

NEW ISSUE

RATINGS: See "RATINGS" herein

*In the opinion of Wyatt, Tarrant & Combs, LLP, Bond Counsel, (i) under the Internal Revenue Code as presently enacted and construed and subject to the conditions and limitations set forth herein under the caption "TAX TREATMENT," interest on the Series 2023C Bonds is excludable from gross income for Federal income tax purposes and (ii) the Series 2023C Bonds are exempt from ad valorem taxation, and the interest thereon is exempt from income taxation, by the Commonwealth of Kentucky and all of its political subdivisions and taxing authorities. See "TAX TREATMENT" herein.*

**\$351,975,000**  
**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**  
**SEWER AND DRAINAGE SYSTEM REVENUE BONDS, SERIES 2023C**



Dated: Date of Delivery

Due Date: See Inside Cover

Interest on the above captioned Bonds (herein the "Series 2023C Bonds") will be payable from the dated date, on each May 15 and November 15, commencing May 15, 2024. The Series 2023C Bonds mature on May 15 of the respective years shown on the inside cover.

The Series 2023C Bonds are being issued pursuant to the provisions of Chapter 76 of the Kentucky Revised Statutes (the "Act"), a Revenue Bond Resolution adopted by the District on December 7, 1992, as heretofore amended and as further amended and supplemented by the Thirty-Third Supplemental Sewer and Drainage System Revenue Bond Resolution adopted by the District on July 24, 2023 (collectively, the "Resolution"). The holders of the Series 2023C Bonds shall, on a parity with the holders of all other bonds outstanding under the Resolution (collectively, the "Bonds"), have a priority lien on and security interest in the revenues of the District derived from the operation of the District's sewer and drainage system (the "System"). The District reserves the right to issue additional bonds and refunding bonds on a parity with the outstanding Bonds, subject to satisfaction of the conditions set forth in the Resolution. See "SECURITY AND SOURCE OF PAYMENT FOR THE SERIES 2023C BONDS" herein.

The Series 2023C Bonds will be fully registered bonds in denominations of \$5,000 or any integral multiple thereof. The Series 2023C Bonds will be issuable under a book entry system, registered in the name of The Depository Trust Company ("DTC") or its nominee. There will be no distribution of the Series 2023C Bonds to the ultimate purchasers. See "Book-Entry System" and APPENDIX E herein. Principal and interest on the Series 2023C Bonds is payable at the designated office of The Bank of New York Mellon Trust Company, N.A., as Bond Registrar and Paying Agent (the "Paying Agent and Bond Registrar").

The Series 2023C Bonds are subject to optional redemption and mandatory sinking fund redemption prior to maturity as described herein.

The Series 2023C Bonds are special and limited revenue obligations of the District and do not constitute a debt, liability or general obligation of the District, the Commonwealth of Kentucky or any political subdivision or taxing authority thereof, including the Louisville/Jefferson County Metro Government or the County of Jefferson, Kentucky, within the meaning of the Constitution and laws of the Commonwealth of Kentucky. See "SECURITY AND SOURCE OF PAYMENT FOR THE SERIES 2023C BONDS" herein.

The Series 2023C Bonds are offered when, as and if issued, subject to the approving legal opinion of Wyatt, Tarrant & Combs, LLP, Bond Counsel, Louisville, Kentucky. Certain legal matters have been passed upon for the District by its General Counsel, Kellie S. Watson, Esq. The Series 2023C Bonds are expected to be available for delivery on or about October 26, 2023.

Dated: October 12, 2023

**\$351,975,000**  
**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**  
**SEWER AND DRAINAGE SYSTEM REVENUE BONDS, SERIES 2023C**

Dated: Date of Delivery

Due: May 15, as shown below

**Serial Bonds**

| <b><u>Due<br/>May 15</u></b> | <b><u>Principal<br/>Amount</u></b> | <b><u>Interest Rate</u></b> | <b><u>Yield</u></b> | <b><u>CUSIP<br/>546589<sup>†</sup></u></b> |
|------------------------------|------------------------------------|-----------------------------|---------------------|--|
| 2024                         | \$ 3,595,000                       | 5.00%                       | 3.65%               | X31  |
| 2025                         | 3,320,000                          | 5.00%                       | 3.60%               | X49  |
| 2026                         | 15,905,000                         | 5.00%                       | 3.52%               | X56  |
| 2028                         | 1,820,000                          | 5.00%                       | 3.44%               | X64  |
| 2029                         | 1,940,000                          | 5.00%                       | 3.46%               | X72  |
| 2030                         | 2,035,000                          | 5.00%                       | 3.47%               | X80  |
| 2031                         | 2,145,000                          | 5.00%                       | 3.50%               | X98  |
| 2032                         | 2,260,000                          | 5.00%                       | 3.51%               | Y22  |
| 2033                         | 2,405,000                          | 5.00%                       | 3.51%               | Y30  |
| 2034                         | 10,750,000                         | 5.00%                       | 3.58% <sup>c</sup>  | Y48  |
| 2035                         | 17,050,000                         | 5.00%                       | 3.68% <sup>c</sup>  | Y55  |
| 2036                         | 30,975,000                         | 5.00%                       | 3.79% <sup>c</sup>  | Y63  |
| 2037                         | 14,210,000                         | 5.00%                       | 3.89% <sup>c</sup>  | Y71  |
| 2038                         | 10,295,000                         | 5.00%                       | 4.04% <sup>c</sup>  | Y89  |
| 2039                         | 10,810,000                         | 5.00%                       | 4.09% <sup>c</sup>  | Y97  |
| 2040                         | 11,350,000                         | 5.00%                       | 4.12% <sup>c</sup>  | Z21  |
| 2041                         | 11,920,000                         | 5.00%                       | 4.19% <sup>c</sup>  | Z39  |
| 2042                         | 12,515,000                         | 5.00%                       | 4.25% <sup>c</sup>  | Z47  |
| 2043                         | 13,140,000                         | 5.00%                       | 4.29% <sup>c</sup>  | Z54  |
| 2044                         | 13,795,000                         | 5.00%                       | 4.33% <sup>c</sup>  | Z62  |
| 2045                         | 14,485,000                         | 5.00%                       | 4.45% <sup>c</sup>  | Z70  |
| 2046                         | 15,210,000                         | 5.00%                       | 4.50% <sup>c</sup>  | Z88  |
| 2047                         | 15,970,000                         | 5.00%                       | 4.54% <sup>c</sup>  | Z96  |
| 2048                         | 16,770,000                         | 5.00%                       | 4.60% <sup>c</sup>  | 2A9  |
| 2049                         | 17,610,000                         | 5.00%                       | 4.60% <sup>c</sup>  | 2B7  |

**Term Bonds**

\$37,905,000, 5.00% Term Bonds Due May 15, 2051, Yield 4.62%<sup>c</sup>, CUSIP 546589 2D3

\$41,790,000, 5.00% Term Bonds Due May 15, 2053, Yield 4.64%<sup>c</sup>, CUSIP 546589 2F8

<sup>c</sup> Yield to call date of November 15, 2033.

<sup>†</sup> CUSIP is a registered trademark of the American Bankers Association. CUSIP data herein is provided by Standard & Poor's, as manager of CUSIP Global Services, and is set forth herein for convenience of reference only and no representations are made as to the correctness of the CUSIP numbers shown above. The CUSIP numbers for some or all of the Series 2023C Bonds may be changed as a result of various actions occurring after the issuance of the Series 2023C Bonds, including, but not limited to, a refunding in whole or in part of the Series 2023C Bonds or the addition of secondary market portfolio insurance or other credit enhancement applicable to some or all of the Series 2023C Bonds.

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**

*Board Members*

Marita Willis, Chair  
Keith Jackson, Vice Chair  
Carmen Moreno-Rivera  
Gerald Joiner  
Jeff Mosley  
John Selent  
Ricky Mason

*Executive Director and Secretary-Treasurer*

James A. "Tony" Parrott

*Chief Financial Officer*

Brad Good

*Chief of Operations*

Brian Bingham

*Chief Engineer*

David Johnson

*General Counsel*

Kellie S. Watson, Esq.

**CERTIFIED PUBLIC ACCOUNTANTS**

Crowe LLP  
Louisville, Kentucky

**BOND COUNSEL**

Wyatt, Tarrant & Combs, LLP  
Louisville, Kentucky

**FINANCIAL ADVISOR**

PFM Financial Advisors LLC  
Arlington, Virginia

**PAYING AGENT AND BOND REGISTRAR**

The Bank of New York Mellon Trust Company, N.A

## REGARDING THIS OFFICIAL STATEMENT

The information set forth herein has been obtained from the Louisville and Jefferson County Metropolitan Sewer District (the “District”) and other sources that are believed to be reliable but is not guaranteed as to accuracy or completeness, and is not to be construed as a representation, by the Underwriter. The information and expressions of opinion contained herein are subject to change without notice, and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the affairs of the District or that the information or opinions or estimates contained herein are correct as of any date subsequent to the date hereof.

The Underwriter has provided the following sentence for inclusion in this Official Statement. The Underwriter has reviewed the information in this Official Statement in accordance with, and as a part of, its responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Underwriter does not guarantee the accuracy or completeness of such information.

This Official Statement contains statements which, to the extent they are not recitations of historical fact, constitute “forward-looking statements.” In this respect, the words “estimate,” “project,” “anticipate,” “expect,” “intend,” “believe” and similar expressions are intended to identify forward-looking statements.

No dealer, broker, salesman or other person has been authorized by the District or the Underwriter to give any information or to make any representations with respect to the Series 2023C Bonds offered hereby, other than those contained herein, and if given or made, such other information or representations must not be relied upon as having been authorized by any of the foregoing. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy, nor shall there be any sale of the Series 2023C Bonds by any person in any jurisdiction in which it is unlawful for such person to make such offer, solicitation or sale.

In connection with this offering, the Underwriter may over allot or effect transactions that stabilize or maintain the market price of the Series 2023C Bonds at a level above that which might otherwise prevail in the open market. Such stabilizing, if commenced, may be discontinued at any time.

In making an investment decision, investors must rely on their own examination of the District and the terms of the offering, including the merits and risks involved. The Series 2023C Bonds have not been recommended by any federal or state securities commission or regulatory authority. Furthermore, the foregoing authorities have not confirmed the accuracy or determined the adequacy of this Official Statement.

This Official Statement contains summaries believed to be accurate of certain documents, but reference is hereby made to the actual documents, which are incorporated by reference, and all such summaries are qualified in their entirety by this reference. This Official Statement does not constitute a contract between the District or the Underwriter and any of the purchasers or owners of the Series 2023C Bonds.

References herein to provisions of Kentucky law, whether codified in the Kentucky Revised Statutes (“KRS”) or uncodified, or of the Kentucky Constitution, are references to such provisions as they presently exist. Any of those provisions may from time to time be amended, repealed or supplemented.

As used in this Official Statement, “debt service” means principal of, premium, if any, and interest on the obligations referred to, and “Commonwealth” or “Kentucky” means the Commonwealth of Kentucky.

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**\$351,975,000**  
**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**  
**SEWER AND DRAINAGE SYSTEM REVENUE BONDS, SERIES 2023C**

**INTRODUCTION**

The purpose of this Official Statement, which includes the cover pages and appendices, is to provide certain information with respect to the issuance of the \$351,975,000 principal amount of Louisville and Jefferson County Metropolitan Sewer District Sewer and Drainage System Revenue Bonds, Series 2023C (herein the “Series 2023C Bonds”).

This introduction is not a summary of this Official Statement. It is only a brief description of and guide to, and is qualified by, more complete and detailed information contained in the entire Official Statement, including the cover pages and appendices hereto, and the documents summarized or described herein. A full review should be made of the entire Official Statement. The offering of the Series 2023C Bonds to potential investors is made only by means of the entire Official Statement.

Any capitalized terms not otherwise defined in this Official Statement shall have the meanings ascribed to them in “Appendix A - Definitions of Certain Terms and Summary of Provisions of the Resolution.”

**The District**

The Series 2023C Bonds are being issued by the Louisville and Jefferson County Metropolitan Sewer District (the “District”), a public body corporate and politic and a political subdivision of the Commonwealth of Kentucky.

The District was created pursuant to the Act in 1946 to provide adequate sewer and drainage facilities and services in and around the City of Louisville, Kentucky (the “City”) and within Jefferson County, Kentucky (the “County”). In 1987, the District became the sole local authority for providing flood control and storm water drainage services in a drainage service area which included the City of Louisville, many small incorporated areas of the County, and portions of the unincorporated areas of the County (the “Drainage Service Area”). Substantially all the governmental and corporate functions of the City and the County merged effective January 6, 2003 into a single consolidated local government known as Louisville/Jefferson County Metro Government. The consolidated local government replaced and superseded the governments of the City and the County. The City no longer exists as a separate legal entity.

## **Purpose of the Series 2023C Bonds**

The proceeds of the Series 2023C Bonds will be used: (i) to redeem on January 24, 2024 the District's outstanding Sewer and Drainage System Revenue Bonds, Series 2013B, maturing on May 15 of the years 2024 through 2026 (the "Refunded Series 2013B Bonds"); (ii) to pay at maturity the District's outstanding Sewer and Drainage System Revenue Refunding Taxable Bonds, Series 2020C, maturing on May 15 of the years 2024 through 2037 (the "Refunded Series 2020C Bonds"); (iii) to pay at maturity the District's outstanding Program Notes, Commercial Paper Series, maturing on January 24, 2024 (the "Refunded Program Notes"), issued as Senior Subordinated Debt under the General Bond Resolution and the 2023 Program Note Resolution adopted by the Board of the District on March 27, 2023 (as the same may hereafter be amended or supplemented in accordance with its terms and the terms of the General Bond Resolution, the "Program Note Resolution"); (iv) to pay or reimburse costs of construction and acquisition of capital improvements to the District's sewer and drainage system (the "System") pursuant to the District's "Capital Improvement Program" described herein (the "Capital Improvement Program" or "CIP"); (v) to deposit in the Reserve Account of the Bond Fund established under the General Bond Resolution the amount required, after giving effect to any surety bond, insurance policy, letter of credit, or other similar obligation deposited in the Reserve Account pursuant to the General Bond Resolution, such that the amount on deposit in the Reserve Account after such deposit shall be at least equal to the Debt Service Reserve Requirement; and (vi) to pay the costs of issuance of the Series 2023C Bonds. See "PLAN OF FINANCE" herein.

## **Security and Source of Payment for the Series 2023C Bonds**

Pursuant to the provisions of Chapter 76 of the Kentucky Revised Statutes (the "Act"), a Revenue Bond Resolution adopted by the District on December 7, 1992, as amended March 4, 1993, June 30, 1993, December 14, 1994, January 25, 1996, and February 24, 2003, and a Thirty-Third Supplemental Sewer and Drainage System Revenue Bond Resolution adopted by the District on July 24, 2023 (collectively, the "Resolution"), the District has pledged to the payment of the principal of, premium, if any, and interest on the Series 2023C Bonds as and when due and payable: (i) the proceeds of the Series 2023C Bonds, (ii) all Revenues, (iii) all amounts on deposit in the Funds and Accounts established under the Resolution, (iv) such other amounts as may be pledged from time to time by the District as security for the payment of bonds issued and outstanding under the Resolution (the "Bonds") and (v) all proceeds of the foregoing. The Series 2023C Bonds rank on a parity as to security and source of payment with all other Bonds which have been or may hereafter be issued under the Resolution.

THE SERIES 2023C BONDS DO NOT CONSTITUTE AN INDEBTEDNESS OF THE DISTRICT, THE COMMONWEALTH OF KENTUCKY OR ANY POLITICAL SUBDIVISION OR TAXING AUTHORITY THEREOF, INCLUDING THE LOUISVILLE/JEFFERSON COUNTY METRO GOVERNMENT AND THE COUNTY OF JEFFERSON, KENTUCKY, WITHIN THE MEANING OF THE CONSTITUTION OF THE COMMONWEALTH OF KENTUCKY. THE SERIES 2023C BONDS ARE PAYABLE SOLELY FROM THE REVENUES OF THE SYSTEM AND THE OTHER ASSETS AND REVENUES PLEDGED THEREFOR UNDER THE RESOLUTION. NEITHER THE FAITH AND CREDIT NOR THE TAXING POWER OF THE DISTRICT, THE COMMONWEALTH OF KENTUCKY, OR ANY POLITICAL SUBDIVISION OR TAXING AUTHORITY THEREOF, INCLUDING THE LOUISVILLE/JEFFERSON COUNTY METRO GOVERNMENT AND THE COUNTY OF JEFFERSON, KENTUCKY, IS PLEDGED TO THE PAYMENT OF THE PRINCIPAL OF, PREMIUM, IF ANY, AND INTEREST ON THE SERIES 2023C BONDS. THE DISTRICT HAS NO TAXING POWER.



## **Description of the Series 2023C Bonds**

**Redemption.** The Series 2023C Bonds are subject to optional redemption and mandatory sinking fund redemption prior to maturity as described herein.

**Denominations.** The Series 2023C Bonds will be issued in principal amounts of \$5,000 and integral multiples thereof.

**Book Entry.** The Series 2023C Bonds are issuable only as fully registered bonds, without coupons. The Series 2023C Bonds, when issued, will be registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York, which will act as securities depository for the Series 2023C Bonds. Purchasers will not receive certificates representing their ownership interest in the Series 2023C Bonds. So long as DTC or its nominee is the registered owner of the Series 2023C Bonds, payments of the principal of, redemption premium, if any, and interest due on the Series 2023C Bonds will be made directly to DTC. Principal of, redemption premium, if any, and interest on the Series 2023C Bonds will be paid directly to DTC by The Bank of New York Mellon Trust Company, N.A, as Paying Agent and Bond Registrar (the “Paying Agent and Bond Registrar”). See “BOOK-ENTRY SYSTEM” and “APPENDIX E - Book-Entry Only System” herein.

**Interest.** The Series 2023C Bonds will bear interest at the respective rates set forth on the inside cover page hereof, payable semiannually on May 15 and November 15, commencing May 15, 2024.

## **Tax Treatment**

In the opinion of Bond Counsel, under the Internal Revenue Code (the “Code”) as presently enacted and construed, interest, including original issue discount, if any, on the Series 2023C Bonds is excludible from gross income for Federal income tax purposes. In rendering this opinion, Bond Counsel has assumed continuing compliance with certain covenants designed to meet the requirements of Section 103 of the Code. Bond Counsel expresses no other opinion as to the federal tax consequences of purchasing, holding or disposing of the Series 2023C Bonds.

The Series 2023C Bonds are exempt from ad valorem taxation, and the interest thereon is exempt from income taxation, by the Commonwealth of Kentucky and all of its political subdivisions and taxing authorities.

The District has not designated the Series 2023C Bonds as “qualified tax exempt obligations” under Section 265 of the Code.

See Appendix D herein for the form of the opinion Bond Counsel proposes to deliver in connection with the Series 2023C Bonds.

## **Parties to the Issuance of the Series 2023C Bonds**

The Paying Agent and Bond Registrar for the Series 2023C Bonds is The Bank of New York Mellon Trust Company, N.A. Legal matters incidence to the issuance of the Series 2023C Bonds and with regard to the tax-exempt status of the interest thereon are subject to the approving legal opinion of Wyatt, Tarrant & Combs, LLP, Louisville, Kentucky, Bond Counsel. Certain legal matters will be passed upon for the District by its General Counsel, Kellie S. Watson, Esq. The financial advisor to the District with respect to the Series 2023C Bonds is PFM Financial Advisors LLC, Arlington, Virginia.

## **Authority for Issuance**

Authority for the issuance of the Series 2023C Bonds is provided by Chapter 76 of the Kentucky Revised Statutes (the “Act”) and the Resolution.

## **Offering and Delivery of the Series 2023C Bonds**

The Series 2023C Bonds are offered when, as and if issued by the District. The Series 2023C Bonds are expected to be delivered on or about October 26, 2023 in New York, New York through the Depository Trust Company (DTC).

## **Disclosure Information**

This Official Statement speaks only as of its date, and the information contained herein is subject to completion and change. This Official Statement and the continuing disclosure documents of the District are intended to be made available through one or more repositories. Copies of the basic documentation relating to the Series 2023C Bonds, including the Resolution and the bond form, are available from the District.

The District has deemed this Official Statement to be final for the purposes of Securities and Exchange Commission Rule 15c2-12, except for certain information herein which has been omitted in accordance with the Rule and will be provided in the final Official Statement.

## **Additional Information**

Additional information concerning this Official Statement, as well as copies of the basic documentation relating to the Series 2023C Bonds, is available from PFM Financial Advisors LLC, Financial Advisor to the District, 4350 N. Fairfax Drive, Suite 590, Arlington, VA 22203, Telephone (703) 741-0175.

Brief descriptions of the Series 2023C Bonds, the sources of payment and the security for the Series 2023C Bonds, the District, the System and the Resolution are included in this Official Statement. Certain information with respect to the District is included in the Appendices hereto. Capitalized terms not otherwise defined herein shall have the meanings assigned to them in the Resolution. All summaries herein of documents and agreements are qualified in their entirety by reference to such documents and agreements, copies of which are available at the office of the District.

This Official Statement is also available on the District’s investor relations website at [www.louisvillemsdbonds.com](http://www.louisvillemsdbonds.com). The District intends to post from time to time on its investor relations website preliminary and final official statements and other information that may be of interest to prospective purchasers and purchasers of the District’s bonds and notes, including information required or permitted to be posted on the Municipal Securities Rulemaking Board’s (“MSRB”) Electronic Municipal Market Access (“EMMA”) website at <https://emma.msrb.org>. The District does not, however, undertake to post on its investor relations website necessarily all the information it posts on EMMA or to regularly update any information on its investor relations website or to delete from its investor relations website any information that may no longer be current.

## THE SERIES 2023C BONDS

### General

The Series 2023C Bonds are to be issued only as fully registered Bonds without coupons in denominations of \$5,000 or any integral multiple thereof. The Series 2023C Bonds will be dated their date of delivery, will bear interest from that date, payable semiannually on May 15 and November 15 of each year, commencing May 15, 2024 (each an “Interest Payment Date”), and will mature on May 15 in the years and in the principal amounts set forth on the inside cover page of this Official Statement. Interest will be computed on the basis of a 360-day year consisting of twelve 30-day months.

The Series 2023C Bonds shall be payable at the designated office of the Paying Agent and Bond Registrar with respect to principal and premium, if any, in any coin or currency of the United States of America which at the time of payment is legal tender for the payment of public or private debts. Interest will be payable on May 15, 2024, and semiannually thereafter on May 15 and November 15 of each year, by check of the Paying Agent mailed to such registered owner who shall appear as of the close of business on the fifteenth day (or if such day shall not be a business day, the preceding business day) of the calendar month next preceding such interest payment date on the registration books of the District maintained by the Bond Registrar, or if the registered owner shall be the registered owner of Series 2023C Bonds in the aggregate principal amount of \$1,000,000 or more, by wire transfer, if the registered owner has requested payment in such manner at such wire address as shall have been furnished by the registered owner on or prior to the fifteenth day next preceding such Interest Payment Date (or if such date shall not be a business day, the preceding business day). The record dates for the May 15 and November 15 Interest Payment Dates shall be the preceding April 15 and October 15, respectively.

Each registered Series 2023C Bond shall be transferable only upon the books of the Bond Registrar, at the request of the registered owner thereof or by his authorized attorney upon surrender thereof together with an assignment satisfactory to the Bond Registrar duly executed by the registered owner or his duly authorized attorney. Upon the transfer of any such Series 2023C Bond, the District shall issue in the name of the transferee a new registered Series 2023C Bond of the same aggregate principal amount and maturity as the surrendered Series 2023C Bond. If any Series 2023C Bond is mutilated, lost, stolen or destroyed, the District will execute and deliver a new Series 2023C Bond in accordance with the Resolution.

### Redemption

***Optional Redemption.*** The Series 2023C Bonds maturing on and after May 15, 2034 are subject to optional redemption prior to their stated maturity, at the option of the District, from time to time in whole or in part on any date on or after November 15, 2033 (and, if less than all such Series 2023C Bonds of a maturity are called, the selection of the bonds to be redeemed shall be by lot in any customary manner of selection as designated by the Bond Registrar), at a redemption price equal to the principal amount being redeemed plus interest accrued thereon to the redemption date.

***Mandatory Sinking Fund Redemption.*** The Series 2023C Bonds maturing on May 15, 2051, are subject to mandatory sinking fund redemption on May 15 of the years, and at a redemption price equal to

the principal amount being redeemed plus interest accrued thereon to the redemption date, as set forth below:

| <u>Year</u> | <u>Principal Amount</u> |
|-------------|-------------------------|
| 2050        | \$18,490,000            |
| 2051        | 19,415,000*             |

The Series 2023C Bonds maturing on May 15, 2053, are subject to mandatory sinking fund redemption on May 15 of the years, and at a redemption price equal to the principal amount being redeemed plus interest accrued thereon to the redemption date, as set forth below:

| <u>Year</u> | <u>Principal Amount</u> |
|-------------|-------------------------|
| 2052        | \$20,385,000            |
| 2053        | 21,405,000*             |

\* maturity

***Selection of Series 2023C Bonds to be Redeemed.*** In the event of redemption of less than all the outstanding Series 2023C Bonds of the same maturity, the selection of Series 2023C Bonds for redemption shall be by lot in any customary manner of selection as designated by the Bond Registrar.

In determining the amount of any sinking fund installment due on any date specified above, there shall be deducted the principal amount of any Series 2023C Bonds to which such sinking fund installment applies, where such Series 2023C Bonds have been (1) redeemed or purchased on a date more than 60 days preceding the date on which such installment is due, from amounts accumulated in the Debt Service Account with respect to such sinking fund installment or (2) purchased during the period from 40 to 60 days prior to the due date of the installment, from any amount (exclusive of amounts deposited from proceeds of Series 2023C Bonds) in the Debt Service Account. In addition, upon the redemption or purchase of the Series 2023C Bonds for which sinking fund installments have been established, unless otherwise provided by the District, each such sinking fund installment thereafter to become due (other than that next due) shall be credited with an amount which bears the same relation to the sinking fund installment to be credited as the total principal amount of the Series 2023C Bonds purchased or redeemed bears to the total amount of sinking fund installments to be credited.

***Notice of Redemption.*** The Bond Registrar will give notice of redemption, identifying the Series 2023C Bonds (or portions thereof) to be redeemed, by mailing a copy of the redemption notice by first class mail not less than 30 days prior to the date fixed for redemption to the registered owner of each Series 2023C Bond (or portion thereof) to be redeemed at the address shown on the registration books maintained by the Bond Registrar. Failure to give such notice by mail to any registered owner of the Series 2023C Bonds or any defect therein shall not affect the validity of any proceedings for the redemption of the Series 2023C Bonds (or portions thereof). All Series 2023C Bonds (or portions thereof) so called for redemption will cease to bear interest from and after the specified redemption date, provided funds for their redemption are on deposit at the place of payment at that time.

### **Book-Entry System**

The Series 2023C Bonds initially will be issued solely in book entry form to be held in the book-entry only system maintained by DTC. So long as such book-entry system is used, only DTC will receive or have the right to receive physical delivery of Series 2023C Bonds and Beneficial Owners will not be or

be considered to be, and will not have any rights as, owners or holders of the Series 2023C Bonds under the Resolution. For additional information about DTC and the book-entry-only system see “APPENDIX E - Book-Entry Only System.”

THE INFORMATION IN THIS SECTION AND IN APPENDIX E CONCERNING DTC AND DTC’S BOOK-ENTRY SYSTEM HAS BEEN OBTAINED FROM SOURCES THAT THE DISTRICT BELIEVES TO BE RELIABLE, BUT THE DISTRICT TAKES NO RESPONSIBILITY FOR THE ACCURACY THEREOF.

