are.

The reporting and backup withholding requirements do not in and of themselves affect the excludability of interest on the Series 2024 Bonds from gross income for federal income tax purposes, and amounts withheld under the backup withholding rules may be refunded or credited against the owner's federal income tax liability, if any, provided that the required information is timely furnished to the IRS.

Internal Revenue Service Audits

The IRS has established a program to audit tax-exempt obligations to determine whether the interest thereon is includible in gross income for federal income tax purposes. If the IRS does audit the Series 2024 Bonds, the IRS will, under its current procedures, treat the Authority as the taxpayer. As such, the beneficial owners of the Series 2024 Bonds will have only limited rights, if any, to participate in the audit or any administrative or judicial review or appeal thereof. Any action of the IRS, including but not limited to the selection of the Series 2024 Bonds for audit, or the course or result of such audit, or an audit of other obligations presenting similar tax issues, may affect the marketability or market value of the Series 2024 Bonds.

Opinion of Bond Counsel – Virginia Income Tax Consequences

Bond Counsel will also opine that, under existing law, interest on the Series 2024 Bonds is excludable from gross income for purposes of income taxation by the Commonwealth. Bond Counsel will express no opinion regarding (a) other Virginia tax consequences arising with respect to the Series 2024 Bonds or (b) any consequences arising with respect to the Series 2024 Bonds under the tax laws of any state or local jurisdiction other than Virginia. Prospective purchasers of the Series 2024 Bonds should consult their own tax advisors regarding the tax status of interest on the Series 2024 Bonds in a particular state or local jurisdiction other than Virginia.

Changes in Federal and State Tax Law and Regulations

Legislation affecting tax-exempt obligations is regularly considered by the U.S. Congress and various state legislatures. Such legislation may effect changes in federal or state income tax rates and the application of federal or state income tax laws (including the substitution of another type of tax), or may repeal or reduce the benefit of the excludability of interest on the tax-exempt obligations from gross income for federal or state income tax purposes.

The U.S. Department of the Treasury and the IRS and state regulatory authorities are continuously drafting regulations and other guidance to interpret and apply the provisions of the Code and state law. Proceedings affecting tax-exempt obligations may be filed in federal or state courts at any time. Such guidance and the outcome of such court proceedings could modify the federal or state tax treatment of tax-exempt obligations.

There can be no assurance that legislation proposed or enacted after the date of issue of the Series 2024 Bonds, regulatory interpretation of the Code or state laws or actions by a court involving either the Series 2024 Bonds or other tax-exempt obligations will not have an adverse effect on the Series 2024 Bonds' federal or state tax status, marketability or market price or on the economic value of the tax-exempt status of the interest on the Series 2024 Bonds.

Prospective purchasers of the Series 2024 Bonds should consult their own tax advisors regarding the potential consequences of any such proposed or pending federal or state tax legislation, regulations or litigation, as to which Bond Counsel expresses no opinion.

RELATIONSHIP OF PARTIES

McGuireWoods LLP serves as both bond counsel and general counsel to the Authority.

McGuireWoods LLP represents Davenport & Company LLC, the financial advisor to the Authority on matters unrelated to the Series 2024 Bonds.

McGuireWoods LLP represents U.S. Bank Trust Company, National Association, the Trustee, on matters unrelated to the Series 2024 Bonds.

FINANCIAL ADVISOR

Davenport & Company LLC ("Davenport") is employed as a financial advisor to the Authority in connection with the issuance of the Series 2024 Bonds. The financial advisor's fee for services rendered with respect to the sale of the Series 2024 Bonds is contingent upon the issuance and delivery of the Series 2024 Bonds. Davenport, in its capacity as 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 with respect to the federal income tax status of the Series 2024 Bonds, or the possible impact of any present, pending or future actions taken by any legislative or judicial bodies.

Davenport, as the financial advisor to the Authority, has provided the following sentence for inclusion in this Official Statement. Although Davenport has assisted in the preparation of this Official Statement, Davenport 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.

SALE AT COMPETITIVE BIDDING

The Series 2024 Bonds were offered for sale at competitive bidding on October 9, 2024, and were awarded to Truist Securities, Inc. (the "Winning Bidder"). The Winning Bidder supplied the information as to the initial offering prices of the Series 2024 Bonds as set forth on the inside front cover of this Official Statement. The Winning Bidder will be purchasing the Series 2024 Bonds at a purchase price equal to the aggregate original principal amount of the Series 2024 Bonds of $70,935,000.00, less a winning bidder's discount of $136,742.11, plus original issue premium of $7,553,069.05, resulting in a purchase price of $78,351,326.94.

VERIFICATION OF MATHEMATICAL COMPUTATIONS

The Verification Agent will verify the arithmetical accuracy of certain mathematical computations as to the sufficiency of the moneys and investments deposited in the Escrow Fund (i) to pay, when due, the interest on the Refunded Bonds, from their respective interest payment dates to their respective earliest redemption dates, (ii) to pay the principal of the Refunded Bonds when due to their stated redemption dates and (iii) to pay the redemption prices of the Refunded Bonds at redemption prices equal to the respective principal amounts of the Refunded Bonds to be redeemed, plus interest accrued and unpaid to such redemption date, plus the applicable premium, if any, based on information provided by or on behalf of the Authority, and interpretations provided by Bond Counsel and such verification will be relied upon by Bond Counsel to support its opinion. See **"TAX MATTERS – Opinion of Bond Counsel – Federal Income Tax Status of Interest."** Such computations were based solely upon information supplied by or on behalf of the Authority. The Verification Agent 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 upon 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 future events.

CERTIFICATE CONCERNING OFFICIAL STATEMENT

Concurrently with the delivery of the Series 2024 Bonds, officials who signed the Series 2024 Bonds will certify that, to the best of their knowledge, the Final Official Statement did not as of its date, and does not as of the date of delivery of the Series 2024 Bonds, contain any untrue statement of a material fact or omit to state a material fact which should be included therein for the purpose for which the Final Official Statement is to be used, or which is necessary in order to make the statements contained therein, in the light of the circumstances under which they were made, not misleading. Such certificate will also state, however, that such officials did not independently verify the information in the Final Official Statement from sources other than the Authority, but that they have no reason to believe that such information contains any untrue statement of a material fact or omits to state a material fact which should be included therein for the purpose for which the Final Official Statement is to be used, or which is necessary in order to make the statements contained therein, in the light of the circumstances under which they were made, not misleading.

CONTINUING DISCLOSURE UNDERTAKING

In accordance with the requirements of the Rule, the Authority will enter into a Continuing Disclosure Agreement, a form of which is set forth in Appendix E. For as long as any of the Series 2024 Bonds are outstanding, the Authority will provide certain annual information, including audited financial statements, and notice of certain enumerated events as described in the Rule and Appendix E, directly or indirectly to the Municipal Securities Rulemaking Board (the "MSRB") by submission of such information through the MSRB's Electronic Municipal Market Access system ("EMMA"), the internet address of which is http://emma.msrb.org/, and any successor thereto. The Authority is aware of the following instances in the previous five years in which it has failed to comply with its previous continuing disclosure undertakings. The Authority did not timely file notice of certain ratings upgrades received by the Authority. In the course of reviewing its prior continuing disclosure undertakings, the Authority became aware that it failed to file certain annual financial information and operating data for the Authority's fiscal year 2019, and failed to timely file notice of its late filings. The information specifically consisted of updates as to the volume of wastewater discharged to the System and the average availability charges for residential customers. The Authority has recently filed such annual financial information and operating data late and filed a notice of such late filings. The Authority has taken steps to promote future compliance with its continuing disclosure undertaking related to the Series 2024 Bonds.

Investors and other interested parties may contact the MSRB for additional information concerning its services. The Authority makes no representations as to the scope of the services provided to the secondary market by the MSRB or as to the costs for the provision of such services.

Pursuant to the Continuing Disclosure Agreement, the right of the Trustee and the holders of the Series 2024 Bonds to enforce the undertaking described above is limited to the right to obtain specific performance of the obligations of the Authority. Any failure of the Authority to comply with its obligations will not give rise to an Event of Default under the Indenture. The Authority has the power to amend the Continuing Disclosure Agreement without the consent of the holders of the Series 2024 Bonds; provided that such amendment complies with the requirements of the Rule at the time.

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MISCELLANEOUS

The references in this Official Statement to the Indenture, the Act, the Series 2024 Bonds and other documents are brief outlines of certain of their provisions. These outlines do not purport to be complete, and for complete information, reference is made to the documents themselves and the Act, a reasonable number of copies of which will be furnished without charge by the Authority upon request made at 44865 Loudoun Water Way, Ashburn, Virginia 20147 (Telephone No. 571-291-7700).

Any statements made in this Official Statement that involve matters of opinion or of estimates, whether or not so expressly stated, are set forth as such and not as representations of fact, and the Authority makes no representation that any of the estimates will be realized.

The Authority has authorized the execution and delivery of the Official Statement. The Authority has deemed this Official Statement final as of its date within the meaning of Rule 15c2-12.

LOUDOUN COUNTY SANITATION AUTHORITY,
D/B/A LOUDOUN WATER

By: */s/ Brian Carnes*
General Manager

APPENDIX A

DEFINITIONS OF CERTAIN TERMS

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DEFINITION OF CERTAIN TERMS

"Additional Bonds" means any Bonds issued under the Master Indenture pursuant to a Supplemental Indenture, after the issue date of the Series 2024 Bonds.

"Annual Budget" means the annual budget of the Authority prepared and adopted in accordance with the Master Indenture.

"Authority Reserves" mean the sum of (i) the balance in the Repair and Replacement Fund in excess of the Replacement Reserve Requirement, (ii) the balance in the General Reserve Fund, and (iii) the balance in the Operating Fund in excess of one-twelfth of the Operating Expenses budgeted to be paid from the Operating Fund in the then current Fiscal Year as set forth in the Annual Budget.

"Availability Charges" mean non-recurring charges assessed and collected upon issuance of permits to connect to the System which represent in whole or in part the customer's proportionate share of the capital costs of the System.

"Balloon Indebtedness" means any Series of Bonds, 25% or more of the original principal amount of which matures during any consecutive twelve-month period, if the maturing principal amount is not required to be amortized below such percentage by mandatory redemption or prepayment before the twelve-month period.

"Bond" or "Bonds" means any Series of Bonds issued under the Master Indenture, but will not include any Subordinate Debt, any Parity Indebtedness, or any bonds or other evidence of indebtedness of the Authority issued from time to time under any other indenture, trust agreement, resolution or similar instrument other than the Master Indenture.

"Bond Counsel" means an attorney or a firm of attorneys (designated by the Authority) of nationally recognized standing in matters pertaining to the validity of and the tax-exempt nature of interest on bonds issued by states and their political subdivisions, duly admitted to the practice of law before the highest court of any state of the United States of America.

"Bond Debt Service" means for any period of twelve consecutive months the sum of the amounts required to be deposited in the Bond Fund during the period pursuant to the Master Indenture with respect to any Bonds then Outstanding.

"Bond Fund" means the fund by that name established by the Master Indenture.

"Business Day" means any day other than (i) a Saturday or Sunday, (ii) a day on which commercial banks in the Commonwealth, or the city in which the principal corporate trust office of the Trustee or the Paying Agent is located, are authorized by law to close, (iii) a day on which the New York Stock Exchange is closed, or (iv) such other days as may be specified in any Supplemental Indenture.

"Consulting Engineer" means the independent engineering firm or individual engineer employed or retained by the Authority as Consulting Engineer in accordance with the Master Indenture.

"Contracted Services" mean services rendered or facilities provided to the Authority in respect of the System or for the performance for or on behalf of the Authority of functions similar to those performed by the System, from a specific project, projects or systems, pursuant to a Service Contract, whether a financing lease, a service agreement or another arrangement.

"Cost of Contracted Services" means the payments to be made by the Authority for Contracted Services which may be allocated by the Authority among three components: (i) a Debt Service Component, (ii) an Operating Component, and (iii) a Remaining Component. No designation or characterization of payments under a Service Contract will affect the Authority's right to make some other allocation of the payments for the purpose of the Indenture.

"Debt Service Component" means the portion of the Cost of Contracted Services that an authorized representative of the Authority 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" means the fund by that name established by the Master Indenture.

"Debt Service Reserve Requirement" means an amount equal to the least of (i) the maximum principal and interest due on the outstanding Bonds in the current or any future Fiscal Year, (ii) 10% of the original proceeds (excluding accrued interest) of the Bonds, and (iii) 125% of the average annual principal and interest due on the outstanding Bonds in the then current and each future Fiscal Year (in each instance, principal and interest due on January 1 of each year is reflected in the preceding Fiscal Year); provided, however, that with respect to any Series of Bonds, the Debt Service Reserve Requirement may be increased to the extent that there is delivered to the Trustee an opinion of Bond Counsel to the effect that such increase will not adversely affect the exclusion of interest on the Bonds from gross income for purposes of federal income taxation. In determining the amount of principal and interest due on Bonds which are Variable Rate Indebtedness, interest will be calculated at a rate equal to the greater of (a) the actual interest rate on the Bonds in effect on the date of their issuance or (b) the current average yield on municipal revenue bonds maturing in thirty years, according to the weekly index published by The Bond Buyer for the week immediately preceding the week in which the Bonds are issued. In the event The Bond Buyer is not published as of the date of any determination, or if published, does not publish an index of the current yield on municipal revenue bonds maturing in thirty years, an alternative index or other source of current bond yields may be selected by the Authority with the consent of the Trustee. In determining the amount of principal and interest due on Bonds which are Balloon Indebtedness, the amount of principal and interest on the Balloon Indebtedness due in any year will be calculated by assuming that the original principal amount of the Balloon Indebtedness is amortized on a level annual debt service schedule for a period equal to thirty years from the date the Balloon Indebtedness was incurred.

"Fiscal Year" means the period of twelve months established by the Authority as its annual accounting period.

"General Reserve Fund" means the fund by that name established by the Master Indenture.

"Government Certificates" means certificates representing ownership of United States Treasury bond principal at maturity or coupons for accrued periods of interest, which bonds or coupons are held by a bank or trust company, organized and existing under the laws of the United States of America or any of its states acceptable to the Trustee, in the capacity of custodian independent of the seller of such certificates.

"Government Obligations" means bonds, notes and other direct obligations of the United States of America and securities unconditionally guaranteed as to the timely payment of principal and interest by the United States of America.

"Interest Account" means the Interest Account of the Bond Fund established by the Master Indenture.

"Interest Payment Date" means any date on which a payment of interest on any Bonds or any Parity Indebtedness is due. Interest Payment Date with respect to the Series 2024 Bonds means January 1 and July 1 of each year.

"Net Proceeds" mean the gross proceeds from any insurance recovery remaining after payment of attorneys' fees, fees and expenses of the Authority and the Trustee and all other expenses incurred in collection of such gross proceeds.

"Net Revenues" mean Revenues less Operating Expenses.

"Operating Component" means the portion of the Cost of Contracted Services (excluding any Debt Service Component) reasonably determined by an authorized representative of the Authority, in a certificate delivered to the Trustee from time to time, to be directly or indirectly attributable to the ownership or operation of the System without regard to its treatment under generally accepted accounting principles; provided, however, if no such determination is made, all of the Cost of Contracted Services (excluding any Debt Service Component) will be treated as part of the Operating Component.

"Operating Expenses" mean all expenses which may reasonably be determined by the Authority in its Annual Budget to be attributable directly or indirectly to the ownership or operation of the System and payable as Operating Expenses without regard to the treatment of such expenses under generally accepted accounting principles, including, without limitation, reasonable and usual expenses of administration, operation, maintenance and repair, which may include expenses not annually recurring, costs of billing and collecting the rates, fee and charges for the use of or the services furnished by the System, the Operating Component of the Costs of Contracted Services, insurance and surety bond premiums and reserves, other charges and fees necessary for the maintenance of adequate insurance coverage for the Authority and the System, fees of any credit enhancement facility, legal, engineering and auditing expenses, expenses and compensation of the Trustee, and other expenses of the Authority required to be paid by law or under the Indenture or any Supplemental Indenture, but will not include any allowance for amortization or depreciation, deposits or transfers to the Bond Fund, the Parity Debt Service Fund, the Debt Service Reserve Fund, the Subordinate Debt Service Fund, or the Repair and Replacement Fund, or expenditures which the Authority makes an election to capitalize.

"Operating Fund" means the fund by that name established by the Master Indenture.

"Outstanding" means, at any date, the aggregate of all Bonds authorized, issued, authenticated and delivered under the Indenture, except:

(1) Bonds cancelled or surrendered to the Trustee for cancellation;

(2) Bonds deemed to have been paid as provided in the Master Indenture; and

(3) Bonds in lieu of or in substitution for which other Bonds have been authenticated and delivered pursuant to the Indenture and any Supplemental Indenture unless proof satisfactory to the Paying Agent is presented that any such Bond is held by a bona fide Owner.

Bonds which are owned by the Authority will be disregarded and deemed not to be Outstanding for the purpose of any such determination; provided, however, that for the purpose of determining whether the Trustee will be protected in relying upon any such request, demand, authorization, direction, notice, consent or waiver, only Bonds which the Trustee knows to be so owned will be so disregarded.

"Owner" means the person in whose name a particular Bond is registered on the records of the Paying Agent.

"Parity Debt Service" means for any period of twelve consecutive months the sum of the amounts required to be deposited in the Parity Debt Service Fund during the period pursuant to the Master Indenture with respect to Parity Indebtedness.

"Parity Debt Service Component" means all or any portion of the Debt Service Component of the Cost of Contracted Services under Service Contracts meeting the requirements of the Master Indenture that an authorized representative of the Authority determines in a certificate delivered to the Trustee will be payable on a parity with the Bonds.

"Parity Debt Service Fund" means the fund by that name established by the Master Indenture.

"Parity Indebtedness" means (i) the Parity Debt Service Component of the Cost of Contracted Services and (ii) any other Parity Indebtedness incurred in accordance with the Master Indenture and payable on a parity with the Bonds. Parity Indebtedness does not include any Bonds.

"Principal Account" means the Principal Account of the Bond Fund established by the Master Indenture.

"Project" means any water or wastewater facilities of the Authority which are part of the System or any purchase of water or sewage treatment capacity or service from other entities which is required to be capitalized or which the Authority makes an election to capitalize.

"Project Fund" means the fund by that name established by the Master Indenture.

"Rating Agency" means Fitch, Inc., Moody's Investors Service, Inc. and S&P Global Ratings or any of them and their successors and assigns. If any such corporation ceases to act as a securities rating agency, the Authority may appoint any nationally recognized securities rating agency as a replacement.

"Redemption Account" means the Redemption Account of the Bond Fund established by the Master Indenture.

"Repair and Replacement Fund" means the fund by that name established by the Master Indenture.

"Replacement Reserve Requirement" means an amount to be determined by the Authority pursuant to the Master Indenture, but not less than $500,000.

"Revenue Fund" means the fund by that name established by the Master Indenture.

"Revenues" mean all revenues, receipts and other income derived by the Authority from the ownership or operation of the System, including, without limitation, Availability Charges and any investment earnings.

"Senior Debt Service" means for any period of twelve consecutive months the sum of the Bond Debt Service and the Parity Debt Service during the period.

"Service Contracts" means any contracts or agreements for Contracted Services entered into by the Authority from time to time.

"Subordinate Debt" means bonds, notes or other evidences of indebtedness of the Authority, including the Debt Service Component of the Cost of Contracted Services which is not a Parity Debt Service Component, secured by a pledge of Net Revenues expressly made subordinate to the pledge of Net Revenues securing the Bonds and any Parity Indebtedness or which is unsecured.

"Subordinate Debt Service" means for any period of twelve consecutive months the sum of the amounts required to be deposited in the Subordinate Debt Service Fund during the period pursuant to the Master Indenture with respect to any Subordinate Debt and the Debt Service Component of the Cost of Contracted Services which is not a Parity Debt Service Component.

"Subordinate Debt Service Fund" means the fund by that name established by the Master Indenture.

"Supplemental Indenture" means any indenture supplemental to or amendatory of the Master Indenture as originally executed, which is duly executed and delivered in accordance with the provisions of the Master Indenture.

"System" means the water system and the wastewater system, and any combination of such systems owned or operated by or on behalf of the Authority, including but not limited to, any Project and all additions, extensions, improvements and replacements to the System, but excluding any independent water or wastewater systems hereafter owned or operated by the Authority and accounted for separately by the Authority, unless made part of the System.

APPENDIX B

SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE

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SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE

The following is a summary of certain provisions contained in the Master Indenture and the Nineteenth Supplemental Indenture and does not purport to be a complete statement of all of the provisions of those documents. Reference is made to the Master Indenture and the Nineteenth Supplemental Indenture in their entirety for complete information on their terms and on the terms of the Series 2024 Bonds, the applicable security provisions and the application of the Revenues. See also **"DESCRIPTION OF THE SERIES 2024 BONDS"** and **"SOURCES OF PAYMENT AND SECURITY FOR THE SERIES 2024 BONDS"** in the Official Statement.

Definitions

Unless defined below, all capitalized terms used in this Appendix have the meanings set forth in the Official Statement.

Additional Bonds

In connection with the issuance of Additional Bonds, the Authority is required to file, among other things, the following documents with the Trustee:

(1) A certificate of the Authority dated as of the date of delivery of the Additional Bonds and signed by its Chairman to the effect that to the best of the Chairman's knowledge, upon and immediately following the issuance of the Additional Bonds, no event of default under the Indenture and no event or condition which, with notice or lapse of time or both, would become an event of default, will have occurred and be continuing or, if such an event or condition has occurred and is continuing, it will be cured upon the issuance of the Additional Bonds or upon completion of the Project to be financed with the Additional Bonds.

(2) A copy of the resolution and an executed counterpart of the supplement to the Master Indenture authorizing the Additional Bonds, which supplement will specify, among other things, the details of the Additional Bonds and the amount, if any, to be deposited from the proceeds of sale of the Additional Bonds into the Debt Service Reserve Fund.

(3) An opinion of Bond Counsel, subject to customary exceptions and qualifications, to the effect that the issuance of the Additional Bonds has been duly authorized, that the Additional Bonds are valid and binding obligations of the Authority entitled to the benefits and security of the Master Indenture and that the interest on the Additional Bonds is excludable from gross income for purposes of federal income taxation or, if the interest is not excludable, that the issuance and the intended use of the proceeds of the Additional Bonds will have no adverse effect on the tax-exempt status of interest on any other Bonds the interest on which was excludable from gross income when issued.

(4) If the Additional Bonds are issued to pay the cost of acquiring, renovating, equipping or constructing improvements, extensions, additions or replacements to the System,

(a) A written statement of the Consulting Engineer setting forth the Consulting Engineer's (i) estimate of the cost of the acquisition, renovation, equipping or construction (including all financing, reserves and related costs) and the date on which such acquisition, renovation, equipping or construction will be completed and (ii) opinion that the proceeds of the Additional Bonds, together with any other money available for such purpose, will be sufficient to pay the cost of the acquisition, renovation, equipping or construction; and

(b) Either (i) a written certificate of the Consulting Engineer or an independent certified public accountant which states that during any twelve consecutive months of the eighteen months preceding the issuance of the proposed Additional Bonds the Authority would have been in compliance with the Revenue Covenant, taking into account the maximum annual Bond Debt Service due on the proposed Additional Bonds or (ii) a written statement of the Consulting Engineer that projects Operating Expenses, Revenues, and Net Revenues for two full Fiscal Years following the anticipated completion of the acquisition, renovation, equipping or construction, and which demonstrates that, on the basis of such projection, the Authority can comply with the Revenue Covenant, taking into account the rates, fees and other charges which are in effect at the time of the delivery of the proposed Additional Bonds and future increases in such rates, fees and other charges as may be required to continue to comply with the Revenue Covenant; provided, however, the Consulting Engineer may not take into account for the purposes of such projection Availability Charges which exceed an amount determined by multiplying (y) the actual average number of customers paying Availability Charges to the Authority during its last three full Fiscal Years, times (z) the amount of each Availability Charges expected to be assessed.

(5) If the Additional Bonds are issued to refund any Bonds or other obligations of the Authority,

(a) Evidence satisfactory to the Trustee that the Authority has made provision as required by the Indenture for the payment or redemption of all Bonds or other obligations of the Authority to be refunded;

(b) A written determination by the Trustee or by a firm of independent certified public accountants that the proceeds (excluding accrued interest) of the refunding bonds, together with any other money deposited with the Trustee for such purpose and the investment income to be earned on funds held by the Trustee for the payment or redemption of Bonds or other obligations of the Authority, will be sufficient to pay, whether upon redemption or at maturity, the principal of and premium, if any, and interest on the Bonds or other obligations of the Authority to be refunded and the estimated expenses incident to the refunding; and

(c) Either (i) a written determination by the Trustee or by a firm of independent certified public accountants that after the issuance of the refunding bonds and the provision for payment or redemption of all Bonds or other obligations of the Authority to be refunded, the Senior Debt Service for each Fiscal Year in which there will be Outstanding Bonds of any Series not to be refunded will be not more than the Senior Debt Service for the Fiscal Year would have been on all Outstanding Bonds and Parity Indebtedness immediately before the issuance of the refunding bonds, including the Bonds or other obligations of the Authority to be refunded, or (ii) a written certification or statement similar to that described in paragraph (4)(b) above.

The proceeds of Additional Bonds (including accrued interest) will be applied as set forth in the Supplemental Indenture authorizing their issuance.

Parity Indebtedness

The Authority may designate the Debt Service Component of the Cost of Contracted Services as Parity Indebtedness and may issue or refinance other Parity Indebtedness provided that the requirements of paragraphs (4) or (5) under "Additional Bonds" are met as if the Parity Indebtedness were a series of Additional Bonds. Parity Indebtedness will be secured by the pledge of Net Revenues under the Indenture on a parity with Bonds issued under the Indenture, except that Parity Indebtedness will not be secured by money in the Project Fund, the Bond Fund or the Debt Service Reserve Fund.

Establishment of Funds and Accounts

The following funds and accounts are established under the Indenture and are to be held as follows:

(1) Loudoun County Sanitation Authority Project Fund, to be held by the Trustee;

(2) Loudoun County Sanitation Authority Revenue Fund, to be held by the Authority;

(3) Loudoun County Sanitation Authority Operating Fund, to be held by the Authority;

(4) Loudoun County Sanitation Authority Bond Fund, in which there is established an Interest Account, a Principal and a Redemption Account, to be held by the Trustee;

(5) Loudoun County Sanitation Authority Parity Debt Service Fund, to be held by the Authority;

(6) Loudoun County Sanitation Authority Debt Service Reserve Fund, to be held by the Trustee;

(7) Loudoun County Sanitation Authority Subordinate Debt Service Reserve Fund, to be held by the Authority;

(8) Loudoun County Sanitation Authority Repair and Replacement Fund, to be held by the Authority;

(9) Loudoun County Sanitation Authority General Reserve Fund, to be held by the Authority; and

(10) Loudoun County Sanitation Authority Cost of Issuance Fund, to be held by the Authority.

Revenue Fund

The Authority will collect and deposit in the Revenue Fund as received all Revenues. Money on deposit in the Revenue Fund will be used as follows:

(1) To make monthly deposits to the Operating Fund in an amount such that the balance on deposit in the Fund will be equal to not less than one-sixth of the Operating Expenses budgeted to be paid from the Fund in the current Annual Budget;

(2) To make approximately equal monthly deposits to the Bond Fund and Parity Debt Service Fund so that there will be sufficient money in the Funds to pay the Bonds and Parity Indebtedness when due;

(3) To restore any deficit in the Debt Service Reserve Fund;

(4) To make deposits to the Subordinate Debt Service Fund of amounts determined by the Authority to be necessary to pay Subordinate Debt when due;

(5) To make deposits to the Repair and Replacement Fund to accumulate the Replacement Reserve Requirement or to restore any deficit in sixty approximately equal monthly installments;

(6) To make other deposits to the Repair and Replacement Fund in amounts determined by the Authority; and

(7) To make deposits of any balance to the General Reserve Fund.

Operating Fund

The Authority will pay Operating Expenses from the Operating Fund as they become due and in accordance with the purposes and amounts provided in the Annual Budget. In the event the balance in the Operating Fund is insufficient for its purposes, the Authority will transfer to the Operating Fund such amounts as may be necessary, first, from the General Reserve Fund and then from the Repair and Replacement Fund.

Interest received on and any profit realized from the investment of money in the Operating Fund will be transferred as earned to the Revenue Fund.

Bond Fund

The Trustee will pay the principal of and interest on the Bonds when due from the Principal Account and the Interest Account, respectively. The Trustee will use money in the Redemption Account of the Bond Fund to redeem Bonds pursuant to any optional redemption provision exercised by the Authority. In the event the respective balances on deposit in the Principal Account or the Interest Account are insufficient on any payment date for the Bonds to make the payment then due, the Trustee will transfer to such Accounts the deficiency from the Debt Service Reserve Fund, to the extent the amount of the deficiency is not provided by the Authority from the General Reserve Fund and the Repair and Replacement Fund. Interest received on and any profit realized from the investment of money in any account of the Bond Fund will remain in and become a part of that account.

Parity Debt Service Fund

The Authority will use money in the Parity Debt Service Fund to make payments on any Parity Indebtedness when due. Interest received on and any profit realized from the investment of money in the Parity Debt Service Fund will be deposited as received in the Revenue Fund. Amounts in the Parity Debt Service Fund do not secure the Bonds.

Debt Service Reserve Fund

The Debt Service Reserve Fund will be used by the Trustee to make transfers to the Bond Fund to the extent necessary to pay the principal of and interest on the Bonds when due if the amounts on deposit in the Principal and Interest Accounts of the Bond Fund, and any amounts transferred by the Authority to the Debt Service Reserve Fund from the General Reserve Fund and the Repair and Replacement Fund, are insufficient for such purpose. In the event the amount on deposit in the Debt Service Reserve Fund is less than the Debt Service Reserve Requirement, the Authority will transfer funds from the Revenue Fund to the Debt Service Reserve Fund to restore the Debt Service Reserve Requirement in the manner provided in the Master Indenture. If the balance in the Debt Service Reserve Fund is equal to the Debt Service Reserve Fund Requirement, any interest received and profit realized from the investment of money in the Debt Service Reserve Fund will be transferred to the Interest Account of the Bond Fund, unless otherwise provided in any Supplemental Indenture.

In lieu of maintaining and depositing money or securities in the Debt Service Reserve Fund, the Authority may deposit with the Trustee a letter of credit or bond insurance policy in an amount equal to all or a portion of the Debt Service Reserve Requirement if the Authority furnishes to the Trustee written evidence from any Rating Agency then rating the Bonds that the Rating Agency has reviewed the proposed letter of credit or bond insurance policy and that its substitution for money or securities on deposit in the Debt Service Reserve Fund will not in and of itself result in a withdrawal or reduction of the Rating Agency's then current rating for the Bonds. Any letter of credit or bond insurance policy will permit the Trustee to draw or obtain amounts under it for deposit in the Debt Service Reserve Fund that, together with any money already on deposit in the Debt Service Reserve Fund, are not less than the Debt Service Reserve Requirement.

The Trustee will make a drawing on the letter of credit or obtain funds under the bond insurance policy before its expiration or termination (i) whenever money is required for the purposes for which Debt Service Reserve Fund money may be applied and (ii) unless the letter of credit or bond insurance policy has been extended or a qualified replacement for it delivered to the Trustee, in the event the Authority has not deposited money in immediately available funds equal to the Debt Service Reserve Requirement at least two Business Days preceding the expiration or termination of the letter of credit or bond insurance policy.

If the Authority provides the Trustee a letter of credit or bond insurance policy, the Trustee will transfer the funds then in the Debt Service Reserve Fund to the Authority, provided the Authority delivers to the Trustee an opinion of Bond Counsel that such transfer of funds will not adversely affect the exclusion from gross income for purposes of federal income taxation of interest on the Series 2024 Bonds and the Authority covenants to comply with any directions or restrictions contained in such opinion concerning the use of the funds.

Subordinate Debt Service

The Authority will use money in the Subordinate Debt Service Fund to make payments of debt service on any Subordinate Debt when due. Interest received on and any profit realized from the investment of money in the Subordinate Debt Service Fund will be deposited as received in the Revenue Fund.

Repair and Replacement Fund

The Authority may use amounts in the Replacement Fund for any of the following purposes:

(1) Reasonable and necessary expenses with respect to the System for major repairs, replacement or maintenance of items of a type not recurring annually or at shorter intervals;

(2) To pay costs of construction of parts of the System;

(3) To pay costs of reconstruction of parts of the System;

(4) To pay any capital costs with respect to the System;

(5) To make payments on Service Contracts; or

(6) To make deposits to the Revenue Fund, the Operating Fund, the Bond Fund, the Parity Debt Service Fund or the Debt Service Reserve Fund.

Before the preparation of the Annual Budget for each Fiscal Year, the Authority agrees to review the adequacy of the amount of the Replacement Reserve Requirement under then current operating conditions, and in light of then applicable operating, replacement and maintenance costs of the major components of comparable systems. If at any time the Authority determines in its judgment that the amount of the Replacement Reserve Requirement should be increased or decreased, it will notify the Trustee of its determination setting forth the amount of the new Replacement Reserve Requirement. The new Replacement Reserve Requirement will take effect on the date of the receipt of the notice by the Trustee unless some other effective date is specified in the notice in which case the date specified in the notice will control.

If the amount on deposit in the Repair and Replacement Fund exceeds the Replacement Reserve Requirement, the Authority may transfer the excess to the General Reserve Fund.

Cost of Issuance Fund

The portion of the proceeds of the Series 2024 Bonds to be used to pay the costs associated with the issuance of the Series 2024 Bonds will be deposited in the Cost of Issuance Fund to be held by the Authority. Money in the Fund will be applied to the Authority to pay costs of issuance and any balance remaining will be transferred to the Interest Account. See **"APPLICATION OF PROCEEDS."**

Investments

Any money held in any funds and accounts established by the Indenture, except the Bond Fund and the Debt Service Reserve Fund, may be separately invested and reinvested by the Trustee, at the request of and as directed by an authorized representative of the Authority, or by the Authority, as the case may be, in any of the following investments which are at the time legal investments for public funds under the Investment of Public Funds Act, Chapter 18, Title 2.1, Code of Virginia of 1950, as amended ("Investment Act"), or any subsequent provision of law applicable to such investments:

(1) Bonds, notes and other evidences of indebtedness to which the full faith and credit of the Commonwealth is pledged for the payment of principal and interest or which are unconditionally guaranteed as to the payment of principal and interest by the Commonwealth;

(2) Government Obligations;

(3) Government Certificates;

(4) Bonds, notes and other evidences of indebtedness of any county, city, town, district, authority or other public body of the Commonwealth which are rated in one of the two highest debt rating categories by at least one of the Rating Agencies, without regard to any refinement or gradation of such rating category by numerical modifier or otherwise;

(5) Savings accounts, time deposits and certificates of deposit in any bank, including the Trustee and its affiliates, or savings and loan association within the Commonwealth, provided that the funds are secured in the manner required by the Virginia Security for Public Deposits Act or any successor legislation and no deposit will be made for more than five years;

(6) Obligations of the Export-Import Bank, Rural Development, the General Services Administration, the United States Maritime Administration, the Small Business Administration, the Government National Mortgage Association, the Department of Housing and Urban Development, and the Federal Housing Administration, provided such obligations represent the full faith and credit of the United States;

(7) Bonds, notes or other evidences of indebtedness of the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation, the Federal Home Loan Bank and the Federal Farm Credit Bank;

(8) Commercial paper issued by corporations, including banks and bank holding companies, organized under the laws of the United States or any State which is rated by Moody's or its successor, within its NCO/Moody's rating of prime 1 and by S&P, or its successor, within its rating of A-1, and which matures not more than 270 days after the date of its purchase;

(9) Corporate notes with a rating at least Aa by Moody's and AA by S&P with a maturity of not more than five years;

(10) Banker's acceptance, as permitted by the Investment Act, with banks rated in one of the two highest debt rating categories by at least one of the Rating Agencies, without regard to any refinement or gradation of such rating category by numerical modifier or otherwise; and

(11) Such other investments as may be permitted by the Investment Act; provided they are rated in one of the two highest debt rating categories by at least one of the Rating Agencies, without regard to any refinement or gradation of such rating category by numerical modifier or otherwise.

Any money held by the Trustee in the Bond Fund or in the Debt Service Reserve Fund will be separately invested and reinvested by the Trustee, at the request of and as directed by an authorized representative of the

Authority, in investments described in paragraphs (1), (2), (3), (4) and (5) above, which are at the time legal investments for public sinking funds under the Investment Act, or any subsequent provisions of law applicable to such investments.

Any investments described above may be purchased by the Trustee or the Authority pursuant to a repurchase agreement in accordance with the provisions of the Indenture.

Investment in a money market fund or in the shares of any other management type investment company registered under the Investment Company Act of 1940, the investments of which fund or company are exclusively in obligations or securities described in paragraphs (2), (3) or (6) above, will be considered investments in obligations described in such paragraphs.

Subject to the provisions of any Supplemental Indenture, all investments will be held by or under the control of the Trustee or the Authority, as the case may be, and while so held will be deemed a part of the fund or account in which the money was originally held. Except as otherwise specifically provided in the Indenture, the interest accruing on and any profit realized from such investments will be transferred not less frequently than monthly to the Authority for deposit in the Revenue Fund. The Trustee and the Authority will sell and reduce to cash a sufficient amount of such investments whenever the cash balance in any fund or account is insufficient for its purposes.

Investments of money in the Debt Service Reserve Fund must mature or be payable at the option of the trustee not more than ten years after the date of their purchase.

Money in funds and accounts held by the Authority may be pooled and commingled for purposes of investment.

Particular Covenants

Compliance with Indenture; Payment of Bonds. In the Indenture, the Authority covenants to perform its obligations under the Indenture and related documents and to pay the Bonds, but only from the Net Revenues and other funds specifically pledged for such purpose.

Billing; Enforcement of Charges; Free Service. The Authority will bill the users of the services of the System no less frequently than quarterly, except in the case of wholesale customers who will be billed as provided in the contract between the Authority and the wholesale customer. The Authority has agreed to take all appropriate steps to enforce collection of any overdue charges by any remedy available at law or in equity. The Authority will not permit connection with or the use of the System, or furnish any services of the System, without making a charge based on the Authority's schedule of rates, fees and charges, except for connections and service for fire protection purposes.

Sale or Encumbrance. The Authority may grant easements, licenses or permits across, over or under parts of the System for streets, road and utilities as will not adversely affect the use of the System. The Authority may sell or otherwise dispose of any property constituting a part of the System which is either no longer needed or useful or is replaced from the proceeds of the disposition and any other necessary money with property serving the same or similar function. If the proceeds received from a sale or disposition not used to replace property exceeds $100,000, the proceeds will at the option of the Authority be (i) applied to the payment or redemption of Bonds then Outstanding and Parity Indebtedness in a manner which in the opinion of Bond Counsel will not adversely affect the exclusion from gross income for purposes of federal income taxation of interest on any Bonds the interest on which was excludable on the date of their issuance or (ii) deposited in the Repair and Replacement Fund and applied solely to pay the costs of capital improvements to the System.

Creation of Liens. The Authority has agreed not to create or suffer to be created any lien or charge upon the System, except as provided in the Indenture.

Insurance. To the extent such insurance is available at reasonable costs, the Authority has agreed to continuously maintain and pay the premiums on insurance against such risks as are customarily insured against by other authorities owning and operating similar systems.

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 Authority will restore promptly the property damaged or destroyed to substantially the same condition as before the damage, destruction, condemnation or loss of title with such alterations and additions as the Authority may determine and which will not impair the capacity or character of the System for the purpose for which it then is being used or is intended to be used. The Trustee will apply so much as may be necessary of the Net Proceeds received on account of any damage, destruction, condemnation or loss of title to payment of the cost of such restoration, either on completion or as the work progresses. If the Net Proceeds are not sufficient to pay in full the cost of the restoration, the Authority will pay from the Repair and Replacement Fund or the General Reserve Fund so much of the cost as may be in excess of such Net Proceeds. The Authority will be under no obligation to restore property if it is no longer needed or useful in the operation of the System and, if the Net Proceeds received for the property exceed $1 million, there is filed with the Authority and the Trustee a certificate of the Consulting Engineer stating that the property is no longer needed or useful in the operation of the System. Any balance of Net Proceeds remaining after payment of the cost of restoration will be deposited in the Repair and Replacement Fund.

Financial Records and Statements. The Authority will keep proper books of records and accounts, in which full and correct entries will be made in accordance with generally accepted accounting principles of all of its business and affairs. The Authority will cause an audit of its records and accounts to be made by an independent certified public accountant at the end of each Fiscal Year.

Arbitrage and Tax Covenants. The Authority has covenanted that it will comply throughout the term of the Series 2024 Bonds with the requirements of Section 148 of the Code applicable to the Series 2024 Bonds, including the rebate and reporting requirements of Section 148(f), and that the Authority will not take or omit to take any action that would cause interest on any of the Series 2024 Bonds to be or to become includable in the gross income of the Owners for purposes of federal income taxation.

Events of Default

Each of the following events is an Event of Default under the Indenture:

(1) Payment of any interest on any Bond is not made when due and payable;

(2) Payment of the principal of or premium, if any, on any Bond is not made when due and payable;

(3) Subject to certain rights of the Authority to cure such defaults as set forth in the Master Indenture, default in the observance or performance of any other covenant, condition or agreement on the part of the Authority under the Master Indenture, any Supplemental Indenture or in the Bonds; or

(4) Appointment by a court of competent jurisdiction of a receiver for all or any substantial part of the Revenues and other funds of the Authority pledged pursuant to the Master Indenture, or the filing by the Authority of any petition for reorganization of the Authority or rearrangement or readjustment of the obligations of the Authority under provisions of any applicable bankruptcy or insolvency law.

Remedies; Rights of Bondholders

Upon the occurrence and continuation of an event of default under the Indenture, the Trustee may, and if requested by the Owners of not less than 25% in aggregate principal amount of Bonds then Outstanding will, by notice to the Authority, declare the entire unpaid principal of and interest on the Bonds due and payable. Upon any such declaration the Authority will pay to the Owners the entire unpaid principal of and accrued interest on the Bonds, but only from the Net Revenues and the other funds specifically pledged in the Indenture for such purpose.

Upon the occurrence and continuation of an event of default under the Indenture, the Trustee may pursue any available remedy, at law or in equity, to enforce the payment of the principal of, premium, if any, and interest on the Bonds, to enforce any covenant or condition under the Indenture or to remedy any event of default.

Upon the occurrence and continuation of an event of default under the Indenture, if requested to do so by the Owners of at least 25% in aggregate principal amount of Bonds then Outstanding and if indemnified as provided in the Indenture, the Trustee will exercise such of the rights and powers conferred by the Indenture as the Trustee, upon being advised by counsel, deems most effective to enforce and protect the interests of the Owners.

Anything in the Indenture to the contrary notwithstanding, the Owners of a majority in aggregate principal amount of Bonds then Outstanding will have the right, upon providing satisfactory security and indemnity to the Trustee, by an instrument in writing executed and delivered to the Trustee, to direct the method and place of conducting all remedial proceedings to be taken by the Trustee under the Indenture.

No Owner of any Bonds will have any right to institute any suit action or proceeding in equity or at law for the enforcement of the Indenture or any remedy under the Indenture or the Bonds except as expressly provided in the Indenture.

Waiver of Events of Default

The Trustee will waive any event of default under the Indenture and its consequences and rescind any declaration of acceleration upon the written request of the Owners of a majority in aggregate principal amount of all Outstanding Bonds. If any event of default with respect to the Bonds has been waived as provided in the Master Indenture, the Trustee will promptly give written notice of the waiver to the Authority and by first class mail, postage prepaid, to all Owners of Outstanding Bonds if the Owners had previously been given notice of the event of default. No waiver, rescission and annulment will extend to or affect any subsequent event of default or impair any right, power or remedy available under the Master Indenture.

Discharge of Indebtedness

If (i) all Bonds secured by the Indenture have become due and payable or irrevocable instructions to redeem the Bonds or to pay them at maturity have been given by the Authority to the Trustee and (ii) the Trustee holds cash or noncallable Government Obligations or Government Certificates the principal of and the interest on which at maturity will be sufficient (a) to redeem in accordance with the relevant section of the Indenture all Bonds that have been called for redemption on the date set for such redemption, (b) to pay at maturity all Bonds not irrevocably called for redemption, (c) to pay interest accruing on all Bonds until their redemption or payment at maturity, and (d) to pay to the Trustee its reasonable fees and expenses, including the costs and expenses of cancelling and discharging the Indenture, then the Trustee will cancel and discharge the Indenture, and assign and deliver to the Authority any property at the time subject to the Indenture that may then be in its possession, except funds or securities in which such funds are invested which are held by the Trustee for the payment of principal of or premium, if any, or interest on the Bonds.

Bonds will be deemed paid and no longer Outstanding for the purposes of the Indenture when there has been deposited with the Trustee cash or noncallable Government Obligations or Government Certificates the principal of and interest on which will be sufficient to pay or redeem such Bonds and to pay interest on them to their payment or redemption date (whether on or before the date of their maturity or their redemption date), however, that if such Bonds are to be redeemed before their maturity, notice of the redemption must have been duly given or irrevocable instructions to redeem such Bonds must have been given to the Trustee.

Modification or Amendment of the Indenture

The Authority and the Trustee may, without consent of, or notice to, any of the Owners, enter into an agreement or agreements supplemental to the Indenture for any one or more of the following purposes:

(1) To add to the covenants and agreements of the Authority contained in the Master Indenture and any Supplemental Indentures other covenants and agreements, and to surrender any right or power in the Master Indenture and any Supplemental Indentures reserved to or conferred upon the Authority;

(2) To cure any ambiguity, to supply any omission or to cure, correct or supplement any defect or inconsistent provisions contained in the Master Indenture or any Supplemental Indenture;

(3) To grant to the Trustee for the benefit of the Owners additional rights, remedies, powers or authority;

(4) To subject to the Master Indenture and the Supplemental Indenture additional collateral;

(5) To modify the Master Indenture, any Supplemental Indenture, or the Bonds to permit qualification under the Trust Indenture Act of 1939 or any similar federal statute at the time in effect, or to permit the qualification of the Bonds for sale under the securities laws of any state of the United States;

(6) To provide for uncertificated Bonds;

(7) To evidence the succession of a new Trustee or Paying Agent or the appointment by the Trustee or the Authority of a Co-Trustee or a Co-Paying Agent and to specify the rights and obligations of such Co-Trustee or Co-Paying Agent;

(8) To make any change (including but not limited to a change to reflect any amendment to the Code or interpretations of it by the Treasury Department or the Internal Revenue Service) that in the opinion of the Trustee does not materially adversely affect the rights of any Owner of any Bonds or Parity Indebtedness;

(9) To make any modifications or changes necessary or appropriate to issue an additional Series of Bonds or any Parity Indebtedness; or

(10) To make any modifications or changes necessary or appropriate to permit Bonds of any Series to be secured by a credit or liquidity facility or to accommodate the issuance of Bonds bearing variable interest rates, including the addition of provisions for the appointment of tender agents and similar parties and the specification of the duties and powers of such parties that in the opinion of the Trustee does not materially adversely affect the rights of any Owner of any Bonds or Parity Indebtedness.

Any other modification or alteration of the Master Indenture and any Supplemental Indenture or the rights and obligations of the Authority or of the Owners of the Bonds may be made by the Authority and the Trustee with the consent of (1) the Owners of a majority in aggregate principal amount of the Bonds then Outstanding; or (2) in case less than all of the Bonds then Outstanding are affected by the modifications or amendments, the Owners of a majority in aggregate principal amount of the Bonds so affected then Outstanding. However, without the consent of each Owner affected, no modification or alteration may (a) extend the maturity of the principal of or interest on any Bond, (b) reduce the principal amount of, or rate of interest on, any Bond, (c) effect a privilege or priority of any Bond or Bonds over any other Bond or Bonds, (d) reduce the percentage of the principal amount of the Bonds required for consent to such modification or alteration, (e) if applicable, impair the exclusion of interest on any Bonds from gross income for purposes of federal income taxation, (f) eliminate or extend the mandatory redemption date of any Bonds or reduce the redemption price of Bonds, (g) create a lien ranking prior to or on a parity with the lien of the Master Indenture or (h) deprive any Owner of the lien created by the Master Indenture on such property.

Certain Rights of the Insurers

The municipal bond insurers for the Series of Bonds that are curently Outstanding may exercise certain rights under their respective supplemental indentures, including their remedies after an event of default by the Authority, which may affect the rights of the Owners of the Series 2024 Bonds.

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APPENDIX C

AUDITED FINANCIAL STATEMENTS

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INDEPENDENT AUDITOR'S REPORT

To the Board of Directors
Loudoun County Sanitation Authority
Ashburn, Virginia

Report on the Audit of the Financial Statements

Opinion

We have audited the accompanying financial statements of the business-type activity and the fiduciary fund of Loudoun County Sanitation Authority (Loudoun Water), as of and for the years ended December 31, 2023 and 2022, and related notes to the financial statements, which collectively comprise Loudoun Water's basic financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activity and the fiduciary fund of Loudoun Water, as of December 31, 2023 and 2022, and the respective changes in financial position and, where applicable, its cash flows thereof for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinions

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS), *Specifications for Audits of Authorities, Boards and Commissions* issued by the Auditor of Public Accounts of the Commonwealth of Virginia, 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 Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of Loudoun Water, and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of these 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 Loudoun Water's ability to continue as a going concern for 12 months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditor's 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 auditor's 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 Loudoun Water'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 Loudoun Water'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 other 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 auditing standards generally accepted in the United States of America, 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.

Other Information

Management is responsible for the other information included in the annual report. The other information comprises the Introductory and Statistical Sections, as listed in the table of contents, but does not include the basic financial statements and our auditor's report thereon. Our opinions on the basic financial statements does 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 misstatement or 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 May 17, 2024 on our consideration of Loudoun Water'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 Loudoun Water'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 Loudoun Water's internal control over financial reporting and compliance.

Yount, Hyde & Barbour, P.C.

Winchester, Virginia
May 17, 2024

MANAGEMENT'S DISCUSSION AND ANALYSIS

The following discussion and analysis of the Loudoun County Sanitation Authority's financial performance provides a narrative overview of the financial activities of the Authority for the year ended December 31, 2023. We encourage readers to consider the information presented here in conjunction with the financial statements that follow this section.

Financial Highlights

- Assets and deferred outflows exceeded liabilities at the close of the year by $1.9 billion. Of this amount, $287.4 million is unrestricted and may be used to fund the capital improvements program or meet on-going obligations to customers and creditors.
- The net position increased by $46.3 million mainly due to the addition of water and wastewater lines and mains deeded to the Authority by developers.
- Operating revenues increased approximately 7.44% when compared to 2022. The customer base expanded by approximately 1,101 accounts (1.29%).
- Usage and base rates for water and wastewater were increased in January 2023.

Overview of the Financial Statements

This Annual Comprehensive Financial Report is presented in three main sections. The Introductory Section includes the letter of transmittal, the GFOA Certificate of Achievement, a list of Authority Board members and officers and an organization chart. The Financial Section includes the Independent Auditor's Report, this Management Discussion and Analysis, financial statements with related notes and required supplementary information. The Statistical Section includes selected financial and demographic information about the Authority and the surrounding area.

There are three types of financial statements included in the financial section of this report – Statements of Net Position, Statements of Revenues, Expenses and Changes in Net Position and Statements of Cash Flows. The Statements of Net Position include all of the Authority's assets and liabilities using the accrual basis of accounting. They provide the basis for evaluating the capital structure of the Authority and assessing the liquidity and flexibility of the Authority. All current and prior year's revenues and expenses are accounted for in the Statements of Revenues, Expenses and Changes in Net Position. These statements measure the success of the Authority's operations and can be used to determine whether the Authority has successfully recovered its costs through user fees and other charges. The Statements of Cash Flows report the cash provided and used in operating activities as well as other cash sources, such as investment income, cash payments for capital additions and repayment of bonds. The Statements of Fiduciary Net Position report assets held by the Authority acting as a trustee for the employees' Other Postemployment Benefits (OPEB). The Statement of Changes in Fiduciary Net Position presents the activity of the OPEB Trust fund during the year. The notes to the financial statements provide additional information that is essential to a full understanding of the data provided in the statements.

Financial Analysis

The Statements of Net Position and the Statements of Revenues, Expenses and Changes in Net Position report information about the Authority's activities to determine if, overall, the financial position improved over the year. These two statements report the net position of the Authority and changes in them. Analyzing the Authority's net position is one way to measure financial health. Non-financial factors such as economic conditions, population growth and new or changed government legislation need to be considered as well. The Authority improved its financial position in 2023.

Net Position

The following table depicts the Authority's condensed summary of net position at December 31, 2023, 2022 and 2021.

	2023	2022	2021
Assets			
Current and Other Assets	$ 414,240,308	$ 404,615,814	$ 400,787,297
Capital Assets	1,827,119,801	1,776,991,104	1,759,911,904
Total Assets	2,241,360,109	2,181,606,918	2,160,699,201
Deferred Outflows of Resources	6,414,240	7,617,312	8,469,330
Liabilities			
Current and Other Liabilities	71,637,662	46,292,569	47,918,670
Long-term Liabilities	228,386,629	239,452,762	241,078,691
Total Liabilities	300,024,291	285,745,331	288,997,361
Deferred Inflows of Resources	6,688,217	8,736,353	9,918,882
Net Position			
Net Investments in Capital Assets	1,627,154,188	1,571,174,883	1,571,358,973
Restricted	26,450,642	23,175,643	26,994,329
Unrestricted	287,457,011	300,392,021	271,898,986
Total Net Position	$1,941,061,841	$ 1,894,742,547	$1,870,252,288

Current Year. The Authority's net position increased by $46.3 million, or 2.4%, between fiscal years 2023 and 2022. A significant portion of the Authority's net position (83.8%) at December 31, 2023 reflects the net investment in capital assets. These capital assets are used to provide services to customers and are not available for future spending. Restricted net position increased approximately 14.13% in 2023 primarily due to an increase in restricted bond funds to be used for payment of debt service. $3.3 million of unspent bond proceeds are included in restricted funds, but are offset by $3.3 million of revenue bonds payable. Unrestricted net position decreased by approximately 4.3% and may be used to fund the Authority's capital improvement program and meet on-going obligations to customers and creditors.

Prior Year. The Authority's net position increased by $24.5 million, or 1.3%, between fiscal years 2022 and 2021. A significant portion of the Authority's net position (82.9%) at December 31, 2022 reflects the net investment in capital assets. These capital assets are used to provide services to customers and are not available for future spending. Restricted net position decreased approximately 14.15% in 2022 primarily due to a decrease in restricted bond funds to be used for payment of debt service. $34.7 million of unspent bond proceeds are included in restricted funds, but are offset by $34.7 million of revenue bonds payable. Unrestricted net position increased by approximately 10.5% and may be used to fund the Authority's capital improvement program and meet on-going obligations to customers and creditors.

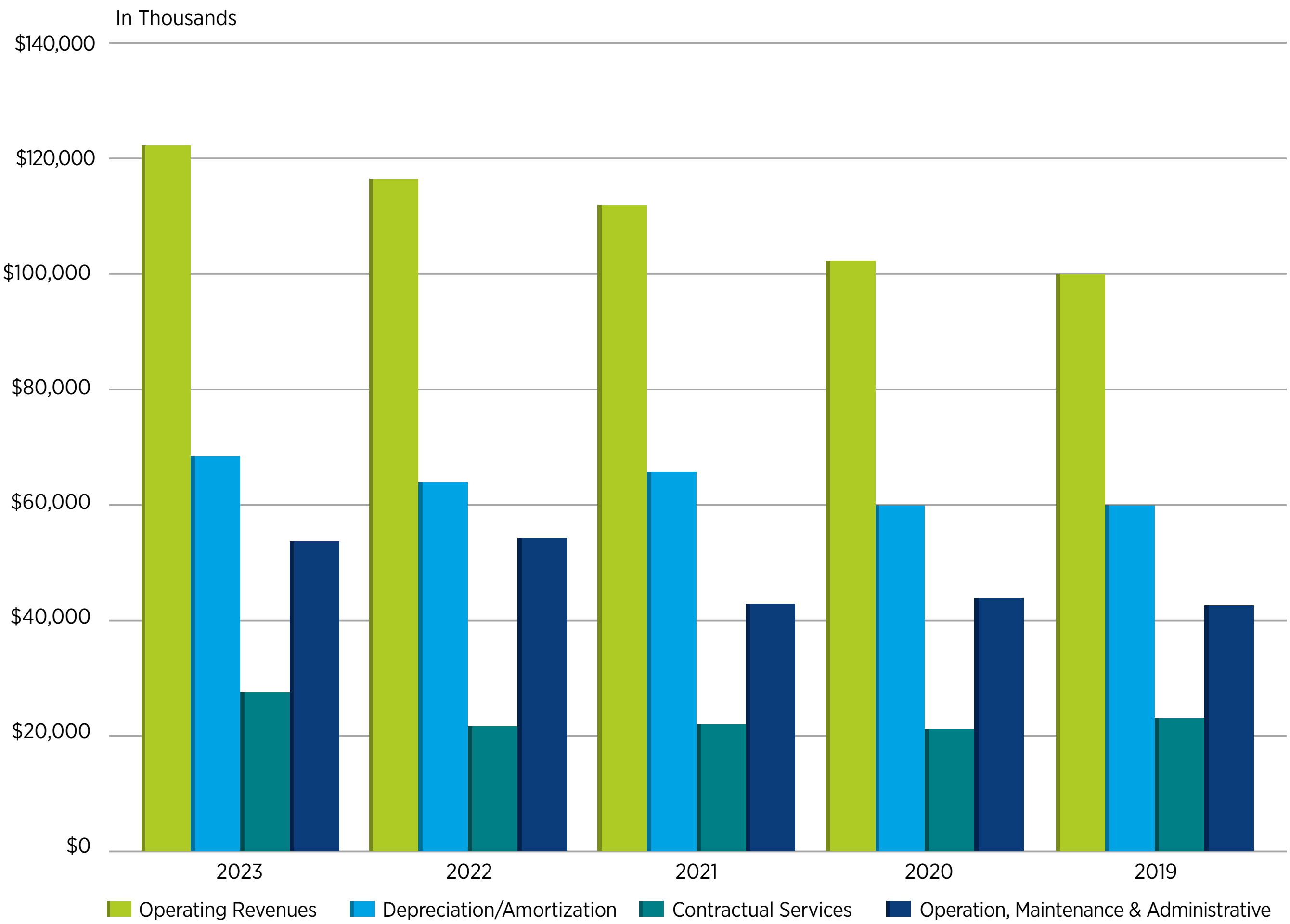
Changes in Net Position

The table below reflects the Authority's changes in net position for the years ended December 31, 2023, 2022 and 2021.

	2023	2022	2021
Operating Revenues			
Sale of Water	$ 57,503,490	$ 52,050,199	$ 50,691,670
Sewage Disposal Fees	61,851,733	58,496,572	55,927,713
Other Operating Revenues	5,550,821	5,714,132	5,151,674
Total Operating Revenues	124,906,044	116,260,903	111,771,057
Operating Expenses			
Personnel	39,827,029	41,666,238	31,851,149
Contractual Services	25,467,445	21,420,718	21,639,562
Other Operating Expenses	13,352,419	12,416,029	10,464,751
Total Operating Expenses	78,646,893	75,502,985	63,955,462
Operating Income Before Depreciation and Amortization	46,259,151	40,757,918	47,815,595
Depreciation/Amortization	67,578,845	63,724,425	65,149,468
Operating (Loss)	(21,319,694)	(22,966,507)	(17,333,873)
Non-operating Revenues/(Expenses)			
Availability Fees	2,608,917	2,824,127	4,055,805
Investment (Expense) Income	16,772,665	(7,552,616)	(1,594,623)
Interest Expense	(8,232,254)	(8,395,859)	(8,519,663)
Bond Issuance Costs	–	–	(294,232)
Gain (Loss) on Disposal	261,272	100,517	47,240
Contributions to VDOT/Government	(6,669,931)	–	–
Non-Operating (Expenses) Revenue	4,740,669	(13,023,831)	(6,305,473)
Net (Loss) before Capital Contributions	(16,579,025)	(35,990,338)	(23,639,346)
Capital Contributions	62,898,319	60,480,597	64,260,764
Change in Net Position	46,319,294	24,490,259	40,621,418
Net Position, Beginning of Year	1,894,742,547	1,870,252,288	1,829,630,870
Net Position, End of Year	$1,941,061,841	$ 1,894,742,547	$1,870,252,288

Operating Income

Current Year. Operating revenues totaled $124.9 million in fiscal year 2023, an increase of $8.6 million from 2022. This increase can be attributed to the usage rate increase that became effective on January 1, 2023 as well as an increase in water usage. Operating expenses were $78.6 million in 2023, an increase of $3.1 million from 2022 primarily due to increases in contractual services expenses. The chart below depicts operating revenues compared to operating expenses over the last five years.



Prior Year. Operating revenues totaled $116.3 million in fiscal year 2022, an increase of $4.5 million from 2021. This increase can be attributed to the usage rate increase that became effective on January 1, 2022 as well as an increase in water usage. Operating expenses were $75.5 million in 2022, an increase of $11.5 million from 2021 primarily due to increases in personnel expenses that can be attributed to the new post-65 retiree health benefits (See note 8). The chart below depicts operating revenues compared to operating expenses over the last five years.

Income Before Capital Contributions

Current Year. Net loss before capital contributions decreased $19.4 million in 2023 mainly due to an increase in investment income. The Authority credits a portion of availability fees to capital contributions and the remainder to non-operating revenues. Investment income is also recorded as non-operating revenue. Non-operating expenses include interest paid on debt.

Prior Year. Net loss before capital contributions increased $12.4 million in 2022 mainly due to an increase in personnel expenses. The Authority credits a portion of availability fees to capital contributions and the remainder to non-operating revenues. Investment income is also recorded as non-operating revenue. Non-operating expenses include interest paid on debt.

Capital Contributions

Current Year. Water and wastewater lines and mains that are deeded to the Authority by developers are reported as capital contributions. Approximately $24.3 million of capital assets were deeded to the Authority in 2023 compared to $22.9 million in 2022. The portion of availability charges credited to contributed capital totaled $37.0 million in 2023 compared to $36.3 million in 2022. In 2023, the Authority received approximately $0.4 million from the County of Loudoun for certain projects. The Authority contributed $6.7 million in 2023, in the form of a road, to the Virginia Department of Transportation.

Prior Year. Water and wastewater lines and mains that are deeded to the Authority by developers are reported as capital contributions. Approximately $22.9 million of capital assets were deeded to the Authority in 2022 compared to $12.9 million in 2021. The portion of availability charges credited to contributed capital totaled $36.3 million in 2022 compared to $49.8 million in 2021. In 2022, the Authority received approximately $0.6 million from the County of Loudoun for certain projects.

Capital Assets and Debt Administration

The following table depicts the Authority's condensed summary of capital assets at December 31, 2023, 2022, and 2021.

Capital Assets

	2023	2022	2021
Capacity Rights, net	$ 277,315,727	$ 269,177,585	$ 275,208,972
Water Facilities	769,578,507	759,876,099	734,779,969
Wastewater Facilities	706,553,345	695,586,558	681,433,281
Reclaimed Water Facilities	4,473,145	4,111,002	3,015,420
Building and Improvements	306,481,322	305,872,618	304,027,961
Machinery and Equipment	204,829,447	193,908,893	188,869,923
Right of Use Assets*	5,683,682	1,473,357	–
Land	67,234,172	67,234,172	67,234,172
Construction in Process	176,237,600	115,958,573	87,155,471
Total Capital Assets	2,518,386,947	2,413,198,857	2,341,725,169
Less: Accumulated Depreciation	691,267,146	636,207,753	581,813,265
Net Capital Assets	$ 1,827,119,801	$ 1,776,991,104	$ 1,759,911,904

*Due to implementation of GASB 87 and GASB 96, Right of Use assets have their own category. Data for 2022 and 2021 is not comparable.

Current Year. At the end of 2023, the Authority had invested $2.5 billion in a broad range of capital assets including capacity rights, water and sewer lines, land, buildings, vehicles and equipment. This amount represents an increase of $105.2 million, or 4.3% over last year.