### **Exchange and Transfer**

The registration of any Series 2023C Bond may be transferred only upon the books of the District kept by the Bond Registrar, by the owner thereof, in person or by the owner’s attorney duly authorized in writing, upon surrender of such Series 2023C Bond at the designated office of the Bond Registrar accompanied by a written instrument of transfer satisfactory to the Bond Registrar and duly executed by the owner or by the owner’s duly authorized attorney. Any Series 2023C Bond may be exchanged at the designated office of the Bond Registrar for a new Series 2023C Bond of any authorized denomination and of the same aggregate principal amount and maturity as the surrendered Series 2023C Bond. The Bond Registrar will not charge for any new bond issued upon any transfer or exchange, but may require the owner requesting such exchange to pay any tax, fee or other governmental charge required to be paid with respect to such exchange or transfer. Neither the District nor the Bond Registrar is required (a) to exchange or transfer any Bond during the period commencing on the fifteenth day of the month preceding an interest payment date and ending on such interest payment date, or during the period commencing fifteen days prior to the date of any selection of Series 2023C Bonds to be redeemed and ending on the day after the mailing of the notice of redemption, or (b) to transfer or exchange any Series 2023C Bond called for redemption.

### **Defeasance**

If the District pays or causes to be paid, or there is otherwise paid, to the owners of all outstanding Series 2023C Bonds of a particular maturity or particular Series 2023C Bonds within a maturity, the principal or redemption price, if applicable, and interest due or to become due thereon, at the times and in the manner stipulated therein and in the Resolution, such Series 2023C Bonds will cease to be entitled to any lien, benefit or security under the Resolution, and all covenants, agreements and obligations of the District to the owners of such Series 2023C Bonds will thereupon cease, terminate and become void and be discharged and satisfied.

Subject to the provisions of the Resolution, any outstanding Series 2023C Bonds will be deemed to have been paid within the meaning and with the effect expressed in the foregoing paragraph if (a) in the case of any Series 2023C Bonds to be redeemed on any date prior to their maturity, the District has instructed the Bond Registrar to mail a notice of redemption of such Series 2023C Bonds on said date, (b) there has been deposited with an escrow agent appointed for such purpose either money in an amount which will be sufficient, or Defeasance Obligations the principal of and the interest on which when due will provide money which, together with the money, if any deposited with the escrow agent at the same time, will be sufficient, to pay when due the principal or redemption price, if applicable, and interest due and to become due on such Series 2023C Bonds on or prior to the redemption date or maturity date thereof, as the case may be, and (c) in the event such Series 2023C Bonds are not by their terms subject to redemption within the next succeeding 60 days, the District has given the Bond Registrar instructions in writing to mail a notice to the owners of such Series 2023C Bonds that the deposit required by (b) above has been made with the escrow agent and that such Series 2023C Bonds are deemed to have been paid in accordance with the Resolution, and stating the maturity or redemption date upon which money is expected to be available for the payment of the principal or redemption price, if applicable, on such Series 2023C Bonds. For a

description of the types of Defeasance Obligations in which funds may be invested for purposes of clause (b) above, see “Appendix A- Definitions of Certain Terms and Summary of Provisions of the Resolution - Defeasance.”

### PLAN OF FINANCE

The Series 2023C Bonds are being issued, and the proceeds of the Series 2023C Bonds shall be used and applied, as follows:

(i) To refund the Refunded Series 2013B Bonds, proceeds of the Series 2023C Bonds shall be deposited in a special account for the defeasance and redemption on January 24, 2024 of the Refunded Series 2013B Bonds. The refunding of Refunded Series 2013B Bonds will achieve debt service savings to the District.

(ii) To refund the Refunded Series 2020C Bonds, proceeds of the Series 2023C Bonds shall be deposited in a special account for the payment at maturity of the Refunded Series 2020C Bonds. The refunding of the Refunded Series 2020C Bonds will achieve debt service savings to the District.

(iii) To refund the Refunded Program Notes, issued and outstanding as Senior Subordinated Debt, proceeds of the Series 2023C Bonds shall be deposited in a special account for the payment at maturity on January 24, 2024 of the Refunded Program Notes.

(iv) To pay or reimburse costs of construction and acquisition pursuant to the District’s CIP, proceeds of the Series 2023C Bonds, together with other funds contributed by the District, shall be deposited in a “Series 2023C Project Account” of the Construction and Acquisition Fund to be applied by the District in accordance with the CIP and to pay the costs of issuance of the Series 2023C Bonds.

(v) To increase the balance on deposit in the Reserve Account to the amount of the Debt Service Reserve Requirement, after giving effect to any surety bond, insurance policy, letter of credit or other similar obligation on deposit therein, a portion of the proceeds of the Series 2023C Bonds shall be deposited to the Reserve Account.

### SOURCES AND USES OF FUNDS

#### Series 2023C Bonds

| <u>Sources</u>                   |                                |
|----------------------------------|--------------------------------|
| Par Amount of Series 2023C Bonds | \$ 351,975,000.00              |
| Original Issue Premium           | 20,178,500.55                  |
| District Contribution            | <u>1,761,926.78</u>            |
| <b>TOTAL</b>                     | <b><u>\$373,915,427.33</u></b> |

| <u>Uses</u>                |                                |
|----------------------------|--------------------------------|
| Project Fund Deposit       | \$ 75,000,000.00               |
| Refunding Escrow Deposits  | 278,185,118.98                 |
| Deposit to Reserve Account | 19,437,195.88                  |
| Underwriter’s Discount     | 795,664.13                     |
| Costs of Issuance          | <u>497,448.34</u>              |
| <b>TOTAL</b>               | <b><u>\$373,915,427.33</u></b> |

# DEBT SERVICE REQUIREMENTS

| Combined System Debt Service |                    |                   |                                |                                  |                                 |                   |                                    |                   |                           |                   |                |
|------------------------------|--------------------|-------------------|--------------------------------|----------------------------------|---------------------------------|-------------------|------------------------------------|-------------------|---------------------------|-------------------|----------------|
| Series 2023C                 |                    |                   |                                |                                  |                                 |                   |                                    |                   |                           |                   |                |
| Fiscal                       |                    |                   |                                | Existing Senior                  | Existing Senior                 | Total Senior Lien |                                    |                   | Net Senior Lien           | Subordinated Debt | Total Net Debt |
| Year Ending                  | Bond Principal (A) | Bond Interest (B) | Total Debt Service C = (A + B) | Lien Principal <sup>(1)(2)</sup> | Lien Interest <sup>(1)(2)</sup> | Bond Debt Service | Direct Payments <sup>(3)</sup> (G) | Bond Debt Service | Service <sup>(4)(5)</sup> | Service           |                |
| June 30                      |                    |                   |                                | (D)                              | (E)                             | F = (C + D + E)   |                                    |                   | H = (F + G)               | (I)               | J = (H + I)    |
| 2024                         | \$ 3,595,000       | \$ 9,728,198      | \$ 13,323,198                  | \$ 48,349,597                    | \$ 87,615,725                   | \$ 149,288,520    | \$ (10,359,939)                    | \$ 138,928,581    | \$ 20,880,311             | \$ 159,808,891    |                |
| 2025                         | 3,320,000          | 17,419,000        | 20,739,000                     | 50,665,000                       | 85,220,532                      | 156,624,532       | (10,359,939)                       | 146,264,592       | 21,329,221                | 167,593,814       |                |
| 2026                         | 15,905,000         | 17,253,000        | 33,158,000                     | 38,630,000                       | 83,059,107                      | 154,847,107       | (10,359,939)                       | 144,487,167       | 21,358,108                | 165,845,275       |                |
| 2027                         | -                  | 16,457,750        | 16,457,750                     | 73,245,000                       | 81,610,951                      | 171,313,701       | (10,359,939)                       | 160,953,761       | 21,374,728                | 182,328,489       |                |
| 2028                         | 1,820,000          | 16,457,750        | 18,277,750                     | 70,005,000                       | 78,001,572                      | 166,284,322       | (9,637,955)                        | 156,646,367       | 21,368,962                | 178,015,329       |                |
| 2029                         | 1,940,000          | 16,366,750        | 18,306,750                     | 72,295,000                       | 75,827,630                      | 166,429,380       | (9,637,955)                        | 156,791,425       | 21,245,690                | 178,037,115       |                |
| 2030                         | 2,035,000          | 16,269,750        | 18,304,750                     | 53,583,716                       | 74,815,288                      | 146,703,755       | (9,637,955)                        | 137,065,800       | 21,199,619                | 158,265,418       |                |
| 2031                         | 2,145,000          | 16,168,000        | 18,313,000                     | 32,960,954                       | 74,304,885                      | 125,578,839       | (10,220,525)                       | 115,358,314       | 62,964,605                | 178,322,919       |                |
| 2032                         | 2,260,000          | 16,060,750        | 18,320,750                     | 33,854,163                       | 72,986,421                      | 125,161,334       | (10,220,525)                       | 114,940,809       | 63,014,248                | 177,955,057       |                |
| 2033                         | 2,405,000          | 15,947,750        | 18,352,750                     | 34,647,518                       | 71,647,463                      | 124,647,731       | (10,220,525)                       | 114,427,206       | 63,445,465                | 177,872,671       |                |
| 2034                         | 10,750,000         | 15,827,500        | 26,577,500                     | 96,247,024                       | 70,418,973                      | 193,243,497       | (10,220,525)                       | 183,022,972       | 3,269,448                 | 186,292,420       |                |
| 2035                         | 17,050,000         | 15,290,000        | 32,340,000                     | 79,625,684                       | 67,695,631                      | 179,661,315       | (10,220,525)                       | 169,440,790       | 3,191,819                 | 172,632,610       |                |
| 2036                         | 30,975,000         | 14,437,500        | 45,412,500                     | 73,250,503                       | 64,121,672                      | 182,784,675       | (10,220,525)                       | 172,564,150       | 2,536,499                 | 175,100,649       |                |
| 2037                         | 14,210,000         | 12,888,750        | 27,098,750                     | 105,294,482                      | 60,896,962                      | 193,290,195       | (10,220,525)                       | 183,069,670       | 2,343,204                 | 185,412,873       |                |
| 2038                         | 10,295,000         | 12,178,250        | 22,473,250                     | 114,088,627                      | 56,901,902                      | 193,463,780       | (10,220,525)                       | 183,243,255       | 2,147,308                 | 185,390,562       |                |
| 2039                         | 10,810,000         | 11,663,500        | 22,473,500                     | 118,306,942                      | 52,687,131                      | 193,467,573       | (10,220,525)                       | 183,247,048       | 2,144,708                 | 185,391,756       |                |
| 2040                         | 11,350,000         | 11,123,000        | 22,473,000                     | 122,619,430                      | 46,547,420                      | 191,639,850       | (8,393,859)                        | 183,245,990       | 2,144,708                 | 185,390,698       |                |
| 2041                         | 11,920,000         | 10,555,500        | 22,475,500                     | 127,104,095                      | 40,119,060                      | 189,698,655       | (6,453,125)                        | 183,245,530       | 2,111,524                 | 185,357,054       |                |
| 2042                         | 12,515,000         | 9,959,500         | 22,474,500                     | 131,929,942                      | 33,224,543                      | 187,628,985       | (4,383,859)                        | 183,245,126       | 1,996,256                 | 185,241,381       |                |
| 2043                         | 13,140,000         | 9,333,750         | 22,473,750                     | 136,941,975                      | 26,062,162                      | 185,477,887       | (2,233,875)                        | 183,244,012       | 1,177,145                 | 184,421,157       |                |
| 2044                         | 13,795,000         | 8,676,750         | 22,471,750                     | 113,650,198                      | 18,622,218                      | 154,744,167       | -                                  | 154,744,167       | -                         | 154,744,167       |                |
| 2045                         | 14,485,000         | 7,987,000         | 22,472,000                     | 117,268,616                      | 15,001,537                      | 154,742,153       | -                                  | 154,742,153       | -                         | 154,742,153       |                |
| 2046                         | 15,210,000         | 7,262,750         | 22,472,750                     | 120,967,234                      | 11,306,401                      | 154,746,385       | -                                  | 154,746,385       | -                         | 154,746,385       |                |
| 2047                         | 15,970,000         | 6,502,250         | 22,472,250                     | 87,436,056                       | 7,338,126                       | 117,246,432       | -                                  | 117,246,432       | -                         | 117,246,432       |                |
| 2048                         | 16,770,000         | 5,703,750         | 22,473,750                     | 55,185,087                       | 4,586,705                       | 82,245,542        | -                                  | 82,245,542        | -                         | 82,245,542        |                |
| 2049                         | 17,610,000         | 4,865,250         | 22,475,250                     | 17,535,332                       | 2,826,550                       | 42,837,132        | -                                  | 42,837,132        | -                         | 42,837,132        |                |
| 2050                         | 18,490,000         | 3,984,750         | 22,474,750                     | 17,834,796                       | 2,394,150                       | 42,703,697        | -                                  | 42,703,697        | -                         | 42,703,697        |                |
| 2051                         | 19,415,000         | 3,060,250         | 22,475,250                     | 11,587,485                       | 1,954,646                       | 36,017,380        | -                                  | 36,017,380        | -                         | 36,017,380        |                |
| 2052                         | 20,385,000         | 2,089,500         | 22,474,500                     | 9,743,403                        | 1,663,522                       | 33,881,425        | -                                  | 33,881,425        | -                         | 33,881,425        |                |
| 2053                         | 21,405,000         | 1,070,250         | 22,475,250                     | 6,903,556                        | 1,422,704                       | 30,801,510        | -                                  | 30,801,510        | -                         | 30,801,510        |                |
| 2054                         | -                  | -                 | -                              | 7,066,950                        | 1,259,089                       | 8,326,039         | -                                  | 8,326,039         | -                         | 8,326,039         |                |
| 2055                         | -                  | -                 | -                              | 7,234,590                        | 1,091,603                       | 8,326,192         | -                                  | 8,326,192         | -                         | 8,326,192         |                |
| 2056                         | -                  | -                 | -                              | 7,405,482                        | 920,143                         | 8,325,625         | -                                  | 8,325,625         | -                         | 8,325,625         |                |
| 2057                         | -                  | -                 | -                              | 7,580,633                        | 744,633                         | 8,325,265         | -                                  | 8,325,265         | -                         | 8,325,265         |                |
| 2058                         | -                  | -                 | -                              | 7,761,047                        | 564,972                         | 8,326,019         | -                                  | 8,326,019         | -                         | 8,326,019         |                |
| 2059                         | -                  | -                 | -                              | 7,944,733                        | 381,035                         | 8,325,768         | -                                  | 8,325,768         | -                         | 8,325,768         |                |
| 2060                         | -                  | -                 | -                              | 8,132,695                        | 192,745                         | 8,325,440         | -                                  | 8,325,440         | -                         | 8,325,440         |                |
|                              | \$351,975,000      | \$332,588,448     | \$684,563,448                  | \$2,224,882,546                  | \$1,376,035,808                 | \$4,285,481,803   | (\$183,803,067)                    | \$4,101,678,736   | \$361,243,575             | \$4,462,922,312   |                |

**Notes:**

- (1) Existing Senior Lien Principal and Interest includes the estimated amortization of the Series 2020B WIFIA Loan. MSD anticipates the first draw on the WIFIA Loan to occur in 2023 with the final draw occurring in November 2026. The draws on the loan are expected to total \$96,926,900, which is the stated par amount of the loan. The WIFIA Loan is not included in the Debt Service Reserve Calculation until the first draw occurs.
- (2) Existing Senior Lien Principal and Interest excludes debt service on the District's refunded 2013B and 2020C Bonds and incorporates cash contributions made by MSD to the transaction from the Debt Service Fund
- (3) Due to sequestration, the federal direct payments on the Louisville and Jefferson County Metropolitan Sewer District Sewer and Drainage System Revenue Bonds, Series 2009C Build America Bonds and Louisville and Jefferson County Metropolitan Sewer District Sewer and Drainage System Revenue Bonds, Series 2010A Build America Bonds are reduced by 5.7% through the end of the federal fiscal year 2030 (9/30/2030). Beyond this date, the federal direct payments are assumed at the original rate due on the outstanding Series 2009C BABs and 2010A BABs.
- (4) Includes planned amortization of outstanding commercial paper associated with the swap agreements with Bank of America & Wells Fargo. Planned amortization of the outstanding commercial paper is subject to change by MSD. Interest on the outstanding commercial paper associated with the swap agreements is calculated at 4.4125%, which is the fixed rate on the swap agreements. Any commercial paper associated with capital spending that may be outstanding is not incorporated in this schedule as MSD expects to re-finance those obligations with permanent financing on a programmatic basis.
- (5) Subordinated debt service includes debt service on outstanding general obligation debt from aquired entities, payments on Kentucky Association of Counties lease, and debt service on Kentucky Infrastructure Authority loans. Some loans payments included are preliminary and subject to change based on the results of loan finalization.

## SECURITY AND SOURCE OF PAYMENT FOR THE SERIES 2023C BONDS

The Series 2023C Bonds will rank on a parity as to source of payment with Bonds previously issued and any Additional Bonds and Refunding Bonds which may be issued from time to time pursuant to the Resolution (collectively, the “Bonds”). The Bonds are secured by and payable solely from pledged revenues derived from the collection of rates, rents and charges for the services rendered by the System as set forth in the Resolution. The Bonds do not constitute an indebtedness of the Commonwealth of Kentucky, the Louisville/Jefferson County Metro Government or the County of Jefferson, Kentucky.

The District has heretofore issued its Sewer and Drainage System Revenue Bonds outstanding in the amounts shown below, each Series of which will rank on a parity as to security and source of payment with the Series 2023C Bonds.

**Senior Lien**  
As Of June 30, 2023  
(\$ in thousands)

| <u>Series</u> | <u>Final Payment<br/>In</u> | <u>Original Principal<br/>Amount</u> | <u>Principal Amount<br/>Outstanding</u> |
|---------------|-----------------------------|--------------------------------------|---|
| Series 2009C  | 2040                        | \$ 180,000                           | \$ 180,000                              |
| Series 2010A  | 2043                        | 330,000                              | 330,000                                 |
| Series 2013B  | 2038                        | 119,515                              | 107,515                                 |
| Series 2014A  | 2045                        | 80,000                               | 79,600                                  |
| Series 2015A  | 2046                        | 175,000                              | 170,845                                 |
| Series 2015B  | 2038                        | 81,750                               | 62,995                                  |
| Series 2016A  | 2047                        | 150,000                              | 146,540                                 |
| Series 2016B  | 2036                        | 28,315                               | 17,830                                  |
| Series 2017A  | 2048                        | 175,000                              | 143,280                                 |
| Series 2017B  | 2025                        | 35,725                               | 30,245                                  |
| Series 2018A  | 2038                        | 60,380                               | 60,380                                  |
| Series 2020A  | 2050                        | 225,000                              | 223,000                                 |
| Series 2020B* | 2060                        | 96,927                               | -                                       |
| Series 2020C  | 2044                        | 112,065                              | 108,415                                 |
| Series 2021A  | 2034                        | 246,555                              | 227,720                                 |
| Series 2022A  | 2052                        | 225,000                              | 224,250                                 |
| Series 2023A  | 2035                        | 49,745                               | 49,745                                  |
| Series 2023B  | 2036                        | <u>41,950</u>                        | <u>41,950</u>                           |
|               |                             | \$ 2,412,927                         | \$ 2,204,310                            |

\* As of June 30, 2023, no draws on the WIFIA loan have been made. MSD anticipates the first draw will occur in November 2023

Source: Louisville/Jefferson County Metropolitan Sewer District

Additionally, the District has the following Subordinate Lien debt outstanding:



**Subordinate Lien**  
As Of June 30, 2023  
(\$ in thousands)

| <u>Series</u>     | <u>Final Payment<br/>In</u> | <u>Original Principal<br/>Amount</u> | <u>Principal Amount<br/>Outstanding</u> |
|-------------------|-----------------------------|--------------------------------------|---|
| 2022 BAN          | 2023                        | \$ 226,340                           | \$ 226,340                              |
| Commercial Paper* |                             | 165,000                              | 165,000                                 |
| 2014 GO Bonds     | 2030                        | 3,750                                | 3,329                                   |
| 2017 GO Bonds     | 2035                        | 9,790                                | 6,565                                   |
| KACO              | 2031                        | 4,000                                | 1,700                                   |
| A09-41            | 2033                        | 2,395                                | 1,315                                   |
| A10-04            | 2033                        | 2,843                                | 1,563                                   |
| A10-05            | 2033                        | 1,000                                | 574                                     |
| A10-06            | 2033                        | 121                                  | 64                                      |
| A10-07            | 2034                        | 2,538                                | 1,458                                   |
| A11-15            | 2033                        | 671                                  | 369                                     |
| A12-29            | 2037                        | 6,500                                | 4,630                                   |
| A17-028**         | TBD                         | 7,400                                | 2,084                                   |
| A18-010           | 2040                        | 1,116                                | 996                                     |
| A19-015           | 2042                        | 2,695                                | 2,528                                   |
| A19-028           | 2042                        | 24,200                               | 23,705                                  |
| B10-01            | 2030                        | 500                                  | 210                                     |
| B10-04            | 2031                        | 500                                  | 236                                     |
| B15-006           | 2038                        | 87                                   | 66                                      |
|                   |                             | \$ 461,446                           | \$ 442,732                              |

\*\$35M in CP issued subsequent to 6/30/23

\*\*Loan is not fully drawn

Table does not include loans that have been approved but remain undrawn

Source: Louisville/Jefferson County Metropolitan Sewer District

**Pledged Property**

The Series 2023C Bonds are special and limited obligations of the District payable solely from and secured as to the payment of the principal and redemption price thereof, and interest thereon, in accordance with the terms and the provisions of the Resolution solely by the Pledged Property, which is defined by the Resolution to be the proceeds of the sale of the Series 2023C Bonds, all Revenues, all amounts on deposit in the Funds and Accounts established under the Resolution, such other amounts as may be pledged from time to time by the District as security for the payment of bonds, notes or other evidences of indebtedness authenticated and delivered pursuant to the Resolution, and all proceeds of the foregoing. The Series 2023C Bonds rank on a parity as to security and source of payment with Bonds previously issued and outstanding

under the Resolution and any Additional Bonds and Refunding Bonds (as such terms are defined in Appendix A) which may be issued from time to time pursuant to the Resolution.

### **Rate Covenant**

The District has covenanted pursuant to the Resolution to fix, establish, maintain and collect rates, fees, rents and charges for services of the System, which, together with other “Available Revenues” (as hereinafter defined) are expected to produce Available Revenues which will be at least sufficient for each Fiscal Year to pay the sum of:

- (i) an amount equal to 110% of the Aggregate Net Debt Service for such Fiscal Year;
- (ii) the amount, if any, to be paid during such Fiscal Year into the Reserve Account in the Bond Fund (other than amounts required to be paid into such Account out of the proceeds of Bonds);
- (iii) all Operating Expenses for such Fiscal Year as estimated in the Annual Budget;
- (iv) to the extent not included in the foregoing, an amount equal to the debt service on the Senior Subordinated Debt, any other Subordinated Debt or other debt of the District for such Fiscal Year computed as of the beginning of such Fiscal Year; and
- (v) amounts necessary to pay and discharge all charges or liens payable out of the Available Revenues when due and enforceable.

“Available Revenues”, as used only for purposes of the above rate covenant, means all revenues and other amounts received by the District and pledged as security for the payment of Bonds, but excludes any interest income which is capitalized pursuant to generally accepted accounting principles. “Operating Expenses” includes all reasonable, ordinary, usual or necessary current expenses of maintenance, repair and operation determined in accordance with generally accepted accounting principles and the enterprise basis of accounting. “Operating Expenses” does not include reserves for extraordinary maintenance or repair such as extraordinary maintenance, administrative and engineering expenses of the District which are necessary or incident to capital improvements for which debt has been issued and which may be paid from the proceeds of such debt. “Aggregate Net Debt Service” means Aggregate Debt Service, excluding (i) interest expense which, in accordance with generally accepted accounting principles, is capitalized and which may be paid from the proceeds of debt and (ii) other amounts, if any, available or expected to be available in the ordinary course for payment of Debt Service. The summary definitions above are not intended to be comprehensive or definitive, and reference is made to the Resolution and Appendix A for more detail. The definitions above are qualified in their entirety by reference to the Resolution. For a table illustrating computation of historical debt service coverage, using these terms as defined in the Resolution, see “Appendix B - Annual Comprehensive Financial Report of the District, Fiscal Years Ended June 30, 2022 - Comparative Schedule of Debt Service Coverage”.

### **Additional Bonds**

Additional Bonds may be issued on a parity with the Series 2023C Bonds to finance the Cost of Acquisition and Construction of Additional Facilities upon the satisfaction of certain conditions. Refunding Bonds may be issued to refund outstanding Bonds. The conditions for the issuance of Additional Bonds to finance the Acquisition and Construction of Additional Facilities include a certificate of an Authorized Officer of the District setting forth (i) for any period of 12 consecutive calendar months within the 24 calendar months preceding the date of the authentication and delivery, the Net Revenues for such period,

and (ii) the Aggregate Net Debt Service during the same period for which Net Revenues are computed, with respect to all Series of Bonds which were then Outstanding (excluding from Aggregate Net Debt Service any Principal Installment or portion thereof which was paid from sources other than Net Revenues), and showing that the amount set forth in (i) is equal to or greater than 110% of the amount set forth in (ii). The conditions for the issuance of Additional Bonds to finance the Acquisition and Construction of Additional Facilities also include a certificate of an Authorized Officer of the District setting forth (i) for the last full Fiscal Year of 12 months (ending June 30) immediately preceding the date of the authentication and delivery, the Net Revenues for such period, or, at the option of the District, for the last 12 consecutive full calendar months immediately preceding the date of the authentication and delivery, the Net Revenues for such period, and (ii) the estimated maximum Aggregate Net Debt Service in the current or any future Fiscal Year with respect to (a) all Series of Bonds which are then Outstanding and the Additional Bonds then proposed to be authenticated and delivered (and for this purpose all Series of Bonds Outstanding plus such proposed Additional Bonds shall be treated as a single Series; that is, the maximum Aggregate Net Debt Service shall be computed collectively with respect to all such Bonds, and not computed cumulatively or separately for each particular Series), and showing that the amount set forth in (i) is equal to or greater than 110% of the amount set forth in (ii). For purposes of computing the amount set forth in (i), Net Revenues may be increased to reflect the following amounts: (a) any increases in the rates, fees, rents and other charges for services of the System made subsequent to the commencement of such period and prior to the date of such certificate, (b) any estimated increases in Net Revenues caused by any Project or Projects having been placed into use and operation subsequent to the commencement of such period and prior to the date of such certificate, as if such Project or Projects had actually been placed into use and operation for the entire period chosen in (i) above, and (c) 75% of any estimated increases in Net Revenues which would have been derived from the operation of any Project or Projects with respect to which the Cost of Construction and Acquisition is to be paid from proceeds of the Additional Bonds proposed to be authenticated and delivered, as if such Project or Projects had actually been placed into use and operation for the entire period chosen in (i) above. For additional information relating to the conditions for the issuance of Additional Bonds, see "Appendix A - Definitions of Certain Terms and Summary of Provisions of the Resolution - Additional Bonds".

## **FUNDS AND ACCOUNTS**

The Resolution establishes the following Funds and Accounts which, other than the Bond Fund which is held by the Paying Agent, will be held by the District: (i) Construction and Acquisition Fund; (ii) Revenue Fund; (iii) Bond Fund, consisting of a Debt Service Account and a Reserve Account; (iv) Senior Subordinated Debt Fund; and (v) Renewal and Replacement Account.