Major capital asset additions for 2023 included:

- Water distribution mains constructed and contributed by developers - $14.4 million

  $2,094,873 Waterside

  $1,962,165 Brambleton

  $1,679,356 Hal and Berni Hanson Regional Park

  $1,134,262 Moorefield

  $1,014,060 Arcola

  $914,209 Northwoods Buildings

  $795,377 Paragon Park

  $690,104 The Reserve at Holly Springs

  $577,581 Hartland

  $576,485 Sterling 9

  $504,439 One Loudoun

  $498,819 JK Corporate Campus

  $481,859 Whitman Property South

  $388,054 Brambleton Active Adult Community

  $240,047 Willowsford

  $235,025 Lansdowne Continuing Care

  $234,436 SDC Ashburn

  $155,517 American Square at Quantum Park

  $121,375 Kincora Village Center

  $111,752 Raising Cane

- Sewer lines constructed and contributed by developers - $9.8 million

  $2,398,889 Brambleton

  $1,172,609 Hal and Berni Hanson Regional Park

  $869,466 Waterside

  $862,434 Northwoods Buildings

  $736,360 The Reserve at Holly Springs

  $519,346 Hartland

  $508,750 One Loudoun

  $503,259 Moorefield

  $364,514 Arcola

  $304,657 Paragon Park

  $273,199 Willowsford

  $267,597 Sterling 9

  $197,369 Whitman Property South

  $182,275 Brambleton Active Adult Community

  $141,849 JK Corporate Campus

  $134,023 Ashburn Metro Broadlands

  $128,717 Journey Lane

  $123,483 Guilford Station

  $106,269 SDC Ashburn

- DC Water Capital Improvements - $10.6 million
- Broad Run Water Reclamation Facility Liquids Treatment Expansion - $2.2 million
- Remote Facilities Communications Best Practices - $2.0 million
- Ashburn Campus Improvements - $1.4 million
- Broad Run Water Reclamation Facility Improvements - $1.0 million
- Reclaimed Water lines contributed by Paragon Park - $362,144

The Authority's fiscal 2024 Capital Budget projects spending $140.8 million for capital projects including:

- Various water main initiatives
- Various wastewater initiatives
- Milestone Reservoir Construction
- Beaverdam Reservoir Park
- Information Technology Projects
- Broad Run Water Reclamation Facility Treatment Expansion
- Community Systems Projects
- Capital payments to the District of Columbia Water and Sewer Authority for improvements at the Blue Plains Wastewater Treatment plant

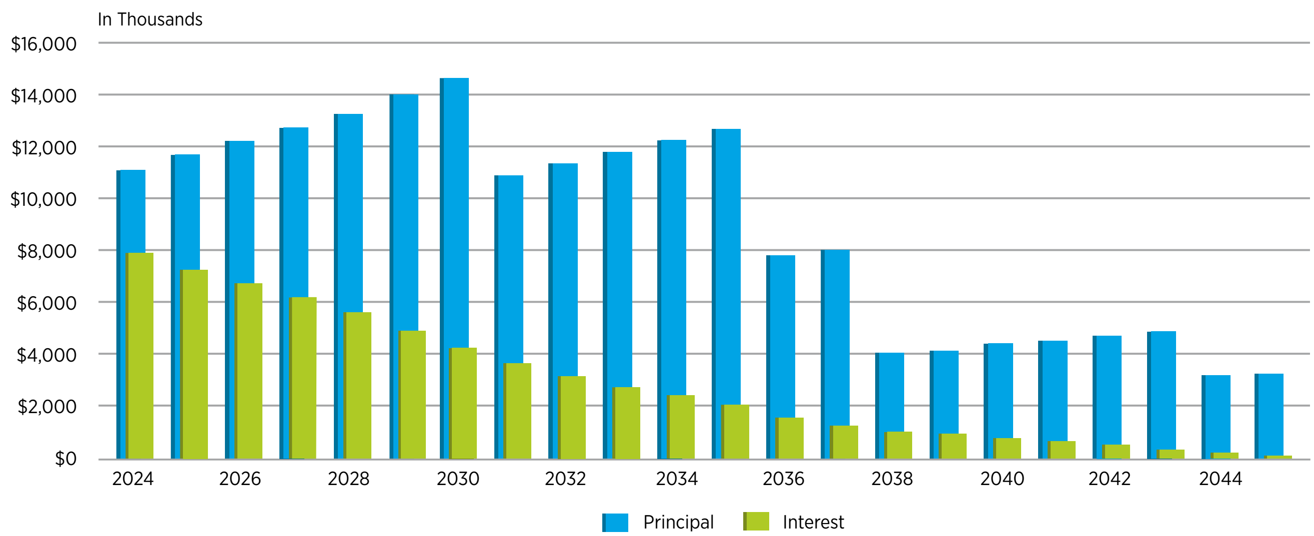
More detailed information regarding the Authority's capital assets is presented in Note 4 to the financial statements.

Prior Year. At the end of 2022, the Authority had invested $2.4 billion in a broad range of capital assets including capacity rights, water and sewer lines, land, buildings, vehicles and equipment. This amount represents an increase of $71.5 million, or 3.05% over 2021.

Long-term Debt

Current Year. The Authority's outstanding debt as of December 31, 2023 includes $105,885,000 in Water and Sewer System Revenue Bonds that bear interest from 3.25% to 5.0% and $81,230,000 in Water and Sewer System Refunding Bonds that bear interest from 2.0% to 5.0%. In addition, the Authority has outstanding debt of $9,520,000 in variable rate bonds.

The graph below provides an indication of how much principal and interest are due each year until the revenue bonds mature in 2045.



Outstanding revenue bonds carry an Aaa rating from Moody's Investors Service, an AAA rating from Fitch and AAA from Standard and Poor's (S&P). This is the highest rating available from each of the rating agencies.

The Authority's outstanding debt to the Fairfax County Water Authority (FCWA) relates to 20 MGD (million gallons per day) of storage capacity.

More detailed information regarding the Authority's long-term debt is presented in Note 6 to the financial statements.

Prior Year. The Authority's outstanding debt as of December 31, 2022 includes $108,480,000 in Water and Sewer System Revenue Bonds that bear interest from 3.25% to 5.0% and $88,000,000 in Water and Sewer System Refunding Bonds that bear interest from 2.0% to 5.0%. In addition, the Authority has outstanding debt of $10,700,000 in variable rate bonds.

Economic Factors and Next Year's Budgets and Rates

The long term outlook for the region's economic conditions and the prospect of these conditions is positive. The Authority continues to evaluate its resources as well as operational and capital requirements to ensure that water and wastewater service will be available to meet expected demand.

During 2023, the Authority continued to improve its financial position. The Authority was able to prepare a budget for 2024 that continues to preserve its financial integrity as well as provide high-quality water and wastewater service to all customers as economically as possible.

The Authority's rate structure is designed to collect sufficient revenues to pay debt service and recover operating and maintenance expenses. The Authority successfully accomplished this objective in 2023.

During 2021, the Authority's Board of Directors passed a resolution to adopt revised rates, fees and charges as a combined rate for both central service and developer initiated community system customers. These rates will be effective January 1, of 2022, 2023, and 2024. The average residential customer will realize an increase of approximately 3.0% with each rate increase. The existing rates for the two categories of community systems, the Goose Creek Wastewater Treatment Plant System and the County sponsored systems remain in effect.

The Board of Directors also adopted availability charges for all central system connections. These rates will be effective January 1, of 2022, 2023, and 2024. An increase of approximately 3.0% will be realized by customers with each rate increase.

Requests for Information

This report is intended to provide our customers, bondholders and creditors with a general overview of the Authority's financial position and to demonstrate accountability for revenues received. Questions concerning information provided in this report or requests for additional financial information should be directed to the Director of Finance of the Authority at 571.291.7700 or to our office located at 44865 Loudoun Water Way, PO Box 4000, Ashburn, VA 20146.

STATEMENTS OF NET POSITION

December 31, 2023 and 2022

Assets

	2023	2022
Current Assets		
Cash and Temporary Investments:		
Unrestricted	$ 84,685,835	$ 61,071,053
Restricted	40,971,690	69,332,142
Investments:		
Unrestricted	108,696,963	57,004,141
Receivables:		
Water and Wastewater Service	25,254,004	23,130,787
Leases	307,942	279,067
Interest:		
Unrestricted	1,329,227	1,070,114
Restricted	120,550	77,222
Other	29,764	376,320
Inventory	5,664,301	4,887,893
Prepaid Expenses	15,409	3,205,502
Total Current Assets	267,075,685	220,434,241
Non-Current Assets		
Lease Receivable	3,973,617	4,374,200
Investments:		
Unrestricted	143,191,006	179,807,374
Capital Assets:		
Capacity Rights, net of amortization	277,315,727	269,177,585
Water Facilities	769,578,507	759,876,099
Wastewater Facilities	706,553,345	695,586,558
Reclaimed Water Facilities	4,473,145	4,111,002
Buildings and Improvements	306,481,322	305,872,618
Machinery and Equipment	204,829,447	193,908,893
Right of Use Assets - Leases and SBITAs*	5,683,682	1,473,357
Less: Accumulated Depreciation	(691,267,146)	(636,207,753)
Land	67,234,172	67,234,172
Construction in Process	176,237,600	115,958,573
Capital Assets, net	1,827,119,801	1,776,991,104
Net Pension Asset	–	–
Total Non-Current Assets	1,974,284,424	1,961,172,678
Total Assets	2,241,360,109	2,181,606,919
Deferred Outflows of Resources		
Deferred Amounts on Refunding Debt	2,976,039	3,253,981
Deferred Amounts Related to OPEB	644,556	982,320
Deferred Amounts Related to GLI OPEB	361,535	336,356
Deferred Amounts Related to Pensions	2,432,110	3,044,655
Total Deferred Outflows of Resources	6,414,240	7,617,312
Total Assets and Deferred Outflows of Resources	$ 2,247,774,349	$ 2,189,224,231

*Due to Implementation of GASB 96, Right of Use assets include Subscription-Based IT Arrangements (SBITAs) and prior year data is not comparable.

See accompanying notes to financial statements.

Liabilities and Net Position

	2023	2022
Current Liabilities		
Accounts Payable	$ 27,879,938	$ 10,977,487
Retainages Payable	4,923,023	3,095,605
Oversizing Reimbursements	7,947,729	6,236,373
Unearned Revenue	2,688,841	–
Customer Advance Payment Fees	2,610,185	2,449,168
Developers' Advances	25,000	25,000
Performance Bonds	4,656,546	4,672,922
Maintenance Bonds	211,390	258,012
Bond Interest Payable	3,823,866	4,086,428
Compensated Absences	1,666,244	1,608,035
Fairfax Water Agreement	62,255	60,214
Leases and SBITAs Payable*	1,823,333	35,388
Bonds Payable - VRLF	370,042	363,830
Bonds Payable - VRA	5,701	5,538
Revenue Bonds Payable	12,943,569	12,418,569
Total Current Liabilities	71,637,662	46,292,569
Long-term Liabilities		
Compensated Absences	3,887,902	3,752,081
Other Post Employment Benefits	5,951,389	6,226,583
GLI Other Post Employment Benefits	1,498,062	1,471,767
Net Pension Liability	4,382,260	3,786,770
Fairfax Water Agreement	357,641	419,896
Leases and SBITAs Payable*	3,315,347	1,482,326
Bonds Payable - VRLF	4,058,646	4,428,688
Bonds Payable - VRA	36,751	42,452
Revenue Bonds Payable, net of unamortized amounts	204,898,631	217,842,199
Total Long-term Liabilities	228,386,629	239,452,762
Total Liabilities	300,024,291	285,745,331
Deferred Inflows of Resources		
Deferred Amounts on Refunding Debt	377,320	452,784
Deferred Amounts Related OPEB Health	344,083	486,738
Deferred Amounts Related GLI OPEB	218,848	305,948
Deferred Amounts Related to Pensions	1,644,818	2,904,229
Deferred Amounts Related to Leases	4,103,148	4,586,654
Total Deferred Inflows of Resources	6,688,217	8,736,353
Net Position		
Net Investment in Capital Assets	1,627,154,188	1,571,174,883
Restricted Net Position for:		
Debt Service	26,450,642	23,175,643
Unrestricted Net Position	287,457,011	300,392,021
Total Net Position	1,941,061,841	1,894,742,547
Total Liabilities, Deferred Inflows of Resources and Net Position	$ 2,247,774,349	$ 2,189,224,231

*Due to Implementation of GASB 96, Subscription-Based IT Arrangements (SBITAs) Payables have been added and prior year data is not comparable.

See accompanying notes to financial statements.

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

Years Ended December 31, 2023 and 2022

	2023	2022
Operating Revenues		
Sale of Water	$ 57,503,490	$ 52,050,199
Sewage Disposal Fees	61,851,733	58,496,572
Other Water/Wastewater Charges	567,779	525,455
Other Operating Revenues	4,983,042	5,188,677
Total Operating Revenues	124,906,044	116,260,903
Operating Expenses		
Personnel	39,827,029	41,666,238
Contractual Services	25,467,445	21,420,718
Materials, Supplies, and Minor Equipment	7,651,583	6,817,847
Other Services	5,700,836	5,598,182
Total Operating Expenses	78,646,893	75,502,985
Operating Income Before Depreciation and Amortization	46,259,151	40,757,918
Depreciation	56,577,951	54,854,680
Amortization	11,000,894	8,869,745
Operating (Loss)	(21,319,694)	(22,966,507)
Non-Operating Revenues/(Expenses)		
Availability Charges	2,608,917	2,824,127
Investment (Loss) Income	16,772,665	(7,552,616)
Interest Expense	(8,232,254)	(8,395,859)
Gain on Disposal	261,272	100,517
Contribution to VDOT/Government	(6,669,931)	–
Non-Operating Revenue	4,740,669	(13,023,831)
Net (Loss) before Capital Contributions	(16,579,025)	(35,990,338)
Capital Contributions	62,898,319	60,480,597
Change in Net Position	46,319,294	24,490,259
Total Net Position, Beginning of Year	1,894,742,547	1,870,252,288
Total Net Position, End of Year	$ 1,941,061,841	$ 1,894,742,547

See accompanying notes to financial statements.

STATEMENTS OF CASH FLOWS

Years Ended December 31, 2023 and 2022

	2023	2022
Cash Flows from Operating Activities		
Cash Received from Customers	$ 122,943,844	$ 117,391,413
Cash Received from Operating Leases	415,081	482,898
Payments to Suppliers for Goods and Services	(36,573,676)	(39,663,798)
Payments to Employees for Services	(40,333,950)	(32,361,686)
Net Cash Provided by Operating Activities	46,451,299	45,848,827
Cash Flows from Capital and Related Financing Activities		
Proceeds from Sale of Capital Assets	259,575	120,556
Contributions from Developers	328,839	429,616
Contributions from Governments	3,954,532	896,880
Acquisition/Construction of Capital Assets	(75,052,448)	(63,444,801)
Availability Fees	39,931,038	39,259,073
Principal Payments on Fairfax Water Agreement	(60,214)	(58,239)
Principal Payments on Leases and Subscriptions Payable*	(2,542,877)	(35,466)
Interest Payments on Leases and Subscriptions Payable*	–	(46,307)
Interest Payments on Fairfax Water Agreement	(16,178)	(18,153)
Principal Payments - VRA	(369,368)	(363,103)
Interest Payments - VRA	(81,299)	(87,565)
Principal Payments on Revenue Bonds	(10,545,000)	(8,975,000)
Interest Payments on Revenue Bonds	(8,397,339)	(8,063,350)
Net Cash (Used in) Capital and Related Financing Activities	(52,590,739)	(40,385,859)
Cash Flows from Investing Activities		
Proceeds from Sale of Investments	58,685,000	71,905,000
Purchase of Investments	(66,570,164)	(92,617,801)
Interest Received on Investments	9,278,934	4,113,947
Net Cash Provided by (Used in) Investing Activities	1,393,770	(16,598,854)
Net (Decrease) in Cash and Cash Equivalents	(4,745,670)	(11,135,886)
Cash and Cash Equivalents, Beginning of Year	130,403,195	141,539,081
Cash and Cash Equivalents, End of Year	$ 125,657,525	$ 130,403,195

*Due to Implementation of GASB 96, Subscription-Based IT Payables have been added and prior year data is not comparable.

See accompanying notes to financial statements.

STATEMENTS OF CASH FLOWS (CONTINUED)

Years Ended December 31, 2023 and 2022

	2023	2022
Reconciliation of Operating (Loss) to		
Net Cash Provided by Operating Activities		
Operating (Loss)	$ (21,319,694)	$ (22,966,507)
Adjustments to Reconcile Operating (Loss) to		
Net Cash Provided by Operating Activities:		
Depreciation and Amortization	67,578,845	63,724,425
Non Cash Lease Adjustment	133,095	144,847
Changes in Assets and Liabilities:		
(Increase) Decrease in Water/Wastewater Receivables	(2,123,217)	925,362
Decrease in Lease Receivables	281,986	388,051
(Increase) in Inventory	(776,408)	(729,262)
Decrease (Increase) in Prepaid Expenses	3,190,093	(1,622,130)
(Decrease) in Accounts Payable	(167,497)	(3,475,659)
(Decrease) Increase in Other Liabilities	(506,921)	9,304,552
Increase in Liabilities Payable from Restricted Assets	161,017	205,148
Net Cash Provided by Operating Activities	$ 46,451,299	$ 45,848,827
Noncash Investing, Capital and Financing Activities		
Estimated Acquisition Value of Contributed Capital Assets	$ 24,328,224	$ 22,871,380
Increase (Decrease) in Fair Value of Investments	6,050,989	(11,716,481)
Reconciliation of Cash		
Cash and Temporary Investments:		
Unrestricted	84,685,835	61,071,053
Restricted	$ 40,971,690	$ 69,332,142
	$ 125,657,525	$ 130,403,195

See accompanying notes to financial statements.

STATEMENTS OF FIDUCIARY NET POSITION - OPEB TRUST FUND

December 31, 2023 and 2022

Assets

	2023	2022
Assets Held in Trust, Investments at Fair Value:		
Fixed Income	$ 919,824	$ 801,521
Stocks	2,253,568	2,061,055
Real Estate	689,868	267,174
Alternative Investments	735,859	687,018
Total Assets	4,599,119	3,816,768

Net Position

	2023	2022
Net Position Restricted for OPEB	4,599,119	3,816,768
Total Net Position	$ 4,599,119	$ 3,816,768

See accompanying notes to financial statements.

STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION - OPEB TRUST FUND

Years Ended December 31, 2023 and 2022

Additions

	2023	2022
Contributions		
Employer	$ 717,559	$ 699,462
Total Contributions	717,559	699,462
Investments		
Net Increase in Fair Value of Investments	426,634	(486,444)
Total Investment Income	426,634	(486,444)
Total Additions	1,144,193	213,018

Deductions

	2023	2022
Benefit Payments	357,788	328,497
Administrative Expenses	4,054	4,282
Total Deductions	361,842	332,779
Change in Net Position	782,351	(119,761)
Net Position, Beginning of Year	3,816,768	3,936,529
Net Position, End of Year	$ 4,599,119	3,816,768

See accompanying notes to financial statements.

1. Summary of Significant Accounting Policies

The Loudoun County Sanitation Authority d/b/a Loudoun Water, hereinafter referred to as the "Authority," was created on May 27, 1959 as a public body politic and corporate under the provisions of the Virginia Water and Waste Authorities Act (Chapter 28, Title 15.1, Section 1239 et. seq., *Code of Virginia*, 1950, as amended), for the purpose of acquiring, constructing, operating and maintaining for Loudoun County (County) (a) an integrated water supply and distribution system, and (b) an integrated sewerage and sewage disposal system; and for the purpose of exercising the powers conferred by said Water and Waste Authorities Act.

The accounting policies conform to accounting principles generally accepted in the United States of America as applicable to authorities. The following is a summary of the more significant policies:

A. Reporting Entity

To determine the appropriate reporting entity for the Authority, its relationship with the County was considered. Although the members of the Board are appointed by the County Board of Supervisors, the County is not financially accountable for the Authority and does not have the ability to impose its will on the Authority. In addition, there is no potential for the Authority to provide specific financial benefit to, or impose specific financial burdens on, the County and the Authority is not fiscally dependent on the County. Based on the application of these criteria, the Authority is not a component unit of the County.

B. Basis of Presentation

The accounting policies conform to accounting principles generally accepted in the United States of America as applicable to enterprise funds of governmental units. Operations are accounted for in a manner similar to those often found in the private sector. The measurement focus is based upon the determination of net income. The costs (including depreciation) of providing goods and services to customers on a continuing basis are recovered primarily through user charges. Periodic determination of revenues earned, expenses incurred and/or net income is appropriate for capital maintenance, public policy, management control and accountability. Fiduciary OPEB Trust Fund is used to account for the assets held in trust for other postemployment benefits.

C. Basis of Accounting and Use of Estimates

Basis of accounting refers to when revenues and expenses are recognized in the accounts and reported in the financial statements. Basis of accounting relates to the timing of the measurements made, regardless of the measurement focus applied. Revenues and expenses are accounted for within one fund: an enterprise fund. The Authority uses the accrual basis of accounting for its enterprise fund, under which revenues are recognized when they are earned and expenses are recognized when they are incurred.

Operating revenues and expenses consist of those revenues and expenses that result from the ongoing principal operations. Operating revenues consist primarily of charges for services. Non-operating revenues and expenses consist of those revenues and expenses that are related to financing and investing types of activities and result from non-exchange transactions or ancillary activities.

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

D. Cash and Investments

Cash and temporary investments include amounts in demand deposits as well as short-term investments with an original maturity of three months or less.

Restricted cash and temporary investments include amounts held in money market funds as well as short-term investments with an original maturity of three months or less.

Investments include United States government and agency obligations and obligations of the Commonwealth of Virginia and its subdivisions. Those investments with maturities of three months to a year are considered current and are stated at fair value. Investments with maturities greater than one year are considered long-term and are stated at fair value.

Investments held by the Trustee are stated at fair value and include all United States obligations with a maturity in excess of three months. Interest on investments is recorded in the year earned.

E. Accounts Receivable

All continuing service receivables are recognized when earned with no allowance for uncollectibles, as delinquent accounts attach as an enforceable lien on property if not collected within a certain period of time once notification has been given to the owner.

An estimated amount has been recorded for services rendered but not yet billed as of the close of the respective years presented. At December 31, 2023 and 2022, the Authority recorded $18,188,411 and $16,947,145 respectively, as unbilled water and wastewater service receivables.

F. Inventory

Inventory is valued at average cost. Inventories are recorded as an operating expense when consumed rather than when purchased.

G. Restricted Assets

Restricted assets represent resources designated for specific purposes and include developers' advances, advance payment fees, maintenance bonds and performance bonds. Restricted assets also include bond proceeds and funds set aside for repayment since their use is limited by applicable bond covenants.

H. Capital Assets

Capital assets include property, plant and equipment as well as intangible assets such as purchased capacity rights. Intangible assets are amortized over the maximum allowable period of 40 years and are shown on the financial statements net of accumulated amortization.

The Authority capitalizes all assets with a purchase price greater than $10,000.

Capital assets are stated at historical cost. Donated assets are recorded at acquisition value at the time received. Expenses for repairs and upgrading which materially add to the value or life of an asset are capitalized. Other maintenance and repair costs are expensed as incurred.

Depreciation of all exhaustible capital assets is charged as an expense against operations using the straight-line method over the following estimated useful lives:

Water and Wastewater Facilities	40-50 years
Buildings and Improvements	20-40 years
Machinery and Equipment	3-15 years

I. Leases

The Authority is a lessee of a postage meter, a printer and .25 acres of land, and realizes a lease liability and an intangible right-of-use asset (lease asset) in its financial statements. At the commencement of a lease, the Authority initially measures the lease liability at the present value of payments expected to be made during the lease term. Subsequently, the lease liability is reduced by the principal portion of lease payments made. The lease asset is initially measured as the initial amount of the lease liability, adjusted for lease payments made at or before the lease commencement date, plus certain initial direct costs. Subsequently, the lease asset is amortized on a straight-line basis over its useful life.

Key estimates and judgements related to leases include how the Authority determines (1) the discount rate it uses to discount the expected lease payments to present value, (2) lease term, and (3) lease payments.

- The Authority uses the interest rate charged by the lessor as the discount rate. When the interest rate charged by the lessor is not provided, the Authority generally uses its estimated incremental borrowing rate as the discount rate for leases.

- The term includes the noncancellable period of the lease. Lease payments included in the measurement of the lease liability are composed of fixed payments and purchase option prices that the Authority is reasonably certain to exercise. In determining the lease term, management considers all facts and circumstances that create an economic incentive to exercise an extension option, or not exercise a termination option. Extension options (or periods after termination options) are only included in the lease term if the lease is reasonably certain to be extended (or not terminated).

The Authority monitors changes in circumstances that would require a remeasurement of its leases and will remeasure the lease asset and liability if changes occur that are expected to significantly affect the amount of the lease liability. Lease assets are reported with other capital assets and lease liabilities are reported with current and long-term debt on the statement of net position.

Lessor: The Authority leases out space on top of its water towers to cellular service providers who place their cellular communications equipment on them. The Authority also leases a portion of land to a radio broadcast company where they have placed a radio tower and an equipment building. The Authority recognizes a lease receivable and a deferred inflow of resources in the financial statements for these leases.

At the commencement of a lease, the Authority initially measures the lease receivable at the present value of payments expected to be received during the lease term. Subsequently, the lease receivable is reduced by the principal portion of lease payments received. The deferred inflow of resources is initially measured as the initial amount of the lease receivable, adjusted for lease payments received at or before the lease commencement date. Subsequently, the deferred inflow of resources is recognized as revenue over the life of the lease term. Key estimates and judgments include how the Authority determines (1) the discount rate it uses to discount the expected lease receipts to present value, (2) lease term, and (3) lease receipts.

- The Authority uses its estimated incremental borrowing rate as the discount rate for leases.
- The lease term includes the noncancellable period of the lease. Lease receipts included in the measurement of the lease receivable are composed of fixed payments from the lessee.

The Authority monitors changes in circumstances that would require a remeasurement of its leases and will remeasure the lease receivable and deferred inflows of resources if changes occur that are expected to significantly affect the amount of the lease receivable.

Detailed balances and information for Leases: Lessee and Lessor are presented in Note 4A.

J. Subscription-Based Information Technology Arrangements (SBITAs)

The Authority is a party to noncancellable contracts with SBITA vendors that convey control of the right to use the vendor's IT software alone or in combination with tangible capital assets specified in the contract, for a period of time in an exchange or exchange-like transaction. The Authority recognizes an intangible right-to-use SBITA asset and a corresponding subscription liability. At the commencement of the agreement, the Authority measures the SBITA liability as the present value of SBITA payments expected to be made during the contract term. The SBITA liability is subsequently reduced by the principal portion of the payments made. The SBITA asset is initially measured as the beginning amount of the SBITA liability, plus payments made to the vendor prior to the commencement of a subscription and any capitalizable costs incurred to implement the SBITA. Subsequently, the SBITA asset is amortized on a straight-line basis over the life of the contract.

Key estimates and judgments include how the Authority determines (1) the discount rate it uses to discount the expected SBITA payments to present value, (2) SBITA term, and (3) SBITA payments.

- The Authority uses its estimated incremental borrowing rate as the discount rate for SBITAs.
- The SBITA term includes the noncancellable period of the contract. SBITA payments included in the measurement of the SBITA liability are composed of fixed payments that the Authority is reasonably certain to make. In determining the SBITA term, management considers all facts and circumstances that create an economic incentive to exercise an extension option, or not exercise a termination option. Extension options are only included in the SBITA term if the SBITA is reasonably certain to be extended.

The Authority monitors changes in circumstances that would require a remeasurement of its SBITAs and will remeasure the SBITA asset and liability if changes occur that are expected to significantly affect the amount of the SBITA liability.

Detailed balances and information for Subscription-Based Information Technology Agreements (SBITAs) are presented in Note 4B.

K. Construction in Process

Construction in process includes design and construction costs that accumulate until completion of the respective project, at which time the total cost is transferred to depreciable capital assets.

L. Deferred Outflow and Inflow of Resources

A deferred outflow of resources represents a consumption of net assets that applies to future periods and will not be recognized as an expense until then. Deferred outflows from the refundings of debt will be recognized as interest expense in the appropriate reporting period. Deferred outflows related to pensions and OPEB resulting from the Authority's contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability and net OPEB liability, respectively, in the next fiscal year. A deferred inflow of resources represents an acquisition of net assets that applies to future periods. Deferred inflows related to pensions and OPEB will be recognized as expense in the appropriate reporting period.

M. Compensated Absences

Authority employees are granted annual leave in varying amounts based on years of service and sick leave at a rate of 3 1/2 hours per pay period. In the event of termination, an employee is reimbursed for accumulated annual leave in full, and for sick leave in varying amounts based on years of service. Compensated absences that are expected to be liquidated within one year are reflected on the financial statements as a current liability.

N. Bond Premiums and Discounts

Bond premiums and discounts are amortized over the life of the bonds using a method which approximates the effective interest method. Bond premiums, net of amortization, of $21,207,200 and $23,080,768 for 2023 and 2022, respectively, are presented as an increase to the face amount of bonds payable.

O. Capital Contributions

Capital contributions are recorded for the receipt of capital grants, contributions of funds, property, lines and improvements by developers, customers or other governments. Availability fees in excess of related costs are also recorded as capital contributions.

P. Comparative Data

Comparative data for the prior year is presented in the accompanying financial statements in order to provide an understanding of the changes in the Authority's financial position and operations.

Q. New Accounting Pronouncements Adopted

The Authority has adopted the following GASB Pronouncements in fiscal year 2023:

GASB Statement No. 94, *Public-Private and Public-Public Partnerships (PPPs) and Availability Payment Arrangements (APAs)*, establishes the definitions of PPPs and APAs and providing uniform guidance on accounting and financial reporting for transactions that meet those definitions. Statement 94 became effective for the Authority beginning with its year ending December 31, 2023.

GASB Statement No. 96, *Subscription-Based Information Technology Arrangements (SBITA)* (Statement 96), improves financial reporting by establishing a definition for SBITAs and providing uniform guidance for accounting and financial reporting for transactions that meet that definition, which will result in greater consistency and enhance the relevance and reliability of the financial statements. Statement 96 became effective for the Authority beginning with its year ending December 31, 2023.

GASB Statement No. 99, "Omnibus 2022." The requirements related to leases, PPPs, and SBITAs became effective for the Authority beginning with its year ending December 31, 2023.

R. New Accounting Pronouncements

GASB Statement 100, *Accounting Changes and Error Corrections*, (Statement 100), will 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. Statement 100 will be effective for the Authority beginning with its year ending December 31, 2024.

GASB Statement 101, *Compensated Absences*, (Statement 101), will better meet the information needs of financial statement users by updating the recognition and measurement guidance for compensated absences by aligning the recognition and measurement guidance under a unified model and by amending certain previously required disclosures. Statement 101 will be effective for the Authority beginning with its year ending December 31, 2024.

GASB Statement 102, *Certain Risk Disclosures*, (Statement 102), will provide users of government financial statements with essential information about risks related to a government's vulnerabilities due to certain concentrations or constraints. Statement 102 will be effective for the Authority beginning with its year ending December 31, 2024.

Management has not yet determined the effect that these Statements will have on its financial statements.

2. Deposits and Investments

A. Deposits

All cash is maintained in accounts collateralized in accordance with the Virginia Security for Public Deposits Act, Section 2.2-4400 et. seq. of the *Code of Virginia* or covered by federal depository insurance.

B. Investments

The *Code of Virginia* authorizes the Authority to invest in obligations of the United States or agencies thereof, obligations of the Commonwealth of Virginia and its subdivisions, commercial paper rated A-1 by Standard and Poor's Corporation or P-1 by Moody's Commercial Paper Record, bankers' acceptances, repurchase agreements and the State Treasurer's Local Government Investment Pool (LGIP).

Custodial Credit Risk:

The Authority's investment policy specifies that investments shall be held in safekeeping by a third party and evidenced by safekeeping receipts. In addition, the *Code of Virginia* requires that all security holdings with maturities over thirty days may not be held in safekeeping with the "counterparty" (the issuer or seller of the security and any repurchase agreement provider) to the investment transaction.

At December 31, 2023, all securities purchased by the Authority were held in safekeeping by a third-party custodial bank or institution in the Authority's name.

Investment Policy:

In November 2019, the Authority updated the formal investment policy that was adopted in March 2000. It is the policy that the investment and administration of its funds be made in accordance with the *Code of Virginia* Investment in Public Funds Act, the applicable provisions of any outstanding bond indebtedness and the investment policy. It is the intent to be in complete compliance with all federal, state and local laws, and other regulations and statutes governing the investment of public funds.

The investment policy establishes the maximum percentages of the portfolio permitted in each of the following instruments:

Treasuries and obligations collateralized with Treasuries	No portfolio limitation
Obligations of the Commonwealth or Virginia Local Governments	10% of total portfolio
Certificates of Deposit (fully collateralized only)	25% of total portfolio; 5% from any one institution
Liquidity Investments	No portfolio limitation
Federal Agency Securities	No portfolio limitation; 40% from any one agency
Commercial Paper	25% of total portfolio
Corporate Notes	25% of total portfolio

Credit Risk:

As required by state statute, the investment policy requires that commercial paper have a short-term debt rating of no less than "A-1" (or its equivalent) from at least two of the following: Moody's Investor Service, Standard & Poor's and Fitch Investor Service. Corporate notes, negotiable Certificates of Deposit and bank deposit notes maturing in less than one year must have a short-term debt rating of at least "A-1" by Standard & Poor's and "P-1" by Moody's Investor Service. Notes having a maturity of greater than one year must be rated "AA" by Standard & Poor's and "Aa" by Moody's Investor Service.

As of December 31, 2023, the Authority held 57% in U.S. Government Agency Securities, 19% in corporate bonds, 15% in Local Government Investment Pool, 0% in Commercial Paper, 2% in obligations of the Commonwealth of Virginia and its subdivisions and 7% in money market funds.

Concentration of Credit Risk:

Concentration of credit risk is defined as the risk of loss attributed to the magnitude of a government's investment in a single issuer. If certain investments in any one issuer represent 5% of the total investments, there must be a disclosure for the amount and issuer.

At December 31, 2023, the portion of the portfolio, excluding U.S. Government guaranteed obligations, and money market funds that exceed 5% of the total portfolio are as follows:

Investment Type	Credit Quality (Rating)	Credit Exposure as a Percentage of Total Investments
Federal Home Loan Bank	AA+/Aaa	21%
Federal Farm Credit Bank	AA+/Aaa	9%
Federal Home Loan Mortgage Corp	AAA/Aaa	7%
Toyota Motor Credit Mtn	A1/A+	7%

Interest Rate Risk:

Interest rate risk is defined as the risk that changes in interest rates will adversely affect the fair value of an investment.

Although the Authority has no formal policy relating to specific investment-related risk, the Authority contains interest-rate risk by avoiding asset-backed securities and by restricting the use of callable U.S. Agency securities. The risk of loss of fair value from rising interest rates is greater for those types of securities because the average maturity of such securities increases as interest rates rise, compounding the impact on fair value. By comparison, the average maturity of U.S. Treasury notes, non-callable Agency securities and the LGIP are not affected by changes in interest rates. The following table depicts the investment maturities, in years, at December 31, 2023:

The investment maturities, in years, at December 31, 2023:

		Investment Maturities		
	Fair Value	Less than 1 year	1-2 years	2-4 years
U.S. Treasuries	$ 69,786,810	$ 48,967,950	$ 20,818,860	$ –
U.S. Agencies	113,171,178	47,944,958	65,226,220	–
Municipal Bonds	5,816,231	1,896,755	2,424,485	1,494,991
Commercial Paper	–	–	–	–
Corporate Obligations	63,113,750	9,887,300	53,226,450	–
	$ 251,887,969	$ 108,696,963	$ 141,696,015	$ 1,494,991

The investment maturities, in years, at December 31, 2022:

		Investment Maturities		
	Fair Value	Less than 1 year	1-2 years	2-4 years
U.S. Treasuries	$ 44,640,910	$ 9,873,100	$ 28,552,300	$ 6,215,510
U.S. Agencies	101,583,414	16,474,250	76,253,114	8,856,050
Municipal Bonds	9,124,751	5,767,951	1,891,337	1,465,463
Commercial Paper	19,903,090	19,903,090	–	–
Corporate Obligations	61,559,350	4,985,750	52,150,250	4,423,350
	$ 236,811,515	$ 57,004,141	$ 158,847,001	$ 20,960,373

Fair Value Measurements:

Accounting standards establish a framework for measuring fair value. That framework provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (level 1) and the lowest priority to unobservable inputs (level 3). Level 1 valuation inputs are quoted prices in active exchange markets. Level 2 inputs are less active markets, but still significant other observable inputs. Level 3 inputs include other valuation methodologies and are not based on market, exchange or traded transactions. The asset or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs.

Debt and equity securities classified as Level 1 are valued using prices quoted in active markets for those securities. Debt and equity securities classified in Level 2 are valued using the following approaches: debt securities are normally valued based on price data obtained from observed transactions and market price quotations from broker dealers and/or pricing vendors; equity securities are valued using fair value per share for each fund. Securities classified as Level 3 have limited trade information, these securities are priced using the last trade price or estimated using recent trade prices. For the years ended December 31, 2023 and 2022, all investments were valued using Level 1 and 2 inputs and the application of valuation techniques applied has been consistent.

The following table depicts the fair value investments at December 31, 2023:

	Fair Value Investments			% of Total Investments		
	Level 1	Level 2	Total	Level 1	Level 2	Total
U.S. Treasuries	$ 69,786,810	–	69,786,810	27.8%	–	27.8%
FHLB	–	56,860,958	56,860,958	–	22.6	22.6
FFCB	10,002,300	14,371,400	24,373,700	4.0	5.7	9.7
FHLMC	–	19,692,600	19,692,600	–	7.8	7.8
FNMA	–	12,243,920	12,243,920	–	4.9	4.9
Municipal Bonds	–	5,816,231	5,816,231	–	2.3	2.3
Commercial Paper	–	–	–	–	–	0.0
Corporate Obligations	33,718,950	29,394,800	63,113,750	13.4	11.5	24.9
Total investments	$ 113,508,060	$ 138,379,909	$ 251,887,969	45.2%	54.8%	100.0%

The fair value investments at December 31, 2022:

	Fair Value Investments			% of Total Investments		
	Level 1	Level 2	Total	Level 1	Level 2	Total
U.S. Treasuries	$ 44,640,910	–	44,640,910	18.9%	–	18.9%
FHLB	–	55,164,654	55,164,654	–	23.3	23.3
FFCB	–	15,839,450	15,839,450	–	6.7	6.7
FHLMC	–	18,848,500	18,848,500	–	8.0	8.0
FNMA	–	11,730,810	11,730,810	–	5.0	5.0
Municipal Bonds	–	9,124,751	9,124,751	–	3.9	3.9
Commercial Paper	–	19,903,090	19,903,090	–	8.4	8.4
Corporate Obligations	28,354,100	33,205,250	61,559,350	12.0%	13.8	25.8
Total investments	$ 72,995,010	$ 163,816,505	$ 236,811,515	30.9%	69.1%	100.0%

The carrying amounts of the Authority's financial instruments not described above arise in the ordinary course of business and approximate fair value.

3. Restricted Assets Held by Trustee

Restricted assets held by the Trustee represent the portion of resources held by the Trustee on behalf of the Authority in accordance with the applicable bond covenants. These assets include: cash, investments (at fair value) and accrued interest receivable of $120,550 and $77,222 at December 31, 2023 and 2022, respectively. The restricted assets held by the Trustee at December 31, 2023 and 2022 in each account established under the indenture of trust are shown below.

	2023	2022
Bond Account (unspent bond proceeds offset by related liability)	$ 15,120,978	$ 12,371,899
Debt Service Reserve Account	15,107,686	14,890,173
Escrow Account	45,834	–
Total Restricted Assets held by Trustee	$ 30,274,498	$ 27,262,072

4. Capital Assets

Changes in capital assets as of December 31, 2023 are as follows:

	Balance January 1, 2023	Additions	Retirements/ Deletions	Transfers	Balance December 31, 2023
Capital Assets not being depreciated:					
Land	$ 67,234,172	$ –	$ –	$ –	$ 67,234,172
Construction in Process	115,958,573	92,413,798	–	(32,134,771)	176,237,600
Total Capital Assets not being depreciated	183,192,745	92,413,798	–	(32,134,771)	243,471,772
Capital Assets being amortized:					
Capacity Rights, net of amortization	269,177,585	(10,650,699)	–	18,788,841	277,315,727
Other Capital Assets:					
Water Facilities	759,876,099	14,693,178	(7,575,368)	2,584,598	769,578,507
Wastewater Facilities	695,586,558	10,027,240	–	939,547	706,553,345
Reclaimed Water Facilities	4,111,002	362,143	–	–	4,473,145
Building and Improvements	305,872,618	–	–	608,704	306,481,322
Machinery and Equipment	193,908,893	2,322,289	(614,816)	9,213,081	204,829,447
Right-of-use assets - Leases	1,553,180	549	(1,338,573)	–	215,156
Right-of-use assets - SBITAs*	7,570,183	–	–	–	7,570,183
Total Other Capital Assets	1,968,478,533	27,405,399	(9,528,757)	13,345,930	1,999,701,105
Total Capital Assets	2,420,848,863	109,168,498	(9,528,757)	–	2,520,488,604
Less Accumulated Depreciation/ Amortization for:					
Water Facilities	(185,380,887)	(16,647,849)	905,438	–	(201,123,298)
Wastewater Facilities	(246,019,611)	(17,283,483)	–	–	(263,303,094)
Reclaimed Water Facilities	(452,204)	(125,462)	–	–	(577,666)
Building and Improvements	(70,588,354)	(7,525,630)	–	–	(78,113,984)
Machinery and Equipment	(133,766,697)	(14,995,527)	613,120	–	(148,149,104)
Right-of-use assets - Leases	(79,823)	(67,312)	–	–	(147,135)
Right-of-use assets - SBITAs*	(1,954,522)	–	–	–	(1,954,522)
Total Accumulated Depreciation	(638,242,098)	(56,645,263)	1,518,558	–	(693,368,803)
Total Capital Assets, net	$ 1,782,606,765	$ 52,523,235	$ (8,010,199)	$ –	$ 1,827,119,801

* Includes implementation of GASB 96, Subscription-Based IT arrangements for year ended 12.31.23

Changes in capital assets as of December 31, 2022 are as follows:

	Balance January 1, 2022	Additions	Retirements/ Deletions	Transfers	Balance December 31, 2022
Capital Assets not being depreciated:					
Land	$ 67,234,172	$ –	$ –	$ –	$ 67,234,172
Construction in Process	87,155,471	51,779,076	–	(22,975,974)	115,958,573
Total Capital Assets not being depreciated	154,389,643	51,779,076	–	(22,975,974)	183,192,745
Capital Assets being amortized:					
Capacity Rights, net of amortization	275,208,972	(10,469,617)	–	4,438,230	269,177,585
Other Capital Assets:					
Water Facilities	734,779,969	16,025,682	–	9,070,448	759,876,099
Wastewater Facilities	681,433,281	12,041,886	–	2,111,391	695,586,558
Reclaimed Water Facilities	3,015,420	1,095,582	–	–	4,111,002
Building and Improvements	304,027,961	1,641	–	1,843,016	305,872,618
Machinery and Equipment	188,869,923	6,312	(480,231)	5,512,889	193,908,893
Right-of-use assets	1,553,180	–	–	–	1,553,180
Total Other Capital Assets	1,913,679,734	29,171,103	(480,231)	18,537,744	1,960,908,350
Total Capital Assets	2,343,278,349	70,480,562	(480,231)	–	2,413,278,680
Less Accumulated Depreciation for:					
Water Facilities	(169,150,919)	(16,229,968)	–	–	(185,380,887)
Wastewater Facilities	(229,045,801)	(16,973,810)	–	–	(246,019,611)
Reclaimed Water Facilities	(366,165)	(86,039)	–	–	(452,204)
Building and Improvements	(63,215,516)	(7,372,838)	–	–	(70,588,354)
Machinery and Equipment	(120,034,864)	(14,192,025)	460,192	–	(133,766,697)
Right-of-use assets	(79,823)	–	–	–	(79,823)
Total Accumulated Depreciation	(581,893,088)	(54,854,680)	460,192	–	(636,287,576)
Total Capital Assets, net	$ 1,761,385,261	$ 15,625,882	$ (20,039)	$ –	$ 1,776,991,104

4A. Leases

Lease Payable

The Authority has entered into various lease agreements for equipment. Leases have initial terms of: 5 years (printer), 4 years (postage meter) and 2 years (.25 acres of land); and contain one or more renewals at our option. We have generally included these renewal periods, if available in the lease term when it is reasonably certain that we will exercise the renewal option. The Authority's lease arrangements do not contain any material residual value guarantees. As the interest rates implicit in the Authority's leases are not readily determinable, the incremental borrowing rate is utilized to discount the lease payments. One lease for a tower rental was terminated in 2023 resulting in a gain of $68,836.

The statement of net position shows the following amounts relating to leases principal:

	2023	2022
Right-of-Use Assets	$ 134,784	$ 1,553,180
Right-of-Use Assets, Net	$ 68,021	$ 1,473,357

Lease Payable	2023	2022
Current	$ 42,944	$ 35,388
Non-current	26,276	1,482,326
Total	$ 69,220	$ 1,517,714

The future principal and interest lease payments as of December 31, 2023 were as follows:

Years Ending December 31,	Principal	Interest
2024	$ 42,944	$ 1,816
2025	21,609	548
2026	4,667	78
Total	$ 69,220	$ 2,442

Lease Receivable

As a lessor, the Authority leases out certain space atop its water towers to cellular service providers who place their cellular communications equipment on them. The Authority also leases a portion of land to a cellular service provider where a cellular tower has been placed. These leases generally have initial terms of up to 5 years, and contain one or more renewals at the tenant's option, generally for 5-year periods. These renewal periods have been generally included in the lease term when it is reasonably certain that the renewal option will be exercised. The Authority's lease arrangements do not contain any material residual value guarantees. As the interest rate implicit in the Authority's leases is not readily determinable, the incremental borrowing rate is used to discount the lease payments.

Minimum lease payments receivable on leases of properties are as follows:

Years Ending December 31,	Principal	Interest
2024	$ 307,942	$ 124,273
2025	330,326	114,728
2026	353,389	104,504
2027	330,629	93,749
2028	257,836	85,278
2029-2033	1,161,531	319,121
2034-2038	1,022,925	159,425
2039-2041	516,981	17,095
Total	$ 4,281,559	$ 1,018,173

The total amount of deferred inflows of resources relating to leases are as follows:

	2023	2022
Principal	$ 483,506	$ 404,664

4B. Subscription-Based Information Technology Agreements (SBITAs)

The Authority entered into various SBITAs for software subscriptions. Most SBITA contracts have initial terms of 1 year and contain one or more renewals at our option. The Authority has generally included these renewal periods in the SBITA term when it is reasonably certain that renewal option will be exercised. For renewal options without specified amounts, the Authority calculates an annual increase based on the U.S. Consumer's Price Index: Information Technology, Hardware and Services. The SBITAs generally include termination options which are reasonably certain not to be exercised. As the interest rates implicit in the Authority's SBITAs are not readily determinable, the incremental borrowing rate is utilized to discount the fixed SBITA subscription payments. The Authority has a SBITA with variable payments based on usage of the underlying IT asset. Total payments for this SBITA in 2023 were $482,780. Variable SBITAs are excluded from the liability measurement.

The beginning balance of other capital assets (note 4) at January 1, 2023 was restated for implementation of GASB 96, Subscription-Based Information Technology Arrangements. It was deemed not practicable to restate the earliest period presented, which was January 1, 2022.

Right-of-use assets:	Principal
SBITAs	$ 7,570,183
SBITAs, net of Amortization	$ 5,615,661

SBITAs Payable	Principal
Current	$ 1,780,389
Non-current	3,289,071
	$ 5,069,460

The future principal and interest SBITA payments as of December 31, 2023 were as follows:

Years ending December 31,	Principal	Interest
2024	$ 1,780,389	$ 120,507
2025	1,211,845	72,900
2026	1,201,922	36,743
2027	331,717	21,556
2028	199,549	13,097
2029-2032	344,038	8,151
Total	$ 5,069,460	$ 272,954

5. Oversizing Reimbursements

Oversizing reimbursements represent the current payable to developers who constructed oversized facilities and entered into an agreement to be reimbursed as availability charges to that particular portion of the system are received. The Authority provides reimbursements annually for oversized facilities. Amounts payable for oversizing reimbursements are recorded only when availability and/or local facility fees are received. The amount of unrecorded but potential reimbursements if all requirements are met is $60,575,537 and $57,286,312 for 2023 and 2022, respectively.

6. Long-term Obligations

A. Revenue Bonds Payable

The Authority issues revenue bonds to provide funds for the acquisition and construction of major capital facilities and for refunding of higher-interest revenue bonds. The payment of principal and interest on all revenue bonds is collateralized by a security interest in and pledge of the "Net Revenues" derived from the ownership and operation of the system. "Net Revenues" of the system are defined as all revenues, receipts and other income derived from the ownership or operation of the system, including availability charges and any investment earnings, after deducting operating expenses (exclusive of depreciation and amortization).

Per the bond agreements, upon the occurrence of any event of default, the Trustee may, and if requested by the Owner of not less than twenty-five percent in aggregate principal amount of the bonds then outstanding will, by notice to the Authority, invoke the acceleration clause declaring the entire unpaid principal of and interest on the bonds due and payable. Upon the occurrence of an event of default the Trustee may pursue any available remedy, at law or in equity, to enforce the payment of the principal and interest of the bonds.

The bond covenants contain certain provisions that require the maintenance of revenues of at least 1.2 times annual senior debt service requirements. During 2023 and 2022, the Authority continued to be in compliance with all covenants associated with the bond indentures.

At December 31, 2023, $17,050,000, $21,605,000, $31,875,000, $4,670,000, $22,770,000, $17,872,000, $65,045,000, $60,290,000, $30,075,000, $27,765,000, and $64,700,000 respectively, of series 1996, 1996A, 1998, 1999, 2000, 2009, 2004, 2007, 2010, 2012, and 2013 bonds outstanding are considered defeased.

The Authority is required to adhere to the rebate and reporting requirements of the federal tax code pertaining to arbitrage. The Authority has contracted with an outside consultant to perform annual arbitrage rebate calculations on all outstanding revenue bond issues. At December 31, 2023, the Authority had $52,057 arbitrage rebate payable to the federal government and $155,964 accrued for future liability. At December 31, 2022, the Authority had $0 arbitrage rebate payable to the federal government.

Outstanding long-term debt at December 31, 2023 and 2022 includes the following bond issues:

	2023	2022
$25,000,000 Water and Sewer System Revenue Bonds, Variable Rate Series 2005 (Parity Indebtedness); due in annual installments of $785,000 to $1,505,000 through January 2030, plus interest payable semi-annually of 0.03% at December 31, 2015; interest rates will vary weekly based on comparable bonds and the short term interest rate	$ 9,520,000	$ 10,700,000
$75,310,000 Water and Sewer System Revenue and Refunding Bonds, Series 2013; due in annual installments of $870,000 to $5,440,000 beginning January 2014 through 2043; plus interest payable semi-annually ranging from 2.0% to 5.0%	–	1,295,000
$117,235,000 Water and Sewer System Revenue and Refunding Bonds, Series 2015; due in annual installments of $750,000 to $6,590,000 beginning January 2016 through 2045; plus interest payable semi-annually ranging from 2.0% to 5.0%	95,420,000	99,120,000
$23,095,000 Water and Sewer System Revenue Refunding Bonds, Series 2019; due in annual installment of $2,120,000 to $6,015,000 beginning January 2022 through 2029; plus interest payable semi-annually of 5%	18,750,000	20,975,000
$76,055,000 Water and Sewer System Revenue and Refunding Bonds, Series 2021; due in annual installments of $965,000 to $6,545,000 beginning January 2022 through 2043; plus interest payable semi-annually ranging from .06% to 2.10%	72,945,000	75,090,000
Total Outstanding Long-term Debt	196,635,000	207,180,000
Unamortized Premiums, net	21,207,200	23,080,768
Total Bonded Debt	$ 217,842,200	$ 230,260,768

The combined revenue bond debt service requirements to maturity for all issues are as follows:

Fiscal Year Ending December 31,	Principal	Interest	Total
2024	$ 11,070,000	$ 7,802,444	$ 18,872,444
2025	11,615,000	7,241,544	18,856,544
2026	12,190,000	6,695,707	18,885,707
2027	12,710,000	6,166,820	18,876,820
2028	13,250,000	5,568,820	18,818,820
2029-2033	62,370,000	18,622,233	80,992,233
2034-2038	44,720,000	7,988,116	52,708,116
2039-2043	22,185,000	3,176,650	25,361,650
2044-2045	6,525,000	263,500	6,788,500
Total	$ 196,635,000	$ 63,525,834	$ 260,160,834

B. Fairfax Water Agreement

In June 1989, the Authority entered into Water Service Agreement #2 with Fairfax Water to pay for the reservation of 10 MGD of water capacity which became available in February 1993, when construction of the project was completed. In February 1993, the Authority began amortizing the Purchased Capacity Rights over its useful life of 40 years.

In addition, the Water Service Agreement requires the Authority to make 480 equal monthly payments of $2,760 with respect to additional storage capacity.

In December 1993, the Authority entered into a Second Amendment Agreement to Water Service Agreement #2 for the purchase of an additional 5 MGD of water capacity with the option to acquire further capacity of 5 MGD as well as storage capacity at the Randolph Reservoir. The Agreement obligates the Authority to make 420 equal monthly payments of $95,565 and $1,695 for the additional 5 MGD of capacity and storage capacity, respectively. The Authority continues to make equal monthly payments of $1,695 for the storage capacity at the Randolph Reservoir.

In July 1996, the Authority exercised its option to purchase additional storage capacity at the Randolph Reservoir for which it now makes equal monthly payments of $1,911.

In June 2004, the Authority entered into Water Service Agreement No. 5 regarding the allocated cost for the expansion of the Corbalis Water Treatment Plant, which will allow for an additional 30 MGD of water treatment capacity. The Authority has made payments to Fairfax Water for estimated projected costs of approximately $116.5 million as of December 31, 2019. Expansion of the Corbalis Plant is now substantially complete.

In February 2015, the Authority entered into Water Service Agreement No. 6 for the purchase of an additional 10 MGD transmission capacity from the Fox Mill Pumping Station to the Route 50/Route 28 interchange and 10 MGD of transmission capacity from the Route 50/Route 28 interchange to the Loudoun County line. The Authority made payments of $3,816,870 and $7,439,084, respectively, for the purchase of these capacities.

These Agreements shall continue as long as Fairfax Water's system remains in existence and operation. In the event of default, the Authority is obligated in continue making all payments and Fairfax Water is obligated to continue service otherwise due under the agreement.

The remaining payment obligations for the agreements with Fairfax Water are as follows:

Fiscal Year Ending December 31,	Principal		Interest		Total	
2024	$	62,255	$	14,132	$	76,387
2025		64,365		12,022		76,387
2026		66,547		9,840		76,387
2027		68,804		7,583		76,387
2028		71,159		5,250		76,409
2029-2031		86,766		4,741		91,507
Total	$	419,896	$	53,568	$	473,464

C. Bonds Payable/Virginia Resources Authority (VRA)

Green Reserve Initiative

In April 2011, the Virginia State Water Control Board authorized funding from the Virginia Clean Water Revolving Loan Fund to Loudoun Water to finance energy improvements (Green Reserve project), including the installation and modification of heat reclamation equipment, installation of solar panel and wind turbines, and construction of a permanent reclaimed water dispensing station together with related expenses. The funding consists of 50 percent principal forgiveness loan of $102,000 and principal repayment loan of $102,000 for a total funding package of $204,000. The principal repayment loan has an interest rate of 2.93% which includes a fee of 0.20% for administrative and management services attributable to the loan. Payments began approximately six months after project completion for a term of 20 years. The loan may be prepaid in whole or in part any time, after final payment to the contractor, without penalty. In the event of default, outstanding amounts become immediately due and payable without further notice or demand.

The loan will be secured by a pledge of revenues and will be issued on a parity basis with all outstanding bonds secured by Loudoun Water's system revenues. The loan is being administered through the Virginia Resources Authority (VRA).

The remaining payment obligations for the agreement with VRA are as follows:

Fiscal Year Ending December 31,	Principal		Interest		Total	
2024	$	5,701	$	1,202	$	6,903
2025		5,870		1,034		6,904
2026		6,043		861		6,904
2027		6,221		683		6,904
2028		6,405		499		6,904
2029-2030		12,212		425		12,637
Total	$	42,452	$	4,704	$	47,156

D. Bonds Payable/Virginia Resources Authority (VRA), Administrator of Virginia Water Facilities Revolving Loan Fund

In April 2013, the State Water Control Board authorized funding into the amount of $7,339,000 from the Virginia Water Facilities Revolving Loan Fund to Loudoun Water to finance the construction of a reclaimed water pump station and two storage tanks together with related expenses. The principal repayment loan has an interest rate of 1.70% which includes a fee of 0.20% for administrative and management services attributed to the loan. Payments began approximately six months after project completion for a term of 20 years. The loan may be repaid in whole or in part any time, after final payment to the contractor, without penalty. In the event of default, outstanding amounts become immediately due and payable without further notice or demand.

The loan will be secured by a pledge of revenues and will be issued on a parity basis with all outstanding bonds secured by Loudoun Water's system revenues. The loan is being administered by the Virginia Resources Authority (VRA).

Fiscal Year Ending December 31,	Principal	Interest	Total
2024	$ 370,042	$ 73,722	$ 443,764
2025	376,359	67,404	443,763
2026	382,785	60,979	443,764
2027	389,320	54,444	443,764
2028	395,966	47,797	443,763
2029-2033	2,083,569	135,249	2,218,818
2034	430,647	5,466	436,113
Total	$ 4,428,688	$ 445,061	$ 4,873,749

E. Summary of Long-term Liabilities

Long-term liability activity for the year ended December 31, 2023 was as follows:

	Balance January 1, 2023	Additions	Reductions	Balance December 31, 2023	Amounts Due within One Year
Bonds Payable:					
Revenue Bonds	$ 207,180,000	$ –	$ (10,545,000)	$ 196,635,000	$ 11,070,000
VRA Loan Fund	4,840,508	–	(369,368)	4,471,140	375,743
Deferred Amounts:					
Issuance Premiums	23,080,768	–	(1,873,568)	21,207,200	1,873,569
Total Bonds Payable	235,101,276	–	(12,787,936)	222,313,340	13,319,312
Other Liabilities:					
FCWA Agreement	480,110	–	(60,214)	419,896	62,255
Compensated Absences	5,360,116	1,248,592	(1,054,562)	5,554,146	1,666,244
Other Post Employment Benefits	6,226,583	868,999	(1,144,193)	5,951,389	–
GLI Other Post Employment Benefits	1,471,767	26,295		1,498,062	–
Net Pension Liability	3,786,770	8,189,013	(7,593,523)	4,382,260	–
Total Long-term Liabilities	$ 252,426,622	$ 10,332,899	$ (22,640,428)	$ 240,119,093	$ 15,047,811

Long-term liability activity for the year ended December 31, 2022 was as follows:

	Balance January 1, 2022	Additions	Reductions	Balance December 31, 2022	Amounts Due within One Year
Bonds Payable:					
Revenue Bonds	$ 216,155,000	$ –	$ (8,975,000)	$ 207,180,000	$ 10,545,000
VRA Loan Fund	5,203,611	–	(363,103)	4,840,508	369,368
Deferred Amounts:					
Issuance Premiums	25,004,142	–	(1,923,374)	23,080,768	1,873,569
Total Bonds Payable	246,362,753	–	(11,261,477)	235,101,276	12,787,937
Other Liabilities:					
FCWA Agreement	538,349	–	(58,239)	480,110	60,214
Compensated Absences	4,926,983	1,323,345	(890,212)	5,360,116	1,608,035
Other Post Employment Benefits	615,082	6,737,211	(1,125,710)	6,226,583	–
GLI Other Post Employment Benefits	1,433,335	38,432		1,471,767	–
Net Pension Liability	(8,906)	7,047,173	(3,251,497)	3,786,770	–
Total Long-term Liabilities	$ 253,867,596	$ 15,146,161	$ (16,587,135)	$ 252,426,622	$ 14,456,186

7. Defined Benefit Pension Plan

Plan Description

The Virginia Retirement System (VRS) Retirement Plan is a multi-employer, agent plan. For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Authority's Retirement Plan and the additions to/deductions from the Authority's Retirement Plan net fiduciary position have been determined on the same basis as they were reported by the Virginia Retirement System (VRS). For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

All full-time, salaried permanent employees of the Authority are automatically covered by a VRS Retirement Plan upon employment. This plan is administered by the Virginia Retirement System (the System) along with plans for other employer groups in the Commonwealth of Virginia. Employees earn one month of service credit for each month they are employed and for which they and the Authority pay contributions to VRS. Employees are eligible to purchase prior service based on specific criteria as defined in the *Code of Virginia*, as amended. Eligible prior service that may be purchased includes prior public service, active military service, certain periods of leave and previously refunded service.

VRS administers three different benefit structures for covered employees – Plan 1, Plan 2, and Hybrid. Each of these benefit structures has different eligibility criteria. The specific information for each plan and the eligibility for covered groups within each plan are set out on the following pages:

RETIREMENT PLAN PROVISIONS

PLAN 1	PLAN 2	HYBRID RETIREMENT PLAN
About VRS Plan 1 Plan 1 is a defined benefit plan. The retirement benefit is based on a member's age, service credit and average final compensation at retirement using a formula.	**About VRS Plan 2** Plan 2 is a defined benefit plan. The retirement benefit is based on a member's age, service credit and average final compensation at retirement using a formula.	**About the Hybrid Retirement Plan** The Hybrid Retirement Plan combines the features of a defined benefit plan and a defined contribution plan. • The defined benefit is based on a member's age, service credit and average final compensation at retirement using a formula. • The benefit from the defined contribution component of the plan depends on the member and employer contributions made to the plan and the investment performance of those contributions. • In addition to the monthly benefit payment payable from the defined benefit plan at retirement, a member may start receiving distributions from the balance in the defined contribution account, reflecting the contributions, investment gains or losses, and any required fees.
Eligible Members Employees are in Plan 1 if their membership date is before July 1, 2010, and they were vested as of January 1, 2013, and they have not taken a refund. **Hybrid Opt-In Election** VRS Plan 1 members were allowed to make an irrevocable decision to opt into the Hybrid Retirement Plan during a special election window held January 1 through April 30, 2014. The Hybrid Retirement Plan's effective date for eligible VRS Plan 1 members who opted in was July 1, 2014. If eligible deferred members returned to work during the election window, they were also eligible to opt into the Hybrid Retirement Plan. Members who were eligible for an optional retirement plan (ORP) and had prior service under Plan 1 were not eligible to elect the Hybrid Retirement Plan and remain as Plan 1 or ORP.	**Eligible Members** Employees are in Plan 2 if their membership date is on or after July 1, 2010, or their membership date is before July 1, 2010, and they were not vested as of January 1, 2013. **Hybrid Opt-In Election** VRS Plan 2 members were allowed to make an irrevocable decision to opt into the Hybrid Retirement Plan during a special election window held January 1 through April 30, 2014. The Hybrid Retirement Plan's effective date for eligible VRS Plan 2 members who opted in was July 1, 2014. If eligible deferred members returned to work during the election window, they were also eligible to opt into the Hybrid Retirement Plan. Members who were eligible for an optional retirement plan (ORP) and have prior service under Plan 2 were not eligible to elect the Hybrid Retirement Plan and remain as Plan 2 or ORP.	**Eligible Members** Employees are in the Hybrid Retirement Plan if their membership date is on or after January 1, 2014. This includes: • Political subdivision employees* • Members in Plan 1 or Plan 2 who elected to opt into the plan during the election window held January 1-April 30, 2014; the plan's effective date for opt-in members was July 1, 2014 **Non-Eligible Members* Some employees are not eligible to participate in the Hybrid Retirement Plan. They include: • Political subdivision employees who are covered by enhanced benefits for hazardous duty employees Those employees eligible for an optional retirement plan (ORP) must elect the ORP plan or the Hybrid Retirement Plan. If these members have prior service under Plan 1 or Plan 2, they are not eligible to elect the Hybrid Retirement Plan and must select Plan 1 or Plan 2 (as applicable) or ORP.

RETIREMENT PLAN PROVISIONS		
PLAN 1	**PLAN 2**	**HYBRID RETIREMENT PLAN**
Retirement Contributions Employees contribute 5% of their compensation each month to their member contribution account through a pre-tax salary reduction. Member contributions are tax-deferred until they are withdrawn as part of a retirement benefit or as a refund. The employer makes a separate actuarially determined contribution to VRS for all covered employees. VRS invests both member and employer contributions to provide funding for the future benefit payment.	**Retirement Contributions** Same as Plan 1.	**Retirement Contributions** A member's retirement benefit is funded through mandatory and voluntary contributions made by the member and the employer to both the defined benefit and the defined contribution components of the plan. Mandatory contributions are based on a percentage of the employee's creditable compensation and are required from both the member and the employer. Additionally, members may choose to make voluntary contributions to the defined contribution component of the plan, and the employer is required to match those voluntary contributions according to specified percentages.
Service Credit Service credit includes active service. Members earn service credit for each month they are employed in a covered position. It also may include credit for prior service the member has purchased or additional service credit the member was granted. A member's total service credit is one of the factors used to determine their eligibility for retirement and to calculate their retirement benefit. It also may count toward eligibility for the health insurance credit in retirement, if the employer offers the health insurance credit.	**Service Credit** Same as Plan 1.	**Creditable Service** *Defined Benefit Component:* Under the defined benefit component of the plan, service credit includes active service. Members earn service credit for each month they are employed in a covered position. It also may include credit for prior service the member has purchased or additional service credit the member was granted. A member's total service credit is one of the factors used to determine their eligibility for retirement and to calculate their retirement benefit. It also may count toward eligibility for the health insurance credit in retirement, if the employer offers the health insurance credit. *Defined Contributions Component:* Under the defined contribution component, service credit is used to determine vesting for the employer contribution portion of the plan.

RETIREMENT PLAN PROVISIONS		
PLAN 1	**PLAN 2**	**HYBRID RETIREMENT PLAN**
Vesting Vesting is the minimum length of service a member needs to qualify for a future retirement benefit. Members become vested when they have at least five years (60 months) of creditable service. Vesting means members are eligible to qualify for retirement if they meet the age and service requirements for their plan. Members also must be vested to receive a full refund of their member contribution account balance if they leave employment and request a refund. Members are always 100% vested in the contributions that they make.	**Vesting** Same as Plan 1.	**Vesting** *Defined Benefit Component:* Defined benefit vesting is the minimum length of service a member needs to qualify for a future retirement benefit. Members are vested under the defined benefit component of the Hybrid Retirement Plan when they reach five years (60 months) of creditable service. VRS Plan 1 or VRS Plan 2 members with at least five years (60 months) of creditable service who opted into the Hybrid Retirement Plan remain vested in the defined benefit component. *Defined Contributions Component:* Defined contribution vesting is the minimum length of service a member needs to be eligible to withdraw the employer contributions from the defined contribution component of the plan Members are always 100% vested in the contributions that they make. Upon retirement or leaving covered employment, a member is eligible to withdraw a percentage of employer contributions to the defined contribution component of the plan, based on service. • After two years, a member is 50% vested and may withdraw 50% of employer contributions. • After three years, a member is 75% vested and may withdraw 75% of employer contributions. • After four or more years, a member is 100% vested and may withdraw 100% of employer contributions. Distribution is not required by law until age 73.

RETIREMENT PLAN PROVISIONS		
PLAN 1	**PLAN 2**	**HYBRID RETIREMENT PLAN**
Calculating the Benefit The basic benefit is determined using the average final compensation, service credit and plan multiplier. An early retirement reduction is applied to this amount if the member is retiring with a reduced benefit. In cases where the member has elected an optional form of retirement payment, an option factor specific to the option chosen is then applied.	**Calculating the Benefit** See definition under Plan 1	**Calculating the Benefit** *Defined Benefit Component:* See definition under Plan 1 *Defined Contribution Component:* The benefit is based on contributions made by the member and any matching contributions made by the employer, plus net investment earnings on those contributions.
Average Final Compensation A member's average final compensation is the average of the 36 consecutive months of highest compensation as a covered employee.	**Average Final Compensation** A member's average final compensation is the average of the 60 consecutive months of highest compensation as a covered employee.	**Average Final Compensation** Same as Plan 2. It is used in the retirement formula for the defined benefit component of the plan.
Service Retirement Multiplier **VRS:** The retirement multiplier is a factor used in the formula to determine a final retirement benefit. The retirement multiplier for non-hazardous duty members is 1.7%.	**Service Retirement Multiplier** **VRS:** Same as Plan 1 for service earned, purchased or granted prior to January 1, 2013. For non- hazardous duty members, the retirement multiplier is 1.65% for service credit earned, purchased or granted on or after January 1, 2013.	**Service Retirement Multiplier** *Defined Benefit Component:* **VRS:** The retirement multiplier for the defined benefit component is 1.00%. For members that opted into the Hybrid Retirement Plan from Plan 1 or Plan 2, the applicable multipliers for those plans will be used to calculate the retirement benefit for service credited in those plans. *Defined Contribution Component:* Not applicable.