### **Construction and Acquisition Fund**

The Resolution provides that the amounts, if any, required by the Resolution will be paid into the Construction and Acquisition Fund and, at the option of the District, any moneys received by the District from any source, unless required to be otherwise applied as provided by the Resolution, may also be paid into this Fund. Amounts in the Construction and Acquisition Fund will be applied to pay the Cost of Construction and Acquisition in the manner provided in the Resolution.

To the extent other moneys are not available therefor, amounts in the Construction and Acquisition Fund will be applied to the payment of Principal Installments of and interest on Bonds when due.

An adequate record of the completion of construction of a Project financed in whole or in part by the issuance of Bonds shall be maintained by an Authorized Officer of the District. The balance in the separate account in the Construction and Acquisition Fund established therefor shall then be transferred to the Reserve Account in the Bond Fund, if and to the extent necessary to make the amount of such Fund

equal to the Debt Service Reserve Requirement, and any excess amount shall be paid over or transferred to the District for deposit in the Revenue Fund. For additional information relating to the Construction and Acquisition Fund, see “Appendix A - Definitions of Certain Terms and Summary of Provisions of the Resolution - Construction and Acquisition Fund.”

### **Flow of Funds**

All Revenues shall be promptly deposited by the District upon receipt thereof into the Revenue Fund.

There shall be withdrawn in each month the following amounts, for deposit as set forth below and in the order of priority set forth below.

(i) To the Bond Fund, (a) for credit to the Debt Service Account, the amount, if any, required so that the balance in such Account shall equal the Accrued Aggregate Debt Service as of the last day of the then current month or, if interest or principal are required to be paid to Holders of Bonds during the next succeeding month on a day other than the first day of such month, Accrued Aggregate Debt Service as of the day through and including which such interest or principal is required to be paid and (b) for credit to the Reserve Account, the amount, if any, required for such Account, after giving effect to any surety bond, insurance policy, letter of credit or other similar obligation deposited in such Account pursuant to the Resolution, to equal one-twelfth (1/12) of the difference between (1) the amount then in the Reserve Account immediately preceding such deposit and (2) the actual Debt Service Reserve Requirement as of the last day of the then current month;

(ii) To the Senior Subordinated Debt Fund the amount, if any, required to pay scheduled base and additional rentals when due on the Senior Subordinated Debt and reserves therefor, in accordance with the resolution or other debt instrument authorizing the Senior Subordinated Debt;

(iii) Each month the District shall pay from the Revenue Fund such amounts as are necessary to meet Operating Expenses for such month; and

(iv) To the Renewal and Replacement Account, a sum equal to one-twelfth (1/12) of the amount, if any, provided in the Annual Budget to be deposited in the Renewal and Replacement Account during the then current Fiscal Year; provided that, if any such monthly allocation to the Renewal and Replacement Account shall be less than the required amount, the amount of the next succeeding monthly payment shall be increased by the amount of such deficiency.

The balance of moneys remaining in the Revenue Fund after the above required payments have been made may be used by the District for any lawful purpose relating to the System. The District has covenanted not to make any expenditures from Revenues prior to making the payments out of Revenues required to be made by the Resolution as provided above.

### **Reserve Account**

Amounts in the Reserve Account in the Bond Fund are to be applied to make up any deficiencies in the Debt Service Account in the Bond Fund. The Debt Service Reserve Requirement is defined in the Resolution as the least of (i) ten percent (10%) of the face amount of all Bonds issued under the Resolution, (ii) one hundred percent (100%) of the maximum Aggregate Net Debt Service (as of the computation date) in the current or any future Fiscal Year, and (iii) one hundred twenty-five percent (125%) of average Aggregate Net Debt Service (as of the computation date) in the current or any future Fiscal Year. For

Variable Interest Rate Bonds, the Debt Service Reserve Requirement shall be the maximum permitted amount with interest calculated at the lesser of the 30-year Revenue Bond Index (published by The Bond Buyer no more than two weeks prior to the date of sale of such Variable Interest Rate Bonds) or the Maximum Interest Rate. If any Variable Interest Rate Bond shall be converted to a fixed rate Bond for the remainder of the term thereof, any resulting deficiency in the Reserve Account shall be satisfied by an additional deposit or deposits into the Reserve Account so that the amount on deposit therein equals the Debt Service Reserve Requirement by the end of the Fiscal Year during which such conversion occurs.

The District's obligations to maintain the Debt Service Reserve Requirement may be satisfied by depositing therein a surety bond, insurance policy or letter of credit. See "Appendix A - Definitions of Certain Terms and Summary of Provisions of the Resolution - Bond Fund - Reserve Account" for further information regarding the Reserve Account. On June 26, 2019, MSD purchased a debt service reserve surety policy (the "Reserve Policy") from Build America Mutual Assurance Company with a maximum policy limit of \$75,000,000. The Reserve Policy terminates on May 15, 2048. Draws under the Reserve Policy may only be used to make payments of principal and interest on the Bonds. Cash and securities on deposit in the Reserve Account shall be transferred to the Debt Service Account for payment of debt service on the Bonds before any draw may be made on the Reserve Policy.

### **Senior Subordinated Debt Fund**

Amounts in the Senior Subordinated Debt Fund are to be applied to the payment of the amounts required to pay scheduled principal and interest when due on Senior Subordinated Debt and make deposits, if any, for reserves therefor. Amounts in the Senior Subordinated Debt Fund shall also be applied to make up any deficiencies in the Debt Service Account or the Reserve Account. See "Appendix A - Definitions of Certain Terms and Summary of Provisions of the Resolution - Senior Subordinated Debt Fund" for additional information regarding the Senior Subordinated Debt Fund.

### **Renewal and Replacement Account**

Moneys to the credit of the Renewal and Replacement Account may be applied to the cost of major replacements, repairs, renewals, maintenance, betterments, improvements, reconstruction or extensions of the System or any part thereof as may be determined by the Board. If at any time the moneys in the Debt Service Account, the Reserve Account and the Revenue Fund shall be insufficient to pay the interest and Principal Installments becoming due on the Bonds, then the District shall transfer from the Renewal and Replacement Account for deposit in the Debt Service Account the amount necessary (or all the moneys in said Fund if less than the amount necessary) to make up such deficiency. See "Appendix A - Definitions of Certain Terms and Summary of Provisions of the Resolution - Renewal and Replacement Account" for additional information regarding the Renewal and Replacement Account.

For additional information relating to the application of Revenues, see "Appendix A - Definitions of Certain Terms and Summary of Provisions of the Resolution."

### **Investment of Funds**

Moneys held in the Bond Fund, the Revenue Fund, the Senior Subordinated Debt Fund, the Renewal and Replacement Account, and the Construction and Acquisition Fund are required to be invested and reinvested to the fullest extent practicable in Investment Securities, maturing not later than such times as will be necessary to provide moneys when needed for payments to be made from such Fund or Account. The Fiduciaries shall make investments of moneys held by them in accordance with written instructions from time to time received from an Authorized Officer of the District. See "Appendix A - Definitions of

Certain Terms and Summary of Provisions of the Resolution - Investments” for additional information regarding the investment of funds.

## **SWAPS, SUBORDINATED DEBT, AND OTHER FINANCIAL INSTRUMENTS**

The District has entered into interest rate swap agreements with two counterparties as part of the management of its outstanding debt. Generally, each interest rate swap agreement calls for periodic net payments from or to the District depending upon whether a specified market interest rate index is above or below a specified fixed rate or another specified market interest rate index during that period. Each such swap agreement allows the District, at its option, to terminate the agreement at any time. Upon any such termination, a termination payment is to be made, calculated based on the mark-to-market value of the swap agreement plus dealer’s spread. The swap agreements provide that under certain circumstances the counterparty to the swap agreement (but not the District) may be required to post collateral, depending upon the credit rating of that counterparty, with the amount of collateral required based on the mark-to-market value of the swap. The interest rate swap agreements entered into by the District provide that the counterparties to the agreements must post collateral if their respective ratings fall below A+/A1. The agreements also provide the counterparties the right to terminate the agreements if the District’s unenhanced bond rating is downgraded below BBB/Baa. The District’s obligations under all of its outstanding swap agreements are unsecured and subordinate to all Bonds issued and outstanding under the Resolution. Certain provisions of the District’s outstanding swap agreements are summarized below.

The Resolution permits the District to issue Senior Subordinated Debt secured by Revenues of the System, subject to the prior and senior lien on such Revenues of all Bonds issued and outstanding under the Resolution. The decision of the District from time to time whether to issue Senior Subordinated Debt or Bonds depends, among other things, upon its assessment of market conditions at the time of issuance.

The District has issued Senior Subordinated Debt to provide interim financing for capital projects. Each series of Senior Subordinated Debt that has been issued has been retired from the proceeds of Bonds issued under the Resolution or from the proceeds of another series of Senior Subordinated Debt issued to refinance an earlier series of Senior Subordinated Debt.

The District has from time to time entered into agreements with various counterparties to provide for the investment of amounts in various funds established under the Resolution. Generally such agreements provide for the investment of funds at a contractually fixed rate of return to the District during their respective terms and provisions for termination, at the option of the District, based on payment of a termination fee determined based on the mark-to-market value of the contract plus dealer’s spread.

The District reserves the right to enter into, amend, and terminate any existing or future interest rate swap transactions or other agreements or derivative transactions, from time to time, as part of its overall debt, investment or general management strategy. See also “APPENDIX A - Definitions of Certain Terms and Summary of Provisions of the Resolution”.

### **Subordinated Revenue Bond Anticipation Notes**

On October 5, 2022, the District issued its Subordinated Revenue Bond Anticipation Notes, Series 2022 (the “Series 2022 Notes”) for the purpose of currently refunding the District’s outstanding Subordinated Revenue Bond Anticipation Notes, Series 2021. The Series 2022 Notes were issued in the original principal amount of \$226,340,000 and are currently outstanding in that same principal amount. The principal of and accrued interest on the Series 2022 Notes are payable at maturity on October 6, 2023. The Series 2022 Notes were issued in accordance with, among other things, (i) applicable provisions of Kentucky Revised Statutes Chapters 65, 58 and 76 and Section 56.513 and (ii) a Subordinated Debt

Resolution adopted by the District on April 26, 2010 (the “Basic Subordinated Debt Resolution”), as amended by a Subordinated Debt Sale Resolution adopted on August 22, 2022 (the “Series 2022 Subordinated Debt Resolution”).

The District intends to issue on October 4, 2023 \$219,195,000 principal amount of Commercial Paper Notes pursuant to the Program Note Resolution for the purpose, together with other available funds of the District, of paying at maturity the Series 2022 Notes.

### **Floating-to-Fixed Swap**

In 2001, the District entered into two forward-starting interest rate swaps (the “1999 Swaps”) pursuant to which beginning in November 2009 the District would pay a fixed rate of 4.4215% and receive 67% of the One Month LIBOR index on a notional amount corresponding to the approximate amount needed to refund the District’s Series 1999 Bonds. The District’s original strategy in entering into the 1999 Swaps was to “lock in” a fixed rate for the variable rate debt that could be issued in 2009 to refund the Series 1999 Bonds. In August 2009, the District decided instead to refund the Series 1999 Bonds with proceeds of its fixed-rate Series 2009B Bonds and its fixed-rate Series 2009A Notes. The Series 2009A Notes have since been refunded by successive series of refunding notes, the latest in such series of refunding notes being the Series 2022 Notes.

In August 2009, the District reversed that portion of the 1999 Swaps which corresponded in amount and amortization schedule to the portion of the Series 2009B Bonds used to refund the Series 1999 Bonds. The reversed portion of the 1999 Swaps was terminated in April 2013. The only portion of the 1999 Swaps that remains in effect is the non-reversed portion of the 1999 Swaps, which has a termination date of May 15, 2033 and amortizes in amounts that correspond with the expected maturity structure of a future hypothetical bond issue the District may issue under the Resolution to permanently refinance the Series 2022 Notes. The District’s expectation is that variable payments received under the non-reversed portion of the 1999 Swaps will hedge future interest rate movements for any fixed-rate Bonds hereafter issued under the Resolution (or any other fixed-rate renewal notes hereafter issued under the Subordinated Debt Resolution) to refinance the Series 2022 Notes. See “Note 7 – Long Term Debt” in “Appendix B - Annual Comprehensive Financial Report of the District, Fiscal Year Ended June 30, 2022”. As of August 31, 2023, the estimated aggregate mark-to-market value of the non-reversed portion of the 1999 Swaps was approximately *negative* \$24,261,176.

The District and its counterparties to the interest rate swaps described above have each adhered to the ISDA 2020 IBOR Fallbacks Protocol as published by the International Swaps and Derivatives Association.

### **Commercial Paper Program**

On March 27, 2023, the District adopted a resolution (the “Program Note Resolution”) authorizing the issuance of its Sewer and Drainage System Subordinated Program Notes (“Program Notes”), consisting of Commercial Paper Notes and Direct Purchase Notes, for the purpose of (i) financing the cost of improvements or additions to the System and (ii) refinancing outstanding Program Notes. Program Notes are issued as Senior Subordinated Debt of the District, secured, on a parity with any other outstanding or hereafter issued Senior Subordinated Debt of the District, by a subordinate and junior lien on the Revenues of the System, subject to the prior and senior lien on such Revenues of all Bonds issued and outstanding under the Bond Resolution, including the Series 2023C Bonds offered hereby. Program Notes (both Commercial Paper Notes and Direct Purchase Notes) may be issued in an aggregate principal amount not to exceed \$500,000,000 at any one time outstanding.

Commercial Paper Notes may be issued and sold, at public or private sale, as taxable or tax-exempt notes, maturing in 270 days or less (but in any event not later than June 18, 2026) as determined by the District, and bearing interest at a rate or rates determined by the District (not in excess of 12% per annum for taxable notes or 10% per annum for tax-exempt notes). Commercial Paper Notes are payable only from (i) proceeds of the sale of other Commercial Paper Notes issued under the Program Note Resolution and used to refund outstanding Commercial Paper Notes, (ii) the proceeds of Direct Purchase Notes or other loans from the Banks (as defined below) used to refund outstanding Commercial Paper Notes, and (iii) the proceeds of Bonds issued to pay outstanding Commercial Paper Notes.

Liquidity support for each subseries of Commercial Paper Notes issued under the Program Note Resolution is provided by Bank of America, N.A. or JPMorgan Chase Bank, National Association (each a “Bank” and collectively the “Banks”). As an alternative to the sale of Commercial Paper Notes to investors, the Program Note Resolution authorizes the District in its discretion to issue and sell to the Banks, as Senior Subordinated Debt of the District under the Program Note Resolution, Direct Purchase Notes, evidencing loans from the Banks to the District. Direct Purchase Notes shall mature (but not later than June 18, 2026) and bear interest as provided in the respective note purchase agreement between the District and each Bank and may be issued only as tax-exempt notes.

The District expects to issue Bonds from time to time under the Bond Resolution, such as the Series 2023C Bonds offered hereby, to retire any Program Notes (Commercial Paper Notes or Direct Purchase Notes) outstanding at maturity and not being refunded with other Program Notes.

As of the date hereof, there was issued and outstanding under the Program Note Resolution \$200,000,000 aggregate principal amount of Commercial Paper Notes with a term to maturity of not more than 28 days and an interest rate of not more than 3.8% per annum.

As described above, the District intends to issue on October 4, 2023 \$219,195,000 of Commercial Paper Notes pursuant to the Program Note Resolution for the purpose, together with other available funds of the District, of currently refunding the Series 2022 Notes.

## **THE DISTRICT**

### **General**

The District was created and established pursuant to the Act, as a public body corporate, in 1946, in the interest of the public health and for the purpose of providing adequate sewer and drainage facilities. The District had complete jurisdiction, control, possession, and supervision of the then existing sewer and drainage system in the City and the power and authority to operate, maintain, reconstruct, and improve such system and construct additions, betterments, and extensions thereto within the limits of the District area as defined in the Act. The District assumed jurisdiction over and administration of the then existing sewer and drainage system in the City on November 16, 1946, pursuant to Ordinance No. 90, Series 1946, passed by the Board of Aldermen of the City and approved by the Mayor thereof in accordance with the requirements of the Act.

### **Administration and Management of the District**

The business, activities, and affairs of the District are managed, controlled, and conducted by a board (the “Board”), composed of eight members, not more than five of whom shall be affiliated with the same political party. The members are appointed by the Mayor subject to the approval of the Council of the Louisville/Jefferson County Metro Government (“Metro Council”). All appointments to the Board are made



for three-year terms. The current members of the Board and the expiration dates of their respective terms are as follows.

| <u>Board Members</u>       | <u>Term Expires</u> |
|----------------------------|---------------------|
| Marita Willis (Chair)      | June 30, 2025       |
| Keith Jackson (Vice-Chair) | August 31, 2023     |
| Cameron Moreno-Rivera      | June 30, 2024       |
| Gerald Joiner              | February 28, 2024   |
| Jeff Mosley                | July 31, 2026       |
| John Selent                | July 31, 2024       |
| Ricky Mason                | July 31, 2024       |

The Board has delegated and placed the conduct of the day-to-day business affairs of the District under the direction of an Executive Director supported by administrative, engineering, legal and business staffs. Short biographies of key members of the District’s senior management team are set forth below:

*James A. Parrott, Executive Director and Secretary-Treasurer*

James A. “Tony” Parrott has served as the Executive Director of the District since July 2015, having been appointed to this role after 30 years in the public utility business, including 10 years in the top leadership role of the Metropolitan Sewer District of Greater Cincinnati. He holds a Communications Degree from Georgetown College and sits on the Board of Directors for the National Association of Clean Water Agencies. On December 19, 2022, the District’s employment agreement with Mr. Parrott to serve as Executive Director was extended through September 13, 2030.

*Brad Good, Chief Financial Officer*

Brad Good was employed by the District in 2016 as Controller and was promoted to Chief Financial Officer in 2020. His previous experience includes 15 years in various accounting and finance positions in the hotel industry. Mr. Good is a certified public accountant and has a Bachelor of Science degree in Animal Science from Kansas State University and a post-baccalaureate degree in accounting from Indiana University Southeast.

*Brian Bingham, Chief of Operations*

Brian Bingham joined the District in 2004 as the Regulatory Services Director to oversee the development and implementation of the Wet Weather Consent Decree. He assumed oversight of the District’s Operations Group, including Wastewater, Drainage, and Flood Protection, in 2013. His previous experience includes 20 years of engineering and program management in the private consulting engineering business. Mr. Bingham has a Bachelor of Science degree in Civil Engineering from the J. B. Speed School of Engineering at the University of Louisville.

*David Johnson, Chief Engineer*

David Johnson has been employed by the District for 22 years, all within the Engineering Division. He most recently served as the Development and Storm Water Services Director before being promoted to Chief Engineer in 2020. Mr. Johnson is a Licensed Professional Engineer in the Commonwealth of Kentucky and holds a Bachelor of Science and a Master of Engineering Degree from the J.B. Speed School of Engineering at the University of Louisville. On March 23, 2020, Mr. Johnson entered into an employment agreement with the District to serve as Chief Engineer through March 23, 2021, subject to automatic renewal for up to four additional one-year renewal periods.

*Kellie S. Watson, Esq., General Counsel and Legal Director*

Kellie Watson began at the District in May 2020 as the Equity and Compliance Officer, and was promoted to General Counsel and Legal Director in November 2022. Ms. Watson has over 20 years of experience in state and local government as the following: Chief Equity Officer, General Counsel and Legislative Liaison, and Director of Human Resources in the Office of the Mayor, Louisville/Jefferson County Metro Government; Executive Director for the Office of Civil Rights and Small Business and Director of Personnel Management for the Kentucky Transportation Cabinet; Executive Director of Louisville Metro Human Relations Commission; and Director of the Office of Affirmative Action for the City of Louisville. Prior to working in local government, Ms. Watson worked as a public defender for the Louisville-Jefferson County Public Defender's Office, and as an associate attorney in Cincinnati, Ohio with Peck, Shaffer, and Williams LLP. Ms. Watson has a Bachelor of Science degree in Political Science with concentration in Policy Analysis from the University of Louisville and a Juris Doctorate degree from Vanderbilt University, School of Law.

*Angela Akridge, Chief Strategy Officer*

Angela Akridge began working for the District as an engineering cooperative education intern and upon completion of her civil engineering bachelor's and master's degrees from the University of Louisville Speed Scientific School, she joined the District as a full-time employee. Since that time she has served the community through multiple leadership, management and technical positions throughout her 27+ years at the District. She was appointed MSD's Chief Engineer in 2015 and most recently appointed to the newly created position of Chief Strategy Officer for Business Transformation and Regulatory Compliance in 2019.

*Paul Bagley, Chief Information Officer*

Paul Bagley has been the Chief Information Officer of the District since April of 2021. His previous experience includes information technology leadership and technical positions in the software, airline, and utility industries. Mr. Bagley has over 20 years of experience in the field of information technology. He holds a bachelor's degree in Industrial Engineering from Georgia Tech.

*Lynne Fleming, Chief Human Resources Officer*

Lynne Fleming has been the District's Director of Human Resources since January 2012. She has over 18 years' experience in HR having previously served the City of Louisville and Louisville Metro Government as Assistant Director of Human Resources. Ms. Fleming is a licensed attorney. During her 8 years with the City of Louisville Law Department, Ms. Fleming focused her practice in the areas of labor and employment law and civil rights litigation. She was also a litigator in the adult trial division of the Louisville-Jefferson County Public Defender's Office for the first 8 years of her legal career. Ms. Fleming has a Bachelor of Arts degree in International Affairs with a Business Concentration from Xavier University and a Juris Doctor degree from the University of Louisville Brandeis School of Law.

*Sharise Horne, Chief of Equity & Community Partnerships*

Sharise Horne has served in various capacities at Louisville MSD for over 25 years. She currently serves as Chief of Equity and Community Partnerships, responsible for overseeing inclusive and comprehensive programs that foster partnerships, and job creation, with communities within MSD's service area. She also is responsible for leading MSD's Diversity, Equity, and Inclusion initiative. Ms. Horne holds two undergraduate degrees from Indiana Wesleyan University, both magna cum laude. She holds several professional certifications, including Certified Compliance Administrator from Morgan State University. Ms. Horne currently serves on Louisville Mayor's Equity in Contracting & Procurement Taskforce, and

Co-chairs the National Association of Clean Water Agencies Environmental Justice committee. She serves on various local and national taskforce, boards, and committees.

*René Patterson-Lindsay, Chief Procurement Officer*

René Patterson-Lindsay has been employed by the District since 1994 and was promoted to Chief Procurement Officer in 2018. During her tenure she has worked the last 24 years in Procurement and Supplier Diversity. Ms. Lindsay is a certified public procurement officer and has a Bachelor of Science degree in Business Administration from Spalding University.

*Kimberley Reed, Chief Innovation Officer*

Kimberley Reed has been the Chief Innovation Officer of the District since March of 2019. She previously worked for the Louisville Water Company in various leadership positions. She has had a diverse career of over 20 years in the electric, gas, water, and waste water utility industries. Ms. Reed has Bachelor of Science in Chemical Engineering and Master of Business Administration (MBA) degrees, both from the University of Louisville.

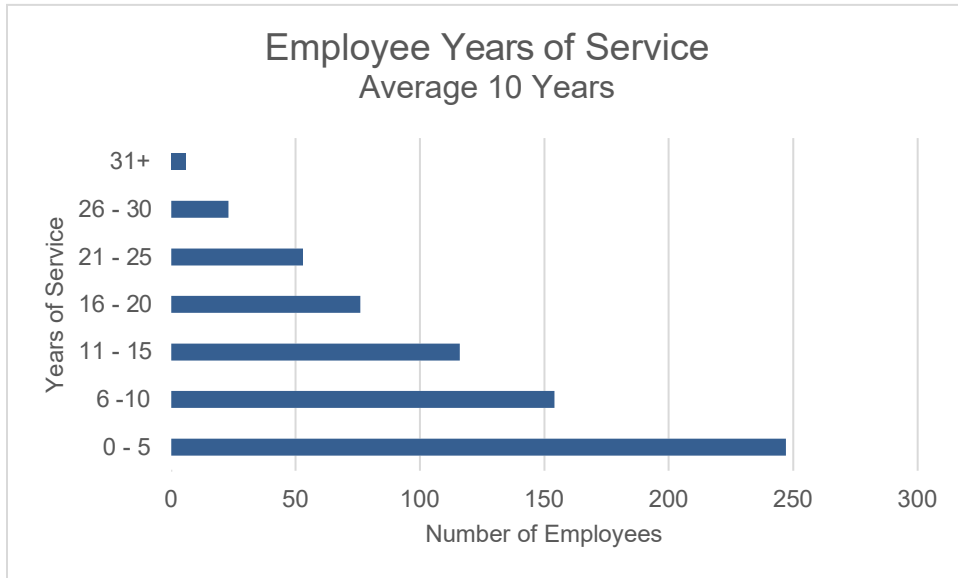
*Wesley Sydnor, Chief of Government & Public Affairs*

Wesley Sydnor, PE, is the Chief of Government and Public Affairs for Louisville MSD. Mr. Sydnor has been with Louisville MSD for over 14 years and has been active in the clean water sector for over 20 years. He has a Masters of Engineering and BS in Civil Engineering from the University of Louisville and serves on various professional association and environmental boards throughout the community. He currently leads the communications, regionalization, and legislative engagement for the District.

### **Employees and Labor Relations**

The total number of authorized employees of the District for Fiscal Year 2024 is 831. As of July 1, 2023, the district had 696 full-time employees. Of the District's employees, 343 are represented by two labor unions. The Laborers International Union of North America Local 576 operates under a collective bargaining agreement which became effective March 1, 2023 and expires February 28, 2028. The National Association of Government Employees Local 189 operates under a collective bargaining agreement which became effective February 19, 2022 and expires February 28, 2027.

The following table shows the total years of service of the District's employees.



**Retirement/Pension Plan**

All full-time and eligible part-time employees of the District participate in the County Employee Retirement System (CERS), a cost-sharing, multiple-employer defined benefit pension plan administered by the Kentucky Public Pension Authority (KPPA), an agency of the Commonwealth. The District is required to contribute an actuarially determined percentage of each eligible employee’s creditable compensation. Per the Kentucky Revised Statutes, contribution rates shall be determined by the KPPA Board based on an annual valuation as of the last preceding July 1 of a new biennium. For the fiscal year ended June 30, 2023, participating CERS employers contributed 26.79% (23.40 % allocated to pension and 3.39% allocated to other post-employment benefits) of each nonhazardous employee's creditable compensation. The District has met 100% of the contribution funding requirement for the fiscal year ended June 30, 2023. The District has an unfunded pension liability of \$132,407,406 and an unfunded other post-employment benefits liability of \$36,145,040 as of June 30, 2023.

**Risk Management & Insurance**

The District is exposed to various risks of loss related to torts, theft, damage, destruction of assets, natural disasters, and injuries to its employees. These risks are provided for through various insurance policies (including general liability, worker’s compensation, property, flood, crime, terrorism, public official’s liability, employment practices liability and cyber liability) which became effective July 1, 2023 and expire June 30, 2024.

**Risks from Unexpected Events**

*Climate Change Storm Risk*

One of the objectives of the District’s Facility Plan is to recognize and respond to the impact of changing weather patterns, including the increased frequency of extreme storms. Statistical data show an increase in the volume of rain in the District’s local service area as a result of more severe and intense storms. As part of the process of developing and adopting the Facility Plan, the District has taken into account this increased frequency of extreme storms, presumably related to the effects of global climate change, with an approach aimed at providing protection to properties and buildings from surface flooding across the entire county from a 10-year storm. The Facility Plan also provides guidance on reducing (but not eliminating) the risk associated with localized, unusual weather events. The Facility Plan thus takes into

account climate change as an issue affecting the resilience of the District's storm water treatment and drainage system and the effect on customer protection by focusing on the ability of the District's infrastructure to function effectively under different potential storm patterns. While the District is attempting to address climate change risks through its Facility Plan, the District cannot predict what effects these events may have on the District's ability to generate revenues but the effects may be materially adverse.

### *Cybersecurity*

The District is faced with a variety of cybersecurity risks on a daily basis ranging from individual hackers to coordinated attacks. The District employs the following processes to assess, identify and manage cybersecurity risk.

*Identification of Risk* – The District utilizes multiple sources to identify cybersecurity risks which include but are not limited to the following: monthly vulnerability scanning (e.g. Nessus), daily/weekly review of threat intelligence sources (e.g. CISA, MS-ISAC, Water-ISAC, etc.), external assessment of cybersecurity program every 3 years, annual assessment of cybersecurity program and vulnerability scan by cybersecurity insurance vendor, and weekly input from the District's cybersecurity managed service provider.

*Assessment of Risk* – The District leverages and references the NIST Risk Management Framework. The District's Information Technology (IT) department determines if controls are in place to address various risks. If no sufficient controls are in place, the team determines the potential business impact of each risk, the likelihood of risk occurrence, and the effort and cost to deploy controls. This information is used to determine if the District should accept the risk or develop plans to mitigate or avoid the risk.

*Management of Risk* – The District manages cybersecurity risk through multiple activities and programs which include but are not limited to monthly vulnerability scanning and mitigation, continuous security monitoring and anomaly detection, cybersecurity awareness and training program, robust patch management program, testing/verifying backup and recovery processes, reporting key cybersecurity metrics to steering committees, disaster response and incident response planning and exercises, and periodic review of key controls.

Management plays a role in assessing and managing material cybersecurity risks in a variety of ways.

*Information Security Steering Committee (ISSC)* – The ISSC consists of Directors and/or Chiefs from Legal, HR, Operations, Records, Internal Audit, and Information Technology. The ISSC meets monthly to review cybersecurity projects, metrics, risks, policy/procedures, and budget. The ISSC members use their expertise and background to help provide guidance and oversight to each of these topics.

*Information Technology Steering Committee (ITSC)* – The ITSC consists of the Executive Director (Chair) and Chiefs from Engineering, Finance, Operations, HR and Procurement. The ITSC meets monthly and receives information on cybersecurity metrics and risks. Additionally, the ITSC acts as an escalation point for the ISSC to provide guidance on cybersecurity risks, issues, or decisions that require Executive Director and Chief visibility.

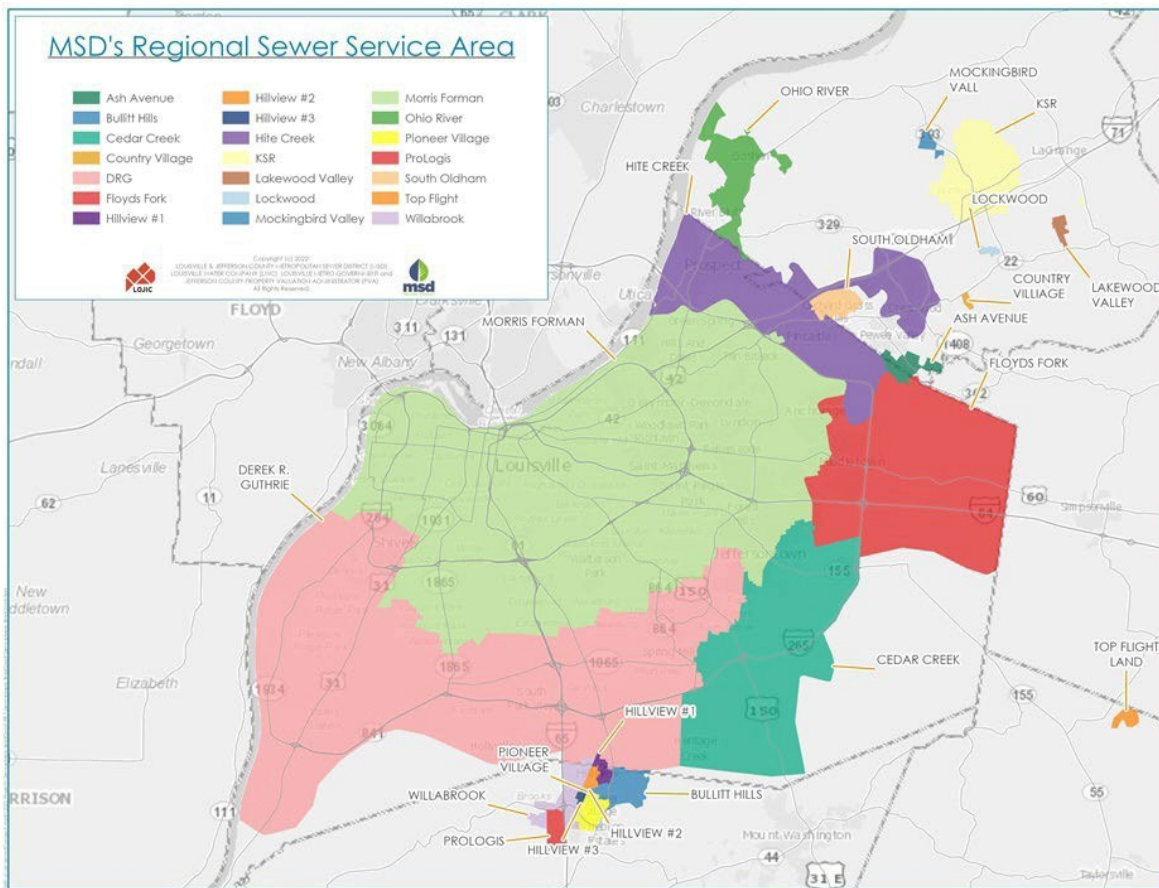
The District's Internal Audit department sponsors an external audit of the District's IT cybersecurity program every 3 years. The findings from this audit and IT's mitigation plans are shared with

the MSD Board Audit Committee. The IT department is required to report on the status of these mitigation plans to the Audit Committee until the findings are fully addressed.

The District reviews and updates the Information Security Policy and the Acceptable Use of Technology Policy every 3 years. Any updates to these Policies must be reviewed and approved by the MSD Board Audit Committee.

### The Sewer System

The District is authorized by KRS Chapter 76 to provide wastewater collection, treatment, and disposal services in Jefferson County. Through inter-local agreements, the District also provides wastewater collection, treatment, and disposal services to portions of Oldham County and Bullitt County. The District’s sewer system extends throughout much of the developed portions of Jefferson County and includes approximately 600 miles of combined sewers (which carry sanitary wastewater during dry weather and a combination of stormwater and sanitary wastewater during wet periods), 2,700 miles of sanitary sewers, more than 260 pumping stations, five regional Water Quality Treatment Centers, and an estimated 1,400 miles of lateral connections to buildings.



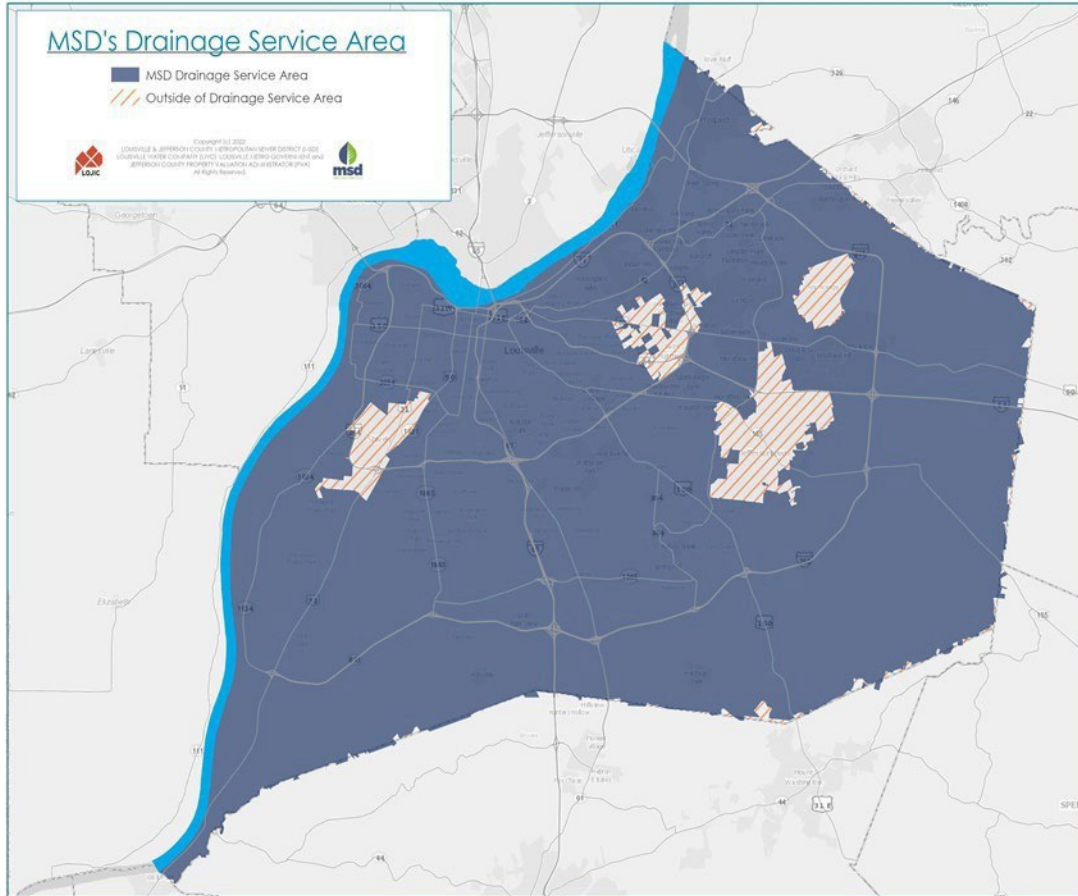
The District's wastewater treatment capacity as of June 30, 2023 was as follows:

| WASTEWATER TREATMENT PLANT CAPACITY |                  |                |                   |                |               |            |                |        |                          |
|-------------------------------------|------------------|----------------|-------------------|----------------|---------------|------------|----------------|--------|--------------------------|
| Plant                               | Current Capacity | Avg Daily Flow | Eventual Capacity | Customer Base  |               |            | Year Total     | Built  | Treatment Process        |
|                                     | MGD              | MGD            | MGD               | Residential    | Commercial    | Industrial |                |        |                          |
| Morris Forman                       | 120.0            | 100.3          | 120.0             | 119,567        | 13,552        | 301        | 133,420        | 1958   | Secondary added in 1976. |
| Derek R. Guthrie                    | 60.0             | 37.6           | 60.0              | 64,416         | 3,818         | 44         | 68,278         | 1986   | Secondary                |
| Cedar Creek                         | 7.5              | 6.9            | 11.3              | 19,331         | 1,101         | 14         | 20,446         | 1995   | Tertiary: sand filter    |
| Floyd's Fork                        | 6.5              | 3.8            | 9.8               | 10,818         | 588           | 5          | 11,411         | 2001   | Tertiary: sand filter    |
| Hite Creek                          | 9.0              | 4.3            | 9.0               | 10,959         | 683           | 9          | 11,651         | 1970   | Tertiary: sand filter    |
| Oldham County Plants                | 4.3              | 2.7            | 4.3               | 5,238          | 39            | 1          | 5,278          | Varies |                          |
| Bullitt County Plants               | 1.7              | 1.5            | 1.7               | 4,003          | 116           | 1          | 4,120          | Varies |                          |
| <b>Total Treatment System</b>       | <b>209.0</b>     | <b>157.1</b>   | <b>216.0</b>      | <b>234,332</b> | <b>19,897</b> | <b>375</b> | <b>250,484</b> |        |                          |

MGD: Million Gallons per Day  
Source: Louisville/Jefferson County Metropolitan Sewer District

### The Drainage System

Under an interlocal government cooperation agreement effective January 1, 1987, the District became the sole local authority for providing flood control and storm water drainage services in the Drainage Service Area. The District is responsible for the operation, maintenance, replacement, improvements and additions to existing flood control facilities and public storm water drainage facilities within the Drainage Service Area. The stormwater drainage system is comprised of various types of facilities to collect, convey, retain, and discharge stormwater runoff into the sewers, rivers, streams, and creeks eventually draining into the Ohio River. These facilities include open channels, ditches, streams, ponds, pipes, culverts, conduits, bridge structures, detention basins, retention basins, pump stations, and other facilities. By having a single authority responsible for drainage services and a dedicated source of revenue, the community benefits by having a more efficient, cost effective drainage service program.



## THE SERVICE AREA

The combined area of the former City and the County ("Louisville Metro") is located in the north-central portion of the Commonwealth on the south bank of the Ohio River. Louisville Metro is the largest city in Kentucky and is the core of the Louisville Metropolitan Statistical Area ("MSA") which includes, in addition to Louisville Metro, the counties of Bullitt, Oldham and Shelby, in Kentucky, and Clark, Floyd, and Harrison, in Indiana. The Louisville MSA has exhibited a nationally familiar pattern of population dispersion from its core urban area to the balance of Louisville Metro, and from Louisville Metro to the adjacent counties in Kentucky and Indiana.



| <b>Annual Population Estimates</b> |                                       |                                     |
|------------------------------------|---------------------------------------|-------------------------------------|
| <b>Rank</b>                        | <b>Louisville Metro<sup>(1)</sup></b> | <b>Louisville MSA<sup>(2)</sup></b> |
| 1970                               | 695,000                               | 991,801                             |
| 1980                               | 684,300                               | 1,054,368                           |
| 1990                               | 665,200                               | 1,058,425                           |
| 2000                               | 693,604                               | 1,161,975                           |
| 2010                               | 742,054                               | 1,267,691                           |
| 2014                               | 761,725                               | 1,269,702                           |
| 2015                               | 764,946                               | 1,278,413                           |
| 2016                               | 767,464                               | 1,350,207                           |
| 2017                               | 769,828                               | 1,293,953                           |
| 2018                               | 768,101                               | 1,297,301                           |
| 2019                               | 766,757                               | 1,265,108                           |
| 2020                               | 782,123                               | 1,285,058                           |
| 2021                               | 777,874                               | 1,284,566                           |
| 2022                               | 773,399                               | 1,284,553                           |
| 2023                               | 777,874                               | 1,284,826                           |

<sup>(1)</sup>Source: Population Division, U.S. Census  
<sup>(2)</sup>Source: Population Division, U.S. Census  
Bureau website: [www.census.gov](http://www.census.gov)  
(Louisville/Jefferson County, KY-IN)

According to the Bureau of Labor Statistics, Louisville employment was at 690 thousand jobs in June of 2023 compared to 679 thousand jobs in June 2022, an increase of 1.6%. Major employers in the Louisville metropolitan area include United Parcel Service, Jefferson County Public Schools, Norton Healthcare, Ford Motor Company, and UofL Health. The United States Department of Labor’s Bureau of Labor Statistics listed the unemployment rate for Jefferson County, Kentucky, as 3.8% in June 2023 compared to 3.7% in June of 2022.

| <b>Louisville Metro Major Employe rs</b> |                                 |                   |
|--|---------------------------------|-------------------|
| <b>Rank</b>                              | <b>Company</b>                  | <b>Employment</b> |
| 1  | United Parcel Service, Inc.     | 26,328            |
| 2  | Norton Healthcare, Inc.         | 15,044            |
| 3  | Jefferson County Public Schools | 14,000            |
| 4  | UofL Health Inc.                | 13,136            |
| 5  | Ford Motor Co.                  | 13,020            |
| 6  | Baptist Healthcare System Inc.  | 8,657             |
| 7  | Walmart Inc.                    | 8,550             |
| 8  | GE Appliances, a Haier company  | 8,500             |
| 9  | Humana Inc.                     | 7,465             |
| 10                                       | The Kroger Co.                  | 7,000             |

Source: Louisville Business First, July 14, 2023 Edition

## **RATES AND CHARGES**

### **Wastewater Service and Drainage Service Charges**

The District derives its revenue for wastewater service and drainage service from the collection of rates, rentals and charges established in accordance with the provisions of the Act for services rendered within the Service Area to customers served by the District's facilities. Wastewater Service Rates and Drainage Service Rates, are billed and collected by Louisville Water Company on behalf of the District under terms of an agreement executed in December 2021 and ending in December 2027. These rates are billed simultaneously with the water bill on a single statement payable in total for wastewater, drainage and water service rendered. The Louisville Water Company is currently implementing an Advanced Metering Infrastructure (AMI) project. The project automates the meter reading process and enables monthly billing. Customers are being converted to monthly billing in cycles. It is expected that all customers will be converted to monthly billing by the end of 2024. In the event of nonpayment of any such wastewater rates, rentals, or charges for a period of more than 30 days after they become due and payable, Louisville Water Company is required by law to discontinue water service. Portions of the District's Oldham County service area receive water service from Oldham County Water District. Wastewater Service Rates for these customers are billed and collected by Oldham County Water District on behalf of the District under the terms of an agreement assumed on July 1, 2020.

The District wastewater service rates include a fixed service charge based on the size of the public water meter serving the property plus a charge for each 1,000 gallons of water consumed on the premises. Each customer has the option of installing private meters to record water usage which does not enter the sewers. Industrial and commercial customers may use this option to obtain credit for water which does not enter the sewers. Drainage service rates are charged based on measured impervious areas with one equivalent service unit assigned for each 2,500 square feet of impervious area (residential unit).

The District's wastewater and drainage service revenues for the past five fiscal years were as follows:

| <b>Wastewater Revenue</b> |             |            |            |       |         |
|---------------------------|-------------|------------|------------|-------|---------|
| <b>(\$ in thousands)</b>  |             |            |            |       |         |
| Fiscal Year               | Residential | Commercial | Industrial | Other | Total   |
| <b>2019</b>               | 122,830     | 71,054     | 23,172     | 2,412 | 219,468 |
| <b>2020</b>               | 140,125     | 74,134     | 21,759     | 1,789 | 237,807 |
| <b>2021</b>               | 148,091     | 74,460     | 23,080     | 171   | 245,802 |
| <b>2022</b>               | 156,764     | 86,010     | 23,558     | 3,734 | 270,066 |
| <b>2023</b>               | 167,136     | 94,538     | 24,938     | 4,085 | 290,697 |

| <b>Drainage Revenue</b>  |             |            |            |       |        |
|--------------------------|-------------|------------|------------|-------|--------|
| <b>(\$ in thousands)</b> |             |            |            |       |        |
| Fiscal Year              | Residential | Commercial | Industrial | Other | Total  |
| <b>2019</b>              | 25,716      | 38,775     | 4,373      | 842   | 69,706 |
| <b>2020</b>              | 27,684      | 41,960     | 4,815      | 593   | 75,052 |
| <b>2021</b>              | 29,413      | 45,220     | 5,239      | 43    | 79,715 |
| <b>2022</b>              | 31,497      | 48,526     | 5,670      | 1,111 | 86,804 |
| <b>2023</b>              | 34,340      | 52,462     | 6,277      | 1,387 | 94,466 |

Source: Louisville/Jefferson County Metropolitan Sewer District

### Rate Making Process

To amend its Jefferson County Schedule of Rates, Rentals and Charges in effect from time to time, the District adopts and publishes a preliminary rate resolution, receives public comment for a period of 30 days, and then adopts a final rate resolution. The Metro Government’s Code of Ordinances provides that, in the event the District’s net revenues are less than 1.10 times the debt service on the District’s outstanding revenue bonds for any consecutive six-month period, the District’s Schedule of Rates, Rentals and Charges shall be amended in order to maintain such 1.10 debt service coverage, provided that the aggregate of the adjustments for any 12-month period shall not generate additional revenue from wastewater and drainage service charges in excess of 7% and that an explanation of proposed rate increases in excess of 4% shall be delivered to the Metro Council at least 60 days prior to the approval of the District’s Board. Any rate increase that would generate additional revenue from wastewater and drainage service charges in excess of 7% for a 12-month period requires Metro Council approval. “Net revenues” are defined for such purpose as gross revenue from wastewater service charges less operating expenses and debt service payments other than debt service payments on the District’s outstanding revenue bonds.

The process for wastewater rate adjustments for the District’s service area in Bullitt and Oldham Counties is governed by the Interlocal Agreements by which the systems were acquired.

## Rate History

The following table shows the District's rate adjustment history for last five years.

| <b>Historical Rate Increase s</b> |       |       |        |         |        |
|-----------------------------------|-------|-------|--------|---------|--------|
|                                   | FY20  | FY21  | FY22   | FY23    | FY24   |
| Jefferson County Service Area     | 6.90% | 5.00% | 6.90%  | 5.00%   | 6.90%  |
| Bullitt County Service Area       | NA    | NA    | 12.00% | 12.00%  | 12.00% |
| Oldham County Service Area        | NA    | 0.00% | 0.00%  | -10.00% | 5.00%  |

Source: Louisville/Jefferson County Metropolitan Sewer District

## Customer Growth

The following tables show the growth in the total number of the District's wastewater customers and drainage service customers. Wastewater customer growth in fiscal year 2021 was primarily due to the District's acquisition of the former Oldham County Environmental Authority service area. This acquisition added approximately 6,000 wastewater customers. Wastewater customer growth in fiscal year 2022 was primarily due to the District's acquisition of the former Bullitt County Sanitation District service area. This acquisition added approximately 4,000 wastewater customers.

| <b>Historical Active Waste water Customer Totals</b> |         |         |         |         |         |
|--|---------|---------|---------|---------|---------|
|  | FY 19   | FY 20   | FY 21   | FY 22   | FY 23   |
| Residential  | 220,412 | 221,796 | 230,157 | 234,362 | 236,020 |
| Commercial   | 19,373  | 21,331  | 21,537  | 21,851  | 21,919  |
| Industrial   | 360     | 385     | 390     | 394     | 394     |
| Total  | 240,145 | 243,512 | 252,084 | 256,607 | 258,333 |
| % Growth   | 0.53%   | 1.40%   | 3.52%   | 1.79%   | 0.67%   |

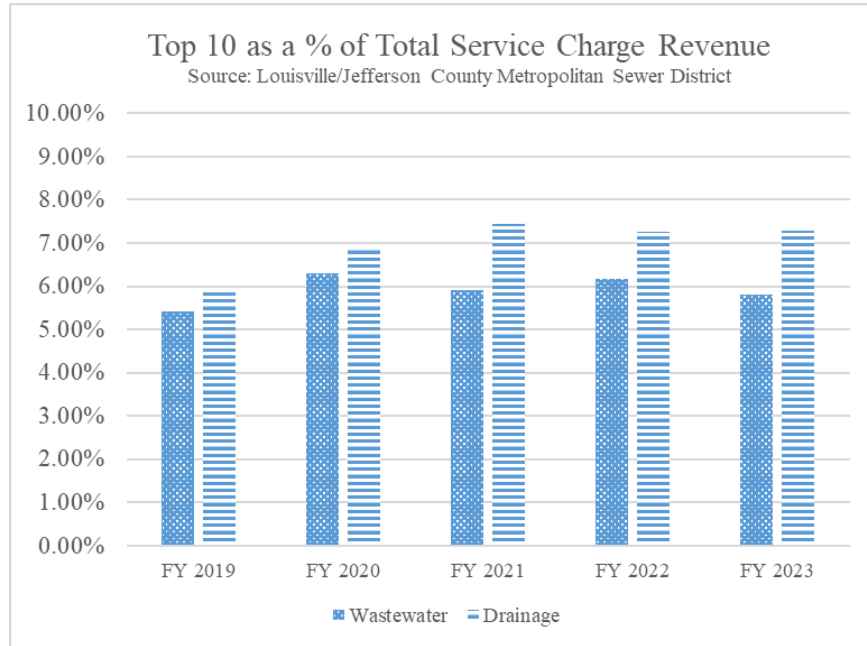
Source: Louisville/Jefferson County Metropolitan Sewer District

| <b>Historical Active Drainage Customer Totals</b> |         |         |         |         |         |
|---|---------|---------|---------|---------|---------|
|   | FY19    | FY 20   | FY 21   | FY22    | FY 23   |
| Residential                                       | 206,499 | 207,317 | 208,060 | 209,335 | 210,242 |
| Commercial  | 14,024  | 14,087  | 14,062  | 14,040  | 13,950  |
| Industrial  | 257     | 271     | 269     | 274     | 279     |
| Total   | 220,780 | 221,675 | 222,391 | 223,649 | 224,471 |
| % Growth  |         | 0.41%   | 0.32%   | 0.57%   | 0.37%   |

Source: Louisville/Jefferson County Metropolitan Sewer District

## Top 10 Customers

The following table shows the District's top 10 wastewater and drainage customers as a % of total revenue for the past six fiscal years.



Source: Louisville/Jefferson County Metropolitan Sewer District

The following tables shows the District's top 10 wastewater and drainage customers in fiscal year 2023.

| <b>Top 10 Waste water Customers</b> |                                  |                                |  |
|-------------------------------------|----------------------------------|--------------------------------|--|
| Rank                                | Customer Name                    | FY '23<br>Wastewater<br>Billed | Percent Total<br>Wastewater<br>Revenue |
| 1                                   | Heaven Hill Distilleries Inc     | \$ 5,035,257                   | 1.73%                                  |
| 2                                   | Lubrizol Advanced Material       | 2,271,808                      | 0.78%                                  |
| 3                                   | The Chemours Company FC LLC      | 1,967,224                      | 0.68%                                  |
| 4                                   | Early Times Distillery           | 1,726,439                      | 0.59%                                  |
| 5                                   | Ford Motor Company               | 1,384,127                      | 0.48%                                  |
| 6                                   | Swift Pork Co                    | 1,153,172                      | 0.40%                                  |
| 7                                   | Haier US Appliance Solutions Inc | 1,038,809                      | 0.36%                                  |
| 8                                   | Rohm & Haas                      | 970,097                        | 0.33%                                  |
| 9                                   | Republic Conduit Manufacturing   | 675,331                        | 0.23%                                  |
| 10                                  | Louisville Metro Housing Auth    | 672,593                        | 0.23%                                  |
| Total                               |                                  | 16,894,857                     | 5.81%                                  |
| Total FY 23 Wastewater Revenue:     |                                  | \$ 290,696,742                 |  |

Source: Louisville/Jefferson County Metropolitan Sewer District

| <b>Top 10 Drainage Customers</b> |                                |                           |                                      |
|----------------------------------|--------------------------------|---------------------------|--------------------------------------|
| Rank                             | Customer Name                  | FY 23' Drainage<br>Billed | Percent Total<br>Drainage<br>Revenue |
| 1                                | Regional Airport Authority     | \$ 1,890,881              | 2.00%                                |
| 2                                | United Parcel Service          | 1,538,822                 | 1.63%                                |
| 3                                | Jeff Co Board Of Education     | 976,873                   | 1.03%                                |
| 4                                | Ford Motor Company             | 484,892                   | 0.51%                                |
| 5                                | Regional Airport Authority     | 382,363                   | 0.40%                                |
| 6                                | Lit Industrial Limited Partner | 371,196                   | 0.39%                                |
| 7                                | Kentucky State Fair Board      | 339,704                   | 0.36%                                |
| 8                                | Churchill Downs Inc            | 314,703                   | 0.33%                                |
| 9                                | The U Of L Campus              | 301,156                   | 0.32%                                |
| 10                               | Seaboard Systm Rr-00822        | 290,570                   | 0.31%                                |
| Total                            |                                | 6,891,159                 | 7.29%                                |
| Total FY 23 Drainage Revenue:    |                                | \$ 94,465,996             |                                      |

Source: Louisville/Jefferson County Metropolitan Sewer District

## **FINANCIAL OPERATIONS**

### **Historical Financial Operations**

The District derives its revenues primarily from customer payments for wastewater and stormwater services, which accounts for 98% of operating revenues. Other operating revenues include inflow and infiltration fees, capacity charges and other miscellaneous system fees and charges, which account for the remaining 2% of operating revenues. Non-operating revenues include interest income earned on investments and the federal interest subsidy on the District's Build America Bonds. The current portion of assessments payments is also included in non-operating revenue for purposes of coverage calculations per the Resolution.