RETIREMENT PLAN PROVISIONS		
PLAN 1	**PLAN 2**	**HYBRID RETIREMENT PLAN**
Normal Retirement Age **VRS:** Age 65.	**Normal Retirement Age** **VRS:** Normal Social Security retirement age.	**Normal Retirement Age** *Defined Benefit Component:* **VRS:** Same as Plan 2. *Defined Contribution Component:* Members are eligible to receive distributions upon leaving employment, subject to restrictions. Distribution is not required by law until age 73.
Earliest Unreduced Retirement Eligibility **VRS:** Age 65 with at least five years (60 months) of service credit or at age 50 with at least 30 years of service credit.	**Earliest Unreduced Retirement Eligibility** **VRS:** Normal Social Security retirement age with at least five years (60 months) of service credit or when their age and service credit equal 90.	**Earliest Unreduced Retirement Eligibility** *Defined Benefit Component:* **VRS:** Normal Social Security retirement age and have at least five years (60 months) of service credit or when their age and service equal 90. *Defined Contribution Component:* Members are eligible to receive distributions upon leaving employment, subject to restrictions.
Earliest Reduced Retirement Eligibility **VRS:** Age 55 with at least five years (60 months) of service credit or age 50 with at least 10 years of service credit.	**Earliest Reduced Retirement Eligibility** **VRS:** Age 60 with at least five years (60 months) of service credit.	**Earliest Reduced Retirement Eligibility** *Defined Benefit Component:* **VRS:** Age 60 with at least five years (60 months) of service credit. *Defined Contribution Component:* Members are eligible to receive distributions upon leaving employment, subject to restrictions.

RETIREMENT PLAN PROVISIONS		
PLAN 1	**PLAN 2**	**HYBRID RETIREMENT PLAN**
Cost-of-Living Adjustment (COLA) in Retirement The Cost-of-Living Adjustment (COLA) matches the first 3% increase in the Consumer Price Index for all Urban Consumers (CPI-U) and half of any additional increase (up to 4%) up to a maximum COLA of 5%. *Eligibility:* For members who retire with an unreduced benefit or with a reduced benefit with at least 20 years of creditable service, the COLA will go into effect on July 1 after one full calendar year from the retirement date. For members who retire with a reduced benefit and who have less than 20 years of service credit, the COLA will go into effect on July 1 after one calendar year following the unreduced retirement eligibility date. *Exceptions to COLA Effective Dates:* The COLA is effective July 1 following one full calendar year (January 1 to December 31) under any of the following circumstances: • The member is within five years of qualifying for an unreduced retirement benefit as of January 1, 2013. • The member retires on disability. • The member retires directly from short-term or long-term disability. • The member is involuntarily separated from employment for causes other than job performance or misconduct and is eligible to retire under the Workforce Transition Act or the Transitional Benefits Program. • The member dies in service and the member's survivor or beneficiary is eligible for a monthly death-in-service benefit. • The COLA will go into effect on July 1 following one full calendar year (January 1 to December 31) from the date the monthly benefit begins.	**Cost-of-Living Adjustment (COLA) in Retirement** The Cost-of-Living Adjustment (COLA) matches the first 2% increase in the CPI-U and half of any additional increase (up to 2%), for a maximum COLA of 3%. *Eligibility:* Same as Plan 1 *Exceptions to COLA Effective Dates:* Same as Plan 1	**Cost-of-Living Adjustment (COLA) in Retirement** *Defined Benefit Component:* Same as Plan 2. *Defined Contribution Component:* Not applicable. *Eligibility:* Same as Plan 1 and Plan 2. *Exceptions to COLA Effective Dates:* Same as Plan 1 and Plan 2.

RETIREMENT PLAN PROVISIONS		
PLAN 1	**PLAN 2**	**HYBRID RETIREMENT PLAN**
Disability Coverage Members who are eligible to be considered for disability retirement and retire on disability, the retirement multiplier is 1.7% on all service, regardless of when it was earned, purchased or granted.	**Disability Coverage** Members who are eligible to be considered for disability retirement and retire on disability, the retirement multiplier is 1.65% on all service, regardless of when it was earned, purchased or granted.	**Disability Coverage** Eligible political subdivisions (including Plan 1 and Plan 2 opt-ins) participate in the Virginia Local Disability Program (VLDP) unless their local governing body provides and employer-paid comparable program for its members. Hybrid members (including Plan 1 and Plan 2 opt-ins) covered under VLDP are subject to a one-year waiting period before becoming eligible for non-work related disability benefits.
Purchase of Prior Service Members may be eligible to purchase service from previous public employment, active duty military service, an eligible period of leave or VRS refunded service as service credit in their plan. Prior service credit counts toward vesting, eligibility for retirement and the health insurance credit. Only active members are eligible to purchase prior service. Members also may be eligible to purchase periods of leave without pay.	**Purchase of Prior Service** Same as Plan 1.	**Purchase of Prior Service** *Defined Benefit Component:* Same as VRS Plan 1 with the following exceptions: • Hybrid Retirement Plan members are ineligible for ported service. *Defined Contribution Component:* Not applicable.

Employees Covered by Benefit Terms

As of the June 30, 2022 actuarial valuation, the following employees were covered by the benefit terms of the VRS Retirement Plan:

	Number
Inactive members or their beneficiaries currently receiving benefits	99
Inactive members:	
Vested	44
Non-vested	84
Active elsewhere in VRS	35
Total inactive members	163
Active members	323
Total covered employees	585

Contributions

The contribution requirement for active employees is governed by Section 51.1-145 of the *Code of Virginia*, as amended, but may be impacted as a result of funding options provided to political subdivisions by the Virginia General Assembly. Employees are required to contribute 5% of annual base compensation toward their retirement. Through June 30, 2012, the Authority had assumed this 5% member contribution for its Plan 1 employees, both before and after the October 1, 2004 employer status change. In June 2010, the Authority's Board adopted a resolution to pay the full 5% member contribution for Plan 2 employees effective July 1, 2010. As the result of Virginia State legislative changes in 2012, VRS participating employers were required to begin withholding the 5% member contribution from employees, and give a corresponding increase in base salary. The Authority's Board adopted resolutions to implement the withholding and related salary increases at 5% effective July 1, 2012.

The Authority's contractually required contribution rate for fiscal year 2023 was 6.38% of covered employee compensation, based on an actuarial valuation as of June 30, 2022.

This rate, when combined with employee contributions, was expected to finance the costs of benefits earned by an employee during the year, with an additional amount to finance any unfunded accrued liability. The total of employer and employee contributions to VRS were $2,835,880 and $2,699,418 for the years ended June 30, 2023 and 2022, respectively.

Net Pension Liability

The Authority's net pension liability (NPL) was measured as of June 30, 2022. The total pension liability (TPL) used to calculate the NPL was determined by an actuarial valuation performed as of June 30, 2022, using updated actuarial assumptions applied to all periods included in the measurement and rolled forward to the measurement date of June 30, 2023.

Actuarial Assumptions

The Authority's total pension liability was based on an actuarial valuation as of June 30, 2022, 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, 2023:

Inflation	2.50%
Salary increases, including inflation	3.50% - 5.35%
Investment rate of return	6.75%, net of plan investment expense, including inflation

Mortality Rates - 15% of deaths are assumed to be service related.

Pre-retirement	Pub-2010 Amount Weighted Safety Employee Rates projected generationally; 95% of rates for males; 105% of rates for females set forward 2 years
Post-retirement	Pub-2010 Amount Weighted Safety Healthy Retiree Rates projected generationally; 110% of rates for males set forward 2 years; 105% of rates for females set forward 3 years
Post-disablement	Pub-2010 Amount Weighted General Disabled Rates projected generationally; 95% of rates for males set back 3 years; 90% of rates for females set back 3 years
For Beneficiaries	Pub-2010 Amount Weighted Safety Contingent Annuitant Rates projected generationally; 110% of rates for males and females set forward 2 years
Mortality Improvement	Rates projected generationally with Modified MP-2020 Improvement Scale that is 75% of the MP-2020 rates

The actuarial assumptions used in the June 30, 2022 valuation were based on the results of an actuarial experience study for the period from July 1, 2016 through June 30, 2020, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. Changes to the actuarial assumptions as a result of the experience study and VRS Board action are as follows:

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Update to PUB2010 public sector mortality tables. For future mortality improvements, replace load with a modified Mortality Improvement Scale MP-2020
Retirement Rates	Adjusted rates to better fit experience for Plan 1; set separate rates based on experience for Plan 2/Hybrid; changed final retirement age.
Withdrawal Rates	Adjusted rates to better fit experience at each year age and service decrement through 9 years of service.
Disability Rates	No change
Salary Scale	No change
Discount Rate	No change- 6.75%

Long-Term Expected Rate of Return

The long-term expected rate of return on 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 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 estimates 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%	5.71%	1.94%
Fixed Income	15.00	2.04	0.31
Credit Strategies	14.00	4.78	0.67
Real Assets	14.00	4.47	0.63
Private Equity	14.00	9.73	1.36
MAPS – Multi-Asset Public Strategies	6.00	3.73	0.22
PIP-Private Investment Partnership	3.00	6.55	0.20
Total	100.00%		5.33%
Inflation			2.50%
Expected arithmetic nominal return*			7.83%

* The above allocation provides a one-year return of 7.83%. 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 6.72%, including expected inflation of 2.50%. On October 10, 2019, the VRS Board elected a long-term rate of 6.75% which is roughly at the 40th percentile of expected long-term results of the VRS fund asset allocation at that time, providing a median return of 7.11%, including expected inflation of 2.5%.

Discount Rate

The discount rate used to measure the total pension liability was 6.75%. The projection of cash flows used to determine the discount rate assumed that employee contributions will be made per the VRS Statutes and the employer contributions 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. Consistent with the phased-in funding provided by the General Assembly for state and teacher employer contributions; political subdivisions were also provided with an opportunity to use an alternate employer contribution rate. For the year ended June 30, 2022, the alternate rate was the employer contribution rate used in FY 2012 or 100% of the actuarially determined employer contribution rate from the June 30, 2021, actuarial valuations, whichever was greater. From July 1, 2022, on, participating employers are assumed to continue to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current 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.

Changes in the Net Pension Liability

	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Position Liability (a) - (b)
Balance at June 30, 2022	$ 77,099,490	$ 73,312,720	$ 3,786,770
Changes for the Year:			
Service cost	2,051,623	–	2,051,623
Interest	5,233,985	–	5,233,985
Changes in assumptions	–	–	–
Difference between expected and actual experience	858,406	–	858,406
Contributions – employer	–	1,473,732	(1,473,732)
Contributions – employee	–	1,348,905	(1,348,905)
Net investment income	–	4,770,886	(4,770,886)
Benefit payments, including refunds of employee contributions	(3,221,198)	(3,221,198)	–
Administrative expense	–	(46,922)	46,922
Other charges	–	1,923	(1,923)
Net changes	4,922,816	4,327,326	595,490
Balance at June 30, 2023	$ 82,022,306	$ 77,640,046	$ 4,382,260

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the Authority's NPL, using the discount rate of 6.75%, as well as what the Authority's net pension (asset) liability would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current rate:

	1% Decrease (5.75%)	Current Discount Rate (6.75%)	1% Increase (7.75%)
Net pension (asset) liability	$ 16,630,909	$ 4,382,260	$ (5,462,711)

Pension Expense, Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For the year ended June 30, 2023, the Authority recognized pension expense of $1,440,786. The Authority also reported deferred outflows of resources and deferred inflows of resources from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Net difference between expected and actual expense	$ 1,030,914	$ 544,995
Net change in assumptions	657,036	–
Net difference between projected and actual earnings on plan investments	–	1,099,823
Employer contributions subsequent to the measurement date*	744,160	–
Total	$ 2,432,110	$ 1,644,818

*$744,160 reported as deferred outflows of resources related to pensions resulting from the Authority's contributions subsequent to the measurement date will be recognized as a reduction of the Net Pension Liability in the year ending December 31, 2024.

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:

Years Ended June 30,		Amount
2025	$	(66,105)
2026		(1,154,147)
2027		1,199,809
2028		63,575
2029		–
Thereafter		–
Total	$	43,132

Pension Plan Data

The System issues a publicly available Annual Comprehensive Financial Report that includes financial statements and required supplementary information for VRS. A copy of the most recent report may be downloaded from the VRS website at http://www.varetire.org/Pdf/Publications/2023-annual-report.pdf or obtained by writing to the System's Chief Financial Officer at P.O. Box 2500, Richmond, VA 23218-2500.

8. Other Post-Employment Benefits (OPEB)

A. OPEB Health Benefits

Plan Description

The Loudoun Water OPEB Trust Fund is a single-employer defined benefit healthcare plan (the Plan) administered by the Authority. The Plan provides health, dental, and vision insurance for eligible retirees, their spouses and dependents through the same plan that covers active employees. The Plan is available until the retiree reaches 65 years of age. Retired employees who participate in the Plan receive a health insurance premium contribution that will pay between 25% and 75% of the premium based on years of service. In order to participate, retirees must meet retirement eligibility requirements of the Virginia Retirement System and have a minimum of fifteen years of service with the Authority.

Loudoun Water began providing post-65 retiree health benefits in 2022. Health coverage is for retirees, spouses, and other covered dependents. Coverages include medical, prescription drug, dental and vision. Retirees, spouses, and other eligible dependents who are eligible for Medicare Parts A and B must enroll for Medicare coverage at age 65 and provide proof of enrollment 45 days prior to the Medicare coverage effective date in order to retain supplemental coverage. This change increased the plan's Total and Net OPEB Liability by about $5.4 million as of December 31, 2022. This increase was immediately recognized in fiscal 2022 OPEB expense.

Employees Covered by Benefit Terms

As of the January 1, 2022 actuarial valuation, the following employees were covered by the benefit terms:

	Number
Active Participants	315
Retirees and Beneficiaries	15
Spouses	5
Total Participants	335

Contributions

The contribution requirements of plan members are established and may be amended by the Authority's Board of Directors. The Authority participates in the Virginia Pooled OPEB Trust Fund ("Trust Fund"), which was established as an investment vehicle for participating employers to accumulate assets to fund OPEB. Plan assets for the purposes of GAAP are usually in the form of stocks, bonds, and other classes of investments, that have been segregated and restricted in a trust, in which (a) contributions to the plan are irrevocable, (b) assets are dedicated to provide benefits to retirees and their beneficiaries, and (c) assets are legally protected from creditors of the employer or plan administrator, for payment of benefits in accordance with the terms of the plan. The Trust Fund issues a separate report, which can be obtained by requesting a copy from the plan administrator, VACo/VML at 8 E Canal Street, Richmond, VA 23219.

Net OPEB Liability

The total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of January 1, 2022, using the update procedures to roll forward to the measurement date of December 31, 2023. The components of the net OPEB liability are as follows:

Total OPEB Liability	$ 10,550,508
Fiduciary Net Position	4,559,119
Net OPEB Liability	$ 5,951,389
Fiduciary Net Position as a percentage of the Total OPEB Liability	43.59%

Actuarial Assumptions

The Authority's total OPEB liability was based on an actuarial valuation as of January 1, 2022, 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 December 31, 2023:

Inflation	2.50%
Investment Return	6.50%, net of investment expense
Healthcare Cost Trend Rates	5.0% in 2022, 4.90% in 2023, then grading to an ultimate rate of 3.90% in 2073.

Mortality Rates

Pre-Retirement	RP-2014 Employee Rates to age 80, Healthy Annuitant Rates at ages 81 and older projected with Scale BB to 2020; males setback 1 year, 85% of rates; females setback 1 year. 25% of deaths are assumed to be service-related.
Post-Retirement	RP-2014 Employee Rates to age 49, Healthy Annuitant Rates at ages 50 and older projected with Scale BB to 2020; males set forward 1 year; females setback 1 year with 1.5% increase compounded from ages 70 to 85.
Post-Disablement	RP-2014 Disabled Mortality Rates projected with Scale BB to 2020; males 115% of rates; females 130% of rates.

Long-Term Expected Rate of Return

The long-term expected rate of return on OPEB plan investments was determined by adding expected inflation to expected long-term real returns and reflecting expected volatility and correlation.

Best estimates of real rates of return for each major asset class included in the OPEB plan's target asset allocation as of December 31, 2022, and the final investment return assumption, is summarized in the following table:

Asset Class	Target Allocation	Expected Arithmetic Real Rate of Return	Long-Term Expected Rate of Return
US Core Fixed Income	20.00%	2.27%	2.13%
US Large Cap Equity	21.00	5.64	4.09
US Small Cap Equity	10.00	7.25	4.67
Foreign Developed Equity	13.00	6.90	5.15
Emerging Market Equities	5.00	9.58	6.20
Private Real Estate Property	15.00	4.86	3.70
Private Equity	10.00	10.74	6.54
Hedge FOF Strategic	6.00	4.42	3.48
Assumed Inflation		2.33	2.33
Portfolio Real Mean Return		5.81	4.90
Portfolio Nominal Mean Return		8.14	7.34
Portfolio Standard Deviation			13.07
Long-Term Expected Rate of Return			**6.50%**

Discount Rate

The discount rate used to measure the total OPEB liability was 6.50%. The projection of cash flows used to determine the discount rate assumed that the Authority's contributions will continue in addition to the benefits paid. Based on those assumptions, the OPEB plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rates of return on OPEB Trust investments were applied to all periods of projected benefit payments to determine the total OPEB liability.

Changes in Net OPEB Liability

The components of the net OPEB liability of the Authority at December 31, 2023 is as follows:

	Increase (Decrease)		
	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (a) - (b)
Balance at December 31, 2022	$ 10,043,351	$ 3,816,768	$ 6,226,583
Changes for the Year:			
Service cost	209,927	–	209,927
Interest cost	655,018	–	655,018
Benefit payments	(357,788)	(357,788)	–
Contributions – employer	–	717,559	(717,559)
Net investment income	–	426,634	(426,634)
Administrative expense	–	(4,054)	4,054
Net changes	507,157	782,351	(275,194)
Balance at December 31, 2023	$ 10,550,508	$ 4,599,119	$ 5,951,389

Sensitivity of the Net OPEB Liability to Changes in the Discount Rates

The sensitivity of the net OPEB liability to changes in the discount rate was calculated using the discount rate of 6.50%, as well as what the plan's net OPEB liability would be if it were calculated using a discount rate that is 1.00% lower or 1.00% higher than the current rate. The results of the sensitivity analysis are presented below:

	1% Decrease 5.50%	Current Discount Rate 6.50%	1% Increase 7.50%
Total OPEB Liability	$ 12,075,675	$ 10,550,508	$ 9,291,753
Fiduciary Net Position	$ 4,599,119	$ 4,599,119	$ 4,599,119
Net OPEB Liability	$ 7,476,556	$ 5,951,389	$ 4,692,634

Sensitivity of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rates

The sensitivity of the net OPEB liability to changes in the healthcare cost trend rate was calculated using the current healthcare cost trend rate of 5.40%, as well as what the plan's net OPEB liability would be if it were calculated using a trend rate that is 1.00% lower or 1.00% higher than the current rate. The results of the sensitivity analysis are presented below:

	1% Decrease 4.40%	Current Trend Rate 5.40%	1% Increase 6.40%
Total OPEB Liability	$ 8,966,828	$ 10,550,508	$ 12,535,442
Fiduciary Net Position	$ 4,599,119	$ 4,599,119	$ 4,599,119
Net OPEB Liability	$ 4,367,709	$ 5,951,389	$ 7,936,323

OPEB Expenses

	2023	2022
Service cost	$ 209,927	$ 118,863
Interest	655,018	293,073
Effect of plan changes	–	5,419,149
Projected earnings on plan investments	(248,829)	(257,627)
Recognition of deferred inflows/outflows of resources		
Recognition of economic/demographic gains	179,197	179,197
Recognition of assumption changes or inputs	(130,276)	(130,276)
Recognition of investment losses or gains	(31,617)	43,268
Administrative expense	4,054	4,282
Total	$ 637,474	$ 5,669,929

Deferred Outflows of Resources and Deferred Inflows of Resources

At December 31, 2023, the Authority reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 445,946	$ –
Net difference between projected and actual earnings	151,571	–
Changes in assumptions	47,039	344,083
Total	$ 644,556	$ 344,083

Amounts reported as deferred inflows of resources and deferred outflows of resources related to OPEB will be recognized in OPEB expenses as follows:

Years Ended December 31,	Amount
2024	$ 65,045
2025	100,923
2026	147,800
2027	(8,111)
2028	(944)
Thereafter	(4,240)
Total	$ 300,473

B. OPEB Group Life Insurance (GLI)

Plan Description

The Virginia Retirement System Group Life Insurance (GLI) Plan is a multi-employer, cost sharing plan. The GLI program was established 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 GLI 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 GLI Program OPEB liability, deferred outflows of resources and deferred inflows of resources related to the GLI Program OPEB, and GLI Program OPEB expense, information about the fiduciary net position of the GLI Program OPEB and the additions to/deductions from the GLI 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.

All full-time, salaried permanent employees of the Authority are automatically covered by the GLI program upon employment. The plan is administered by the Virginia Retirement System along with pension and other OPEB plans, for public employer groups in the Commonwealth of Virginia.

In addition to basic group life insurance benefit, members are also eligible to elect additional coverage for themselves as well as a spouse or dependent children through the Optional Group Life Insurance Program. For members who elect the optional group life coverage, the insurer bills employers directly for the premiums. Employers deduct these premiums from members' paychecks and pay the premiums to the insurer. Since this is a separate and fully insurance program, it is not included as part of the GLI OPEB Program.

The specific information for GLI Program OPEB, including eligibility coverage and benefits is set out in the table below:

GROUP LIFE INSURANCE PROGRAM PROVISIONS

Eligible Employers

The GLI Program was established July 1, 1960 for employees of participating political subdivisions that elect the program. Basic group life insurance coverage is automatic upon employment. 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 GLI 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 GLI Program are subject to a reduction factor. The benefit amount reduces by 25% on January 1 following one calendar year of separation. The benefit amount reduces by an additional 25% on each subsequent January 1 until it reaches 25% 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 GLI 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 was increased to $8,984 effective July 1, 2023.

Contributions

The contribution requirements for the GLI 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 GLI Program was 1.34% 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% (1.34% x 60%) and the employer component was 0.54% (1.34% x 40%). Employers may elect to pay all or a part of the employee contribution, however the employer must pay all of the employer contribution. The Authority has elected to pay all of the employee contributions in addition to the employer contributions.

The Authority's contractually required contribution rate for the year ended June 30, 2023 was 0.54% of covered employee compensation. This rate was based on an actuarially determined rate from an actuarial valuation as of June 30, 2021. The actuarially 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 GLI Program from the Authority were $171,560 and $180,782 for the years ended June 30, 2023 and 2022, respectively.

GLI OPEB Liabilities, GLI OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to the Group Life Insurance Program OPEB

At June 30, 2023 and 2022, the Authority reported a liability of $1,498,062 and $1,471,767, respectively, for its proportionate share of the Net GLI OPEB Liability. The Net GLI OPEB Liability was measured as of June 30, 2023 and the total GLI OPEB liability used to calculate the Net GLI OPEB Liability was determined by an actuarial valuation as of that date. The covered employer's proportion of the Net GLI OPEB Liability was based on the covered employer's actuarially determined employer contributions to the Group Life Insurance Program for the year ended June 30, 2023 relative to the total of the actuarially determined employer contributions for all participating employers. At June 30, 2023, the Authority's proportion was 0.125% as compared to 0.122% at June 30, 2022.

For the year ended June 30, 2023, the Authority recognized GLI OPEB expense of $100,105. 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.

As of June 30, 2023, the Authority reported deferred outflows of resources and deferred inflows of resources related to the GLI OPEB from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 149,620	$ 45,474
Net difference between projected and actual earnings	–	60,201
Changes in assumptions	32,022	103,792
Changes in proportionate share	78,395	9,381
Employer contributions subsequent to the measurement date*	101,498	–
Total	$ 361,535	$ 218,848

*$101,498 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 fiscal year ending December 31, 2024. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to the GLI OPEB will be recognized in the OPEB expense in future reporting periods as follows:

Years Ended December 31,	Amount
2024	$ 13,984
2025	(42,641)
2026	42,466
2027	7,006
2028	20,374
Thereafter	–
Total	$ 41,189

Actuarial Assumptions

The total GLI OPEB liability was based on an actuarial valuation as of June 30, 2022, 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, 2023.

Inflation	2.50%
Salary increases, including inflation	3.50% - 5.35%
Investment rate of return	6.75%, net of investment expenses, including inflation

Mortality Rates

Pre-Retirement	Pub-2010 Amount Weighted General Employee Rates projected generationally; females set forward 2 years.
Post-Retirement	Pub-2010 Amount Weighted General Healthy Retiree Rates projected generationally; 110% of rates for females.
Post-Disablement	Pub-2010 Amount Weighted General Disabled Rates projected generationally; males and females set forward 3 years.
Beneficiaries and Survivors	Pub-2010 Amount Weighted General Contingent Annuitant Rates projected generationally; 110% of rates for males and females.
Mortality Improvement Scale	Rates projected generationally with Modified MP-2020 Improvement Scale that is 75% of the MP-2020 rates.

The actuarial assumptions used in the June 30, 2022 valuation were based on the results of an actuarial experience study for the period from July 1, 2016 through June 30, 2020, except the change in discount rate, which was based on VRS Board action effective as of July 1, 2019. Changes to the actuarial assumptions as a result of the experience study are as follows:

Mortality Rates (Pre-retirement, post-retirement healthy, and disabled)	Update to PUB2010 public sector mortality tables. For future mortality improvements, replace load with a modified Mortality Improvement Scale MP-2020
Retirement Rates	Adjusted rates to better fit experience for Plan1; set separate rates based on experience for Plan2/Hybrid; changed final retirement age from 75 to 80 for all
Withdrawal Rates	Adjusted termination rates to better fit experience at each year age and service through 9 years of service
Disability Rates	No change
Salary Scale	No change
Discount Rate	No change- 6.75%

Net 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 June 30, 2022, NOL amounts for the Group Life Insurance Program are as follows (amounts expressed in thousands):

Total GLI OPEB Liability	$ 3,907,052
Plan Fiduciary Net Position	2,707,739
GLI Net OPEB Liability	$ 1,199,313
Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability	69.30%

The total GLI OPEB liability is calculated by the System's actuary, and each plan's fiduciary net position is reported in the System's financial statements. The net GLI OPEB liability is disclosed in accordance with the requirements of GASB Stmt. 74 in the System's notes to the financial statements and required supplementary information.

Long-Term Expected Rate of Return

The long-term expected rate of return on the System's 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 System's 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	Target Allocation	Expected Arithmetic Real Rate of Return	Weighted Average Long-Term Expected Rate of Return
Public Equity	34.00%	5.71%	1.94%
Fixed Income	15.00	2.04	0.31
Credit Strategies	14.00	4.78	0.67
Real Assets	14.00	4.47	0.63
Private Equity	14.00	9.73	1.36
MAPS - Multi Asset Public Strategies	6.00	3.73	0.22
PIP - Private Investment Partnership	3.00	6.55	0.20
Total	100.00%		5.33%
Inflation			2.50%
Expected arithmetic nominal return*			7.83%

*The above allocation provides a one-year return of 7.83%. 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 6.72%, including expected inflation of 2.50%. On October 10, 2019, the VRS Board elected a long-term rate of 6.75% which is roughly at the 40th percentile of expected long-term results of the VRS fund asset allocation at that time, providing a median return of 7.11%, including expected inflation of 2.50%.

Discount Rate

The discount rate used to measure the total GLI OPEB liability was 6.75%. The projection of cash flows used to determine the discount rate assumed that employee contributions will be made per the VRS guidance and the employer contributions will be made in accordance with the VRS funding policy and at rates equal to the actuarially determined contribution rates adopted by the VRS Board of Trustees and the member rate. Through the fiscal year ending June 30, 2022, the employer rate contributed by the Authority will be subject to the portion of the VRS Board-certified rates that are funded by the Virginia General Assembly. From July 1, 2022 on, employers are assumed to contribute 100% of the actuarially determined contribution rates. Based on those assumptions, the GLI OPEB's fiduciary net position was projected to be available to make all projected future benefit payments of eligible employees. Therefore, the long-term expected rate of return was applied to all periods of projected benefit payments to determine the total GLI OPEB liability.

Sensitivity of the Net GLI OPEB Liability to Changes in the Discount Rate

The following presents the employer's proportionate share of the net GLI OPEB liability using the discount rate of 6.75%, as well as what the employer's proportionate share of the net GLI OPEB liability would be if it were calculated using a discount rate that is 1.00% lower or 1.00% higher than the current rate:

	1% Decrease 5.75%	Current Discount Rate 6.75%	1% Increase 7.75%
Net OPEB Liability - Group Life Insurance	$ 2,220,597	$ 1,498,062	$ 913,889

Group Life Insurance Program Fiduciary Net Position

Detailed information about the Group Life Insurance Program's Fiduciary Net Position is available in the separately issued VRS 2023 Annual Comprehensive Financial Report. A copy of the 2023 VRS Annual Report may be downloaded from the VRS website at http://www.varetire.org/Pdf/Publications/2023-annual-report.pdf, or by writing to the System's Chief Financial Officer at P.O. Box 2500, Richmond, VA, 23218-2500.

C. Combined OPEB Plans

The OPEB Trust and VRS GLI have been reported separately since each plan has different and distinct characteristics, reporting requirements and valuations. For purposes of aiding the reader of these financial statements in gaining a full understanding of the impact of total OPEB requirements on the net position of the Authority, the following combined schedule is presented:

	OPEB Trust	VRS GLI	Total OPEB Combined
Net OPEB Liability	$ 5,951,389	$ 1,498,062	$ 7,449,451
OPEB Expense	637,474	100,105	737,579
Deferred Outflows of Resources			
Differences between expected and actual experience	$ 445,946	$ 149,620	$ 595,566
Changes in assumptions	47,039	32,022	79,061
Changes in proportionate share	–	78,395	78,395
Net difference between projected and actual earnings	151,571	–	151,571
Employer contribution subsequent to measurement date.	–	101,498	101,498
Total Deferred Outflows of Resources	$ 644,556	$ 361,535	$ 1,006,091
Deferred Inflows of Resources			
Differences between expected and actual experience	$ –	$ 45,474	$ 45,474
Net difference between projected and actual earnings	–	60,201	60,201
Changes in assumptions	344,083	103,792	447,875
Changes in proportionate share	–	9,381	9,381
Total Deferred Inflows of Resources	$ 344,083	$ 218,848	$ 562,931

9. Net Investment in Capital Assets

Net investment in capital assets includes all capital assets as well as purchased capacity rights. These values have been recorded net of depreciation, outstanding principal related to the asset and any unspent bond proceeds related to the outstanding debt.

Net investments in capital assets are as follows:

	2023	2022
Net Capital Assets	$ 1,827,119,801	$ 1,776,991,104
Net Deferred Outflows/Inflows of Resources	2,598,719	2,801,197
Lease & Subscription Liability*	(5,138,680)	(1,517,715)
Capital Related Debt	(197,425,652)	(207,099,703)
	$ 1,627,154,188	$ 1,571,174,883

*Due to implementation of GASB 96, prior year data is not comparable

10. Restricted Net Position

Restricted net position reflects that portion of total net position legally or contractually segregated for a specific future use. The following amounts represent restricted net position at December 31, 2023 and 2022:

	2023	2022
Revenue Bond Accounts	$ 33,589,118	$ 62,004,262
Other Restricted Assets	7,503,121	7,405,102
Revenue Bond Payable for Unspent Bond Proceeds	(3,314,610)	(34,742,191)
Customer Advance Payment Fees	(2,610,185)	(2,449,168)
Developers' Advances Payable	(25,000)	(25,000)
Performance Bonds	(4,656,546)	(4,672,922)
Maintenance Bonds	(211,390)	(258,012)
Bond Interest Payable	(3,823,866)	(4,086,428)
	$ 26,450,642	$ 23,175,643

11. Risk Management

The Authority 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. These risks are covered by insurance purchased through the Virginia Municipal Liability Pool, a public entity risk pool that provides commercial general liability, property, automobile and other types of insurance coverage. Settled claims from these risks did not exceed coverage in the three most recent fiscal years.

The Authority also has coverage with the Virginia Municipal Group Self Insurance Association (Association) for workers' compensation. Each Association member jointly and severally agrees to assume, pay and discharge any liability. The Authority pays Virginia Municipal Group contributions and assessments based upon classifications and rates into a designated cash reserve fund out of which expenses of the Association and claims and awards are to be paid.