The District's Finance Department provides detailed monthly reports on cash and investments, revenues, expenses, variances to budget and capital spending to management and the Board. The following table presents historical revenues, expenses and changes in net position using information contained in the audited financial statements for fiscal years 2019 through 2023. The District's audited financial statements for the fiscal year ended 2022 are found in Appendix B. The interim unaudited financial statements of the District for the fiscal year ended June 30, 2023 and the two months ended August 31, 2023 are found in Appendix C.

| <b>Historical Revenue s, Expense s and Change s in Net Position</b> |                   |                   |                   |                   |                     |
|---|-------------------|-------------------|-------------------|-------------------|---------------------|
| (\$ in thousands)   |                   |                   |                   |                   |                     |
|   | FY19              | FY20              | FY21              | FY22              | FY23<br>Unaudited   |
| <b>Operating revenue:</b>   |                   |                   |                   |                   |                     |
| Wastewater service charges  | \$ 219,467        | \$ 237,807        | \$ 245,802        | \$ 270,066        | \$ 290,696          |
| Drainage service charges  | 69,706            | 75,052            | 79,915            | 86,804            | 94,465              |
| Other operating income  | 5,195             | 6,198             | 3,701             | 8,497             | 6,863               |
| <b>Total operating revenue</b>                                      | <b>294,368</b>    | <b>319,057</b>    | <b>329,418</b>    | <b>365,367</b>    | <b>392,026</b>      |
| <b>Operating expenses:</b>  |                   |                   |                   |                   |                     |
| Service and administrative costs                                    | 154,325           | 167,771           | 170,073           | 169,869           | 168,105             |
| Capitalization/recovery of cost                                     | (38,383)          | (39,643)          | (41,785)          | (42,166)          | (37,435)            |
| Depreciation and amortization                                       | 87,882            | 98,872            | 97,874            | 103,964           | 112,632             |
| <b>Total operating expenses</b>                                     | <b>203,824</b>    | <b>227,000</b>    | <b>226,162</b>    | <b>231,667</b>    | <b>241,328</b>      |
| <b>Income (loss) from operations</b>                                | <b>90,544</b>     | <b>92,057</b>     | <b>103,256</b>    | <b>133,700</b>    | <b>150,698</b>      |
| <b>Non-operating revenue (expense):</b>                             |                   |                   |                   |                   |                     |
| Gain/Loss Disposal of Assets  | 15                | (15,008)          | (21)              | 124               | (14,320)            |
| Investment income   | 8,338             | 5,275             | 1,777             | (1,467)           | 7,768               |
| Build America bond refund   | 10,339            | 10,325            | 10,398            | 10,344            | 11,350              |
| Interest expense - bonds  | (94,831)          | (92,274)          | (93,067)          | (86,792)          | (91,736)            |
| Interest expense - swaps  | (6,468)           | (8,027)           | (9,793)           | (9,502)           | (3,988)             |
| Interest expense - other  | (13,497)          | (13,129)          | (13,104)          | (12,873)          | (15,203)            |
| Amortization of debt discount/premium                               | 14,344            | 12,688            | 17,429            | 17,172            | 13,189              |
| Amortization of loss on refunding                                   | (2,817)           | (2,404)           | (3,107)           | (3,768)           | (3,631)             |
| Capitalized interest  | 18,582            | 13,043            | 12,049            | 7,464             | 6,961               |
| Change in fair values - swaps                                       | (13,597)          | 812               | 8,796             | 11,293            | 7,614               |
| <b>Total non-operating revenue (expenses), net</b>                  | <b>(79,592)</b>   | <b>(88,699)</b>   | <b>(68,643)</b>   | <b>(68,005)</b>   | <b>(81,996)</b>     |
| <b>Net income / (loss) before contributions</b>                     | <b>10,952</b>     | <b>3,358</b>      | <b>34,613</b>     | <b>65,695</b>     | <b>68,702</b>       |
| <b>Contributions</b>  | <b>50,926</b>     | <b>9,085</b>      | <b>16,422</b>     | <b>9,572</b>      | <b>13,201</b>       |
| <b>Increase (decrease) in net position</b>                          | <b>61,878</b>     | <b>12,443</b>     | <b>51,035</b>     | <b>75,267</b>     | <b>81,903</b>       |
| Net position, beginning of year                                     | 708,674           | 770,552           | 796,730           | 847,765           | 923,032             |
| Net position, OCEA merger   | -                 | 13,735            | -                 | -                 | -                   |
| <b>Net position, beginning of year, as restated</b>                 | <b>708,674</b>    | <b>784,287</b>    | <b>796,730</b>    | <b>847,765</b>    | <b>923,032</b>      |
| <b>Net position, end of year</b>                                    | <b>\$ 770,552</b> | <b>\$ 796,730</b> | <b>\$ 847,765</b> | <b>\$ 923,032</b> | <b>\$ 1,004,935</b> |

Source: Louisville/Jefferson County Metropolitan Sewer District



The following table presents historical senior debt service coverage for each of the last five fiscal years.

| <b>Historical Debt Service Coverage</b>   |                   |                   |                   |                   |                   |
|---|-------------------|-------------------|-------------------|-------------------|-------------------|
| (\$ in thousands)   |                   |                   |                   |                   |                   |
|   | FY19              | FY20              | FY21              | FY22              | FY23<br>Unaudited |
| <b>Revenues:</b>  |                   |                   |                   |                   |                   |
| Service charges   | \$ 289,173        | \$ 312,859        | \$ 325,717        | \$ 356,870        | \$ 385,163        |
| Other operating income  | 5,195             | 6,198             | 3,701             | 8,497             | 6,863             |
| Assessments   | 1,258             | 909               | 799               | 583               | 429               |
| Investment income   | 18,692            | 15,600            | 12,175            | 8,877             | 19,118            |
| Less: capitalized investment income   | -                 | -                 | -                 | -                 |                   |
| <b>Total revenues</b>   | <b>314,318</b>    | <b>335,566</b>    | <b>342,392</b>    | <b>374,827</b>    | <b>411,573</b>    |
| <b>Operating expenses:</b>  |                   |                   |                   |                   |                   |
| Service and administrative costs <sup>1</sup>   | 142,082           | 149,945           | 151,527           | 161,144           | 167,716           |
| Less: capitalized overhead  | (38,383)          | (39,643)          | (41,785)          | (42,166)          | (42,151)          |
| <b>Capitalization Rate</b>  | <b>27%</b>        | <b>26%</b>        | <b>28%</b>        | <b>26%</b>        | <b>25%</b>        |
| <b>Total operating expenses</b>   | <b>103,699</b>    | <b>110,302</b>    | <b>109,742</b>    | <b>118,978</b>    | <b>125,565</b>    |
| <b>Net revenues</b>   | <b>210,619</b>    | <b>225,264</b>    | <b>232,650</b>    | <b>255,849</b>    | <b>286,008</b>    |
| <b>Aggregate debt service:</b>  |                   |                   |                   |                   |                   |
| Current maturities of long-term debt  | 40,358            | 40,637            | 43,802            | 51,597            | 52,880            |
| Interest expense - senior lien  | 94,831            | 92,274            | 93,067            | 86,792            | 91,736            |
| Less: capitalized interest expense  | (18,582)          | (13,043)          | (12,050)          | (7,464)           | (6,961)           |
| <b>Aggregate net debt service</b>   | <b>\$ 116,607</b> | <b>\$ 119,868</b> | <b>\$ 124,819</b> | <b>\$ 130,925</b> | <b>\$ 137,655</b> |
| <b>Debt service coverage ratio<sup>2</sup></b>  | <b>181%</b>       | <b>188%</b>       | <b>186%</b>       | <b>195%</b>       | <b>208%</b>       |
| <sup>1</sup> Excludes the actuarial portion of changes to GASB 68 pension expense and GASB 75 OPEB for the year |                   |                   |                   |                   |                   |
| <sup>2</sup> Excludes the actuarial portion of changes to GASB 68 pension expense and GASB 75 OPEB for the year |                   |                   |                   |                   |                   |
| Source: Louisville/Jefferson County Metropolitan Sewer District   |                   |                   |                   |                   |                   |

## Projected Financial Operations

Projected revenues and expenses of the District for the current and future fiscal years are reflected in the chart below. The projected revenues reflect the increases in rates and charges adopted by the District for fiscal year 2024 and the anticipated increases in rates and charges for fiscal years 2025 through 2027. The projected financial results for fiscal years 2024 through 2027 incorporate assumptions as of the date of this Official Statement. The projected debt service requirements include estimated debt service for the Series 2023C Bonds.

The information on projected revenues and expenses constitute a "forward looking statement" under federal securities law. Actual revenues, expenses, or both could differ materially from those forecasted and there can be no assurance that such estimates of future results will be achieved. For example, there can be no assurance that the MSD Board will approve any proposed revision of the District's Schedule of Rates, Rentals and Charges. In general, important factors that could cause actual results to differ materially from the revenues or expenses presently estimated include, but are not limited to, material changes in the size and composition of the District's service area, unanticipated changes in law or unanticipated material litigation, a material downturn in economic activity, efficiency of operations and the capital construction and expenditure plans and results of the District.

| <b>Projected Financial Results</b>   |                |                |                |                |                |
|--|----------------|----------------|----------------|----------------|----------------|
| Fiscal Years ended/ending June 30  |                |                |                |                |                |
| (\$ in thousands)  |                |                |                |                |                |
|  | FY24           | FY25           | FY26           | FY27           | FY28           |
|  | Budget         | Projected      | Projected      | Projected      | Projected      |
| Rate Increase <sup>1</sup>   | 6.90%          | 6.90%          | 6.90%          | 6.90%          | 6.90%          |
| Operating Revenues   |                |                |                |                |                |
| Wastewater service charges   | \$ 303,835     | \$ 321,908     | \$ 341,072     | \$ 361,128     | \$ 382,076     |
| Drainage service charges   | 98,524         | 105,305        | 112,554        | 120,303        | 128,587        |
| Other operating income   | 4,500          | 4,525          | 4,550          | 4,550          | 4,550          |
| <b>Total Operating Revenues</b>  | <b>406,859</b> | <b>431,738</b> | <b>458,176</b> | <b>485,981</b> | <b>515,213</b> |
| Non-Operating Revenues   |                |                |                |                |                |
| Assessments  | 400            | 400            | 400            | 400            | 350            |
| BAB refund   | 10,986         | 10,986         | 10,986         | 10,986         | 10,221         |
| Investment income  | 2,768          | 2,879          | 2,994          | 3,114          | 3,239          |
| <b>Total Non-Operating Revenues</b>  | <b>14,154</b>  | <b>14,265</b>  | <b>14,380</b>  | <b>14,500</b>  | <b>13,810</b>  |
| <b>Total Available Revenue</b>   | <b>421,013</b> | <b>446,003</b> | <b>472,556</b> | <b>500,481</b> | <b>529,023</b> |
| Operating Expenses   |                |                |                |                |                |
| Total operating expenses <sup>2</sup>  | 185,017        | 194,588        | 202,682        | 210,071        | 217,661        |
| Capitalized cost   | (43,236)       | (39,807)       | (39,495)       | (40,939)       | (42,423)       |
| <b>Net Operating Expense</b>   | <b>141,781</b> | <b>154,781</b> | <b>163,187</b> | <b>169,132</b> | <b>175,238</b> |
| <b>Net Revenues Available for Debt Service</b>   | <b>279,232</b> | <b>291,222</b> | <b>309,369</b> | <b>331,349</b> | <b>353,785</b> |
| Debt Service   |                |                |                |                |                |
| Total senior debt service <sup>3</sup>   | 144,656        | 152,058        | 159,863        | 183,541        | 180,777        |
| Capitalized interest   | (8,275)        | (8,671)        | (9,194)        | (9,826)        | (9,662)        |
| Total subordinated debt service  | 32,148         | 34,504         | 38,490         | 25,936         | 30,750         |
| <b>Total Outstanding &amp; Projected Debt Service</b>  | <b>168,529</b> | <b>177,891</b> | <b>189,159</b> | <b>199,651</b> | <b>201,865</b> |
| Senior Debt Service Coverage   | 205%           | 203%           | 205%           | 191%           | 207%           |
| Total Debt Service Coverage  | 166%           | 164%           | 164%           | 166%           | 175%           |
| Aggregate Net Debt Service <sup>4</sup>  | 136,381        | 143,387        | 150,669        | 173,715        | 171,115        |
| 110% of Aggregate Net Debt Service   | 150,019        | 157,726        | 165,736        | 191,087        | 188,227        |
| Subordinate Debt Service   | 32,148         | 34,504         | 38,490         | 25,936         | 30,750         |
| 110% of Subordinated Debt Service  | 35,363         | 37,954         | 42,339         | 28,530         | 33,825         |
| <sup>1</sup> Jefferson County Rate Increase.   |                |                |                |                |                |
| <sup>2</sup> Excludes the actuarial portion of changes to GASB 68 pension expense and GASB 75 OPEB for the year. |                |                |                |                |                |
| <sup>3</sup> Projections assume bonds are issued on a senior lien basis.   |                |                |                |                |                |
| <sup>4</sup> As defined by General Bond Resolution   |                |                |                |                |                |
| Source: Louisville/Jefferson County Metropolitan Sewer District May 8, 2023                                      |                |                |                |                |                |

## CAPITAL IMPROVEMENT PROGRAM

### General

The District annually adopts a five-year Capital Improvement Program (CIP) to deliver core services, comply with regulatory requirements and to renew, rehabilitate, and replace critical system assets. Projects in the CIP are prioritized based on regulatory deadlines and risk assessments that were completed during the development of the District’s Facility Plan. The CIP is updated annually by the District’s Engineering department management and staff, Operations department management and external engineering consultants.

The current CIP for fiscal years 2024 – 2028 was approved the District’s Board on May 22, 2024. The CIP is dynamic and requires review and modification during the year. The CIP Management Team is tasked with monthly review of the CIP and makes major project and program change decisions. Voting members are the Executive Director, Chief Engineer, Chief of Operations, Chief Strategy Officer for Business Transformation and Regulatory Compliance and the Chief Financial Officer. The following table shows the current CIP summarized by program type.

| <b>Five -Year CIP</b>     |                   |                   |                   |                   |                   |                     |
|---------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|---------------------|
| <i>(\$ in thousands)</i>  |                   |                   |                   |                   |                   |                     |
|                           | FY24              | FY25              | FY26              | FY27              | FY28              | Total               |
| Wastewater                | \$ 161,185        | \$ 193,450        | \$ 202,274        | \$ 151,207        | \$ 114,697        | \$ 822,813          |
| Drainage/Flood Protection | 62,125            | 87,931            | 93,333            | 49,737            | 26,903            | 320,029             |
| Support Systems           | 18,133            | 4,838             | 5,469             | 4,328             | 4,241             | 37,009              |
| Management Reserve        | 13,865            | 5,850             | 75                | 100               | 1,300             | 21,190              |
| <b>Total CIP</b>          | <b>\$ 255,308</b> | <b>\$ 292,069</b> | <b>\$ 301,151</b> | <b>\$ 205,372</b> | <b>\$ 147,141</b> | <b>\$ 1,201,041</b> |

The CIP is funded with a mixture of cash provided by operations, grants, and debt. The District pursues low-cost financing opportunities through the Kentucky Infrastructure Authority’s (KIA) State Revolving Fund loan program and the Environmental Protection Agency’s Water Infrastructure Finance and Innovation Act (WIFIA). The remaining balance of the CIP is funded with revenue bond debt. The following table summarizes funding sources for the current CIP.

| Five Year CIP - Sources of Capital Funds |         |         |         |         |         |           |
|--|---------|---------|---------|---------|---------|-----------|
| (\$ in thousands)                        |         |         |         |         |         |           |
|  | FY24    | FY25    | FY26    | FY27    | FY28    | Total     |
| Capital Improvement Plan                 | 255,308 | 292,069 | 301,150 | 205,372 | 147,142 | 1,201,041 |
| Funding Sources:                         |         |         |         |         |         |           |
| Cash Funded                              | 55,451  | 65,183  | 70,153  | 76,111  | 97,478  | 364,376   |
| Grant Funded                             | 15,000  | 15,000  | -       | -       | -       | 30,000    |
| CP/Senior Debt                           | 105,000 | 170,000 | 205,000 | 120,000 | 45,000  | 645,000   |
| WIFIA                                    | 34,300  | 36,750  | 17,812  | 1,449   | -       | 90,311    |
| KIA Financing                            | 7,300   | -       | -       | -       | -       | 7,300     |
| Bond Proceeds                            | 8,257   | 5,136   | 8,185   | 7,812   | 4,664   | 34,054    |
| DSR Release                              | 30,000  | -       | -       | -       | -       | 30,000    |

### Consent Decree

In August 2005, the District entered into a joint Consent Decree agreement with the federal government and the Commonwealth of Kentucky. The Consent Decree created the framework for a 19-year program to manage and mitigate combined sewer overflows (CSOs), and eliminate sanitary sewer overflows (up to a certain storm event). In 2009, the Consent Decree was amended to address recordkeeping and Water Quality Treatment Center bypasses and treatment performance.

To meet the requirements of the Amended Consent Decree, the District developed the Integrated Overflow Abatement Program (IOAP), which was later incorporated into the Critical Repair and Reinvestment Plan. Key capital projects included in the IOAP include:

*CSO Storage Basins* - Large storage basins are under design or construction at strategic locations in the District's combined sewer system to temporarily store flows during rain events. When capacity is available, these stored flows will be released back into the collection system for treatment. These basins are a foundation of the District's CSO control strategy and must be operational by state and federally enforced deadlines.

*Green Infrastructure Projects* - Green infrastructure works by capturing stormwater flows in natural systems before they can enter the underground pipe network and thus creates additional capacity within the sewer system. Additionally, these systems remove pollutants through natural filtration systems so that any flows that must pass through them carry a reduced pollutant load. The District is committed to integrating green infrastructure as part of its overflow control strategy and has implemented an innovative system of cost-sharing with other public agencies and private developers to leverage the District's investment in green infrastructure to the extent it furthers the District's service offerings.

*Capacity, Management, Operations and Maintenance (CMOM) Projects* - An essential component to the long-term success of the IOAP is an effective CMOM program that makes sure the wastewater collection system operates effectively. Elements of this program include capital

investment, sewer inspection and cleaning, repair of defects found in sewers, and removal of illicit and illegal connections to the system.

*Nine Minimum Controls (NMC) Projects* - Reporting requirements for the NMC program will be phased out after the completion of the District's obligations under the Consent Decree. The NMC principles related to optimizing operation of the combined sewer system will remain in full force and effect, with the enforcement mechanism shifted from the Consent Decree to the Morris Forman WQTC discharge permit. One critical item that will continue after the IOAP is completed is the continued implementation and optimization of the District's Real Time Control system that maximizes storage in the collection system through a series of automated dams and gates.

The District has spent approximately \$1.2 billion designing and constructing many of the IOAP projects and completing other projects required under the Amended Consent Decree. This work has been financed or refinanced with proceeds of the District's Sewer and Drainage System Revenue Bonds, Series 2008, Series 2009C, Series 2010A, Series 2013C, Series 2014A, Series 2015A, Series 2016A, Series 2017A, Series 2020C, Series 2021A, Series 2022A, and Series 2023C.

All scheduled milestones on IOAP projects to mitigate sewer overflows across the service area have been met. Local waterways are safer and cleaner today as a result of these expenditures. Spending on the Amended Consent Decree work has consumed the majority of the District's capital expenditures since 2009. However, IOAP projects have only addressed a fraction of the wastewater, stormwater and flood protection assets under the District's purview. An unintended consequence of compliance with the Amended Consent Decree has been deferred asset management on the remaining infrastructure.

The District proactively approached federal and state regulators in 2019 to renegotiate the timing for completing the remaining projects required by the Amended Consent Decree in order to reprioritize capital dollars for rehabilitation of the Districts' aging biosolids systems, failing sewer interceptors and flood protection system rehabilitation. The District, along with the federal government and the Commonwealth of Kentucky, negotiated the Second Amended Consent Decree which granted a time extension for completing the remaining Amended Consent Decree projects to 2035. In exchange, the District agreed to invest a minimum of \$25 million annually for asset management projects through 2035. Additionally, the District agreed to incorporate \$70 million for critical sewer rehabilitation in its 5-year capital improvement plan. These financial commitments are achievable within the Board's rate increase authority of 6.9% per year. The United States District Court granted final approval of the Second Amended Consent Decree on September 14, 2022. See "PENDING LITIGATION" for additional information on the Second Amended Consent Decree.

## **Facility Plan**

The District's 20-year Comprehensive Facility Plan published in June 2017 represents the District's most ambitious planning effort in a decade. Working with the Wet Weather Team Stakeholder Group and District staff, the Facility Plan Team reviewed the challenges our community faces now and in the future and has developed a roadmap to protect the area's health, economic vitality, and environment. The recommendations in this plan are the result of well-vetted analyses from some of the most experienced engineers in Louisville Metro. The recommendations are essential to maintaining reliable and properly sized facilities that will allow the District to fulfill its responsibility for safe, clean waterways and to help preserve and promote our competitiveness as a city.

Wastewater collection and treatment is the District's largest service offering and was the original reason the District was formed by state statute in 1946. Fully implementing the Facility Plan recommendations will accomplish the following wastewater service objectives:

- Fulfill the obligation of the Consent Decree, including completing all the projects contained in the IOAP on schedule
- Provide facilities that comply with the other environmental regulations the District is governed by and provide a plan to remain in compliance with future regulations currently under development
- Renew and replace aging wastewater infrastructure to provide reliable service and the lowest overall cost using a best-practice asset management approach
- Position the District to support the community's ability to grow responsibly as economic development opportunities become available

The District assumed responsibility for stormwater management, including both drainage and interior floodplain management for most of Jefferson County in 1987. The drainage system at that time had a backlog of thousands of drainage complaints that the District was expected to correct. While the District has invested hundreds of millions of dollars in drainage infrastructure since 1987, drainage problems still are found across the entire county. In addition, the increased frequency of extreme storms that have been observed in Louisville Metro have raised customer concerns about the adequacy of our drainage and interior floodplain management systems. While current development standards require mitigation of the drainage impacts of land use changes, analysis of historical trends shows a significant reduction in natural green space and an increase in impervious surfaces that do not allow stormwater to seep into the ground. Runoff from impervious surfaces also causes increased runoff volume and greatly increased runoff peak flows. Together, these factors exacerbate the observed deficiencies in the stormwater system that the District now has responsibility for, impacting neighborhood drainage in addition to interior floodplain inundation. Implementing the Facility Plan recommendations will accomplish the following stormwater management objectives:

- Improve the level of protection against public health and property risks caused by inadequate stormwater drainage systems
- Continue support for the Project DRI neighborhood drainage solutions
- Expand the efforts of the MS4 program to reduce stormwater contamination of our waterways, primarily through BMPs and continued proactive support of green infrastructure solutions to both quantity and quality concerns
- Recognize and respond to the impact of changing weather patterns including the increased frequency of extreme storms

The Ohio River Flood Protection System (ORFPS) was developed in response to the flood of 1937. This system of levees, floodwalls, and flood pumping stations has protected Louisville since it became operational in the 1950s. While the system has an outstanding record of reliability, much of the system is more than 60 years old and includes antiquated equipment that cannot be repaired with standard parts available today. In addition, the same changing precipitation and land use patterns that affect drainage and inland floodplain management also impact the flood pumping stations and related appurtenances. Implementing the Facility Plan recommendations will accomplish the following ORFPS objectives:

- Maintain protection from Ohio River floods entering Louisville by proactive preventive and predictive maintenance activities related to the levee, floodwall, and all gates and other penetration closures that keep floodwaters at bay
- Modernize the flood pumping stations with current mechanical and electrical equipment that can provide continued reliability and a predictable cost because parts will be more readily available at a more reasonable cost
- Expand the capacity of those flood pumping stations to enhance community protection in response to changing precipitation and land use patterns

Implementing the recommendations for all three service areas will require a significant investment from the community. Based on the analyses of this Facility Plan, meeting the critical needs of the community is estimated to cost \$4.3 billion over the next two decades. Unlike the IOAP, which is required by the Consent Decree to be completed, most stormwater management and flood protection capacity projects developed in the Facility Plan are not specifically required by regulation. Providing for infrastructure renewal and replacement, and improving the consistent level of service in stormwater management and flood protection are local decisions driven by the District's mission to provide safe, clean waterways for the community. The District will implement the Facility Plan to the extent funding is provided through the rate-setting process. If sufficient funding is not provided to complete the recommended projects in the 20-year planning period, then projects will be deferred to the future, when funding comes available.

## **RECENT AND PENDING TRANSACTIONS OF THE DISTRICT**

On March 15, 2021 the District issued under the General Bond Resolution, to the United States Environmental Protection Agency (the "EPA"), the District's Sewer and Drainage System Revenue Bonds, Series 2020B (the "Series 2020B Bonds") in the principal amount of \$96,926,900, evidencing a loan from the EPA to the District under the federal Water Infrastructure Finance and Innovation Act (WIFIA), for the purpose of financing the costs of certain improvements to the System. The District's loan agreement with the EPA (the "WIFIA Loan Agreement") prohibits the District from incurring additional debt without the permission of the EPA if a payment default has occurred and is continuing under the WIFIA Loan Agreement. A redacted copy of the WIFIA Loan Agreement is attached to the event notice which the District posted on March 26, 2021 on the Municipal Securities Rulemaking Board's Electronic Municipal Market Access (EMMA) website and which is available there at the following hyperlink: <https://emma.msrb.org/P11479931-P11147049-P11561056.pdf> . MSD anticipates it will make the first draw on the Series 2020B Bonds in November 2023.

On March 27, 2023, the MSD Board approved the 2023 Program Note Resolution authorizing the issuance of MSD's Sewer and Drainage System Subordinated Program Notes in the maximum outstanding principal amount of \$500,000,000, consisting of Commercial Paper Notes and Direct Purchase Notes. The maximum maturity date, initially, is July 1, 2026. Upon approval by the MSD Board, the Program Note Resolution may be amended and Program Notes may be issued thereunder until July 1, 2028.

On May 16, 2023, the District issued its Sewer and Drainage System Revenue Refunding Bonds, Series 2023A (the "Series 2023A Bonds") in the principal amount of \$49,745,000, for the purpose of currently refunding the outstanding principal amount of the District's Sewer and Drainage System Revenue Bonds, Series 2013A maturing May 15, 2035, the proceeds of which were used to pay or to refund earlier series of Bonds issued to pay the costs of improvements to the System.

On May 16, 2023, the District issued its Sewer and Drainage System Revenue Refunding Bonds, Series 2023B (the "Series 2023B Bonds") in the principal amount of \$41,950,000, for the purpose of currently refund the outstanding principal amount of the District's Sewer and Drainage System Revenue Bonds, Series 2013A maturing May 15, 2036, the proceeds of which were used to pay or refund earlier series of Bonds issued to pay the costs of improvements to the System.