12. Commitments and Contingencies

A. Broad Run Water Reclamation Facility

In 1998, the Authority initiated the Broad Run Water Reclamation Facility (BRWRF) Preliminary Design Study to identify the best overall solution to meet the area's increasing need for wastewater treatment while considering and protecting the interests of the community and the environment. The study was completed in 2000 at a cost of approximately $975,000. After extensive evaluation, the Authority identified membrane bioreactor (MBR) technology as the most promising treatment process for the future BRWRF and began pilot testing of the process in 2000. The pilot program was completed in May of 2001, and the BRWRF became operational on April 1, 2008. As of December 31, 2023, the Authority has paid approximately $237.7 million in expenses associated with the plant.

In 2011, Fairfax County purchased 1 MGD of capacity at the BRWRF for the amount of $20.9 million. The Authority is committed to reserve this capacity for Fairfax County.

B. District of Columbia Water and Sewer Authority (DC Water)

In 1998, the Authority, DC Water and the District of Columbia executed an Agreement whereby DC Water agreed to provide wastewater treatment capacity at the Blue Plains Wastewater Treatment Plant, as well as corresponding transmission entitlements in the Potomac Interceptor System. The Authority pays DC Water for capital expenses based on the Authority's allocated capacity of 13.8 MGD. Operation and maintenance costs are based on actual flows. For the year ended December 31, 2023, the Authority paid DC Water approximately $10.6 million for on-going capital improvements at Blue Plains.

C. Claims and Legal Proceedings

The Authority has become subject to litigation incidental to its business. Management, based on consultation with legal counsel, expresses no opinion on outcome, results or even likelihood.

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Required Supplementary Information

REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Changes in Net Pension Liability and Related Ratios

	Fiscal Year Ending December 31				
	2023	2022	2021	2020	2019
Total Pension Liability					
Service Cost	$ 2,051,623	$ 1,898,743	1,956,296	$ 1,919,064	$ 1,822,392
Interest	5,233,985	5,004,697	4,442,818	4,250,110	3,927,320
Change in Assumptions	–	–	1,749,440	–	2,012,467
Difference Between Actual and Expected Experience	858,406	(649,559)	939,515	(825,248)	1,496,869
Benefit Payments, including Refunds of Employee Contributions	(3,221,198)	(2,798,620)	(2,526,734)	(2,451,244)	(2,343,971)
Net Change in Total Pension Liability	4,922,816	3,455,261	6,561,335	2,892,682	6,915,077
Total Pension Liability - Beginning	77,099,490	73,644,229	67,082,894	64,190,212	57,275,135
Total Pension Liability - Ending (a)	$ 82,022,306	$ 77,099,490	$ 73,644,229	$ 67,082,894	$ 64,190,212
Plan Fiduciary Net Position					
Contributions - Employer	$ 1,473,732	$ 1,396,494	$ 1,343,555	$ 1,051,036	$ 1,038,736
Contributions - Employee	1,348,905	1,205,444	1,159,638	1,147,676	1,313,832
Net investment Income	4,770,886	(99,902)	15,938,755	1,094,029	3,602,161
Benefit Payments, including Refunds of Employee Contributions	(3,221,198)	(2,798,620)	(2,526,734)	(2,451,244)	(2,343,971)
Administrative Expense	(46,922)	(45,554)	(38,631)	(36,638)	(34,674)
Other	1,923	1,723	1,512	(1,303)	(2,274)
Net Change in Plan Fiduciary Net Position	$ 4,327,326	$ (340,415)	$ 15,878,095	$ 803,556	$ 3,573,810
Plan Fiduciary Net Position - Beginning	73,312,720	73,653,135	57,775,040	56,971,484	53,397,674
Plan Fiduciary Net Position - Ending (b)	$ 77,640,046	$ 73,312,720	$ 73,653,135	$ 57,775,040	$ 56,971,484
Net Pension Liability - Ending (a) - (b)	$ 4,382,260	$ 3,786,770	$ (8,906)	$ 9,307,854	$ 7,218,728
Plan Fiduciary Net Position as a percentage of Total Pension Liability	94.66%	95.09%	100.01%	86.12%	88.75%
Covered Payroll	$ 30,388,437	$ 28,142,703	$ 26,097,117	$ 24,924,480	$ 23,482,772
Net Pension Liability as a percentage of Covered Payroll	14.42%	13.46%	-0.03%	37.34%	30.74%

Schedule of Changes in Net Pension Liability and Related Ratios

	Fiscal Year Ending December 31			
	2018	**2017**	**2016**	**2015**
Total Pension Liability				
Service Cost	$ 1,796,398	$ 1,854,142	$ 1,807,259	$ 1,773,936
Interest	3,694,873	3,477,398	3,218,327	3,009,500
Change in Assumptions	–	(1,199,985)	–	–
Difference Between Actual and Expected Experience	(36,206)	837,373	340,825	(326,390)
Benefit Payments, including Refunds of Employee Contributions	(1,927,653)	(1,796,647)	(1,534,137)	(1,413,476)
Net Change in Total Pension Liability	3,527,412	3,172,281	3,832,274	3,043,570
Total Pension Liability - Beginning	53,747,723	50,575,442	46,743,168	43,699,598
Total Pension Liability - Ending (a)	$ 57,275,135	$ 53,747,723	$ 50,575,442	$ 46,743,168
Plan Fiduciary Net Position				
Contributions - Employer	$ 1,681,357	$ 1,100,980	$ 1,510,324	$ 651,113
Contributions - Employee	1,088,084	1,165,954	1,168,027	1,078,785
Net investment Income	3,683,582	5,388,063	772,404	1,827,075
Benefit Payments, including Refunds of Employee Contributions	(1,927,653)	(1,796,647)	(1,534,137)	(1,413,476)
Administrative Expense	(30,974)	(30,088)	(25,392)	(23,671)
Other	(3,314)	(4,834)	(319)	(388)
Net Change in Plan Fiduciary Net Position	$ 4,491,082	$ 5,823,428	$ 1,890,907	$ 2,119,438
Plan Fiduciary Net Position - Beginning	48,906,592	43,083,164	41,192,257	39,072,819
Plan Fiduciary Net Position - Ending (b)	$ 53,397,674	$ 48,906,592	$ 43,083,164	$ 41,192,257
Net Pension Liability - Ending (a) - (b)	$ 3,877,461	$ 4,841,131	$ 7,492,278	$ 5,550,911
Plan Fiduciary Net Position as a percentage of Total Pension Liability	93.23%	90.99%	85.19%	88.12%
Covered Payroll	$ 22,590,740	$ 21,575,706	$ 20,476,432	$ 17,866,892
Net Pension Liability as a percentage of Covered Payroll	17.16%	22.44%	36.59%	31.07%

This schedule is presented with the requirement to show information for ten years. However, until a full ten-year trend is compiled, the Authority will present information for those years which information is available.

Schedule of Employer Contributions – Pension

Fiscal Year Ending December 31,	Contractually Required Contribution	Contributions in Relation to Contractually Required Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
2023	$ 1,485,677	$ 1,485,677	$ –	$ 30,229,946	4.91%
2022	1,439,608	1,439,608	–	27,882,283	5.16%
2021	1,361,259	1,361,259	–	26,508,440	5.14%
2020	1,195,288	1,195,288	–	25,636,401	4.66%
2019	1,040,880	1,040,880	–	23,878,697	4.36%
2018	1,083,514	1,083,514	–	23,177,069	4.67%
2017	1,110,465	1,110,465	–	21,983,932	5.05%
2016	1,243,763	1,243,763	–	21,164,245	5.88%
2015	1,373,430	1,373,430	–	18,617,434	7.38%

Notes to Required Supplementary Information

Changes of Benefits Terms

There have been no actuarially material changes to the System benefit provisions since the prior actuarial valuation.

Changes of Assumptions

The actuarial assumptions used in the June 30, 2022, valuation were based on the results of an actuarial experience study for the period from July 1, 2016, through June 30, 2020, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. Changes to the actuarial assumptions as a result of the experience study and VRS Board action are as follows:

Mortality Rates (Pre-retirement, post retirement healthy, and disabled)	Update to PUB2010 public sector mortality tables. For future mortality improvements, replace load with a modified Mortality Improvement Scale MP-2020
Retirement rates	Adjusted retirement rates to better fit experience for Plan1; set separate rates based on experience for Plan2/Hybrid; and extended final retirement age from 75 to 80
Withdrawal rates	Adjusted rates to better fit experience at each year age and service through 9 years of service
Disability rates	No change
Salary Scale	No change
Discount Rate	No change - 6.75%

REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Changes in Net OPEB Liability and Related Ratios

	Fiscal Year Ending December 31			
	2023	2022	2021	2020
Total OPEB Liability				
Service Cost	$ 209,927	$ 118,863	$ 109,362	$ 97,893
Interest	655,018	293,073	271,726	265,381
Effect of Plan Changes	–	5,419,149	–	–
Effect of Economic/ Demographic Gain	–	157,773	157,158	–
Effect of Assumption Changes or Inputs	–	(168,621)	84,176	–
Benefit Payments	(357,788)	(328,497)	(279,289)	(275,047)
Net change in total OPEB liability	507,157	5,491,740	343,133	88,227
Total OPEB Liability - Beginning	10,043,351	4,551,611	4,208,478	4,120,251
Total OPEB Liability - Ending (a)	$ 10,550,508	$ 10,043,351	$ 4,551,611	$ 4,208,478
Plan Fiduciary Net Position				
Contributions - Employer	$ 717,559	$ 699,462	$ 472,309	$ 559,698
Net Investment Income/(Expense)	426,634	(486,444)	490,085	385,525
Benefit Payments	(357,788)	(328,497)	(279,289)	(275,047)
Administrative expense	(4,054)	(4,282)	(4,075)	(3,130)
Net change in plan fiduciary net position	782,351	(119,761)	679,030	667,046
Plan Fiduciary Net Position - Beginning	3,816,768	3,936,529	3,257,499	2,590,453
Plan Fiduciary Net Position - Ending (b)	$ 4,599,119	$ 3,816,768	$ 3,936,529	$ 3,257,499
Net OPEB Liability - Ending (a) - (b)	$ 5,951,389	$ 6,226,583	$ 615,082	$ 950,979
Plan Fiduciary Net Position as a percentage of Total OPEB Liability	43.59%	38.00%	86.49%	77.40%
Covered Payroll	$ 26,022,913	$ 26,022,913	$ 25,358,092	$ 24,260,228
Net OPEB Liability as a percentage of Covered Payroll	22.87%	23.93%	2.43%	3.92%

Schedule of Changes in Net OPEB Liability and Related Ratios

	Fiscal Year Ending December 31		
	2019	2018	2017
Total OPEB Liability			
Service Cost	$ 147,701	$ 126,084	$ 106,287
Interest	312,964	243,596	239,308
Effect of Plan Changes	–	–	–
Effect of Economic/ Demographic Gain	939,621	–	–
Effect of Assumption Changes or Inputs	(844,748)	–	166,826
Benefit Payments	(320,534)	(208,670)	(197,824)
Net change in total OPEB liability	235,004	161,010	314,597
Total OPEB Liability - Beginning	3,885,247	3,724,237	3,409,640
Total OPEB Liability - Ending (a)	$ 4,120,251	$ 3,885,247	$ 3,724,237
Plan Fiduciary Net Position			
Contributions - Employer	$ 634,534	$ 491,070	$ 471,624
Net Investment Income/(Expense)	372,586	(76,926)	191,749
Benefit Payments	(320,534)	(208,670)	(197,824)
Administrative expense	(2,695)	(2,317)	(1,886)
Net change in plan fiduciary net position	683,891	203,157	463,663
Plan Fiduciary Net Position - Beginning	1,906,562	1,703,405	1,239,742
Plan Fiduciary Net Position - Ending (b)	$ 2,590,453	$ 1,906,562	$ 1,703,405
Net OPEB Liability - Ending (a) - (b)	$ 1,529,798	$ 1,978,685	$ 2,020,832
Plan Fiduciary Net Position as a percentage of Total OPEB Liability	62.87%	49.07%	45.74%
Covered Payroll	$ 24,260,228	$ 20,783,700	$ 20,783,700
Net OPEB Liability as a percentage of Covered Payroll	6.31%	9.52%	9.72%

This schedule is presented with the requirement to show information for ten years. However, until a full ten-year trend is compiled, the Authority will present information for those years which information is available.

REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Employer Contributions – OPEB

Fiscal Year Ending December 31,	Actuarially Determined Contribution	Actual Employer Contribution (1) (2)	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
2023	$ 717,435	$ 717,559	$ (124)	$ 26,022,913	2.76%
2022	699,462	699,462	–	26,022,913	2.69%
2021	193,020	472,309	(279,289)	25,358,092	1.86%
2020	284,651	559,698	(275,047)	24,260,228	2.31%
2019	277,158	634,534	(357,376)	24,260,228	2.62%
2018	282,400	491,070	(208,670)	20,783,700	2.36%
2017	273,800	471,624	(197,824)	20,783,700	2.27%
2016	208,400	320,800	(112,400)	18,405,600	1.74%
2015	202,700	337,000	(134,300)	18,405,600	1.83%
2014	214,100	313,300	(99,200)	14,720,700	2.13%

(1) The Authority established its OPEB trust during the fiscal year ending December 31, 2012

(2) Employer contributions include trust contribution, implicit and explicit subsidy payments provided directly to retirees from the Authority's own resources

Notes to Required Supplementary Information

Changes of Benefits Terms

Loudoun Water began providing post-65 retiree health benefits in 2022. Health coverage is for retirees, spouses, and other covered dependents. Coverages include medical, prescription drug, dental and vision. Retirees, spouses, and other eligible dependents who are eligible for Medicare Parts A and B must enroll for Medicare coverage at age 65 and provide proof of enrollment 45 days prior to the Medicare coverage effective date in order to retain supplemental coverage. This change increased the plan's Total and Net OPEB Liability by about $5.4 million as of December 31, 2022. This increase was immediately recognized in fiscal 2022 OPEB expense.

Changes of Assumptions

The following changes in actuarially assumptions were used to calculate the Actuarially Determined Contribution since the prior actuarial valuation.

Interest rate	6.50%, net of investment expense
Healthcare Cost Trend Rates	5.0% in 2022, 4.90% in 2023, then grading to an ultimate rate of 3.90% in 2073
Mortality Rates (Pre-retirement, post retirement healthy, and disabled)	Updated to RP-2014 public sector mortality tables. For future mortality improvements, replace load with a modified Mortality Improvement Scale MP-2020
Retirement Rates	Adjusted rates to better fit experience for Plan 1; set separate rates based on experience for Plan 2/Hybrid; changed final retirement age from 75 to 80 for all
Withdrawal Rates	Adjusted rates to better fit experience at each age and service decrement through 9 years of service
Disability Rates	No change

Schedule of Employer's Share of Net OPEB Liability – Group Life Insurance Program

	Fiscal Year Ending December 31			
	2023	2022	2021	2020
Employer's Proportion of the Net GLI OPEB Liability	0.12%	0.12%	0.12%	0.12%
Employer's Proportionate Share of the Net GLI OPEB Liability	$ 1,498,062	$ 1,471,767	$ 1,433,335	$ 1,962,718
Employer's Covered Payroll	$ 29,423,291	$ 26,588,296	$ 25,417,749	$ 24,204,790
Employer's Proportionate Share of the Net GLI OPEB Liability as a Percentage of its Covered Payroll	5.09%	5.54%	5.64%	8.11%
Plan Fiduciary Net Position as a Percentage of the Total GLI OPEB Liability	69.30%	67.21%	67.45%	52.64%

	Fiscal Year Ending December 31		
	2019	2018	2017
Employer's Proportion of the Net GLI OPEB Liability	0.12%	0.12%	0.11%
Employer's Proportionate Share of the Net GLI OPEB Liability	$ 1,916,000	$ 1,756,000	$ 1,713,000
Employer's Covered Payroll	$ 23,080,316	$ 21,994,276	$ 20,998,945
Employer's Proportionate Share of the Net GLI OPEB Liability as a Percentage of its Covered Payroll	8.30%	7.98%	8.16%
Plan Fiduciary Net Position as a Percentage of the Total GLI OPEB Liability	52.00%	51.22%	48.86%

This schedule is presented with the requirement to show information for ten years. However, until a full ten-year trend is compiled, the Authority will present information for those years which information is available.

Schedule of Employer Contributions – Group Life Insurance Program

Fiscal Year Ending December 31,	Contractually Required Contribution	Contributions in Relation to Contractually Required Contribution	Contribution Deficiency (Excess)	Covered Payroll	Contributions as a Percentage of Covered Payroll
2023	$ 158,886	$ 158,886	–	$ 30,409,732	0.52%
2022	143,577	143,577	–	27,934,978	0.51%
2021	137,256	137,256	–	25,829,072	0.53%
2020	125,865	125,865	–	24,916,711	0.51%
2019	120,018	120,018	–	23,476,241	0.51%
2018	114,370	114,370	–	22,580,605	0.51%
2017	109,195	109,195	–	21,407,171	0.51%
2016	94,656	94,656	–	20,407,724	0.46%
2015	89,737	89,737	–	19,445,726	0.46%
2014	78,038	78,038	–	17,603,051	0.44%

Notes to Required Supplementary Information

Changes of Benefits Terms

There have been no actuarially material changes to the System benefit provisions since the prior actuarial valuation.

Changes of Assumptions

The actuarial assumptions used in the June 30, 2022, valuation were based on the results of an actuarial experience study for the period from July 1, 2016, through June 30, 2020, except the change in the discount rate, which was based on VRS Board action effective as of July 1, 2019. Changes to the actuarial assumptions as a result of the experience study and VRS Board action are as follows.

Mortality Rates (Pre-retirement, post retirement healthy, and disabled)	Update to Pub-2010 public sector mortality tables. For future mortality improvements, replace load with a modified Mortality Improvement Scale MP-2020
Retirement rates	Adjusted rates to better fit experience for Plan1; set separate rates based on experience for Plan2/Hybrid; changed final retirement age from 75 to 80 for all
Withdrawal rates	Adjusted rates to better fit experience at each year age and service through 9 years of service
Disability rates	No change
Salary Scale	No change
Discount Rate	No change - 6.75%

APPENDIX D

INFORMATION CONCERNING LOUDOUN COUNTY, VIRGINIA

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INFORMATION CONCERNING LOUDOUN COUNTY, VIRGINIA

The Information contained in this Appendix D (the "Information") is provided solely to describe for potential investors the general economic, demographic and financial condition of the Authority's service area, which is coterminous with the County of Loudoun, Virginia (the "County"). The Information has been excerpted by the Authority from the Official Statement for the Economic Development Authority of Loudoun County, Virginia's Public Facility Revenue Refunding Bonds, Series 2024C (Loudoun County Public Facilities Project), dated September 11, 2024, under which the County is obligated to make payments, and does not constitute the entirety of the Information regarding the County set forth therein. The County's Comprehensive Annual Financial Report for the fiscal year ended June 30, 2023 may be viewed as part of the County's continuing disclosure filings on the Municipal Securities Rulemaking Board's Electronic Municipal Market Access by searching CUSIP number 54589SGL2.

Accordingly, while the Authority has undertaken no independent investigation of, has not otherwise verified, and can make no representation or warranty with respect to, the Information, the Authority has no reason to believe that the Information is not true and correct in all material respects, in view of the purposes for which it is provided. The County has not approved the use of the Information in connection with the offering of the Series 2024 Bonds. Moreover, the Authority and the County are separate legal entities, and under no circumstances should inclusion of the Information in this Official Statement be read to suggest that the County has any obligation whatsoever—legal, moral or otherwise—to make any payments with respect to the Series 2024 Bonds, whether before or after any default that may occur. In particular, the Series 2024 Bonds are not a debt or other obligation of the County, and neither the full faith and credit nor the taxing power of the County is pledged to the payment of the Series 2024 Bonds.

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APPENDIX D

LOUDOUN COUNTY, VIRGINIA

General Description

Overview

The County is an urbanizing county located in the northwestern tip of the Commonwealth of Virginia, 25 miles northwest of Washington, D.C. and within 500 miles of the nation's major population centers of Atlanta, New York, and Boston. The County is approximately 520 square miles in size. It is considered to be part of the Northern Virginia area and the Washington Metropolitan Statistical Area (the "Washington MSA"). The Washington MSA, as set forth in February 2013 by the Federal Office of Management and Budget, included the Virginia Counties of Arlington, Clarke, Culpeper, Fairfax, Fauquier, Loudoun, Prince William, Rappahannock, Spotsylvania, Stafford and Warren, the Virginia Cities of Alexandria, Fairfax, Falls Church, Fredericksburg, Manassas and Manassas Park and parts of Maryland and West Virginia. According to the 2020 Census (defined below), from 2010 to 2020 Loudoun's population increased by approximately 35%—from 312,311 to 420,959. According to County estimates, the County's 2023 population was 440,071, an increase of 4.5% since 2020. According to the 2020 Decennial Census of the U.S. Department of Commerce, Bureau of the Census (the "2020 Census"), Loudoun County is the third most populous jurisdiction in Northern Virginia, after Fairfax and Prince William Counties, and the fourth most populous jurisdiction in the Commonwealth of Virginia.

The County's population is expected to be 490,430 by 2030, an increase of approximately 16.5% from 2020.[*]

A labor supply of highly skilled residents, a stable political climate, the cooperative attitude of state and local governments, abundant commercial and industrial acreage, connection to the world through Washington Dulles International Airport ("Dulles Airport") and an estimated 70%[†] of the world's internet traffic are but a few of the attractive features of the County. The Town of Leesburg, the County government seat, is located in the heart of the County. Incorporated towns within the County include Hamilton, Hillsboro, Leesburg, Lovettsville, Middleburg, Purcellville and Round Hill.

The County has the conveniences often associated with urban areas, while maintaining a comfortable suburban atmosphere. The eastern portion of the County borders Fairfax County, Virginia, and contains Dulles Airport. While this portion of the County is developing as a result of its proximity to the Washington metropolitan area, the western portion of the County, bordered by the Blue Ridge Mountains to the west and the Potomac River to the north, maintains a rural and historical environment. The western portion of the County comprises small towns and villages surrounded primarily by farmland and open spaces. It is sparsely populated with a thriving agricultural industry, with many historical sites on the National Register of Historic Places. The combination of eastern and western Loudoun, of urban growth and historic stability, makes the County one of the most desirable counties in northern Virginia for businesses and residents to locate.

The County, which derives its governing authority from the Virginia Code, is a multi-service jurisdiction and shares local governmental taxing power with the towns within its boundaries. The governing body of the County is the Board of Supervisors, which formulates policies for the administration of the County. There are overlapping debt and taxing powers with other political subdivisions.

The Administrative Offices are located at the County Administration Building, 1 Harrison Street, S.E., Leesburg, Virginia 20177. The telephone number is (703) 777-0200. The telephone number for the Office of Management and Budget is (703) 777-0500.

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[*] Source: Metropolitan Washington Council of Governments, Round 10.0 Cooperative Forecast control totals, submitted by Loudoun County in October 2022.

[†] Source: Loudoun County Department of Economic Development.

Other Financial Information

No principal of or interest on any obligation of the County is past due, nor has the County ever defaulted on any of its general obligation bonds, federal loans, financing agreements, revenue obligations or installment purchase agreements.

The fiscal period of the County is July 1 through June 30.

The Official Statement does not include the financial data of any other political subdivision having power to levy taxes within the County.

Form and Organization of Government

The County operates under the traditional county form of government with a County Administrator as established by the Virginia Code. The nine-member Board of Supervisors is vested with local legislative powers. Eight members of the Board are elected on the basis of their respective election districts of the County, and the Chairman is elected at-large. All members of the Board are elected for terms of four years with the elections being held in odd years for all the seats. The Board of Supervisors elects a Vice Chairman from among its members. Under this form of government, the elected officials include the members of the legislative body, which is the Board, and certain elected administrative officials, including the Treasurer, the Commissioner of the Revenue, the Sheriff, the Clerk of the Circuit Court and the Commonwealth's Attorney.

The County Administrator is the administrative head of the general government and carries out the policies of the Board. He is appointed by and serves at the pleasure of the Board, and acts as the Board's agent in the administration and operation of the County's departments and agencies. All departments directly responsible to the Board report to the County Administrator, who acts as the Board's liaison to all other departments and agencies. With the assistance of one Senior Deputy County Administrator, three Deputy County Administrators and one Assistant County Administrator, the County Administrator coordinates the functions of 30 County agencies and departments responsible for the delivery of services to residents. He is responsible for appointing and discharging all County employees and officers, although that responsibility may be delegated to subordinates. A major responsibility of the County Administrator is the preparation of the County's annual operating budget and six-year capital plan. The County Administrator also acts as Clerk to the Board and is responsible for recording and maintaining all legislative documents and actions of the Board.

The Board of Supervisors organizes itself into the following three Committees: Finance/Government Operations and Economic Development, Transportation and Land Use, and Joint Board and School Board. These Committees provide policy and fiscal guidance to the County Administrator and county agencies and promote more effective management and control over functionally related County departments and agencies. Based upon the Board's priorities, policies, and programs, the County Administrator, along with his Deputy and Assistant Administrators, anticipates community needs, sets priorities, and develops strategies to address those needs through administrative and proposed legislative methods.

Presented on the following page is an organizational chart for the County and descriptions of the members of the Board of Supervisors and certain appointed and elected officials.

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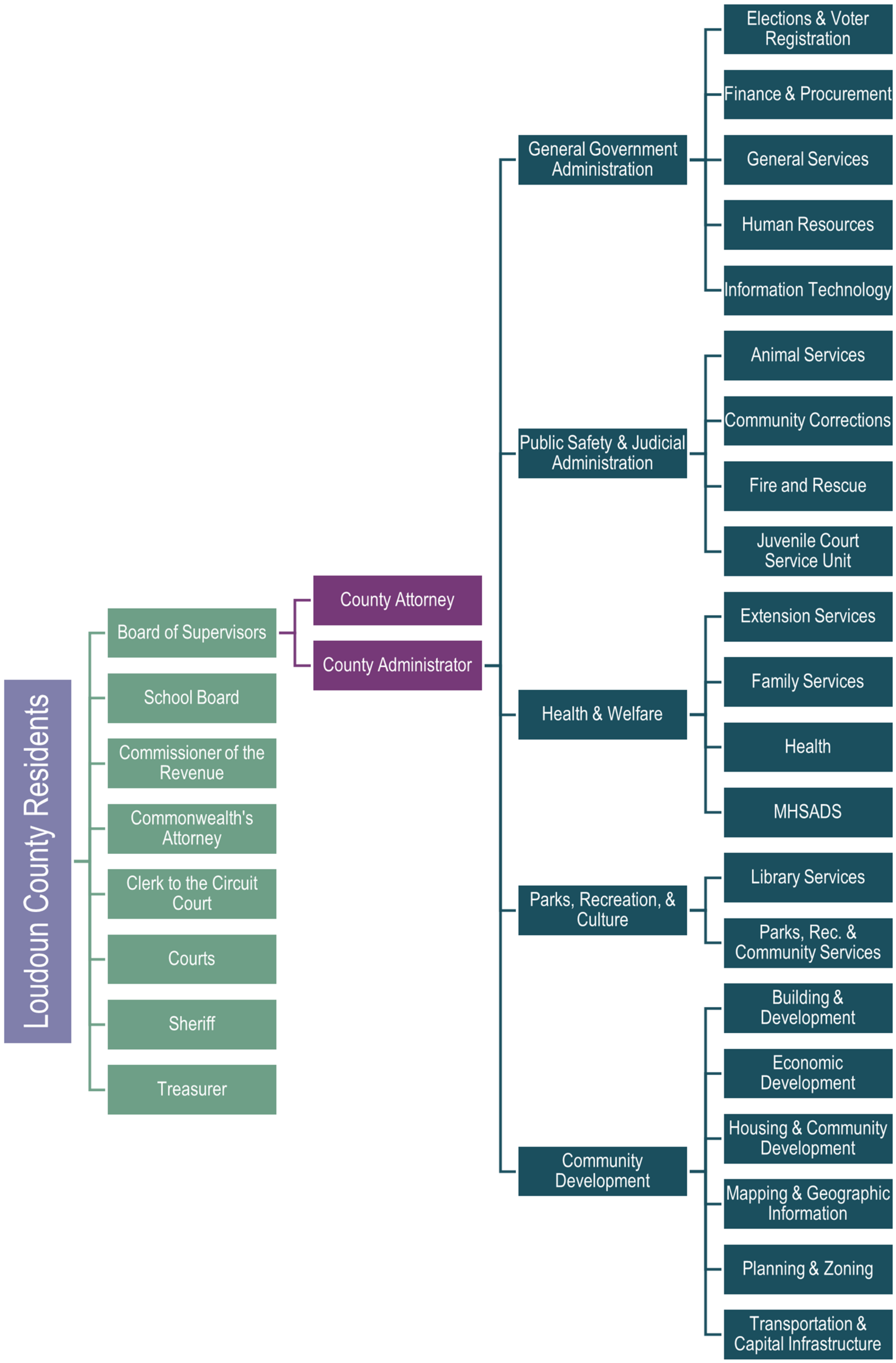
Organizational Chart



Elected Legislative Officials

Phyllis J. Randall, Chair, Board of Supervisors

Ms. Randall was elected as Chair of the Board of Supervisors in November 2015 and reelected in November 2019 and 2023. Ms. Randall was the first person of color in Virginia's history to be an elected chair of a county board. As Loudoun's Chair At-Large, she represents Loudoun on various regional, state, and national bodies, including as Chair of the full Northern Virginia Transportation Authority (NVTA) and Chair of the NVTA Governance and Personnel Committee. She also serves as a member of the National Association of Counties ("NACo") Health and Human Resources Committee and founding member of the NACo Economic Mobility Leadership Network, a member of the Virginia Association of Counties Health and Human Resources sub-committee and a member of The Washington Metropolitan Council of Governments (COG) Board of Directors, Human Services and Public Safety Policy Committee, Regional Forward Coalition, and DC Statehood sub-committee. Chair Randall also serves on the Board of Supervisors' Finance/Government Operations and Economic Development Committee and the Transportation and Land Use Committee. From 2009-2011, Chair Randall served as Chair of Virginia's Fair Housing Board under former Governors Tim Kaine and Bob McDonnell. From 2014 to June of 2018, she served as Chair of Virginia's State Board of Corrections under Governor Terry McAuliffe. By profession, Chair Randall is a mental health therapist, with substance dependence as her emphasis area. She has worked with justice-involved populations, both in and out of incarcerated settings for over 20 years.

Juli E. Briskman, Vice Chair, Board of Supervisors

Ms. Briskman was elected to represent the Algonkian District on the Board of Supervisors in November of 2019 and reelected in 2023. She was elected by her fellow Board members to serve as Vice Chair in 2024. She serves on the Board's Finance/Government Operations and Economic Development Committee and the Joint Board and School Board Committee. She also represents Loudoun on the Potomac Watershed Roundtable, the Northern Virginia Transportation Commission, and the Virginia Association of Counties. She is one of the Board's representatives on the Loudoun County Family Services Board. Ms. Briskman began her career in journalism and communications. During her career she served overseas with the U.S. Department of State and worked as a contractor for federal agencies. She has also worked in the educational field, helping families explore Pre-K options, admissions, and childcare. She has been an instructor at local gyms and yoga studios. In addition to her professional pursuits, she has been an active community volunteer in many educational, recreational, and community groups, including the Loudoun County Public Schools, the Algonkian Running Club, the River Crest Riptide Swim Team, Boy Scouts, Girl Scouts, and Galilee United Methodist Church. She holds a master's degree in business administration from the Johns Hopkins University and a bachelor's degree in journalism from the Ohio State University.

Sylvia R. Glass, Member, Board of Supervisors

Ms. Glass was elected to represent the Broad Run District on the Board of Supervisors in November 2019 and reelected in 2023. She serves as co-chair of the Board of Supervisors' Joint Board and School Board Committee and is a member of the Transportation and Land Use Committee. She represents Loudoun on the Metropolitan Washington Council of Governments' Air Quality Committee, the Northern Virginia Regional Commission, the Dulles Town Center Community Development Authority, and the Route 28 Transportation Improvement District Commission. She also serves as the Board's representative on the Loudoun County Disability Services Board and on education steering committees for both the Virginia and National Association of Counties. She is currently an elementary special education teacher's assistant with Virtual Loudoun, having worked previously as a teaching assistant and cafeteria monitor with Loudoun County Public Schools. Her prior work experience encompasses both accounting and real estate. She held positions with the U.S. Defense Contract Audit Agency and Trollinger and Co. and later earned her real estate license and worked with ReMax. She served as the President of the Dominion Trail Elementary School Parent Teacher Association and is a member of the NAACP Education Committee. She is also active with the Loudoun County Public Schools' Minority Student Achievement Advisory Committee and is a member of the Loudoun Education Association. Further, she is a member of the Loudoun chapter of Moms Demand Action. She earned a bachelor's degree in accounting and economics from Bowie State University and a master's degree in special education from George Mason University.

Caleb A. Kershner, Member, Board of Supervisors

Mr. Kershner was elected to represent the Catoctin District on the Board of Supervisors in November 2019 and reelected in 2023. He serves on the Board of Supervisors' Transportation and Land Use Committee and represents the Board on the Loudoun County Agricultural District Advisory Committee. He represents Loudoun on the Coalition of Loudoun Towns and the Annexation Area Development Policy Committee. He is a partner in the law firm of Simms Showers, LLP in Leesburg. A native of Frederick, Maryland, he moved to Loudoun in 1995 and worked for the Home School Legal Defense Association in Purcellville as director of federal relations. He earned a bachelor's degree in finance with honors from George Mason University in 2001 and a doctorate in law from George Mason University in 2005. He began his legal career as an assistant commonwealth's attorney in Loudoun County, prosecuting criminal cases between 2005 and 2009. Supervisor Kershner has been an active community volunteer, currently serving as an officer on the board of directors for the Loudoun County Fair and Associates, a nonprofit organization which hosts the Loudoun County Fair. He has also been a member of the Lovettsville-Waterford Ruritans.