On July 6, 2023, the Kentucky Infrastructure Authority approved a loan to the District for the Bullitt Hills and Hillview wastewater treatment plants and pump station elimination project. The total amount of the loan shall not exceed \$11,200,000. Interest is payable semiannually at a fixed rate of 1.25% per annum commencing after funds are first drawn on the loan. The loan shall be repaid over a period not to exceed 20 years from the date of the initial operation of the project.

On July 24, 2023, the MSD Board approved a 6.9% increase in wastewater and drainage service charges for MSD's Jefferson County service area, effective August 1, 2023.

Pursuant to the terms of an Interlocal Cooperation Agreement, on July 24, 2023, the MSD Board approved a 5% increase in wastewater service and volume charges for MSD's Oldham County service area, effective August 1, 2023.

On July 31, 2023, the Kentucky Infrastructure Authority invited MSD to apply for a loan for the Paddy's Run Flood Pumping Station Capacity Improvements project. The total amount of the loan shall not exceed \$27,783,547.

## **PENDING LITIGATION**

There is no litigation or other legal proceeding pending or, to the knowledge of the District, threatened to restrain or enjoin the issuance, sale or delivery of the Series 2023C Bonds or the implementation of the plan of financing described herein, or in any way contesting or affecting the validity of the Series 2023C Bonds or the plan of financing described herein or any proceedings of the District taken with respect to the issuance or sale of the Series 2023C Bonds, the pledge or application of any moneys or securities provided for the payment of the Series 2023C Bonds or the existence or powers of the District insofar as they relate to the authorization, sale and issuance of the Series 2023C Bonds or such pledge or application of moneys and securities or the implementation of the plan of financing described herein.

There is no litigation or other legal proceeding pending or, to the knowledge of the District, threatened which challenges the authority of the District to operate the System or to collect revenues therefrom or which contests the creation, organization or existence of the District or the title of any of its Board members or executive staff to their respective offices.

After several months of negotiation, the District, Commonwealth of Kentucky and United States of America reached an agreement on important modifications to the 2009 Amended Consent Decree entered by the United States District Court for the Western District of Kentucky, Louisville Division (the Court), in Civil Action No. 3:08-CV-00608-CRS. The parties have agreed to enter into a Second Amended Consent Decree which will supersede and replace the 2009 Amended Consent Decree and update the 2012 Integrated Overflow Abatement Plan (IOAP) Modification approved on June 19, 2014 with the 2021 IOAP Modification.

The original IOAP, which included a Final Sanitary Sewer Discharge Plan (SSDP) and CSO Long Term Control Plan (LTCP), was certified on December 19, 2008, and incorporated by reference into the 2009 Amended Consent Decree by an Order signed on February 12, 2010 and entered into the public record February 15, 2010. The IOAP was amended in 2012 and 2014 to improve compliance and adjust capital project schedules.

Since entry of the 2009 Amended Consent Decree, the District has spent approximately \$1 billion developing and completing many of the IOAP projects, and completing other projects and compliance measures mandated by the Consent Decree. The District has completed the majority of the CSO LTCP projects and SSDP projects, as well as the development of Comprehensive Program Evaluations, Composite Correction Plans, Sewer Overflow Response Protocol, Interim Sanitary Sewer Discharge Plan, and Sanitary Capacity Assessment Plan.

The Second Amended Consent Decree, which was entered on September 15, 2022, was negotiated to effectuate additional remedial measures for CSO and SSO control and regulatory compliance. Specifically, the Second Amended Consent Decree was negotiated to integrate the



development of an asset management plan that provides for a long-term maintenance and funding strategy for rehabilitation and renewal of the District’s aging biosolids systems and failing critical interceptors and flood protection system. To facilitate the District’s ability to reprioritize projects and capital spending, the Commonwealth of Kentucky and United States of America have agreed to extend the time for completion of remaining LTCP and SSDP projects to 2035. In exchange for the time extension, the District has agreed to invest a minimum of \$25 million on average each fiscal year in asset management projects for a total of \$375 million by June 30, 2035. The District has also agreed to incorporate \$70 million in its 5-year CIP for critical sewer rehabilitation. The Second Amended Consent Decree sets forth stipulated penalties to be assessed should the District fail to comply.

The District is a defendant from time to time in various lawsuits. Although the outcome of these lawsuits is not presently determinable, it is the opinion of the District that resolution of these matters will not result in a material adverse effect on the operations, properties or financial condition of the District.

Except as disclosed above, there is no litigation or other legal proceeding pending or, to the knowledge of the District, threatened against or affecting the District or its Board wherein an unfavorable decision, ruling or finding might have a materially adverse effect on the operations, properties or financial condition of the District.

### **APPROVAL OF LEGAL PROCEEDINGS**

The issuance of the Series 2023C Bonds is subject to the approval of Wyatt, Tarrant & Combs, LLP, Louisville, Kentucky, Bond Counsel, whose approving opinion will be delivered with the Series 2023C Bonds. Certain legal matters will be passed upon for the District by its General Counsel, Kellie S. Watson, Esq.

Bond Counsel has reviewed legal matters incident to those sections of the Official Statement entitled “The Series 2023C Bonds,” “Security and Sources of Payment for the Series 2023C Bonds,” “Funds and Accounts,” “Tax Treatment,” and “Appendix A – Definitions of Certain Terms and Summary of Provisions of the Resolution,” and is of the opinion that the statements contained in such sections are, as to law and legal conclusions, correct and that such sections fairly summarize the contents of documents therein described. Bond Counsel assumes no responsibility for the accuracy or completeness of other statements or financial information contained in this Official Statement.

### **TAX TREATMENT**

#### **General**

In the opinion of Wyatt, Tarrant & Combs, LLP, Bond Counsel, (i) under the Internal Revenue Code (the “Code”) as presently enacted and construed, interest on the Series 2023C Bonds is excludable from gross income for federal income tax purposes and (ii) the Series 2023C Bonds are exempt from ad valorem taxation, and the interest thereon is exempt from income taxation, by the Commonwealth of Kentucky and all of its political subdivisions and taxing authorities.

A copy of the form of opinion of Bond Counsel is set forth in Appendix D.

The Code imposes various restrictions, conditions, and requirements relating to the qualification of the Series 2023C Bonds as so-called “tax-exempt” bonds. The District has covenanted to comply with certain restrictions designed to ensure that interest on the Series 2023C Bonds will not be includable in gross income for federal income tax purposes. Failure to comply with these covenants could result in the Series 2023C Bonds not qualifying as “tax-exempt bonds,” and thus interest on the Series 2023C Bonds

being includable in the gross income of the holders thereof for federal income tax purposes. Such failure to qualify and the resulting inclusion of interest could be required retroactively to the date of issuance of the Series 2023C Bonds. The opinion of Bond Counsel assumes compliance with these covenants. However, Bond Counsel has not undertaken to determine (or to inform any person) whether any actions taken (or not taken) or events occurring (or not occurring) after the date of issuance of the Series 2023C Bonds may adversely affect either the federal or Kentucky tax status of the Series 2023C Bonds.

Certain requirements and procedures contained or referred to in the Resolution and other relevant documents may be changed and certain actions (including, without limitation, defeasance of the Series 2023C Bonds) may be taken or omitted under the circumstances and subject to the terms and conditions set forth in such documents. Bond Counsel expresses no opinion as to any Series 2023C Bonds or the interest thereon if any such change occurs or action is taken or omitted upon the advice or approval of bond counsel other than Wyatt, Tarrant & Combs, LLP.

Although Bond Counsel is of the opinion that interest on the Series 2023C Bonds will be excludable from gross income for federal income tax purposes and the Series 2023C Bonds and the interest thereon will be exempt from taxation in Kentucky, as described above, the ownership or disposition of, or the accrual or receipt of interest on, the Series 2023C Bonds may otherwise affect a Holder's federal, state or local tax liabilities. The nature and extent of these other tax consequences may depend upon the particular tax status of the Holder or the Holder's other items of income, deduction, or credit. Bond Counsel expresses no opinions regarding any tax consequences other than what is set forth in its opinion and each Holder or potential Holder is urged to consult with tax counsel with respect to the effects of purchasing, holding, or disposing of Series 2023C Bonds on the tax liabilities of the Holder.

Receipt of interest on, or ownership or disposition of, Series 2023C Bonds may result in other collateral federal, state, or local tax consequence for certain taxpayers. Such effects may include, without limitation, increasing the federal tax liability of certain foreign corporations subject to the branch profits tax imposed by Section 884 of the Code, increasing the federal tax liability of certain insurance companies under Section 832 of the Code, increasing the federal tax liability and affecting the status of certain S Corporations subject to Sections 1362 and 1375 of the Code, increasing the federal tax liability of certain individual recipients of Social Security or Railroad Retirement benefits under Section 86 of the Code, and limiting the amount of earned income credit under Section 32 of the Code that might otherwise be available. Ownership of any of the Series 2023C Bonds may also result in the limitation of interest and certain other deductions for financial institutions and other taxpayers pursuant to Section 265 of the Code. Residence of the Holder of Series 2023C Bonds in a state other than Kentucky or being subject to tax in a state other than Kentucky may result in income or other tax liabilities being imposed by such states or their political subdivisions based on the interest on or other income from the Series 2023C Bonds.

The District has *not* designated the Series 2023C Bonds as "qualified tax-exempt obligations" under Section 265 of the Code.

### **Original Issue Premium**

"Acquisition Premium" is the excess of the cost of a bond over the stated redemption price of such bond at maturity or, for bonds that have one or more earlier call dates, the amount payable at the next earliest call date. The Series 2023C Bonds having a yield that is lower than their stated interest rate, as shown on the inside cover page hereto (the "Premium Bonds"), are being initially offered and sold to the public at an Acquisition Premium. For federal income tax purposes, the amount of Acquisition Premium on each bond the interest on which is excludable from gross income for federal income tax purposes ("tax- exempt bonds") must be amortized and will reduce the bondholder's adjusted basis in that bond. However, no amount of amortized Acquisition Premium on tax-exempt bonds may be deducted in determining the

holder's taxable income for federal income tax purposes. The amount of any Acquisition Premium paid on the Premium Bonds that must be amortized during any period will be based on the "constant yield" method, using the original bondholder's basis in such bonds and compounding semiannually. This amount is amortized ratably over the semiannual period on a daily basis.

Holders of Premium Bonds should consult their own tax advisors as to the effect of Acquisition Premium with respect to their own tax situation and as to the treatment of Acquisition Premium for state tax purposes.

## **FINANCIAL STATEMENTS**

The financial statements of the District for the fiscal year ended June 30, 2022 included in Appendix B of this Official Statement, which is an integral part of this Official Statement, have been audited by Crowe LLP, independent auditors, as stated in their report.

The interim unaudited financial statements of the District for the fiscal year ended June 30, 2023 and the two months ended August 31, 2023 are included in Appendix C, which is an integral part of this Official Statement.

## **RATINGS**

Moody's Investors Service, Inc. ("Moody's") and S&P Global Ratings, a division of Standard & Poor's Financial Services LLC ("S&P") have assigned the ratings of "Aa3" and "AA", respectively, to the Series 2023C Bonds. Such ratings reflects only the views of the respective rating agencies. An explanation of the significance of the rating given by Moody's may be obtained from Moody's Investors Service, Inc., 7 World Trade Center, 250 Greenwich Street, Public Finance Group - 23rd Floor, New York, New York 10007, (212) 553-0300; and an explanation of the rating given by S&P may be obtained from S&P Global Ratings, 55 Water Street, New York, New York 10041, (212) 438-2124. There is no assurance that such ratings will continue for any given period of time or that they will not be revised downward or withdrawn entirely by such organizations if, in the judgment of such organizations, circumstances so warrant. Any such downward revision or withdrawal of such ratings could have adverse effects on the market price of the Series 2023C Bonds.

## **UNDERWRITING**

The Series 2023C Bonds are being purchased for reoffering by BofA Securities, Inc. (the "2023C Underwriter"). The 2023C Underwriter has agreed to purchase the Series 2023C Bonds at an aggregate purchase price of \$371,357,836.42 (representing the \$351,975,000 par amount of the Series 2023C Bonds, plus original issue premium of \$20,178,500.55, and less underwriter's discount of \$795,664.13). The initial public offering price, which produces the yield set forth on the cover page of this Official Statement, may be changed by the 2023C Underwriter and the 2023C Underwriter may offer and sell the Series 2023C Bonds to certain dealers (including dealers depositing Series 2023C Bonds into investment trusts) and others at prices lower than the offering prices which produce the yields set forth on the cover page.

## **FINANCIAL ADVISOR**

PFM Financial Advisors LLC has been engaged as Financial Advisor to the District in connection with the issuance of the Series 2023C Bonds. The Financial Advisor's fee for services rendered with respect to the sale of the Series 2023C Bonds is contingent upon the issuance and delivery thereof. PFM Financial Advisors LLC, in its capacity as Financial Advisor, does not assume any responsibility for the information, covenants and representations contained in any of the legal documents with respect to the federal income

tax status of the Series 2023C Bonds, or the possible impact of any present, pending or future actions taken by any legislative or judicial bodies. The information set forth herein was provided by the District and other sources believed to be reliable, but is not guaranteed as to accuracy or completeness by, and is not to be construed as a representation of the Financial Advisor.

### VERIFICATION OF MATHEMATICAL COMPUTATIONS

Prior to the delivery of the Series 2023C Bonds, Samuel Klein and Company, Certified Public Accountants, an independent accounting firm, as Verification Agent, will deliver a report on the mathematical accuracy of certain computations contained in the schedules relating to the “PLAN OF FINANCE” for the Series 2023C Bonds. These computations will relate to the adequacy of the money and maturing principal amounts and interest payments of the securities on deposit in the Series 2023C escrow accounts for the payment, when due, of principal of and interest on the obligations to be refunded by the Series 2023C Bonds. The Verification Agent will express no opinion on the assumptions provided to it by the Financial Advisor, nor as to the exclusion from gross income for federal income tax purposes of the interest on the Series 2023C Bonds.

### CONTINUING DISCLOSURE

In accordance with Securities and Exchange Commission Rule 15c2-12 (the “Rule”), the District will agree, pursuant to a Continuing Disclosure Certificate to be dated and delivered as of the date of issuance and delivery of the Series 2023C Bonds (the “Disclosure Certificate”), to cause the following information to be provided:

(i) to the Municipal Securities Rulemaking Board (the “MSRB”), certain annual financial information and operating data, including audited financial statements prepared in accordance with generally accepted accounting principles as applied to governmental units, generally consistent with the information contained under the headings “THE DISTRICT” “RATES AND CHARGES - Rate History,” and in “Appendix B” of the Official Statement; such information shall be provided on or before the January 1 following the fiscal year ending on the preceding June 30, commencing with the fiscal year ended June 30, 2023; provided that the audited financial statements may not be available by such date, but will be made available immediately upon delivery thereof by the auditor to the obligated person;

(ii) in a timely manner not in excess of ten business days after the occurrence of the events to the MSRB, notice of the occurrence of the following events with respect to the Bonds:

- (a) Principal and interest payment delinquencies;
- (b) Non-payment related defaults, if material;
- (c) Unscheduled draws on debt service reserves reflecting financial difficulties;
- (d) Unscheduled draws on credit enhancements reflecting financial difficulties;
- (e) Substitution of credit or liquidity providers, or their failure to perform;
- (f) Adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701- TEB) or other material notices or determinations with respect to the tax status of the security, or other material events affecting the tax-exempt status of the security;
- (g) Modifications to rights of security holders, if material;

- (h) Bond calls, if material, and tender offers (except for mandatory scheduled redemptions not contingent upon the occurrence of an event);
- (i) Defeasances;
- (j) Release, substitution or sale of property securing repayment of the securities, if material;
- (k) Rating changes;
- (l) Bankruptcy, insolvency, receivership or similar event of the obligated person (Note: For the purposes of this event, the event is considered to occur when any of the following occur: The appointment of a receiver, fiscal agent or similar officer for an obligated person in a proceeding under the U.S. Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the obligated person , or if such jurisdiction has been assumed by leaving the existing governing body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the obligated person);
- (m) The consummation of a merger , consolidation, or acquisition involving an obligated person or the sale of all or substantially all of the assets of the obligated person , other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material;
- (n) Appointment of a successor or additional trustee or the change of name of a trustee, if material;
- (o) Incurrence of a financial obligation of the obligated person, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a financial obligation of the obligated person, any of which affect security holders, if material; and
- (p) Default, event of acceleration, termination event, modification of terms, or other similar events under the terms of the financial obligation of the obligated person, any of which reflect financial difficulties.

(iii) in a timely manner, to the MSRB, notice of a failure of the obligated person to provide the required Annual Financial Information on or before the date specified in the Continuing Disclosure Certificate.

The Disclosure Certificate provides holders of the Series 2023C Bonds, including beneficial owners of the Series 2023C Bonds, with certain enforcement rights in the event of a failure by the District to comply with the terms thereof; however, a default under the Disclosure Certificate does not constitute an event of default under the Resolution. The Disclosure Certificate may also be amended or terminated under certain circumstances in accordance with the Rule as more fully described therein. Holders of the Series 2023C Bonds are advised that the Disclosure Certificate, the form of which is obtainable from the Financial Advisor, should be read in its entirety for more complete information regarding its contents.

For purposes of this transaction with respect to events as set forth in the Rule:

- (i) the District is the obligated person;

- (ii) there are no credit enhancements applicable to the Bonds; and
- (iii) there are no liquidity providers applicable to the Bonds.

Pursuant to outstanding continuing disclosure undertakings (the “Existing Undertakings”) the District is required to file certain annual financial information with the MSRB by January 1 of each year. The District has filed its annual financial information in accordance with the Existing Undertakings and, to the best of the District’s knowledge, is in material compliance with the continuing disclosure undertaking requirements of the Rule in connection with its outstanding obligations that are subject to such requirements. In the past five years, the District has been made aware that there have been changes to the credit ratings on certain obligations of the District resulting from changes to the credit rating of credit enhancers providing bond insurance for those obligations, for which continuing disclosure event notices were not filed. Such changes to the credit ratings were made without any formal notice of the change to the District.

**CONCLUDING STATEMENT**

The foregoing summaries or descriptions of provisions of the Resolution and all references to other materials not quoted in full are only brief outlines of certain provisions thereof and do not purport to be complete statements of such documents and provisions. Reference is hereby made to the complete documents, copies of which will be furnished by the District upon request, for further information.

Any statements in this Official Statement involving matters of opinion, whether or not expressly so stated, are intended as such and not as representations of fact. This Official Statement is not to be construed as a contract or agreement between the District and the purchasers or holders of any of the Series 2023C Bonds.

This Official Statement has been approved by the District as of the date set forth on the cover hereof.

**LOUISVILLE AND JEFFERSON COUNTY  
METROPOLITAN SEWER DISTRICT**

By:  /s/ Marita Willis  
Chair

By:  /s/ Brad Good  
Chief Financial Officer

**APPENDIX A**  
**DEFINITIONS OF CERTAIN TERMS AND SUMMARY OF PROVISIONS OF THE**  
**RESOLUTION**

## SUMMARY OF PROVISIONS OF THE RESOLUTION

The descriptions and summaries set forth herein are not intended to be comprehensive or definitive, and reference is made to the Resolution for the complete details of all terms and conditions. All statements herein are qualified in their entirety by reference to the Resolution. Copies of the Resolution are available from the District.

### Definitions

“Account” means an Account established pursuant to the Resolution.

“Accountant’s Certificate” means a certificate of an independent certified public accountant or firm of accountants (who may be the accountant or firm which regularly audits the books of the District) selected by the District.

“Accreted Value” means, with respect to any Capital Appreciation Bond, an amount equal to the principal amount of such Capital Appreciation Bond (determined on the basis of the principal amount per \$5,000 at maturity thereof) plus the amount assuming semi-annual compounding of earnings which would be produced on the investment of such principal amount, beginning on the dated date of such Capital Appreciation Bond and ending at the maturity date thereof, at a yield which, if produced until maturity, will produce \$5,000 at maturity. As of any Valuation Date, the Accreted Value of any Capital Appreciation Bonds shall mean the amount set forth for such date in the Supplemental Resolution authorizing such Capital Appreciation Bonds and as of any date other than a Valuation Date, the sum of (a) the Accreted Value on the preceding Valuation Date and (b) the product of (1) a fraction, the numerator of which is the number of days having elapsed from the preceding Valuation Date and the denominator of which is the number of days from such preceding Valuation Date to the next succeeding Valuation Date and (2) the difference between the Accredited Values for such Valuation Dates.

“Accrued Aggregate Debt Service” for any period means, as of any date of calculation and with respect to any Series, an amount equal to the sum of the amounts of accrued Debt Service with respect to all Series, calculating the accrued Debt Service with respect to each Series at an amount equal to the sum of [i] interest on the Bonds of such Series accrued and unpaid and to accrue to the end of the then current calendar month and [ii] Principal Installments due and unpaid and that portion of the Principal Installment for such Series next due which would have accrued (if deemed to accrue in the manner set forth in the definition of Debt Service) to the end of such calendar month. The principal and interest portions of the Accreted Value and Appreciated Value of Capital Appreciation Bonds and Capital Appreciation and Income Bonds, respectively, becoming due at maturity or by virtue of a Sinking Fund Installment shall be included in the calculations of accrued and unpaid and accruing interest or Principal Installments in such manner and during such period of time as is specified in the Supplemental Resolution authorizing such Bonds.

“Act” means Kentucky Revised Statutes Chapter 76, including particularly Sections 76.055 et seq., inclusive, as the same may be from time to time amended, and successor provisions.

“Additional Bonds” means Bonds authenticated and delivered upon original issuance pursuant to the Resolution and any Bonds thereafter authenticated and delivered in lieu of or in substitution for such Bonds pursuant to the Resolution.

“Agent Member” shall mean a member of, or participant in, the Securities Depository. “Aggregate Debt Service” for any period means, as of any date of calculation and with respect to all Bonds, the sum of the amounts of Debt Service for such period.



“Aggregate Net Debt Service” for any period means, as of any date of calculation and with respect to all Bonds, the Aggregate Debt Service for such period, less any amounts available or expected to be available in the ordinary course for the payment of Debt Service during such period pursuant to the Resolution (including but not limited to interest or other income available or expected to be available for payment of Debt Service during such period from the Reserve Account).

“Annual Budget” means the budget adopted or in effect for a particular Fiscal Year as provided in the Resolution.

“Appreciated Value” means, with respect to any Capital Appreciation and Income Bond up to the Interest Commencement Date, an amount equal to the principal amount of such Capital Appreciation and Income Bond (determined on the basis of the principal amount per \$5,000 at the Interest Commencement Date thereof) plus the amount, assuming semi-annual compounding of earnings which would be produced on the investment of such principal amount, beginning on the dated date of such Capital Appreciation and Income Bond and ending on the Interest Commencement Date, at a yield which, if produced until the Interest Commencement Date, will produce \$5,000 at the Interest Commencement Date. As of any Valuation Date, the Appreciated Value of any Capital Appreciation and Income Bond shall mean the amount set forth for such date in the Supplemental Resolution authorizing such Capital Appreciation Bonds and as of any date other than a Valuation Date, the sum of (a) the Appreciated Value on the preceding Valuation Date and (b) the product of (1) a fraction, the numerator of which is the number of days having elapsed from the preceding Valuation Date and the denominator of which is the number of days from such preceding Valuation Date to the next succeeding Valuation Date and (2) the difference between the Appreciated Values for such Valuation Dates.

“Authorized Newspaper” means The Bond Buyer or any other financial newspaper customarily published at least once a day for five days (other than legal holidays) in each calendar week, printed in the English language and of general circulation in the Borough of Manhattan, City and State of New York.

“Authorized Officer of the District” means any person authorized by the District to perform the act or sign the document in question.

“Board” means the Board of the District, or such board, commission or agency as may succeed to the duties and responsibilities of such Board.

“Bond” or “Bonds” means any bonds, notes or other evidences of indebtedness (other than Subordinated Debt), as the case may be, authenticated and delivered pursuant to the Resolution.

“Bond Counsel” means a nationally recognized municipal bond attorney or firm of municipal bond attorneys, acceptable to the District.

“Bond Fund” means the Bond Fund established in the Resolution.

“Bondholder” or “Holder of Bonds” or “Holder” means any person who shall be the registered owner of any Bond or Bonds. Notwithstanding this definition, with respect to any Bonds which are registered in Book-Entry Form, the Paying Agent shall be entitled to rely upon written instructions from a majority of the beneficial owners of the Bonds with reference to consent, if any, required from Bondholders under the Resolution.

“Bond Register” means the form or system or document in which the ownership of Bonds is recorded by the Bond Registrar.

“Bond Registrar” means any bank or trust company organized under the laws of any state of the United States of America or national banking association appointed by the District to perform the duties of Bond Registrar enumerated in the Resolution.

“Book-Entry Form” or “Book-Entry System” means, with respect to the Bonds, a form or system, as applicable, under which (i) the ownership of beneficial interests in Bonds and bond service charges may be transferred only through a book entry and (ii) physical Bond certificates in fully registered form are registered only in the name of a Securities Depository or its nominee as Holder, with the physical Bond certificates in the custody of a Securities Depository.

“Business Day” means any day other than a Saturday, Sunday or legal holiday in the Commonwealth or a day on which either Bond Registrar, the Paying Agent or the District is legally authorized to close.

“Capital Appreciation Bonds” means any Bonds issued under the Resolution as to which interest is payable only at the maturity or prior redemption of such Bonds, as further described in the Resolution.

“Capital Appreciation and Income Bonds” means any Bonds issued under the Resolution as to which interest is deferred prior to the Interest Commencement Date, as further described in the Resolution.

“Chairperson” means the Chairperson of the District, or such Officer of the District as may succeed to the duties and responsibilities of the Chairperson.

“Commonwealth” means the Commonwealth of Kentucky.

“Construction and Acquisition Fund” means the Construction and Acquisition Fund established in the Resolution.

“Cost of Construction and Acquisition” means, with respect to a Project, the District’s costs, expenses and liabilities paid or incurred or to be paid or incurred by the District in connection with the planning, engineering, designing, acquiring, constructing, installing and financing, of a Project and the obtaining of all governmental approvals, certificates, permits and licenses with respect thereto, including, but not limited to, all costs relating to the acquisition, construction and installation of a Project and the cost of any demolitions or relocations necessary in connection therewith, any good faith or other similar payment or deposits required in connection with the purchase of a Project, the cost of acquisition by or for the District of real and personal property or any interests therein, and costs of the District incidental to such construction, acquisition or installation all costs relating to injury and damage claims relating to a Project, the cost of any indemnity or surety bonds and premiums on insurance, preliminary investigation and development costs, engineering fees and expenses, contractors’ fees and expenses, the costs of labor, materials, equipment and utility services and supplies, legal and financial advisory fees and expenses, interest and financing costs, including, without limitation, bank commitment, line of credit, and letter of credit fees, bond insurance and indemnity premiums, and any other means of providing credit enhancement or credit support, costs incurred in connection with interest rate exchanges, futures contracts or other similar financing arrangements, fees and expenses of the Fiduciaries, including reasonable fees and expenses of counsel to the Fiduciaries, administration and general overhead expense and costs of keeping accounts and making reports required by the Resolution prior to or in connection with the completion of construction of a Project, amounts, if any, required by the Resolution to be paid into the Bond Fund to provide, among other things, for interest accruing on Bonds and to provide for the Debt Service Reserve Requirement or to be paid into the Renewal and Replacement Account for any of the respective purposes thereof, payment when due (whether at the maturity of principal or the due date of interest or upon redemption or purchase) on any indebtedness of the District, including Bonds, notes and Subordinate Debt, incurred in respect of

any of the foregoing, and working capital and reserves therefor, and all federal, state and local taxes and payments in lieu of taxes legally required to be paid in connection with a Project and shall include reimbursements to the District for any of the above items theretofore paid by or on behalf of the District. It is intended that this definition of Cost of Construction and Acquisition be broadly construed to encompass all costs, expenses and liabilities of the District related to a Project which on the date of adoption of the Resolution or in the future shall be permitted to be funded with the proceeds of Bonds pursuant to the provisions of the laws of the Commonwealth.

“Credit Facility” means, a letter of credit, surety bond, loan agreement, standby purchase agreement or other credit agreement, facility or insurance or guaranty arrangement which has been rated not lower than “A” by Moody’s or S&P’s, or which is issued by an entity whose unsecured long term debt or claims paying ability is rated not lower than “A” by Moody’s or S&P’s, in either case, pursuant to which the District or another person is entitled to obtain funds to pay Bonds and interest thereon tendered to the District or a third party for payment, purchase or redemption in accordance with the Resolution.

“Debt Service” for any period means, as of any date of calculation and with respect to any Series, an amount equal to [i] the interest accruing during such period on Bonds of such Series plus [ii] the portion of each Principal Installment for such Series which would accrue during such period if such Principal Installment were deemed to accrue periodically in equal amounts from the next preceding Principal Installment due date for such Series (or, if there shall be no such preceding Principal Installment due date, from a date one year preceding the due date of such Principal Installment or from the date of issuance of the Bonds of such Series, whichever date is later). For Variable Interest Rate Bonds, the annual interest rate thereon and the resulting Debt Service shall be calculated by an Authorized Officer and evidenced by a certificate from such Authorized Officer of the District in accordance with the following procedure: for any Variable Interest Rate Bonds Outstanding on the date such certificate is delivered, an Authorized Officer of the District shall estimate the Debt Service on such Bonds upon reliance upon a written estimate of such Debt Service by the District’s financial advisor which estimate shall include assumptions with respect to the interest rate or rates to be borne by such Bonds and the amounts and due dates of the Principal Installments for such Bonds; provided, however, that the interest rate or rates assumed to be borne by any Variable Interest Rate Bonds shall not be less than the interest rate borne by such Variable Interest Rate Bonds at the time that an Authorized Officer of the District delivers such certificate. The principal and interest portions of the Accreted Value and Appreciated Value of Capital Appreciation Bonds and Capital Appreciation and Income Bonds, respectively, becoming due at maturity or by virtue of a Sinking Fund Installment shall be included in the calculations of accrued and unpaid and accruing interest or Principal Installments in such manner and during such period of time as is specified in the Supplemental Resolution authorizing such Bonds.

“Debt Service Account” means the Debt Service Account of the Bond Fund.

“Debt Service Reserve Requirement” as of a particular date of computation means an amount, computed separately for each Series of Bonds, equal to the least of [i] ten percent (10%) of the face amount of such Series, [ii] one hundred percent (100%) of the maximum Aggregate Net Debt Service (as of the computation date) in the current or any future Fiscal Year and [iii] one hundred twenty-five percent (125%) of average Aggregate Net Debt Service (as of the computation date) in the current or any future Fiscal Year. For Variable Interest Rate Bonds, the Debt Service Reserve Requirement shall be the maximum permitted amount with interest calculated at the lesser of the 30-year Revenue Bond Index (published by The Bond Buyer no more than two weeks prior to the date of sale of such Variable Interest Rate Bonds) or the Maximum Interest Rate. If any Variable Interest Rate Bond shall be converted to a fixed rate Bond for the remainder of the term thereof, and as a result thereof a nominal deficiency shall be created in the Bond Fund, the Debt Service Reserve Requirement shall be adjusted so as to exclude the amount of such deficiency, but the Debt Service Reserve Requirement shall be increased in each Fiscal Year or portion

thereof after the date of such conversion by an amount equal to one hundred percent (100%) of the nominal deficiency, until there is no longer a nominal deficiency.

“Defeasance Obligations” means (i) cash, (ii) U.S. Treasury Certificates, Notes and Bonds (including State and Local Government Series - “SLGS”), (iii) direct obligations of the United States Treasury which have been stripped by the Treasury itself (CATS, TIGRS and similar securities), (iv) interest components of obligations of the Resolution Funding Corporation in book-entry form if such obligations have been stripped by request to the Federal Reserve Bank of New York, (v) pre-refunded municipal bonds rated “Aaa” by Moody’s and “AAA” by S&P; however, if the issue is only rated by S&P, then the pre-refunded bonds must have been pre-refunded with cash, direct U.S. or U.S. guaranteed obligations, or AAA rated pre-refunded municipals, (vi) obligations issued by the following agencies which are backed by the full faith and credit of the United States: (a) direct obligations or fully guaranteed certificates of beneficial ownership of the U.S. Export-Import Bank (Eximbank), (b) certificates of beneficial ownership of the Farmers Home Administration, (c) obligations of the Federal Financing Bank, (d) participation certificates of the General Services Administration, (e) guaranteed Title XI financings of the U.S. Maritime Administration, (f) United States guaranteed New Community Debentures, (g) United States guaranteed public housing notes and bonds, and (h) project notes and local authority bonds of the U.S. Department of Housing and Urban Development, and (vii) any other investments approved in writing by the Insurer.

“District” means the Louisville and Jefferson County Metropolitan Sewer District, a public body corporate and political subdivision, created and established pursuant to the Act.

“Event of Default” shall have the meaning given to such term herein under the caption “Events of Default.”

“Federal Reserve Bank” means any one of the central banks constituting the Federal Reserve System, created by the Federal Reserve Act of 1913, as amended, in order to regulate and aid the member banks in its respective Federal Reserve district.

“Fiduciary” or “Fiduciaries” means the Bond Registrar, the Paying Agents, or any or all of them, as may be appropriate or any bank, trust company, national banking association, savings and loan association, savings bank or other banking association selected by the District as a depository of monies and securities held under the provisions of the Resolution, and may include the Bond Registrar.

“Fiscal Year” means each twelve (12) month period commencing on July 1 and ending on the succeeding June 30.

“Fund” or “Funds” means, as the case may be, each or all of the Funds established in the Resolution.

“Government Obligations” means (i) any direct obligations of the United States of America (including obligations issued or held in book-entry form on the books of the Department of the Treasury) or obligations the principal and interest on which are unconditionally guaranteed by the United States of America, and (ii) bonds, debentures, notes or other evidences of indebtedness issued or guaranteed by any of the following federal agencies (including stripped obligations thereof if such obligations have been stripped by the issuing agency itself) provided such obligations are backed by the full faith and credit of the United States of America: [1] Farmer’s Home Administration; [2] General Services Administration; [3] United States Maritime Administration - Guaranteed Title XI Financing; [4] Federal Financing Bank; [5] United States Department of Housing and Urban Development; [6] U.S. Export - Import Bank; [7] Federal Housing Administration Debentures, and [8] Government National Mortgage Association guaranteed mortgage-backed bonds and guaranteed pass-through obligations.

“Insurer” means any nationally recognized company engaged in the business of insuring bonds which may from time to time insure the payment of the principal of and interest on all or a portion of the Bonds of any Series.

“Interest Commencement Date” means, with respect to any particular Capital Appreciation and Income Bond, the date specified in the Supplemental Resolution authorizing such Bonds, (which date must be prior to the maturity date for such Bonds) after which interest ceases to be deferred and compounds and the interest becomes currently payable.

“Investment Securities” means any of the following securities, to the extent legal for investment of the District’s funds: [a] Government Obligations and, to the extent from time to time permitted by law, [b] obligations of [i] Federal Home Loan Banks, senior debt obligations, [ii] Federal Home Loan Mortgage Corporation, participation certificates and senior debt obligations, [iii] Student Loan Marketing Association, senior debt obligations, [iv] Resolution Funding Corporation and [v] Federal National Mortgage Association mortgage-backed securities and senior debt obligations; [c] money market funds registered under the Federal Investment Company Act of 1940, whose shares are registered under the Federal Securities Act of 1933, and having a rating by Standard and Poor’s of AAAm-G, AAAm or AAm; [d] certificates of deposit or time deposits of any bank, any branch of any bank, trust company or national banking association or any savings and loan association; provided, however, that such certificates of deposit or time deposits shall be fully secured, to the extent not insured by the Federal Deposit Insurance Corporation or the Federal Savings and Loan Insurance Corporation, by Government Obligations in which the Bond Registrar has a perfected first security interest, [e] investment agreements (for investment of moneys held in the Construction and Acquisition Fund) or other investments approved in writing by the Insurer, [f] commercial paper rated at the time of purchase, “Prime-1” by Moody’s and “A-1” or better by S&P, [g] bonds or notes issued by any state or municipality which are rated by Moody’s and S&P in one of the two highest rating categories assigned by such agencies, [h] federal funds or banker acceptances with a maximum term of 1 year with a rating of “Prime-1” or “A-3” or better by Moody’s and “A-1” or “A” or better by S&P, and [i] any repurchase agreement approved in writing by the Insurer or any repurchase agreement with a term not in excess of 30 days that is a legal investment for public funds under state law (as determined by a written legal opinion delivered to the District) and is with a primary dealer on the Federal Reserve reporting dealer list rated A or better by Moody’s and S&P or any bank or trust company (including the Bond Registrar) rated “A” or better by Moody’s and S & P for Government Obligations or obligations described in [b] above in which the Bond Registrar shall be given a first security interest and on which no third party shall have a lien. The underlying repurchase obligations must be valued weekly and marked to market at a current market price plus accrued interest of at least 104% (105% if the underlying securities are Federal National Mortgage Association Mortgage-backed securities and senior debt obligations) of the amount of the repurchase obligations of the bank or trust company. All obligations purchased must be transferred to the Bond Registrar or a third party agent by physical delivery or by an entry made on the records of the issuer of such obligations. Any investment in a repurchase agreement shall be considered to mature on the date the obligor providing the repurchase agreement is obligated to repurchase the obligations. Any investment in obligations described in [a] and [b] above may be made in the form of an entry made on the records of the issuer of the particular obligation.

The Bond Registrar, any Paying Agent, other Fiduciaries, or other custodian of funds of the District, respectively, may trade with itself in the purchase and sale of securities for such investment and may charge its ordinary and customary fees for such trades, including cash sweep account fees. In the absence of any direction from the District, the Bond Registrar, any Paying Agent, other Fiduciaries, or other custodian of funds of the District, respectively, shall invest all funds in sweep accounts, money market funds and similar short-term investments, provided that all such investments shall constitute Investment Securities.

“Maximum Interest Rate” means, with respect to any particular Variable Interest Rate Bond, an annual rate of interest, which shall be set forth in the Supplemental Resolution authorizing such Bond, that shall be the maximum rate of interest such Bond may at any time bear.

“Minimum Interest Rate” means, with respect to any particular Variable Interest Rate Bond, an annual rate of interest which may (but need not) be set forth in the Supplemental Resolution authorizing such Bond, that shall be the minimum rate of interest such Bond may at any time bear.

“Moody’s” means Moody’s Investors Service, Inc., a corporation organized and existing under the laws of the State of Delaware, its successors and their assigns, if any.

“Month” means a calendar month.

“Net Revenues” for any period shall mean Revenues, less Operating Expenses for such period. “Operating Expenses” means the District’s reasonable, ordinary, usual or necessary current expenses of maintenance, repair and operation of the System, determined in accordance with generally accepted accounting principles and the enterprise basis of accounting. Operating Expenses shall include, without limiting the generality of the foregoing, [i] expenses not annually recurring, [ii] administrative and engineering expenses (to the extent not paid or reimbursed as a Cost of Construction and Acquisition), payments to pension or retirement funds properly chargeable to the System, insurance premiums, fees and expenses of Paying Agents and legal expenses, [iii] interest on, redemption premium on, or principal of, Subordinated Debt, [iv] any other expenses required to be paid by the District under the provisions of the Resolution or by law and [v] amounts reasonably required to be set aside in reserves for operating items or expenses the payment of which is not then immediately required.

However, Operating Expenses do not include [i] reserves for extraordinary maintenance or repair, or any allowance for depreciation, or any deposits or transfers to the credit of the Bond Fund or the Renewal and Replacement Account, nor any amounts paid or required to be paid to the United States of America pursuant to the Resolution (except to the extent such rebate amounts must be paid from Revenues other than the investment income that generated the liability to the United States), [ii] non- capital Costs of Acquisition and Construction or other costs, to the extent composed of non-capital expenses, salaries, wages and fees that are necessary or incidental to capital improvements for which debt has been issued and which may be paid from proceeds of such debt or [iii] losses from the sale, abandonment, reclassification, revaluation or other disposition of properties of the System nor such property items, including taxes and fuel, which are capitalized pursuant to the then existing accounting practice of the District.

“Opinion of Counsel” means an opinion signed by an attorney or firm of attorneys of nationally recognized standing in the field of law relating to municipal bonds (who may be counsel to the District) selected by the District.

“Option Bonds” means Bonds which by their terms may be tendered by and at the option of the Holder thereof for payment or purchase by the District or a third party prior to the stated maturity thereof, or the maturities of which may be extended by and at the option of the Holder thereof.

“Outstanding” when used with reference to Bonds, means, as of any date, Bonds theretofore or thereupon being authenticated and delivered under the Resolution except:

- (i) Bonds cancelled pursuant to the Resolution at or prior to such date;
- (ii) Bonds (or portion of Bonds) for the payment or redemption of which monies, equal to the principal amount or Redemption Price thereof, as the case may be, with interest to the date

of maturity or redemption date shall be held in trust under the Resolution and set aside for such payment or redemption (whether at or prior to the maturity or redemption date), provided that if such bonds (or portion of Bonds) are to be redeemed, notice of such redemption shall have been given or provision satisfactory to the District shall have been made for the giving of such notice as provided in the Resolution;

(iii) Bonds in lieu of or in substitution for which other Bonds shall have been authenticated and delivered pursuant to the Resolution;

(iv) Bonds deemed to have been paid as provided in the Resolution; and

(v) Option Bonds deemed tendered in accordance with the provisions of the Supplemental Resolution authorizing such Bonds on the applicable adjustment or conversion date if interest thereon shall have been paid through such applicable date and the purchase price thereof shall have been paid or amounts are available for such payment as provided in the Resolution.

“Paying Agent” means any bank or trust company organized under the laws of any state of the United States of America or any national banking association designated as paying agent for the Bonds of any Series, and its successor or successors hereafter appointed in the manner provided in the Resolution.

“Pledged Property” means and includes the following property, as and when received by or for the account of the District, in each case pending the application or expenditure thereof in accordance with the Resolution: [i] the proceeds of sale of Bonds, [ii] all Revenues, [iii] all amounts on deposit in the Funds or Accounts established under the Resolution, [iv] such other amounts as may be pledged from time to time by the District as security for the payment of Bonds and [v] all proceeds of the foregoing.

“Principal Installment” means, as of the date of calculation and with respect to any Series, so long as any Bonds thereof are Outstanding, [i] the principal amount of Bonds of such Series due on a certain future date for which no Sinking Fund Installments have been established (including the principal amount of Option Bonds tendered for payment and not purchased), [ii] the Sinking Fund Installment due on a certain future date for Bonds of such Series and [iii] if such future dates coincide, the sum of such principal amount and such Sinking Fund Installment.

“Project” means any project directly or indirectly related to the facilities provided or to be provided by the District which is to be included as part of the System and is permitted by the Act, and any modification or substitution of such facilities by the District.

“Record Date” means a Regular Record Date or a Special Record Date.

“Redemption Price” means, with respect to any Bond, the principal amount thereof plus the applicable premium, if any, payable upon redemption thereof pursuant to such Bond.

“Refunding Bonds” means all Bonds, whether issued in one or more Series or as part of a Series, authenticated and delivered to refund Bonds previously issued and Outstanding under the Resolution.

“Renewal and Replacement Account” means the account of that name which is maintained pursuant to the Resolution.

“Reserve Account” means the Reserve Account of the Bond Fund.

“Resolution” means the Sewer and Drainage System Revenue Bond Resolution of the District originally adopted on December 9, 1992 and amended and restated in its entirety on June 30, 1993, as from time to time amended or supplemented.

“Revenue Fund” means the Revenue Fund which is maintained pursuant to the Resolution.

“Revenues” means all revenues, rates, fees, rents, charges and other operating income and receipts, as derived by or for the account of the District from or for the operation, use or services of the System, determined in accordance with generally accepted accounting principles and the enterprise basis of accounting. Revenues shall include, without limiting the generality of the foregoing, [i] revenue from capital charges recovered or reimbursed to the District, capacity charges and service connection fees, [ii] acquisition surcharges and assessments levied by the District (regardless of whether any of the same are allocated or designated by the District for capital expenditures) and [iii] interest or other income received or to be received from any source, including but not limited to interest or other income received or to be received on any monies or securities held pursuant to the Resolution. Revenues shall not include customer deposits and contributions in aid of construction, except to the extent the same would constitute revenues or income in accordance with generally accepted accounting principles.

“S&P’s” means Standard & Poor’s Corporation, a corporation organized and existing under the laws of the State of New York, and its successors and their assigns, if any.

“Secretary-Treasurer” means the Secretary-Treasurer of the District, or such officer of the District as may succeed to the duties and responsibilities of the Secretary-Treasurer.

“Securities Exchange Act” means the Securities Exchange Act of 1934, as amended.

“Securities Depository” means any securities depository that is 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, operating and maintaining, with its participants or otherwise, a Book-Entry System to record ownership of beneficial interests in bonds and bond service charges, and to effect transfers of bonds in Book-Entry Form, and means, initially, The Depository Trust Company (a limited purpose trust company), New York, New York.

“Securities Depository Nominee” means any nominee of a Securities Depository and shall initially mean Cede & Co., New York, New York, as nominee of The Depository Trust Company.

“Senior Subordinated Debt” means any debt of the District subordinated to the Bonds and payable from the Senior Subordinated Debt Fund, including without limitation, such Notes of the District as may be issued pursuant to the Subordinate Debt Resolution of the District adopted on June 30, 1993, as the same may be amended from time to time.

“Senior Subordinated Debt Fund” means the Senior Subordinated Debt Fund which is maintained pursuant to the Resolution.

“Series” means all of the Bonds authenticated and delivered on original issuance and identified pursuant to the Resolution or any Supplemental Resolution authorizing such Bonds as a separate Series of Bond, and any Bonds thereafter authenticated and delivered in lieu of or in substitution for such Bonds pursuant to the Resolution, regardless of variations in maturity, interest rate, Sinking Fund Installments, or other provisions.



“Sinking Fund Installment” means an amount so designated which is established pursuant to the Resolution.

“Subordinated Debt” means indebtedness of the System which is subordinate to the Bonds issued under the Resolution including the Senior Subordinated Debt.

“Supplemental Resolution” means any resolution supplemental to or mandatory of this Resolution adopted by the District in accordance with the Resolution.

“System” means [i] the sewer facilities, drainage facilities and all appurtenant facilities or any other facilities owned, operated or controlled by the District from time to time, [ii] any Project and [iii] all improvements, additions, extensions and betterments to the foregoing which may be hereafter acquired by the District by any means whatsoever.

“Valuation Date” means with respect to any Capital Appreciation Bonds and Capital Appreciation and Income Bonds, the date or dates set forth in the Supplemental Resolution authorizing such Bonds on which specific Accreted Values or Appreciated Values are assigned to the Capital Appreciation Bonds and Capital Appreciation and Income Bonds, as the case may be.

“Variable Interest Rate” means a variable interest rate to be borne by a Series of Bonds or anyone or more maturities within a Series of Bonds.

“Variable Interest Rate Bonds” for any period means bonds which during such period bear a Variable Interest Rate, provided that Bonds the interest rate on which shall have been fixed for the remainder of the term thereof shall no longer be Variable Interest Rate Bonds.

“Vice-Chairperson” means the Vice-Chairperson of the District, or such officer of the District as may succeed to the duties and responsibilities of the Vice-Chairperson.

### **The Pledge Effected by the Resolution**

The Bonds are special and limited obligations of the District payable, solely from and secured as to the payment of the principal and Redemption Price thereof, and interest thereon, in accordance with their terms and the provisions of the Resolution, solely from the Pledged Property. There are by the Resolution pledged and assigned as security for the payment of the principal and Redemption Price of, and interest on, the Bonds in accordance with their terms and the provisions of the Resolution, subject only to the provisions of the Resolution permitting the application thereof for the purposes and on the terms and conditions set forth in the Resolution, the Pledged Property.

### **Establishment of Funds and Accounts; Application of Revenues**

The Resolution establishes the following Funds and Accounts:

- (a) Construction and Acquisition Fund to be held by the District,
- (b) Revenue Fund to be held by the District,
- (c) Bond Fund to be held by the Paying Agent which shall consist of a Debt Service Account and a Reserve Account,
- (d) Renewal and Replacement Account to be held by the District, and
- (e) Senior Subordinated Debt Fund to be held by the District.

The District may, for accounting or allocation purposes, [i] establish one or more additional accounts or subaccounts within the Construction and Acquisition Account, the Revenue Fund, the Bond Fund or the Renewal and Replacement Account, or [ii] to the extent not expressly prohibited by other provisions hereof, commingle amounts between or among any or all of such Funds or Accounts, except the Senior Subordinated Debt Fund.

***Construction and Acquisition Fund.*** There shall be paid into the Construction and Acquisition Fund the amounts required to be so paid by the provisions of the Resolution, and there may be paid into the Construction and Acquisition Fund, at the option of the District, any monies received by the District from any source, unless required to be otherwise applied as provided by the Resolution. Amounts in the Construction and Acquisition Fund shall be applied to pay the Cost of Construction and Acquisition in the manner provided in the Resolution and the Supplemental Resolution authorizing a Series of Bonds to finance the Cost and Acquisition of a Project.

There shall be established within the Construction and Acquisition Fund a separate account for a Project.

The proceeds of insurance, if any, maintained pursuant to the Resolution against physical loss of or damage to the System, or of contractors' performance bonds or other assurances of completion with respect thereof, or pertaining to the period of construction thereof, shall be paid into the appropriate separate account in the Construction and Acquisition Fund.

The Secretary-Treasurer of the District shall make payments from the Construction and Acquisition Fund, except payments and withdrawals pursuant to the Resolution as described in the next paragraph, in the amounts, at the times, in the manner, and on the other terms and conditions set forth in the Resolution. The Secretary-Treasurer or other Authorized Officer of the District shall maintain adequate records in respect of all payments made, including [a] the particular account established within the Construction and Acquisition Fund from which such payment is to be made, [b] the name and address of the person, firm or corporation to whom payment is due, [c] the amount to be paid and [d] the particular item of the Cost of Construction and Acquisition to be paid and that the cost or the obligation in the stated amount is a proper charge against the Construction and Acquisition Fund which has not been previously paid. The Secretary-Treasurer shall issue a check for each payment required by such requisition or shall by interbank transfer or other method arrange to make the payment required by such requisition.

Notwithstanding any of the provisions of the Resolution as described under this caption, except as provided below, to the extent that other monies are not available therefor, amounts in the Construction and Acquisition Fund shall be applied to the payment of Principal Installments of and interest on Bonds when due; provided, however, that proceeds (and investment earnings thereon) from the issuance by the District of Senior Subordinated Debt shall not be subject to the priority in favor of the Bonds created by the Resolution, but may instead be pledged by the District as security and a source of payment first for the Senior Subordinated Debt pursuant to the resolution or resolutions of the District authorizing such Senior Subordinated Debt, in which event such amounts shall be applied to the payment of debt service on the Senior Subordinated Debt when due to the extent that other monies are not available therefor, and shall not be used to pay debt service on any Bonds if there is any Senior Subordinated Debt which remains outstanding and unpaid.

An adequate record of the completion of construction of a Project financed in whole or in part by the issuance of Bonds shall be maintained by an Authorized Officer of the District. The balance in the separate account in the Construction and Acquisition Fund established therefor shall be transferred to the Reserve Account in the Bond Fund, if and to the extent necessary to make the amount of such Account

equal to the Debt Service Reserve Requirement, and any excess amount shall be paid over or transferred to the District for deposit in the Revenue Fund.

***Application of Revenues.***

All Revenues shall be promptly deposited by the District upon receipt thereof into the Revenue Fund.

There shall be withdrawn in each month the following amounts, for deposit as set forth below and in the order of priority set forth below.

(i) To the Bond Fund, [i] for credit to the Debt Service Account, the amount, if any, required so that the balance in such Account shall equal the Accrued Aggregate Debt Service as of the last day of the then current month or, if interest or principal are required to be paid to Holders of Bonds during the next succeeding month on a day other than the first day of such month, Accrued Aggregate Debt Service as of the day through and including which such interest or principal is required to be paid and [ii] for credit to the Reserve Account, the amount, if any, required for such Account, after giving effect to any surety bond, insurance policy, letter of credit or other similar obligation deposited in such Account pursuant to the Resolution, to equal one-twelfth (1/12) of the difference between [a] the amount then in the Reserve Account immediately preceding such deposit and [b] the actual Debt Service Reserve Requirement as of the last day of the then current month ; and

(ii) To the Senior Subordinated Debt Fund the amount, if any, required to pay the scheduled base and additional rental payments when due on the Senior Subordinated Debt and make deposits, if any, for reserves therefor, in accordance with the provisions of, and subject to the priorities and limitations and restrictions provided in, the Senior Subordinated Debt; and

(iii) Each month the District shall pay from the Revenue Fund such amounts as are necessary to meet Operating Expenses for such month; and

(iv) To the Renewal and Replacement Account, a sum equal to 1/12 of the amount, if any, provided in the Annual Budget to be deposited in the Renewal and Replacement Account during the then current Fiscal Year; provided that, if any such monthly allocation to the Renewal and Replacement Account shall be less than the required amount, the amount of the next succeeding monthly payment shall be increased by the amount of such deficiency.

The balance of monies remaining in the Revenue Fund after the above required payments have been made may be used by the District for any lawful purpose relating to the System; provided, however, that none of the remaining monies shall be used for any purpose other than those hereinabove specified unless all current payments and including all deficiencies in prior payments, if any, have been made in full and unless the District shall have complied fully with all the covenants and provisions of the Resolution.

So long as there shall be held in the Debt Service Account and the Reserve Account an amount sufficient to pay in full all Outstanding Bonds in accordance with their terms (including principal or applicable sinking fund Redemption Price and interest thereon), no transfers shall be required to be made to the Bond Fund; and provided further, that any deficiency in the Reserve Account, after giving effect to any surety bond, insurance policy or letter of credit deposited in such Account pursuant to the Resolution as described in the fourth paragraph under the caption "Bond Fund - Reserve Account" herein, other than a deficiency attributable to a withdrawal of amounts therefrom pursuant to the Resolution as described in the first paragraph under the caption "Bond Fund - Reserve Account" herein, shall be cured by depositing

into the Reserve Account each month during the period commencing with the month following the month in which the determination of the deficiency was made an amount equal to one- twelfth (1/12th) of the deficiency, except that, if a new valuation of Investment Securities held in the Reserve Account is made pursuant to the Resolution during the period that such deposits are required, then the obligation of the District to make deposits during the balance of such period on the basis of the preceding valuation shall be discharged and the deposits, if any, required to be made for the balance of such period shall be determined under this proviso on the basis of the new valuation.

***Bond Fund - Debt Service Account.***

The Paying Agent, from amounts deposited therein, shall pay out of the Debt Service Account, [i] on or before each interest payment date for any of the Bonds, the amount required for the interest payable on such date, [ii] no later than each Principal Installment due date, the amount required for the Principal Installment payable on such due date and [iii] no later than any redemption date for the Bonds, the amount required for the payment of interest on the Bonds then to be redeemed. In the case of Variable Interest Rate Bonds, the District shall furnish the Paying Agent with a certificate setting forth the amount to be paid on such Bonds on each interest payment date, such certificate shall be furnished on or prior to the appropriate Record Date with respect to any interest payment date. Such amounts shall be applied by the Paying Agents on or after the due dates thereof. The Paying Agent shall also pay out of the Debt Service Account, from amounts deposited therein, the accrued interest included in the purchase price of Bonds purchased for retirement.