Matthew F. Letourneau, Member, Board of Supervisors

Mr. Letourneau was elected to represent the Dulles District on the Board of Supervisors in November 2011 and was reelected in 2015, 2019 and 2023. In January 2024, he was appointed chairman of the Board's Finance Government Operations and Economic Development Committee. From 2015 to 2021, Supervisor Letourneau served as chairman of the committee, which oversees county services, finances, and economic development efforts. He is the first Loudoun County Supervisor to serve on the Washington Metropolitan Area Transit Authority (Metro) Board of Directors, representing Virginia as one of two Principal Directors. He served on the Metropolitan Washington Council of Governments Board of Directors from 2012 to 2019, including as Chairman of the Board in 2018 and corporate President in 2014. Mr. Letourneau represents Loudoun on the Northern Virginia Transportation Commission (NVTC) and serves on the National Capital Region Transportation Planning Board and the Route 28 Transportation Improvement District Commission. He is currently Managing Director of Communications and Media for the Global Energy Institute at the U.S. Chamber of Commerce. He is a cum laude graduate of The Catholic University of America in Washington, D.C.

Koran T. Saines, Member, Board of Supervisors

Mr. Saines was elected to the Board of Supervisors representing the Sterling District in November 2015 and reelected in 2019 and 2023. He served as vice chairman from January 2020 to December 31, 2023. He serves on the Board's Finance/Government Operations and Economic Development Committee and represents Loudoun on the Northern Virginia Manpower Consortium Workforce Investment Board and the Northern Virginia Regional Commission, as well as the Metropolitan Washington Council of Governments' Climate Energy and Environment Policy Committee for which he served as Chair for 2022-2023. He also serves as one of Loudoun's representatives on the Route 28 Transportation Improvement District Commission and is one of the Board's representatives on the Family Services Board. In 2019, Mr. Saines was appointed to the General Government Steering Committee of the Virginia Association of Counties by the VACo president. Mr. Saines is a Sterling native and a graduate of Broad Run High School. He graduated from Indiana Institute of Technology with a bachelor's degree in Human Resource Management. He currently works as a human resource professional for Inova Health System. Mr. Saines' community service includes being president of the Chatham Green Unit Owners Association after previous stints as vice president and secretary. In the past he has served as an election officer, including serving as chief election officer in 2014.

Laura A. TeKrony, Member, Board of Supervisors

Ms. TeKrony was elected to represent the Little River District on the Board of Supervisors in November 2023. She serves on the Board of Supervisor's Joint Board and School Board Committee and the Transportation and Land Use Committee. She is one of Loudoun's representatives on the metropolitan Washington Council of Governments' (COG) Board of Directors and serves on COG's Chesapeake Bay and Water Resources Policy Committee and the Food and Agriculture Regional Member Policy Committee. She is also one of Loudoun's representatives on the Coalition of Loudoun Towns. Prior to her election, Supervisor Tekrony was a legislative aide to Board of Supervisors chair Phyllis Randall. She grew up on a farm in Hopewell, New Jersey and earned a bachelor's degree in biology from Bucknell University and a master's degree in marketing from Fordham University.

Michael R. Turner, Member, Board of Supervisors

Mr. Turner was elected to represent the Ashburn District on the Board of Supervisors in November 2019 and reelected in 2023. He serves as the chair of the Board of Supervisors Transportation and Land Use Committee and represents Loudoun on the National Capital Region Transportation Planning Board and the Northern Virginia Transportation Commission. He also serves on the Fiscal Impact Committee. He is a 1973 graduate of the U.S. Air Force Academy and a former command pilot with more than 3,500 flying hours as both an air rescue helicopter pilot and a fighter pilot. A Desert Storm veteran, he served on the U.S. Central Command staff before and during the war. His final assignment was on the Joint Staff in the Pentagon in support of the Chairman of the Joint Chiefs of Staff from 1993 to 1997, where he worked in the Strategic Plans and Policy Directorate. Since his retirement from the Air Force in 1997, Turner has worked principally as a nonprofit development officer at six nonprofit organizations with varied missions, including disaster relief, encouraging entrepreneurship among America's youth, providing free credit counseling to families in need and helping military and veteran families. He also has nonprofit experience in legislative affairs. From 2003 to 2004, Turner was a military commentator for CNN, MSNBC, Fox News, NPR, KQED radio, and Newsweek online. In 2008, he was a candidate for the U.S. Congress from Virginia's 10th Congressional District. Turner is a recipient of the Bronze Star Medal, the Defense Superior Service Medal and the Air Medal. He has a bachelor's degree in science from the U.S. Air Force Academy and a master's degree in business administration from Chapman University in California.

Kristen C. Umstattd, Member, Board of Supervisors

Ms. Umstattd was elected to represent the Leesburg District on the Board of Supervisors in November 2015 and reelected in November 2019 and 2023. She serves on the Board of Supervisors' Finance/Government Operations and Economic Development Committee. She is one of the Board's representatives on the Annexation Area Development Policy Committee. Previously, she served on the Leesburg Town Council from 1992 to 2016. She served as Mayor between 2002 and 2016. Umstattd served for many years as the Leesburg Town Council's liaison to the Leesburg Planning Commission. In addition, she has served on the boards of the following statewide and regional organizations: Past President, Virginia Association of Planning District Commissions; Past Chair, Northern Virginia Regional Commission; Past Chair, Towns' Association of Northern Virginia; Past Commander, American Legion Post 34; Trustee, Journey Through Hallowed Ground; and member of the Northern Virginia Transportation Authority, Northern Virginia Transportation Coordinating Council, Dulles Area Transportation Association, Coalition of Loudoun Towns Advisory Committee, and Loudoun Hospital Executive Council. Umstattd is a native of Philadelphia, Pennsylvania. She moved to Virginia in 1981, while on active duty as a Lieutenant in the U.S. Naval Reserve. After her honorable discharge, Umstattd continued with the U.S. Naval Reserves, translating Soviet naval documents from Russian into English for the U.S. intelligence community. She then joined the Central Intelligence Agency as a Soviet Naval analyst. Since 1987, Supervisor Umstattd has been practicing law in Leesburg, Virginia. Umstattd graduated magna cum laude and Phi Beta Kappa from Yale University with a B.A. in Russian and East European Studies. She holds a J.D. from Yale Law School and a Certificate in Chinese Studies from Cheng-chi University in Taiwan.

Certain Other Elected Administrative Officials

Henry Eickelberg, Treasurer

Mr. Eickelberg has served as Loudoun County Treasurer since January 2024, following his election in November 2023. He has extensive experience in the fields of investment administration and oversight, law, and accounting. After retiring as the Corporate Vice President of Human Resources and Shared Services for a Fortune 100 company, Mr. Eickelberg was appointed by President Obama in 2016 to Advisory Committee of the Pension Benefit Guaranty Corporation, which oversees a $125 billion dollar investment portfolio for millions of Americans. He was later appointed Advisory Committee Chair and served in that role for both Presidents Trump and Biden. Mr. Eickelberg has served as an adjunct professor of law in the graduate programs for both Georgetown University Law Center and Washington University in St. Louis Law School. He was a law partner at Jenner & Block in Chicago specializing in employee benefits law, corporate mergers and acquisitions and executive compensation. Mr. Eickelberg is a Certified Public Accountant, holds a bachelor's degree in accounting from DePaul University and a JD and LLM from the John Marshall Law School in Chicago.

Certain Appointed Administrative Officials

Tim Hemstreet, County Administrator

Mr. Hemstreet began his service as County Administrator for Loudoun County in December 2009. Mr. Hemstreet came to the County from the City of Miami Beach, Florida, where he held management positions since April 2001. He had served as Assistant City Manager and Assistant Executive Director of the Redevelopment Agency since March 2005. Before that, he was director of the Capital Projects Office. His responsibilities as Assistant City Manager for Miami Beach included overseeing the Departments of Public Works, Planning, Capital Improvements, Economic Development, Public/Private Joint Ventures and the Redevelopment Agency Construction. The City of Miami Beach had approximately 2,000 employees, an annual operating budget of $425 million, and a capital budget of $800 million. Before joining the City of Miami Beach, he held several management positions with the Cities of Tamarac and Hollywood, Florida. He served as Assistant City Manager and Finance and Policy Officer for the City of Tamarac. Mr. Hemstreet grew up in Northern Virginia and earned both a bachelor's degree in political science and a master's degree in public administration from James Madison University in Harrisonburg, Virginia.

Leo P. Rogers, County Attorney

Mr. Rogers has served as County Attorney since November 2014. He previously served as James City County Attorney from 2004 to 2014, as a Deputy County Attorney from 1994 to 2004, and as an Assistant County Attorney from 1990 to 1994. He graduated from Rutgers College where he was a Henry Rutgers Scholar in History and earned his Juris Doctor from William & Mary Law School. Mr. Rogers is a member of the Virginia State Bar. As County Attorney, he serves as chief legal advisor to the Board of Supervisors, the County Administrator and all County departments and agencies. It is his duty to advise the Board of Supervisors and to represent the County in civil matters.

Erin McLellan, Senior Deputy County Administrator

Ms. McLellan began her career with Loudoun County government in 2005 as a management fellow and later as a human resources policy and research analyst. She was steadily promoted, becoming Budget Officer in 2013 and later head of the department. She later served as director of the Department of Finance and Budget. Prior to her appointment as Senior Deputy County Administrator in 2023, Ms. McLellan was appointed as an assistant county administrator in 2020. Ms. McLellan is a graduate of the University of Alabama and holds a bachelor's degree in history and a master's degree in public administration.

George Govan, Director of Finance and Procurement

Mr. Govan began his service to Loudoun County in October 2023 as Director of Finance and Procurement. Prior to joining Loudoun County, he was Chief Financial and Risk Officer with US AbilityOne Commission, Washington DC, from 2020 through 2023. Mr. Govan earned a bachelor's degree in accounting from the University of Mary-Hardin Baylor, Belton Texas, a master's of business administration from Troy State University in Montgomery, Alabama and a doctorate in higher education from The George Washington University in Washington, DC.

Megan Bourke, Director of Management and Budget

Ms. Bourke began her service to Loudoun County in January 2014 as a budget manager and has held various positions managing both the County's operating and capital budgets. Prior to joining Loudoun County, she was a budget and management analyst with Chesterfield County, Virginia, from 2011 through 2013, and a management analyst with the Village of Downers Grove, Illinois, from 2007 to 2008, where she began her career in local government as a management intern in 2004. Ms. Bourke earned a bachelor's degree in political science from Indiana University in Bloomington, Indiana, and a master's degree in public policy from The George Washington University in Washington, DC.

Governmental Services and Facilities

Introduction

The County provides a full range of municipal services authorized by the Virginia Code and the Board of Supervisors. These services include public safety (law enforcement and traffic control, fire and rescue services, corrections and detention, inspections); health and welfare (health, mental health and developmental services, social services); education (elementary and secondary, community college support); parks, recreation and cultural enrichment (libraries, performing arts, museums); community development (economic development, planning, zoning, housing, environmental management, cooperative extension); limited public works (sanitation and waste disposal, transportation planning, maintenance); and general government administration (legislation, general and financial, elections, judicial). Services provided by the County which receive partial funding from the Commonwealth include public education in grades kindergarten through twelve and certain technical and special education, mental health assistance, agricultural services, law enforcement, judicial, and other activities.

The County's main governmental complex includes a general administration building, and a judicial complex. In close proximity are a health facility, public safety facilities and a social services facility. There are five sheriff substations and one sheriff administration building, twenty-one fire and rescue stations, ten area libraries, including a law library, seven community centers, three recreation centers and fifty-five park sites, ninety-seven elementary, secondary, and specialized schools and various other sub offices and facilities located throughout the County.

Development and Economic Growth

Guiding Strategy

The County Government's business growth and development strategy is managed by the staff in the Loudoun County Department of Economic Development ("Department of Economic Development"). The Department of Economic Development is supported by and active in multiple business-focused public-private partnerships.

The Department of Economic Development operates under a cluster-focused business strategy, originally approved by the Board of Supervisors in 2008. Currently the County's business development budget and its recruitment and retention efforts are targeted at data centers and other businesses in the information and communications technology cluster, especially cybersecurity and health information technology; aerospace and defense; air cargo and highly specialized manufacturing. The department also works to attract and grow small businesses and international companies.

Board Support

The Board of Supervisors oversees and guides all economic development efforts as a unit and specifically through its Finance/Government Operations and Economic Development Committee. The Board has encouraged business growth through its strong support of economic development department staffing and programs, as well as its endorsement of business-focused County initiatives. The Economic Development Authority of Loudoun County (the "EDA") provides support to the Department of Economic Development and issues revenue bonds in accordance with the Industrial Development and Revenue Bond Act.

The Department of Economic Development works with the Board to create competitive business incentives that are strategic and selective. For example, incentives were leveraged from 2021 to 2023 to secure new investment and jobs in new headquarters locations for organizations including Zasti AI, Athari Biosciences, the United States Tennis Association, and the Lovettsville Cooperative Market. Zasti AI and Athari Biosciences are notable for their potential to promote economic diversification and add to the County's Health IT cluster, with at least 60 jobs and $5.9 million of new investment from Zasti AI and 50 jobs and $4 million of new investment from Athari Biosciences, which included investment in a certified wet lab for molecular testing and research. The incentive for the Lovettsville Cooperative Market supports Loudoun's rural economy through creating a permanent retail location sourcing products from over 70 local vendors, including meats, cheeses, coffee, honey, cut flowers, wine and beer. The County further promotes economic diversification through initiatives and services to support the permitting process and help ensure that Loudoun is "business friendly."

Overall, the County's most leveraged non-cash incentive is Loudoun's Fast Track program for accelerated commercial site plan permitting. A project using the Fast Track process can get to conditional approval (and begin the process of applying for building permits) in an average of less than three months. In 2023, the Department of Economic Development assisted 22 Fast Track projects, which will lead to $9.2 billion in new commercial investment in Loudoun's economy. The Fast Track program is an important non-cash incentive that enhances the County's competitiveness relative to neighboring jurisdictions and improves the experience of conducting business in Loudoun County.

Current and Future Initiatives

Increased support for the County's wide base of small businesses has been successful, including new marketing initiatives, training events and monthly meet-ups and information sessions for high-growth and technology-focused entrepreneurs. Approximately 87% of Loudoun's businesses have fewer than 20 employees. Small businesses have the greatest potential for growth and are a key component of the Loudoun economy. The presence of small to medium-sized high-growth companies is illustrated by the 39 Loudoun businesses currently on Inc. Magazine's annual listing of fastest growing companies. This is a record high for the number of Loudoun Inc. 5000 businesses, with 2023 marking the tenth year in a row with more than 20 Loudoun businesses making that list.

In addition to the ongoing support for the growth of rural industry provided by the implementation of the updated rural strategy, the Loudoun Farms website is serving to enhance the connections among residents, visitors, and rural-based enterprises. The County continues its successful promotion of direct-sale opportunities and innovative rural practices through the Loudoun Made Loudoun Grown Marketplace, the Take Loudoun Home for the Holidays promotional campaign, farm-restaurant collaborations, spring and fall farm tours, and one-on-one business assistance and specialized training in agricultural innovation.

The Department of Economic Development marketing and communications team leverages media relations, graphic design, event marketing, and digital media marketing to raise awareness of Loudoun County as a world-class business location.

Rivana at Innovation Station Partnership Supporting Economic Development

The County is supporting a significant mixed-use, transit-oriented development through the creation of the Rivana at Innovation Station Community Development Authority (CDA), established by the Board of Supervisors in July 2023. The Rivana at Innovation Station development will help drive economic development and support many County goals as articulated in the 2019 Comprehensive Plan, including to "provide new opportunities for employers to locate near a complete urban community," to "ensure walkable development and connectivity to the community; and to transit," to "provide dynamic and diverse public places and amenities within the community; promote culture and the arts, and concepts like outdoor dining, event space, street fairs, and public art," to "provide a diverse mix of choices in all development; and a balance of business, commercial and residential uses; accommodate living, working, shopping, learning, and playing," and to "simultaneously protect valuable environmental resources and provide a network of publicly available green spaces." For purposes of financing the planned public infrastructure within this development, the County and the developer agreed to financial contributions from the County in the form of a tax increment on real property collected within the CDA District based on the increased assessed value their planned development will generate and a $0.15 special tax levied within the CDA boundaries to generate additional revenue construction of public infrastructure. The need for the CDA was recognized by the County following analysis of the cost of infrastructure needed for dense, high-value urban development, such as what is planned for Rivana at Innovation Station, and the resulting gap in financing that needed to be filled for the development to move forward. The Rivana at Innovation Station development is led by Timberline Real Estate Partners and broke ground in early 2024.

The County expects an ongoing positive economic impact from supporting Rivana at Innovation Station. A lack of available Class A office space near transit stations has been a challenge for recruiting some prospective businesses in target industries, and Rivana positions Loudoun to capture these opportunities. This project is an example of the County's strategic support of transit-oriented developments that catalyze job creation and provide economic diversification.

Economic Performance

During calendar year 2023, Loudoun's economic success was evidenced by decreased levels of unemployment and the continued increase in the number of businesses. New commercial development also continued at a rapid pace, with 5.0 million square feet in new retail, flex, industrial, and office building permits issued in 2023. The Department of Economic Development earned 142 "wins" in 2023; a "win" is a business that the department assists to attract, expand, or retain in Loudoun. In addition to wins related to data centers, cybersecurity, and other businesses in the information, and communications technology cluster, there were also wins in the logistics, advanced manufacturing, and agricultural sectors. The 142 wins directly brought in $9.0 billion of commercial investment and 4,941 jobs created or retained. A few significant wins announced in 2023 included RTX, Fortreum, EIT, and the Lovettsville Cooperative Market.

Economic and Demographic Factors

Employment

The following table presents average employment and weekly wages per employee for the quarter ended June 30, 2023. Total average employment of 188,609 in the quarter ended June 30, 2023 represents an increase of 5.1 percent from the quarter ended June 30, 2022 and 11.6 percent from the quarter ended June 30, 2021.

AVERAGE EMPLOYMENT AND WEEKLY WAGES PER EMPLOYEE
Quarter Ended June 30, 2023[1]

Industry	Employment	Weekly Wages
Goods-Producing Domain		
Natural Resources and Mining	679	$1,114
Construction	17,651	1,586
Manufacturing	8,282	1,736
Service-Providing Domain		
Trade, Transportation, and Warehousing	38,051	1,126
Information	6,446	2,669
Financial Activities	6,351	2,093
Professional and Business Services	36,418	1,993
Education and Health Services	35,420	1,197
Leisure and Hospitality	22,948	963
Other Services (except Public Administration)	5,873	1,060
Public Administration	9,807	2,144
Unclassified	684	1,104
Total Employees/ Weighted Average Wage	**188,609**	**$1,494**

1 Includes all employers subject to unemployment compensation laws but excludes other employment such as self-employed persons. Data are presented under NAICS system. Figures may not sum due to rounding.
Source: Chmura Economics & Analytics, 2nd Quarter 2023. Compiled by Loudoun County Department of Economic Development, February 2024.

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The following table shows employment by sector for the quarter ended June 30, 2023 excluding self-employed persons. This data shows that the largest percentage of employees in the County work for service-sector companies, particularly the Trade, Transportation and Warehousing, Professional and Business Services, and Education and Health Services sectors.

EMPLOYMENT BY SECTOR AS A PERCENTAGE OF TOTAL
Quarter Ended June 30, 2023[1]

Sector	Percentage
Goods-Producing Domain	
Natural Resources and Mining	0.4%
Construction	9.4
Manufacturing	4.4
Service-Providing Domain	
Trade, Transportation, and Warehousing	20.2
Information	3.4
Financial Activities	3.4
Professional and Business Services	19.3
Education and Health Services	18.8
Leisure and Hospitality	12.2
Other Services (except Public Administration)	3.1
Public Administration	5.2

[1] Includes all employers subject to unemployment compensation laws but excludes other employment such as self-employed persons. Data are presented under NAICS system. Figures may not sum to exactly 100% due to rounding.
Source: Chmura JobsEQ, 2nd Quarter 2023. Compiled by Loudoun County Department of Economic Development, March 2024.

The table below compares the average annual unemployment rate of the County to the entire United States. The data shows that the County has consistently achieved a lower unemployment rate when compared to the country.

ANNUAL AVERAGE UNEMPLOYMENT RATES

Calendar Year	Loudoun County	United States
2014	4.2%	6.2%
2015	3.5	5.3
2016	3.1	4.9
2017	3.0	4.4
2018	2.5	3.9
2019	2.3	3.7
2020	5.5	8.1
2021	3.1	5.3
2022	2.4	3.6
2023	2.5	3.6

Source: Bureau of Labor Statistics, February 2024. The 2023 values are 12-month averages.

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Industry

Local and federal government, technology-related and professional services, transportation, and healthcare businesses constitute a significant share of major employers in the County. The following table presents data regarding the major employers, including the products and services they provide and the approximate number of employees.

TOP EMPLOYERS
(as of June 30, 2023)

Company Name	Industry	Employment Range
Loudoun County Public Schools	Educational Services	10,000 +
Loudoun County Government	Public Administration	2,500 - 4,999
U.S. Dept. of Homeland Security	Public Administration	2,500 - 4,999
Inova Health System	Health Care and Social Assistance	2,500 - 4,999
United Airlines	Transportation and Warehousing	2,500 - 4,999
Amazon	Transportation and Warehousing	1,000 - 2,499
Northrop Grumman	Manufacturing	1,000 - 2,499
Verizon	Information	1,000 - 2,499
RTX	Manufacturing	1,000 - 2,499
Walmart	Retail Trade	1,000 - 2,499
Air Serv Corp	Transportation and Warehousing	1,000 - 2,499
Loudoun Medical Group	Health Care and Social Assistance	1,000 - 2,499
Dynalectric Company	Construction	1,000 - 2,499
Gate Gourmet	Accommodation and Food Services	500 - 999
U.S. Department of Transportation	Transportation and Warehousing	500 - 999
Swissport	Transportation and Warehousing	500 - 999
Universal Protection Service	Administrative and Support and Waste Management and Remediation Services	500 - 999
Harris Teeter	Retail Trade	500 - 999
JE Richards	Construction	500 - 999
Wegmans	Retail Trade	500 - 999
Ashby Ponds	Health Care and Social Assistance	500 - 999
Costco Wholesale	Retail Trade	500 - 999
Rosendin Electric	Construction	500 - 999
Metro Washington Airports Authority	Transportation and Warehousing	500 - 999
The Home Depot	Retail Trade	500 - 999
Giant Food Store	Retail Trade	500 - 999
Meta	Professional, Scientific, and Technical Services	500 - 999
Target	Retail Trade	500 - 999
Howard Hughes Medical Institute	Professional, Scientific, and Technical Services	500 - 999
Town of Leesburg	Public Administration	500 - 999
JK Moving & Storage	Transportation and Warehousing	500 - 999

Source: Virginia Employment Commission, Quarterly Census of Employment and Wages, 2nd Quarter 2023 and Loudoun County Government. Analysis by Loudoun County Department of Economic Development.

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Taxable Retail Sales

The following table shows total County taxable retail sales for the calendar years indicated. Taxable sales exclude sales which are exempt under Section 58-441.6 of the Virginia Retail Sales and Use Tax Act, such as sales of alcoholic beverages in government stores; sales of certain motor vehicles, trailers and semi-trailers, mobile homes and travel trailers; and sales of certain motor vehicle fuels. The decline in 2020 resulted from stay-at-home orders at the start of the COVID-19 pandemic and a transition to online sales, which while taxable under the local sales and use tax are not classified as "retail" sales by the Virginia Department of Taxation.

TAXABLE RETAIL SALES

Calendar Year	Taxable Retail Sales	Percentage Change
2013	$4,858,737,333	(3.6)%
2014	4,986,977,605	2.6
2015	5,335,423,939	7.0
2016	5,564,634,638	4.3
2017	5,567,354,606	2.4
2018	5,870,605,647	3.0
2019	5,987,195,189	2.0
2020	5,674,901,801	(5.2)
2021	6,389,283,771	12.6
2022	7,110,765,954	11.3
2023	7,427,000,825	4.4

Average Annual Change in Retail Sales, 2013-2023: 3.71%

Source: Virginia Department of Taxation, April 2024.

Population and Income

According to the County's most recent estimates, the County's 2024 population was 446,530. According to the 2020 Decennial Census, the County was the fourth most populous county/city in the Commonwealth of Virginia. The following table presents the population figures from 2014 through 2023.

POPULATION ESTIMATES AND RATES OF CHANGE

Year	Loudoun County (April 1)	Annual Rate of Change	United States (July 1)	Annual Rate of Change
2014	354,983	4.0%	318,301,008	0.7%
2015	368,654	3.9	320,635,163	0.7
2016	381,214	3.4	322,941,311	0.7
2017	392,376	2.9	324,985,539	0.6
2018	402,575	2.6	326,687,501	0.5
2019	413,000	2.6	328,239,523	0.5
2020	420,959	1.9	331,526,933	1.0
2021	427,706	1.6	332,048,977	0.2
2022	434,326	1.5	333,271,411	0.4
2023	440,071	1.3	334,914,895	0.5

Sources: Loudoun County population, Years 2014-2019, 2021-2023: Loudoun County Office of Management and Budget; Loudoun County population, Year 2020: U.S. Census Bureau 2020 Decennial Census Table P-1. United States population Years 2014-2019 US Census Bureau Population Division Table 1: Monthly Population Estimates for the United States, NA-EST2019-01; Years 2020-2023 Monthly Population Estimates for the United States, NA-EST2023-POP. Estimates are subject to revision as new data becomes available.

The median household income data shown is in nominal or current dollars, meaning it is not inflation adjusted. The County's median household income is consistently higher than that of the Washington MSA, the Commonwealth of Virginia and the United States. The County's median household income has ranked highest in the nation since 2007 among counties with populations above 65,000 according to the U.S. Census Bureau's American Community Survey one-year estimates.

MEDIAN HOUSEHOLD INCOME (Nominal Dollars)

Location	2018	2019	2020	2021	2022
Loudoun County	$136,268	$142,299	$147,111	$156,821	$170,463
Washington MSA	100,732	103,751	106,415	111,252	119,803
Virginia	71,564	74,222	76,398	80,615	87,249
United States	60,293	62,843	64,994	69,021	75,149

Sources: U.S. Department of Commerce, Bureau of the Census, 2018 to 2022 American Community Survey One Year Estimates.

New Residential Construction

The following table shows residential housing permits issued by the County from 2014 to 2023. From 2014 to 2018, there was a steady overall leveling of residential building permits. Permitting activity began to decline in 2019, however, and since the time of the COVID-19 pandemic permits for single-family detached units have decreased. Permits for single-family attached units have tended to follow this pattern but did see a notable increase of 41.5% in 2023, marking the largest year-over-year rise in over a decade. While this increase is notable, the level of single-family attached permits in 2023 was similar to 2020 and 2021. After spiking in 2022, multifamily attached unit permits dropped in 2023 to a level that was more consistent with the number of permits issued in years before 2022. In 2023, other than single-family attached units, permits were lower than in recent years. This reduction reflected downtime and permit backlogs that occurred during the County's transition to a new permitting system and also continuing interest rate hikes by the U.S. Federal Reserve.

RESIDENTIAL HOUSING UNIT BUILDING PERMITS ISSUED FOR NEW CONSTRUCTION

Calendar Year	Single-Family Detached	Percentage Change	Single-Family Attached	Percentage Change	Multi-Family	Percentage Change	Total	Percentage Change
2014	1,686	0.1%	1,160	(35.4)%	641	(51.4)%	3,487	(27.4)%
2015	1,465	(13.1)	1,165	0.4	952	48.5	3,582	2.7
2016	1,404	(4.2)	1,079	(7.4)	770	(19.1)	3,253	(9.2)
2017	1,414	0.7	959	(11.1)	1,121	45.6	3,494	7.4
2018	1,270	(10.2)	1,097	14.4	1,217	8.6	3,584	2.6
2019	1,116	(12.1)	962	(12.3)	845	(30.6)	2,923	(18.4)
2020	990	(11.3)	579	(39.8)	595	(29.6)	2,164	(26.0)
2021	980	(1.0)	485	(16.2)	640	7.6	2,105	(2.7)
2022	861	(12.1)	371	(23.5)	1,073	67.7	2,305	9.5
2023	662	(23.1)	525	41.5	649	(39.5)	1,836	(20.3)

Source: Loudoun County Department of Building and Development.
Compiled by: Loudoun County Department of Planning and Zoning, March 2024.

Tourism

The tourism industry makes a substantial contribution to the County and Virginia economies. Tourism spending in Loudoun County had increased by 4.4% in 2019 but declined by 52.1% in 2020 to $1.89 billion due to the impact of the COVID-19 pandemic according to the Virginia Tourism Corporation. In 2021, Loudoun's total direct visitor spending rebounded dramatically, increasing 61% from 2020, to $3.04 billion. Statewide data for 2021 showed that Loudoun contributed the most among any jurisdiction in Virginia (roughly 12% of the state total visitor spending). For 2022, statewide and Loudoun-specific direct visitor spending continued the recovery from the COVID-19 pandemic decline with statewide direct spending reaching $30.3 billion, slightly above 2019 pre-pandemic levels. Of this, $4.01 billion is attributable to Loudoun (13.2% of the statewide total). Statewide, total direct visitor spending jumped by 44% between 2020 and 2021 and by 20.3% between 2021 and 2022. Tourism in Loudoun supported 17,134 jobs and generated $988 million in wages locally in 2022, up from 13,533 jobs and $751 million in wages in 2021. Tourism, additionally, generated an aggregate total of $136 million in local tax receipts in 2022.

The table below shows the history of hotel room tax revenue generated by these accommodations. The annual revenue fluctuates from year-to-year reflecting variations in weather, occupancy rates, and room prices. Fiscal year 2020 revenue was approximately 25.4% lower than 2019 revenue because of the COVID-19 pandemic. Room demand plummeted as stay-at-home orders were issued. Many hotels closed or operated at a reduced capacity. In 2022 hotel rooms tax revenue began to rebound and stood at about 81% of the 2019 figure. This growth and rebound continued in 2023 with tax revenue exceeding pre-pandemic levels for the first time since 2019.

HOTEL ROOMS TAX REVENUE

Fiscal Year	Total Tax Revenue	Percentage Change
2013	$4,947,024	0.1%
2014	4,722,338	(4.5)
2015	5,699,308	20.7
2016	5,720,710	0.4
2017	6,092,608	6.5
2018	6,639,720	9.0
2019	6,493,249	(2.2)
2020	4,843,313	(25.4)
2021	2,727,380	(43.7)
2022	5,283,388	93.7
2023	7,082,011	34.0

Average Annual Change, 2013-2023:
8.05%

Source: Fiscal Year 2013-2023 Annual Comprehensive Financial Reports: Exhibit II - Statement of Activities and Schedule 3 – Combining Statement of Revenues, Expenditures, and Changes in Fund Balances, Non-Major Governmental Funds.

Health Care

Effective July 1, 2023, the County's Health Department became locally administered. The Health Department provides services that enhance and ensure the health of all Loudoun residents. The department has Community Health and Environmental Health programs which offer population-based services such as communicable disease surveillance and treatment, Lyme Disease mitigation initiatives in collaboration with the Lyme Disease Commission, and community-based health improvement efforts in collaboration with the Loudoun Health Commission. Other services include emergency and pandemic preparedness and response; the provision of birth and death certificates; and restaurant, swimming pool, private well, and septic system permitting and inspections to ensure environmental and public health protection. The department also provides essential individual-based services to women and children who would otherwise not receive medical, dental, or nutritional evaluation and care.

Agriculture

Agriculture continues to be one of the largest industries by land area in Loudoun County, with 1,332 farms and 110,133 acres farmed. The annual market value of Loudoun's agricultural product sold in 2022 was $50.2 million, according to the Census of Agriculture, which is conducted once every five years. The Census showed Loudoun was a top county in Virginia by several measures including the most horses and equine farms, the highest production of honey and cut flowers; and the second-highest acres of grape production, acres of Christmas tree production, and the total value of its agritourism. Agritourism continues to increase as businesses like orchards, Christmas tree farms, livestock farms and equestrian venues attract increasing numbers of customers from the Washington, D.C. metropolitan area and beyond. Loudoun's rural economic industry groups continue to explore ways to increase sales through farmers markets, online farm-to-consumer sales, and wine and beer-related industries.

Education

Available within the County are a wide variety of educational facilities including public elementary, middle and high schools; private and parochial schools; Northern Virginia Community College; along with universities including The George Washington University Virginia Campus, George Mason University Loudoun Campus, Shenandoah University Northern Virginia Campus, Strayer University, and Patrick Henry College. In terms of pupil enrollment, the County's public school system is the third largest county school system in the Commonwealth of Virginia.

Public Schools. The nine-member elected School Board exercises all the powers conferred and performs all the duties imposed upon them by the Constitution and laws of Virginia. Seats must be filled on the School Board by individuals who reside in the eight respective election districts of the County, while one member is elected at-large, and one clerk of the School Board is appointed. Each election term is for a period of four years.

The Superintendent of Schools is appointed by the School Board and is responsible for oversight and management of the Loudoun County Public School system. He is the administrative head and carries out the policies of the School Board. With the assistance of a Chief of Staff and six Assistant Superintendents, he coordinates the functions of the elementary and secondary education system.

The County school system offers a comprehensive education program. High school students seeking intensive college preparation in the sciences, engineering and related fields may participate in well-established advanced placement programs in Loudoun high schools, including the Academies of Loudoun, the County's specialized high school for science, technology, engineering, and mathematics education.

The following information provides data on long term growth patterns in primary and secondary public schools as well as the number and types of private and post-secondary education facilities. As a result of the COVID-19 pandemic, County school enrollment decreased by 2,671 (3.2%) between September 2019 and September 2020, as some students and parents have opted for homeschooling or changing to private school. Between September 2020 and September 2022, enrollment began to increase again, however, enrollment has not recovered to the pre-pandemic levels. As of September 2023, enrollment was 108 students less than September 2022, a decrease of 0.1%.

PUBLIC EDUCATION FACILITIES

<u>2023-2024 School Year</u>

61 Elementary Schools[1]
17 Middle Schools
18 High Schools
2 Instructional Centers

Source: Loudoun County Public Schools 2023-2024 Fact Sheet
[1] Includes two Charter Schools (K-5)

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ANNUAL STUDENT POPULATION - PUBLIC SCHOOLS

School Year	Number of Students	Percentage Change
2014-2015	73,461	3.7%
2015-2016	76,263	3.8
2016-2017	79,001	3.6
2017-2018	81,235	2.8
2018-2019	82,485	1.5
2019-2020	84,175	2.0
2020-2021	81,504	(3.2)
2021-2022	81,642	0.2
2022-2023	82,233	0.7
2023-2024*	82,125	(0.1)

Source: September 30 Enrollment, Loudoun County Public Schools.
* As of September 30, 2023, includes Preschool.

Private and Parochial Schools. There are three private and two parochial schools in the County. In addition to these schools, there are also two private special schools and many private preschools and kindergartens.

Higher Education. Northern Virginia Community College is a division of the Virginia Department of Community Colleges offering academic credit-bearing classes leading to two year occupational-technical degrees in agriculture, business, engineering, health and public service, and two-year programs in arts and sciences with credits transferable to four-year colleges. The Loudoun campus provides a variety of academic programs, workforce development classes, student activities, events and campus facilities.

The George Washington University, located in Washington, D.C., has its Virginia Science & Technology Campus in the County. Other universities and colleges in the region that have Loudoun campuses include George Mason University, Shenandoah University, Strayer University, and Patrick Henry College.

In addition, as a part of the Northern Virginia and Washington, D.C. metropolitan area, the County has easy access to additional higher education institutions. Colleges in the general metropolitan area include George Mason University located in Fairfax County and Virginia Polytechnic Institute and State University Extension located in Annandale. American University, Catholic University, Gallaudet College for the Deaf Community, Georgetown University, and Howard University are all located in Washington, D.C.

Transportation

The County is located in the western portion of the Washington, D.C. metropolitan area in Northern Virginia. The high growth commercial and industrial areas in the County are within a short driving time of the Capital Beltway (I-495) and major activity centers in Northern Virginia and Washington, D.C.

Roads. The Dulles Toll Road is a tolled roadway serving non-airport traffic traveling between State Route 28 in eastern Loudoun County and the Capital Beltway. Airport traffic is served by the limited access road section of the Dulles Toll Road, which leads directly to Dulles Airport. In November 2008, the Commonwealth of Virginia transferred ownership of the Dulles Toll Road to the Metropolitan Washington Airports Authority ("MWAA") in connection with the financial plan for the Dulles Metrorail Project (as defined below), which now extends the Metrorail system to Dulles Airport and beyond into the County.

The Dulles Toll Road ends at Route 28 where the Dulles Greenway begins. The Dulles Greenway is a privately-owned, 14-mile toll road that connects the Town of Leesburg and surrounding communities with the Dulles Toll Road. Loudoun commuters enjoy the Greenway's non-stop alternative to Routes 7 and 28. The Greenway also maximizes traffic flow by offering electronic toll collection through the Virginia Department of Transportation's Smart Tag System.

State Route 28 runs north-south through eastern Loudoun's commercial and industrial center and provides direct access to the Dulles Toll Road, Interstate 66 and Route 7. A public/private partnership (PPTA-Route 28) was established to address traffic flow issues on Route 28 in Loudoun and Fairfax counties with interchanges and widening several "Hot Spots" from six to eight lanes. These projects were completed in 2020.

Other major highways that serve Loudoun include the following: State Route 7 and U.S. Route 50 link the County to eastern and western jurisdictions, providing travelers easy access to Washington, D.C., Fairfax County, Arlington County and Alexandria to the east, and the Blue Ridge Mountains to the west and beyond. U.S. Route 15 passes through Loudoun's southernmost border, traveling north to the Maryland state line and beyond. Improvements for these corridors are included in the County's Capital Improvement Program.

Airports. Air transportation is provided by the Dulles Airport, located in the eastern portion of the County. Dulles Airport has experienced solid long-term growth and is one of the few international or East Coast airports with available land for future expansion. It serves as the base for a major hub for United Airlines and provides extensive international and domestic service. Passenger air traffic at Dulles Airport has rebounded from the COVID-19 pandemic, with 25.1 million passengers in 2023, compared to 24.8 million in 2019. The share of passenger traffic comprised of international travelers rose from a monthly average of 33.5 percent in 2019 to 36.8 percent in 2023. From 2022 to 2023, overall passenger traffic grew by 17.5 percent (21.4 million to 25.1 million). Cargo traffic remains below pre-pandemic levels, with 213,160 metric tonnes in 2023 compared to 273,314 metric tonnes in 2019. From 2022 to 2023, cargo traffic declined 5.7 percent (226,096 metric tonnes to 213,160 metric tonnes).

The County is also home to a municipal airport, the Leesburg Executive Airport at Godfrey Field, a designated reliever airport for Dulles Airport. The Leesburg airport includes a 5,500-foot runway, an instrument landing system commissioned in March 2011, precision approach path indicators, and an upgraded automated weather observing system completed in 2012. Operated by the Town of Leesburg, the airport delivers comprehensive services without the congestion, expense and delays common to larger airports. Increasingly, it is used by corporations that need to house their private aircraft nearby.

Transit. In March 2009, MWAA began construction on a two phase, 11 station, 23-mile extension of the existing Metrorail system, from East Falls Church to Dulles Airport and then west to Ashburn (the "Dulles Metrorail Project"). Revenue-generating service for the first phase of the Dulles Metrorail Project ("Phase 1") began in July 2014, bringing transit service through Tyson's Corner to Reston in Fairfax County. Revenue service for the second phase of the Dulles Metrorail Project ("Phase 2") commenced in November 2022, which extended the Metrorail system another 11.6 miles to and beyond the Dulles Airport into the County, including new stations within the County at Route 606 and Route 772. A portion of the Phase 2 costs were funded using revenues collected from a special improvements tax levied, assessed, and collected not less frequently than annually on taxable real estate located within the Metrorail Service District (discussed below).

On December 5, 2012, the Board of Supervisors enacted three Loudoun County Metrorail Service Districts, established for the purpose of generating special district taxes and providing funding for a portion of the Dulles Metrorail Project. The Metrorail Service District funds construction and debt service, while the Loudoun Gateway (Route 606) – Airport Station Service District and the Ashburn (Route 772) Station District will fund future on-going operations and maintenance cost of the Metrorail service. The Metrorail Service District currently has a $0.20 levy; the other districts do not have an active levy at this time.

Pursuant to a letter agreement with the USDOT, dated December 9, 2014, the County committed to deliver three commuter parking garages to support the Metrorail system. Through an agreement with Comstock, a private developer, the Ashburn North Parking Garage was constructed and is managed at no cost to the County. The Ashburn South and Loudoun Gateway garages were constructed by the County and turned over to the County's Department of General Services for maintenance and operation.

Transportation-Related Revenues. During the 2013 Virginia General Assembly legislative session, HB 2313 was enacted. It established three revenue sources dedicated to transportation and transit for Northern Virginia and designated the Northern Virginia Transportation Authority ("NVTA") as the organization responsible for managing these revenue sources. HB 2313 included an incremental increase of 0.7 percent to the State Sales Tax; an increase of 2 percent to the Transient Occupancy Tax; and an additional $0.15 congestion relief fee to the Grantor's Tax within the nine jurisdictions comprising the Northern Virginia Planning District. These revenues together made up the "local" 30%, or NVTA 30%, provided to each Northern Virginia locality. NVTA 30% revenue can only be spent on urban or secondary road construction, capital improvements that reduce congestion, other projects that have been approved in the regional transportation plan, or for public transportation.

The General Assembly altered this funding source by enacting legislation that required the grantor's tax (renamed a regional transportation improvement fee) and the regional transient occupancy tax revenues to be diverted to the Washington Metropolitan Area Transit Authority ("WMATA") to be used exclusively for payment of Metrorail capital expenses. This change began on July 1, 2018. At that time, the revenues consisted of approximately 20 percent of the regional tax revenue collected in Loudoun. As a result of the legislation, the regional transportation improvement fee and the regional transient occupancy tax revenues are no longer available to fund NVTA sponsored transportation projects, and localities do not have access to the 30-percent local share of these funds.

Truck registration fees were increased as part of the Interstate 81 Corridor Improvement Fund which began on July 1, 2019. A portion of the revenues generated by the collection of these fees are distributed to NVTA. In addition, a regional congestion relief fee of $0.10 was reinstituted effective May 1, 2021. Currently, truck registration fees, the reinstituted regional congestion relief fee, and the remaining 0.7 percent sales tax make up the funding for both local and regional NVTA allocations. Additionally, beginning in FY 2021, NVTA receives a $20 million annual transfer from the Northern Virginia Transportation District (a State Fund) to support both local and regional NVTA allocations.

Effective May 1, 2021, the regional transportation improvement fee was reduced to $0.10 and the transient occupancy tax was increased to three percent; these revenues remain dedicated to WMATA capital costs.

The remaining "regional" 70 percent (or NVTA 70%) of the proportional State Sales Tax revenue collected in each jurisdiction is retained by NVTA for regional transportation projects that are included in the regional transportation plan or mass transit capital projects that increase capacity. Regional transportation projects are prioritized and adopted by the NVTA Board annually with the intent that over time each jurisdiction will receive their proportional equivalent share of the benefits. In addition, the towns within each of the respective counties are to be provided the proportional share of the revenue collected within the town limits. NVTA revenue estimated in the County's FY 2025 capital budget includes $28.1 million from the 30% local funds and $36.7 million from NVTA 70% regional funds.

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APPENDIX E

CONTINUING DISCLOSURE AGREEMENT

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CONTINUING DISCLOSURE AGREEMENT

This Continuing Disclosure Agreement (the "Disclosure Agreement") is executed and delivered as of October 23, 2024 (the "Closing Date"), by the Loudoun County Sanitation Authority, d/b/a Loudoun Water (the "Authority") in connection with the issuance of its $70,935,000 Water and Sewer System Revenue Refunding Bonds, Series 2024 (the "Bonds") pursuant to the Master Indenture of Trust dated as of June 1, 1992, as previously amended and supplemented (the "Master Indenture"), and as further supplemented by a Nineteenth Supplemental Indenture of Trust dated as of October 1, 2024 (the "Supplemental Indenture" and, together with the Master Indenture, the "Indenture"), each between the Authority and U.S. Bank Trust Company, National Association, as successor trustee. The Authority has approved the distribution of the Bonds in a primary offering by the Participating Underwriters, as hereinafter defined, pursuant to the final Official Statement dated October 9, 2024 (the "Official Statement"). The offering of the Bonds is subject to Rule 15c2-12 adopted by the Securities and Exchange Commission (the "SEC") under the Securities Exchange Act of 1934, as amended (the "Rule").

In consideration of the foregoing and the agreements contained herein, the Authority hereby covenants and agrees as follows:

Section 1. Purpose of the Disclosure Agreement; Representations. This Disclosure Agreement is being executed and delivered by the Authority for the benefit of the holders of the Bonds and in order to assist the Participating Underwriters in complying with the Rule. The Authority acknowledges that it is undertaking primary responsibility for any reports, notices or disclosures that may be required under this Disclosure Agreement and that only the Authority is now a material obligated person with respect to the Bonds for purposes of the Rule. The Authority represents that, with the exception of the instances noted below in this Section 1, if any, it has not in the previous five years failed to be in compliance with any of its other undertakings pursuant to the Rule.

Section 2. Definitions. Capitalized terms used in this Disclosure Agreement and not defined elsewhere have the following meanings:

"Annual Financial Information" shall mean any Annual Financial Information of the Authority provided pursuant to, and as described in, Sections 3 and 4 of this Disclosure Agreement.

"Dissemination Agent" shall mean the Authority, acting in its capacity as Dissemination Agent hereunder, or any successor Dissemination Agent designated by the Authority. Notwithstanding anything contained in this definition, the Dissemination Agent shall not be required to have any agency relationship with the Authority for purposes of state law and may be any type of intermediary.

"EMMA" means the MSRB's Electronic Municipal Market Access system, the internet address of which is http://emma.msrb.org/, and any successor thereto.

"Event Notice" shall mean any notice relating to an event listed in Section 5 of this Disclosure Agreement.

"Financial Obligation" means a (i) debt obligation; (ii) derivative instrument entered into in connection with, or pledged as security or a source of payment for, an existing or planned debt obligation; or (iii) a guarantee of (i) or (ii). The term Financial Obligation does not include municipal securities as to which a final official statement has been otherwise provided to the MSRB under the Rule.

"Fiscal Year" shall mean the twelve-month period, at the end of which the financial position of the Authority and results of its operations for such period are determined. Currently, the Authority's Fiscal Year begins January 1 and ends December 31 of each year.

"MSRB" means the Municipal Securities Rulemaking Board, which as of the date of this Disclosure Agreement (i) can be contacted at 1900 Duke Street, Suite 600, Alexandria, Virginia 22314, Telephone (703) 797-6600, Fax (703) 683-1930, www.msrb.org and (ii) receives and publishes continuing disclosure information from municipal debt issuers such as the Authority on EMMA.

"Participating Underwriter" shall mean any of the original underwriter(s) of the Bonds required to comply with the Rule in connection with the offering of such Bonds.

Section 3. Description of Annual Financial Information; Audited Financial Statements. Annual Financial Information required to be filed under this Disclosure Agreement shall include or incorporate by reference, at a minimum, the following financial information or operating data:

(a) the financial statements of the Authority (i) prepared annually in accordance with generally accepted accounting principles for governmental units as prescribed by the Governmental Accounting Standards Board, as in effect from time to time; and (ii) audited by an independent certified public accountant or firm of such accountants in accordance with applicable generally accepted auditing standards, as in effect from time to time; and

(b) updates of the financial information and operating data substantially of the type described in Exhibit A, any of which may be included in the financial statements described in (a) above.

Any or all of the items listed above may be incorporated by reference from other documents, including official statements, debt issues or other documents of the Authority, Loudoun County, Virginia, or the Commonwealth of Virginia, that have been filed with the MSRB or the SEC. If the document incorporated by reference is a final official statement, it must be available from the MSRB. The Authority shall clearly identify each such other document incorporated by reference in its filings with the MSRB.

Section 4. Obligations to File Annual Financial Information.

(a) Not later than 10 months following the end of each Fiscal Year of the Authority, commencing with the Fiscal Year ending December 31, 2024, the Authority shall, or shall cause the Dissemination Agent (if different than the Authority) to, provide to the MSRB the Annual Financial Information described in Section 3 of this Disclosure Agreement. In each case, the Annual Financial Information (i) may be submitted as a single document or as separate documents comprising a package, and (ii) may cross-reference other information as provided in Section 3 of this Disclosure Agreement.

(b) If the Authority fails to provide Annual Financial Information to the MSRB by the date required in subsection (a) hereof, the Authority shall send in a timely manner an appropriate notice to the MSRB in substantially the form attached hereto as Exhibit B.

Section 5. Event Notices. (a) The Authority will provide, or cause the Dissemination Agent (if different than the Authority) to provide, notice of the occurrence of any of the following events (each, an "Event Notice") with respect to the Bonds in a timely manner not in excess of ten business days after the occurrence of the event, and in accordance with the Rule:

(i) Principal and interest payment delinquencies;

(ii) Non-payment related defaults, if material;

(iii) Unscheduled draws on debt service reserves reflecting financial difficulties;

(iv) Unscheduled draws on credit enhancements reflecting financial difficulties;

(v) Substitution of credit or liquidity providers, or their failure to perform;

(vi) Adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the Bonds, or other material events affecting the tax status of the Bonds;

(vii) Modifications to rights of security holders, if material;

(viii) Bond calls, if material, and tender offers;

(ix) Defeasances;

(x) Release, substitution, or sale of property securing repayment of the Bonds, if material;

(xi) Rating changes;

(xii) Bankruptcy, insolvency, receivership or similar event of the Authority;

(xiii) The consummation of a merger, consolidation, or acquisition involving the Authority or the sale of all or substantially all of the assets of the Authority, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material;

(xiv) Appointment of a successor or additional trustee or the change of name of a trustee, if material;

(xv) 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 Authority, any of which affect security holders, if material; and

(xvi) Default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a Financial Obligation of the Authority, any of which reflect financial difficulties.

provided that nothing in this Section 5 shall require the Authority to provide or maintain any debt service reserve, credit enhancement or credit or liquidity facility with respect to the Bonds or to pledge any property as security for repayment of the Bonds.

(b) The Authority does not undertake pursuant to this Section to provide an Event Notice with respect to a mandatory, scheduled redemption, not otherwise contingent upon the occurrence of an event, if (i) the terms, dates and amounts of redemption are set forth in the Official Statement, (ii) the only open issue is which Bonds will be redeemed in the case of a partial redemption, (iii) notice of redemption is given to the bondholders under the terms of the Indenture, and (iv) public notice of the redemption is given pursuant to 1934 Act Release No. 23856 of the SEC, even if the originally scheduled amounts may be reduced by prior optional redemption or Bond purchases.

Section 6. Termination of Reporting Obligation. The obligations of the Authority under this Disclosure Agreement shall terminate upon the earlier to occur of the legal defeasance or payment in full of the Bonds.

Section 7. Dissemination Agent. The Authority may, from time to time, appoint a Dissemination Agent to assist it in carrying out its obligations under this Disclosure Agreement and may discharge any such Agent, with or without appointing a successor Dissemination Agent. Any such successor Dissemination Agent will be deemed to be appointed pursuant to this Disclosure Agreement. If at any time there is not any other designated Dissemination Agent, the Authority shall be the Dissemination Agent.

Section 8. Amendment. Notwithstanding any other provision of this Disclosure Agreement, the Authority may amend this Disclosure Agreement provided that such amendment complies with the terms of the Rule as then in effect and the Authority provides a copy of such amendment to the MSRB.

Section 9. Additional Information. Nothing in this Disclosure Agreement shall be deemed to prevent the Authority from disseminating any other information, using the means of dissemination set forth in this Disclosure Agreement or any other means of communication, or including any other information in any Annual Financial Information or Event Notice, in addition to that which is required by this Disclosure Agreement. If the Authority chooses to include any such additional information in any Annual Financial Information or Event Notice, the Authority shall have no obligation under this Disclosure Agreement to update such information or to include it in any future Annual Financial Information or Event Notice.

Section 10. Default. Any person referred to in Section 11 (other than the Authority) may take such action as may be permitted by law to secure compliance by the Authority with its obligations under this Disclosure Agreement or to challenge the adequacy of any information provided under this Disclosure Agreement. A default under this Disclosure Agreement shall not be deemed an Event of Default under the Indenture or any other document pursuant to which the Bonds are issued, and the sole remedy under this Disclosure Agreement in the event of any failure of the Authority to comply with this Disclosure Agreement shall be an action to compel performance. Notwithstanding the foregoing, nothing in this Section shall be deemed to restrict the rights or remedies of any holder of the Bonds under the Securities Exchange Act of 1934, the rules and regulations promulgated thereunder, or other applicable laws.

Section 11. Beneficiaries. This Disclosure Agreement shall inure solely to the benefit of the Authority, the Participating Underwriters, and holders from time to time of the Bonds, and shall create no rights in any other person or entity.

Section 12. Format of Disclosure. Any Annual Financial Information or Event Notice provided to the MSRB pursuant to Sections 4 and 5 shall be accompanied by identifying information as prescribed by the MSRB.

[Signature Page Follows]

IN WITNESS WHEREOF, the undersigned officer of the Loudoun County Sanitation Authority, d/b/a Loudoun Water has executed this Continuing Disclosure Agreement as of the Closing Date.

LOUDOUN COUNTY SANITATION AUTHORITY, D/B/A LOUDOUN WATER

By: ______________________________
Name: Brian Carnes
Title: General Manager

[Signature Page to Continuing Disclosure Agreement]

EXHIBIT A

INFORMATION INCLUDED IN ANNUAL FINANCIAL INFORMATION

For the preceding Fiscal Year:

(a) Updates of the following information concerning the System: volume of water sold, volume of wastewater discharged to the System, volume of wastewater treated, 10 largest customers and their combined water and wastewater charges, and number of water and wastewater connections.

(b) The average service charges for water and wastewater service and average availability charges, both for residential customers.

(c) A list of operating results information that includes income, expenses, depreciation/amortization, net income and coverage of senior and combined senior and subordinate debt service.

EXHIBIT B

NOTICE OF FAILURE TO FILE ANNUAL FINANCIAL INFORMATION
LOUDOUN COUNTY SANITATION AUTHORITY, D/B/A LOUDOUN WATER

in connection with

Water and Sewer System Revenue Refunding Bonds,
Series 2024

Dated: ____________

NOTICE IS HEREBY GIVEN that the LOUDOUN COUNTY SANITATION AUTHORITY, D/B/A Loudoun Water (the "Authority") has not filed Annual Financial Information as required by Section 4 of the Continuing Disclosure Agreement entered into in connection with the above-referenced Bonds. Such late filing consists of __________________________. [The Authority anticipates that such information will be filed by ____________________________.] Or [Such information has been filed as of _____________________.]

Dated: __________________

LOUDOUN COUNTY SANITATION AUTHORITY, D/B/A LOUDOUN WATER

By:_________________________________

Its:_________________________________

APPENDIX F

PROPOSED FORM OF BOND COUNSEL OPINION LETTER

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Set forth below is the proposed form of the opinion of McGuireWoods LLP, Bond Counsel. It is preliminary and subject to change prior to the delivery of the Series 2024 Bonds.

[Letterhead of McGuireWoods LLP]

October 23, 2024

Loudoun County Sanitation Authority
Ashburn, Virginia

Loudoun County Sanitation Authority (Virginia)
$70,935,000
Water and Sewer System Revenue Refunding Bonds,
Series 2024

Ladies and Gentlemen:

We have served as Bond Counsel to the Loudoun County Sanitation Authority, d/b/a Loudoun Water (the "Authority") in connection with the issuance and sale by the Authority of the above-referenced bonds (the "Series 2024 Bonds"), dated the date hereof. The Authority is issuing the Series 2024 Bonds pursuant to (i) the Virginia Water and Waste Authorities Act, Chapter 51, Title 15.2, Code of Virginia of 1950, as amended (the "Act"), (ii) a resolution adopted by the Board of Directors of the Authority on September 12, 2024 (the "Resolution"), and (iii) a Master Indenture of Trust dated as of June 1, 1992, as previously supplemented and amended (the "Master Indenture"), as further supplemented by a Nineteenth Supplemental Indenture of Trust dated as of October 1, 2024 (the "Supplemental Indenture" and, together with the Master Indenture, the "Indenture"), between the Authority and U.S. Bank National Assocation, as successor trustee (the "Trustee").

In connection with this opinion letter, we have examined (i) the Constitution of Virginia, (ii) the applicable laws of (A) the Commonwealth of Virginia (the "Commonwealth"), including without limitation the Act, and (B) the United States of America, including without limitation the Internal Revenue Code of 1986, as amended (the "Code") and (iii) copies of proceedings and other documents relating to the issuance and sale of the Series 2024 Bonds by the Authority as we have deemed necessary to render this opinion letter.

As to questions of fact material to our opinion, we have relied upon (i) representations of the Authority, including, without limitation, representations as to the use of proceeds of the Series 2024 Bonds, (ii) certifications of public officials furnished to us and (iii) certifications and representations contained in certificates of the Authority and others delivered at closing, without undertaking to verify them by independent investigation. In addition, without undertaking to verify the same by independent investigation, we have relied on computations provided to us by Davenport & Company LLC, Richmond, Virginia, financial advisor to the Authority, the mathematical accuracy of which was verified by The Arbitrage Group, Inc., relating to the yield on investments in the escrow fund established with a portion of the proceeds of the Series 2024 Bonds and the yield on the Series 2024 Bonds.

We have assumed that all signatures on documents, certificates and instruments examined by us are genuine, all documents, certificates and instruments submitted to us as originals are authentic, and all documents, certificates and instruments submitted to us as copies conform to the originals. In addition, we have assumed that all documents, certificates and instruments relating to this transaction have been duly authorized, executed, and delivered by all parties to them other than the Authority, and we have further assumed the due organization, existence, and powers of all parties other than the Authority.

Based on the foregoing, in our opinion, under current law:

1. The Authority is duly created and validly existing as a public body politic and corporate of the Commonwealth under the Act, vested with all the rights and powers conferred by the Act, with the power to enter into the Indenture; to perform its obligations thereunder; to issue the Series 2024 Bonds; and to apply the proceeds from the issuance and sale of the Series 2024 Bonds as set forth in the Supplemental Indenture.

2. The Series 2024 Bonds have been duly authorized and issued in accordance with the Act, the Resolution, and the Indenture; are valid and binding limited obligations of the Authority, payable solely from the (i) the revenues, receipts and income derived from the ownership and operation of the Authority's water and sewer system after payment of the Authority's operating expenses (the "Net Revenues") and (ii) other property pledged for such purpose under the Indenture. The Series 2024 Bonds are secured on a parity with the bonds currently outstanding under the Indenture (the "Outstanding Bonds"), any additional bonds to be issued in the future under the Indenture ("Additional Bonds") and any parity indebtedness currently outstanding or incurred in the future under the Indenture (collectively, "Parity Indebtedness"). Neither the Commonwealth nor any of its political subdivisions, including the Authority and the County of Loudoun, Virginia (the "County"), is obligated to pay the principal of or premium, if any, or interest on the Series 2024 Bonds or other costs incident thereto except from the revenues, money or property of the Authority pledged for such purpose, and neither the faith and credit nor the taxing power of the Commonwealth or any county, city, town or other subdivision of the Commonwealth, including the County, is pledged to the payment of the principal of or premium, if any, or interest on the Series 2024 Bonds. The issuance of the Series 2024 Bonds does not directly, indirectly, or contingently obligate the Commonwealth or any county, city, town or other subdivision of the Commonwealth, including the County, to levy any taxes or to make any appropriation for the payment of the Series 2024 Bonds. The Authority has no taxing power.

3. The Supplemental Indenture has been duly authorized, executed, and delivered by the Authority and constitutes a valid and binding obligation of the Authority, enforceable against the Authority in accordance with its terms.

4. Interest on the Series 2024 Bonds, including any accrued "original issue discount" properly allocable to the owners of the Series 2024 Bonds, is excludable from gross income for purposes of federal income taxation under Section 103 of the Code and is not a specific item of tax preference for purposes of the federal alternative minimum tax (a "Specific Tax Preference Item"). The "original issue discount" on any of the Series 2024 Bonds is the excess of its stated redemption price at maturity over the initial offering price to the public at which price a substantial amount of the Series 2024 Bonds of the same maturity was sold. We express no opinion regarding other federal tax consequences arising with respect to the Series 2024 Bonds.

In providing the opinion set forth in the preceding paragraph, we are (i) relying upon and assuming the accuracy of certifications and representations of representatives of the Authority, the underwriters of the Series 2024 Bonds, and others as to facts material to the opinion, without undertaking to verify them by independent investigation and (ii) assuming continuing compliance with the Covenants, as hereinafter defined, by the Authority, so that interest on the Series 2024 Bonds will remain excludable from gross income for federal income tax purposes under Section 103 of the Code and not become a Specific Tax

Preference Item. The Code and the regulations promulgated thereunder contain a number of requirements that must be satisfied after the issuance of the Series 2024 Bonds in order for interest on the Series 2024 Bonds to be and remain excludable from gross income for purposes of federal income taxation under Section 103 of the Code. These requirements include, by way of example and not limitation, restrictions on the use, expenditure and investment of the proceeds of the Series 2024 Bonds and the use of the property financed or refinanced by the Series 2024 Bonds, limitations on the source of the payment of and the security for the Series 2024 Bonds, and the obligation to rebate certain excess earnings on the gross proceeds of the Series 2024 Bonds to the United States Treasury. The Indenture and the Authority's non-arbitrage certificate (the "Tax Certificate") contain covenants (the "Covenants") with which the Authority has agreed to comply. Failure by the Authority to comply with the Covenants could cause interest on the Series 2024 Bonds to become includable in gross income for federal income tax purposes retroactive to their date of issue. In the event of noncompliance with the Covenants, the available enforcement remedies may be limited by applicable provisions of law and, therefore, may not be adequate to prevent interest on the Series 2024 Bonds from becoming includable in gross income for federal income tax purposes.

We have no responsibility to monitor compliance with the Covenants after the date of issue of the Series 2024 Bonds.

Certain requirements and procedures contained, incorporated or referred to in the Indenture or the Tax Certificate, including the Covenants, may be changed, and certain actions may be taken or omitted under the circumstances and subject to the terms and conditions set forth in such document. We express no opinion concerning any effect on the excludability of interest on the Series 2024 Bonds from gross income for federal income tax purposes of any such subsequent change or action that may be made, taken or omitted upon the advice or approval of counsel other than this firm.

6. As provided in Section 15.2-5132 of the Act, the Series 2024 Bonds, their transfer and the income therefrom, including any profit made on their sale, are free from taxation within the Commonwealth. We express no opinion regarding (i) other tax consequences arising with respect to the Series 2024 Bonds under the laws of the Commonwealth or (ii) any consequences arising with respect to the Series 2024 Bonds under the tax laws of any state or local jurisdiction other than the Commonwealth.

Additional Bonds may be issued and Parity Indebtedness may be issued or incurred on more than one occasion hereafter under the conditions, limitations, and restrictions set forth in the Master Indenture and will be secured by a lien on the Net Revenues equally and ratably with the Series 2024 Bonds, the Outstanding Bonds, any Additional Bonds and any Parity Indebtedness issued or incurred in accordance with the Master Indenture.

The obligations of the Authority regarding the Series 2024 Bonds and the Indenture are subject to the provisions of applicable bankruptcy, insolvency, reorganization, moratorium, and similar laws, now or hereafter in effect, relating to or affecting the enforcement of creditors' rights generally. Such obligations are also subject to usual equitable principles, which may limit the specific enforcement of certain remedies but which do not affect the validity of the obligations.

Our services as Bond Counsel have been limited to rendering the foregoing opinion based on our review of such legal proceedings as we deem necessary to approve the validity of the Series 2024 Bonds and the income tax status of the interest on them. We express no opinion as to the accuracy or completeness of any information that may have been relied upon by any owner of the Series 2024 Bonds in making a decision to purchase the Series 2024 Bonds, including without limitation the Preliminary Official Statement of the Authority dated October 3, 2024, and the Official Statement of the Authority dated October 9, 2024. This opinion letter is given as of the date hereof, and we assume no obligation to revise or supplement this opinion letter to reflect any facts or circumstances that may hereafter come to our attention, or any changes in law that may hereafter occur.

Very truly yours,

[To be signed: McGuireWoods LLP]

APPENDIX G

BOOK-ENTRY ONLY SYSTEM

This page intentionally left blank.

Upon initial issuance, the Series 2024 Bonds will be available only in book-entry form, and will be available only in Authorized Denominations. DTC will act as securities depository for the Series 2024 Bonds. The Series 2024 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 each maturity of the Series 2024 Bonds, each in the aggregate principal amount of such 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 securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants"). DTC has 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 Series 2024 Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Series 2024 Bonds on DTC's records. The ownership interest of each actual purchaser of the Series 2024 Bonds (a "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 Series 2024 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 Series 2024 Bonds, except in the event that use of the book-entry system for the Series 2024 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 the Series 2024 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 Series 2024 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 the Series 2024 Bonds may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the Series 2024 Bonds, such as redemptions, tenders, defaults, and proposed amendments to the Bond Resolution. For example, Beneficial Owners of the Series 2024 Bonds may wish to ascertain that the nominee holding the Series 2024 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 Series 2024 Bonds within a maturity are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such maturity to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to the Series 2024 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 Authority as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the Series 2024 Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Principal and interest payments on the Series 2024 Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the Authority or the Paying Agent, on the 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 (or its nominee), the Paying Agent or the Authority, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of principal and interest to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Authority or the 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 Series 2024 Bonds at any time by giving reasonable notice to the Authority or the Paying Agent. Under such circumstances, in the event that a successor securities depository is not obtained, the Bond certificates are required to be printed and delivered.

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

The information contained herein concerning DTC and DTC's book-entry system has been obtained from sources that the Authority believes to be reliable, but the Authority and the Paying Agent take no responsibility for the accuracy thereof.

Neither the Authority nor the Paying Agent will have any responsibility or obligation to such Direct or Indirect Participants or the persons for whom they act as nominees with respect to the payments to the Direct Participants, the Indirect Participants or Beneficial Owners.

LOUDOUN WATER