Amounts accumulated in the Debt Service Account with respect to any Sinking Fund Installment may be applied on or prior to the 40th day next preceding the due date of such Sinking Fund Installment, to [i] the purchase of Bonds of the Series and maturity for which such Sinking Fund Installment was established or [ii] the redemption at the applicable sinking fund Redemption Price of such Bonds, if then redeemable by their terms. All purchases of any Bonds pursuant to the Resolution as described in this paragraph shall be made at prices not exceeding the applicable sinking fund Redemption Price of such Bonds plus accrued interest. The applicable sinking fund Redemption Price (or principal amount of maturing Bonds) of any Bonds so purchased or redeemed shall be deemed to constitute part of the Debt Service Account until such Sinking Fund Installment date, for the purpose of calculating the amount of such Account. As soon as practicable after the 40th day preceding the due date of any such Sinking Fund Installment, the District shall proceed to call for redemption, by giving notice as provided in the Resolution, on such due date Bonds of the Series and maturity for which such Sinking Fund Installment was established (except in the case of Bonds maturing on a Sinking Fund Installment date) in such amount as shall be necessary to complete the retirement of the unsatisfied balance of such Sinking Fund Installment. The District shall pay out of the Debt Service Account to the appropriate Paying Agents, on or before such redemption date (or maturity date), the amount required for the redemption of the Bonds so called for redemption (or for the payment of such Bonds then maturing), and such amount shall be applied by such Paying Agents to such redemption (or payment).

Unless otherwise provided by the District, upon any purchase or redemption pursuant to the Resolution of Bonds of any Series and maturity for which Sinking Fund Installments shall have been established, there shall be credited, in increments of \$5,000 to the extent practicable, toward each succeeding Sinking Fund Installment thereafter to become due on Bonds, of the same series and maturity (other than the Sinking Fund Installment next coming due) an amount bearing the same ratio, to the Sinking Fund Installment, as the total principal amount of Bonds purchased or redeemed bears to the total principal amount of all the Sinking Fund Installments to be credited. The portion of any principal Sinking Fund Installment remaining after the deduction of any such amounts are credited toward the same shall constitute the unsatisfied balance of such Sinking Fund Installment for the purpose of calculation of Sinking Fund Installments due on a future date.

The amount, if any, deposited in the Debt Service Account from the proceeds of each Series of Bonds shall be set aside in such Account and applied to the payment of interest on Bonds as provided in the Resolution or in accordance with certificates of the District delivered pursuant to the Resolution or, if the District shall modify or amend any such certificate by a subsequent certificate signed by an Authorized Officer of the District, then in accordance with the most recent amended certificate.

In the event of the refunding of any Bonds, the District may withdraw from the Debt Service Account in the Bond Fund all, or any portion of, the amounts accumulated therein with respect to Debt Service on the Bonds being refunded and deposit such amounts with itself to be held for the payment of the principal or Redemption Price, if applicable, and interest on the Bonds being refunded; provided that such withdrawal shall not be made unless (a) immediately thereafter Bonds being refunded shall be deemed to have been paid pursuant to the Resolution as described herein under the caption "Defeasance," and (b) the amount remaining in the Debt Service Account in the Bond Fund, after giving effect to the issuance of Refunding Bonds and the disposition of the proceeds thereof, shall not be less than the requirement of such Account pursuant to the Resolution in the second paragraph under this caption. In the event of such refunding, the District may also withdraw from the Debt Service Account in the Bond Fund all, or any portion of, the amounts accumulated therein with respect to Debt Service on the Bonds being refunded and deposit such amounts in any fund or Account under the Resolution; provided, however, that such withdrawal shall not be made unless items (a) and (b) referred to hereinabove have been satisfied and provided, further, that, at the time of such withdrawal, there shall exist no deficiency in any Fund or Account held under the Resolution, as confirmed in writing to the Bond Registrar by the Secretary-Treasurer.

***Bond Fund - Reserve Account.***

If five days prior to any interest or Principal Installment due date with respect to any Series of Bonds payment for such interest or Principal Installment in full has not been made or provided for, the District shall forthwith withdraw from the Reserve Account an amount not exceeding the amount required to provide or such payment in full and deposit such amount in the Debt Service Account for application to such payment.

Whenever the amount in the Reserve Account shall exceed the Debt Service Reserve Requirement, after giving effect to any surety bond, insurance policy or letter of credit deposited in such Account pursuant to the Resolution as described in the fourth paragraph under this caption, such excess shall be deposited in the Debt Service Account.

Whenever the amount in the Reserve Account (exclusive of any surety bond, letter of credit or insurance policy therein), together with the amount in the Debt Service Account is sufficient to pay in full all Outstanding Bonds in accordance with their terms (including principal or applicable sinking fund Redemption Price and interest thereon), the funds on deposit in the Reserve Account shall be transferred to the Debt Service Account. Prior to said transfer, all investments held in the Reserve Account shall be liquidated to the extent necessary in order to provide for the timely payment of principal and interest (or Redemption Price) on the Bonds.

In lieu of the required transfers or deposits to the Reserve Account, the District may cause to be deposited into the Reserve Account a surety bond or an insurance policy for the benefit of the holders of the Bonds or a letter of credit in an amount equal to the difference between the Debt Service Reserve Requirement and the sums then on deposit in the Reserve Account, if any, after the deposit of such surety bond, insurance policy or letter or credit. Such difference may be withdrawn by the District and be deposited in the Revenue Fund. The surety bond, insurance policy or letter of credit shall be payable (upon the giving of notice as required thereunder) on any due date on which monies will be required to be withdrawn from the Reserve Account and applied to the payment of a Principal Installment of or interest on any Bonds and

such withdrawal cannot be met by amounts on deposit in the Reserve Account. If a disbursement is made pursuant to a surety bond, an insurance policy or a letter of credit provided pursuant to this subsection, the District shall be obligated either (i) to reinstate the maximum limits of such surety bond, insurance policy or letter of credit or (ii) to deposit into the Reserve Account, funds in the amount of the disbursement made under such surety bond, insurance policy or letter of credit, or a combination of such alternatives, as shall provide that the amount in the Reserve Account equals the Debt Service Reserve Requirement. Any other provision under this caption to the contrary notwithstanding, for each particular Series of Bonds or portion thereof which is insured by an Insurer, the right of the District under the Resolution to cause a surety bond or an insurance policy to be deposited into the Reserve Account in lieu of the required transfers or deposits thereto shall be subject to the condition that the District obtain the prior written consent of the Insurer as to the structure and the issuer of such surety bond or insurance policy.

In the event of the refunding of any Bonds, the District may withdraw from the Reserve Account in the Bond Fund all, or any portion of, the amounts accumulated therein with respect to the Bonds being refunded and deposit such amounts with itself to be held for the payment of the principal or Redemption Price, if applicable, and interest on the Bonds being refunded; provided that such withdrawal shall not be made unless (a) immediately thereafter the Bonds being refunded shall be deemed to have been paid pursuant to the Resolution as described in the second paragraph under the caption "Defeasance" herein, and (b) the amount remaining in the Reserve Account in the Bond Fund, after giving effect to the issuance of the Refunding Bonds and the disposition of the proceeds thereof, shall not be less than the Debt Service Reserve Requirement.

If any withdrawals are made from the Reserve Account pursuant to the Resolution, the resulting deficiency, if any, shall be remedied by the application of monthly payments into the Reserve Account as set forth in the Resolution, or by transfers from the Renewal and Replacement Account or both, until the amount on deposit in the Reserve Account is equal to the Debt Service Reserve Requirement, whereupon such deposits shall be discontinued until such time, if any, that there is again a deficiency.

#### ***Renewal and Replacement Account.***

Monies to the credit of the Renewal and Replacement Account may be applied to the cost of major replacements, repairs, renewals, maintenance, betterments, improvements, reconstruction or extensions of the System or any part thereof as may be determined by the Board.

If at any time the monies in the Debt Service Account, the Reserve Account and the Revenue Fund shall be insufficient to pay the interest and Principal Installments becoming due on the Bonds, then the District shall transfer from the Renewal and Replacement Account for deposit in the Debt Service Account the amount necessary (or all the monies in said Fund if less than the amount necessary) to make up such deficiency.

Any balance of monies and securities in the Renewal and Replacement Account not required to meet a deficiency as set forth above or for any of the purposes for which the Renewal and Replacement Account was established, may, on direction of the District, be transferred from the Renewal and Replacement Account to the Reserve Account, if and to the extent necessary to make the amount in such Account equal to the Debt Service Reserve Requirement, and any balance may be deposited in the Debt Service Account or the Revenue Fund.

#### ***Senior Subordinated Debt Fund.***

Subject to the provisions of the Resolution described in the next paragraph, the District shall apply amounts in the Senior Subordinated Debt Fund to the payment of debt service or the scheduled base and

additional rental payments when due on the Senior Subordinated Debt and make deposits, if any, for reserves therefor in accordance with the provisions of, and subject to the priorities and limitations and restrictions provided in, the Senior Subordinated Debt.

Notwithstanding any of the other provisions of the Resolution described under this caption, if at any time the amount on deposit in the Reserve Account shall be less than the Debt Service Reserve Requirement, the District shall forthwith transfer from the Senior Subordinated Debt Fund for deposit in the Reserve Account the amount necessary (or all moneys in said Senior Subordinated Debt Fund, if necessary) to make up such deficiency.

Amounts in the Senior Subordinated Debt Fund which the District at any time determines to be in excess of the requirements of such fund may, at the discretion of the District, be transferred to the Debt Service Account or the Renewal and Replacement Account.

### **Investments**

In making any investment in any Investment Securities with monies in any Fund or Account established under the Resolution, the District may combine, to the extent permitted by law, or instruct such Fiduciary to combine, such monies with monies in any other Fund or Account, but solely for purposes of making such investment in such Investment Securities.

Monies held in the Bond Fund, the Revenue Fund, the Renewal and Replacement Account, the Senior Subordinated Debt Fund and the Construction and Acquisition Fund shall be invested and reinvested to the fullest extent practicable in Investment Securities, maturing not later than such times as shall be necessary to provide monies when needed for payments to be made from such Fund or Account. The Fiduciary, shall make all such investments of monies held by it in accordance with written instructions from time to time received from an Authorized Officer of the District.

Interest (net of that which represents a return of accrued interest) or gain realized on investments in such Funds and Accounts other than the Reserve Account of the Bond Fund, shall be paid into the Revenue Fund, provided that gain realized from the liquidation of an investment shall be governed by the provisions described below. Interest earned or gain realized on investments in the Reserve Account shall be transferred to the Debt Service Account, provided that gain realized from the liquidation of an investment shall be governed by the provisions of the Resolution as described in the first paragraph under the caption "Valuation and Sale of Investments" herein.

Nothing in the Resolution shall prevent any Investment Securities acquired as investments of or security for funds held under the Resolution from being issued or held in book-entry form on the books of the Department of the Treasury of the United States.

Nothing in the Resolution shall preclude any Fiduciary from investing or reinvesting monies through its respective trust department; provided, however, that the District may, in its discretion, direct that such monies be invested or reinvested in a manner other than through such respective trust department.

### **Valuation and Sale of Investments**

Obligations purchased as an investment of monies in any Fund or Account created under the provisions of the Resolution shall be deemed at all times to be a part of such Fund or Account. Any profit realized from the liquidation of such investment shall be credited to such Fund or Account, and any loss resulting from the liquidation of such investment shall be charged to the respective Fund or Account.

In computing the amount in any Fund or Account created under the provisions of the Resolution for any purpose provided in the Resolution, investments shall be valued at the then market price (as of the time of valuation) thereof. The accrued interest paid in connection with the purchase of an investment shall be included in the value thereof until interest on such investment is paid. Such computation shall be determined on June 30 and December 31 in each Fiscal Year and at such other times as the District shall determine.

### **Additional Bonds**

One or more Series of Additional Bonds may be authenticated and delivered upon original issuance at any time or from time to time for the purpose of paying all or a portion of the Cost of Construction and Acquisition of a Project. The proceeds, including accrued interest, of the Additional Bonds of each Series shall be applied simultaneously with the delivery of such Bonds as provided in the Supplemental Resolution authorizing such Series. The conditions for the issuance of Additional Bonds to finance the Acquisition and Construction of Additional Facilities include a certificate of an Authorized Officer of the District setting forth (A) for any period of 12 consecutive calendar months within the 24 calendar months preceding the date of the authentication and delivery, the Net Revenues for such period, and (B) the Aggregate Net Debt Service during the same period for which Net Revenues are computed, with respect to all Series of Bonds which were then Outstanding (excluding from Aggregate Net Debt Service any Principal Installment or portion thereof which was paid from sources other than Net Revenues), and showing that the amount set forth in (A) is equal to or greater than 110% of the amount set forth in (B). The conditions for the issuance of Additional Bonds to finance the Acquisition and Construction of Additional Facilities include a certificate of an Authorized Officer of the District setting forth (A) for the last full Fiscal Year of 12 months (ending June 30) immediately preceding the date of the authentication and delivery, the Net Revenues for such period, or, at the option of the District, for the last 12 consecutive full calendar months immediately preceding the date of the authentication and delivery, the Net Revenues for such period, and (B) the estimated maximum Aggregate Net Debt Service in the current or any future Fiscal Year with respect to [i] all Series of Bonds which are then Outstanding and [ii] the Additional Bonds then proposed to be authenticated and delivered (and for this purpose all Series of Bonds Outstanding plus such proposed Additional Bonds shall be treated as a single Series; that is, the maximum Aggregate Net Debt Service shall be computed collectively with respect to all such Bonds, and not computed cumulatively or separately for each particular Series), and showing that the amount set forth in (A) is equal to or greater than 110% of the amount set forth in (B). For purposes of computing the amount set forth in (A), Net Revenues may be increased to reflect the following amounts: [i] any increases in the rates, fees, rents and other charges for services of the System made subsequent to the commencement of such period and prior to the date of such certificate, [ii] any estimated increases in Net Revenues caused by any Project or Projects having been placed into use and operation subsequent to the commencement of such period and prior to the date of such certificate, as if such Project or Projects had actually been placed into use and operation for the entire period chosen in (A) above and [iii] 75% of any estimated increases in Net Revenues which would have been derived from the operation of any Project or Projects with respect to which the Cost of Construction and Acquisition is to be paid from proceeds of the Additional Bonds proposed to be authenticated and delivered, as if such Project or Projects had actually been placed into use and operation for the entire period chosen in (A) above.

### **Refunding Bonds**

One or more Series of Refunding Bonds may be issued at any time to refund [i] Outstanding Bonds of one or more Series or [ii] one or more maturities within a Series of any Bonds. Refunding Bonds shall be issued in a principal amount sufficient, together with other monies available therefor, to accomplish such refunding and to make the deposits in the Funds and Accounts under the Resolution required by the provisions of the Supplemental Resolution authorizing such Bonds.



Refunding Bonds of each Series shall be authenticated and delivered by the Bond Registrar only upon satisfaction of the following conditions (in addition to the other documents required by the Resolution) of: [i] Instructions to the Bond Registrar, satisfactory to it, to give due notice of redemption, if applicable, of all the Bonds to be refunded on a redemption date or dates specified in such instructions, subject to the provisions of the Resolution described hereinafter under the caption “Defeasance”; [ii] if the Bonds to be refunded are not by their terms subject to redemption or will not be redeemed within the next succeeding 60 days, instructions to the escrow agent described in the Resolution, satisfactory to it, to mail the notice provided for in the Resolution described hereinafter under the caption “Defeasance” to the Holders of the Bonds being refunded; [iii] either (a) cash (including cash withdrawn and deposited pursuant to the Resolution as described herein under the captions “Bond Fund - Debt Service Account” and “Bond Fund - Reserve Account,” respectively) in an amount sufficient to effect payment at the applicable Redemption Price of the Bonds to be refunded, together with accrued interest on such Bonds to the redemption date, which monies shall be held by the escrow agent described in the Resolution or any one or more of the Paying Agents in a separate account irrevocably in trust for and assigned to the respective Holders of the Bonds to be refunded or (b) Investment Securities in such principal amounts, of such maturities, bearing such interest, and otherwise having such terms and qualifications and any monies, as shall be necessary to comply with the provisions of the Resolution as described herein under the caption “Defeasance”, which Investment Securities and monies shall be held in trust and used only as provided in the Resolution described hereinafter under the caption “Defeasance”; and [iv] such further documents and monies as are required by the provisions of the Resolution or any Supplemental Resolution adopted pursuant to the Resolution.

The proceeds, including accrued interest, of the Refunding Bonds of each Series shall be applied simultaneously with the delivery of such Bonds for the purposes of making deposits in such Funds and Accounts under the Resolution as shall be provided by the Supplemental Resolution authorizing such Series of Refunding Bonds and shall be applied to the refunding purposes thereof in the manner provided in such Supplemental Resolution.

### **Subordinated Debt**

The District may, at any time, or from time to time, issue debt or enter into a contract, lease, installment sale agreement or other instrument or lend credit to or guarantee debts, claims or other obligations of any person for any of its corporate purposes payable out of, and which may be secured by a pledge of, such amounts as may from time to time be available for the purpose of payment thereof; provided, however, that such pledge shall be, and shall be expressed to be, subordinate and junior in all respects to the pledge and lien created by the Resolution as security for the Bonds.

### **Creation of Liens; Sale and Lease of Property**

The District shall not issue any bonds, notes, debentures or other evidences of indebtedness of similar nature, other than the Bonds, payable out of or secured by a pledge or assignment of the Pledged Property and shall not create or cause to be created any lien or charge on the Pledged Property; provided, however, that nothing contained in the Resolution shall prevent the District from issuing, if and to the extent permitted by law [i] evidences of indebtedness (a) payable out of monies in the Construction and Acquisition Fund as part of the Cost of Construction and Acquisition of the System or (b) payable out of, or secured by a pledge or assignment of, Revenues to be received on and after such date as the pledge of the Pledged Property provided in the Resolution shall be discharged and satisfied as provided in the Resolution or [ii] Subordinated Debt.

Facilities of the System shall not be sold, leased, mortgaged or otherwise disposed of, except as follows: A. The District may sell or exchange at any time and from time to time any property or facilities

constituting part of the System, at such consideration as the District in its sole discretion deems reasonable or appropriate under all the circumstances, but only if it shall determine that ownership by the District of such property or facilities is not necessary or is not material for the purposes of the District in the operation of the System as a whole; or B. The District may lease or make contracts or grant licenses for the operation of, or make arrangements for the use of, or grant easements or other rights with respect to, any part of the System, provided that any such lease, contract, license, arrangement, easement or right [i] does not materially impede the operation by the District or its agents of the System and [ii] does not materially impair or adversely affect the rights or security of the Bondholders under the Resolution.

### **Operation and Maintenance of System**

The District shall at all times use its best efforts to operate or cause to be operated the System properly and in an efficient and economical manner, and shall use its best efforts to maintain, preserve and keep the same or cause the same to be so maintained, preserved and kept, with the appurtenances and every part and parcel thereof, in good repair, working order and condition, and shall from time to time make or cause to be made, all necessary and proper repairs, replacements and renewals so that at all times the operation of the System may be properly and advantageously conducted. In rendering any report, certificate or opinion requested pursuant to the Resolution, an Authorized Officer of the District may rely upon information, certificates, opinions or reports required to be provided by others pursuant to the Resolution, and upon other sources which an Authorized Officer of the District considers reliable, and other considerations and assumptions as deemed appropriate by an Authorized Officer of the District.

### **Annual Budget**

On or before the first day of each Fiscal Year commencing with the Fiscal Year beginning July 1, 1993, the District shall prepare and adopt an Annual Budget for operating purposes for the ensuing Fiscal Year and will furnish copies thereof to any holder of any Bond. Said Annual Budget shall set forth in reasonable detail the estimated Revenues and Operating Expenses and other anticipated expenditures relating to the System for such Fiscal Year. Following the end of each fiscal quarter and at such other times as the District shall determine, the District shall review its estimates set forth in the Annual Budget for such Fiscal Year, and if a material change has occurred in such estimates, the District also may at any time adopt an amended Annual Budget for the remainder of the then current Fiscal Year.

### **Rents, Rates, Fees and Charges**

The District shall fix, establish, maintain and collect rates, fees, rents and charges for services of the System, which, together with other "Available Revenues" (as hereinafter defined) are expected to produce Available Revenues which will be at least sufficient for each Fiscal Year to pay the sum of: [a] an amount equal to 110% of the Aggregate Net Debt Service for such Fiscal Year; and [b] the amount, if any, to be paid during such Fiscal Year into the Reserve Account in the Bond Fund (other than amounts required to be paid into such Account out of the proceeds of Bonds); and [c] all Operating Expenses for such Fiscal Year as estimated in the Annual Budget; and [d] to the extent not included in the foregoing, an amount equal to the debt service on the Senior Subordinated Debt, any other Subordinated Debt or other debt of the District for such Fiscal Year computed as of the beginning of such Fiscal Year; and [e] amounts necessary to pay and discharge all charges or liens payable out of the Available Revenues when due and enforceable.

For purposes of the preceding paragraph, "Available Revenues" means (i) revenues from all rates, rents and charges and other operating income derived or to be derived by the District from or for the operation, use or services of the System, (ii) any other amounts received from any other source by the District and pledged by the District as security for the payment of Bonds and (iii) interest received or to be received on any moneys or securities held pursuant to the Resolution and paid or required to be paid into

the Revenue Fund or required to be retained in the Debt Service Account in the Bond Fund or transferred to the Debt Service Account in the Bond Fund. "Available Revenues" will exclude, however, any interest income which is capitalized pursuant to generally accepted accounting principles and the enterprise basis of accounting for governmental enterprises, as promulgated by the Governmental Accounting Standards Board, and governmental grants, in-kind contributions of assets and any assessments levied by the District to the extent that such grants, in-kind contributions and assessments are not recognized as operating revenues, other revenues or extraordinary gains pursuant to generally accepted accounting principles for governmental enterprises, as promulgated by the Governmental Accounting Standards Board. Nothing herein under this caption or in the definition of "Available Revenues" for purposes of the covenant described in the preceding paragraph, shall be construed so as to prohibit the District from taking into account interest earned on moneys or securities held under the Resolution, and other income available or expected to be available in the ordinary course for the payment of Debt Service pursuant to the Resolution, in calculating Aggregate Net Debt Service on the Bonds for any calculation period for purposes hereof or otherwise, nor prohibit the District from taking into account interest earned on moneys or securities held under any Resolution or indenture or similar document adopted or entered into in connection with an issuance of Subordinated Debt, and other income available or expected to be available in the ordinary course for the payment of debt service on Subordinated Debt, in calculating debt service payable on Subordinated Debt for any calculation period for purposes hereof or otherwise.

Promptly upon [i] any material decrease in the Revenues anticipated to be produced by any rates, fees, rents or charges or any later review thereof, [ii] any material increase in expenses of operation of the System not contemplated at the time of adoption of the rates, fees, rents and charges then in effect or any later review thereof or [iii] any other material change in the circumstances which were contemplated at the time such rates, fees, rents and charges were most recently reviewed, but not less frequently than once every 12 months, the District shall review the rates, fees, rents and charges so established and shall promptly establish or revise such rates, fees, rents and charges as necessary to comply with the foregoing requirements, provided that such rates, fees, rents and charges shall in any event produce Revenues sufficient, together with other Revenues, if any, available therefor, to enable the District to comply with all its covenants under the Resolution.

In estimating Aggregate Debt Service or Aggregate Net Debt Service on any Variable Interest Rate Bonds for purposes of the first paragraph under this caption, the District shall be entitled to assume that such Variable Interest Rate Bonds will bear such interest rate or rates as the District shall determine; provided, however, that the interest rate or rates assumed shall not be less than the interest rate borne by such Variable Interest Rate Bonds at the time such estimate is made.

## **Insurance**

### ***Maintenance of Insurance.***

The District shall provide protection for the System to the extent necessary to properly conduct the business of the System. Said protection may consist of insurance, self-insurance and indemnities. Any insurance shall be in the form of policies or contracts for insurance with insurers of good standing, shall be payable to the District and may provide for such deductibles, exclusions, limitations, restrictions and restrictive endorsements customary in policies for similar coverage issued to entities operating properties similar to the properties of the System.

### ***Application of Insurance Proceeds.***

In the event of any loss or damage to the System covered by insurance, the District will, with respect to each such loss, promptly repair, reconstruct or replace the parts of the System affected by such loss or

damage to the extent necessary to the proper conduct of the operation of the business of the System, shall cause the proceeds of such insurance to be applied for that purpose to the extent required therefor, and pending such application shall hold the proceeds of any insurance policy covering such damage or loss in trust to be applied for that purpose to the extent required therefor. Any excess insurance proceeds received by the District shall be transferred to the Revenue Fund.

### **Accounts and Reports**

The District shall keep or cause to be kept proper books of record and account (separate from all other records and accounts) in which complete and correct entries shall be made of its transactions relating to the System and each Fund and Account established under the Resolution and which, together with all other books and papers of the District, including insurance policies, relating to the System, shall at all times be subject to the inspection of the Bondholders and the Holders of an aggregate of not less than ten percent (10%) in principal amount of the Bonds then Outstanding or their representatives duly authorized in writing.

The District shall annually, within 180 days after the close of each Fiscal Year commencing with the Fiscal Year ending June 30, 1993, prepare an audit for such Fiscal Year, accompanied by a certificate of an Accountant relating to the System which shall include the following statements in reasonable detail: a statement of assets and liabilities as of the end of such Fiscal Year; and a statement of Revenues and Operating Expenses for such Fiscal Year. Such Certificate shall state whether or not, to the knowledge of the signer, the District is in default with respect to any of the covenants, agreements or conditions on its part contained in the Resolution, and if so, the nature of such default.

The reports, statements and other documents required pursuant to any provisions of the Resolution shall be available for the inspection of Bondholders and shall be mailed to each Bondholder who shall file a written request therefor with the District. The District may charge for such reports, statements and other documents, a reasonable fee to cover reproduction, handling and postage.

### **Tax Covenants Relating to the Internal Revenue Code**

The District shall do the following with respect to Bonds which, when initially issued, are the subject of an Opinion of Counsel to the effect that interest thereon is excluded from gross income for Federal income tax purposes pursuant to the Internal Revenue Code of 1986 or any successor thereto (the "Code"): [a] in order to maintain the exclusion of interest on the Bonds from gross income for Federal income tax purposes, and for no other purpose, the District shall comply with the Code; [b] in furtherance of the covenant contained in the preceding paragraph, the District shall make any and all payments required to be made to the United States Department of the Treasury in connection with the Bonds pursuant to Section 148(f) of the Internal Revenue Code; and [c] Notwithstanding any other provision of the Resolution to the contrary, so long as necessary in order to maintain the exclusion from gross income of interest on the Bonds for Federal income tax purposes, the covenants contained in this Section thereon, including any payment or defeasance thereof pursuant to the Resolution as described under the caption "Defeasance" herein.

### **Events of Default**

Each of the following events (being those provided by Section 76.160 of the Kentucky Revised Statutes) is hereby declared an "event of default"; that is, if: [a] payment of the principal of any of the Bonds is not made on the date therein specified for payment thereof, nor within thirty (30) days thereafter, or payment of any installment of interest is not made on the date specified for such payment, nor within thirty (30) days thereafter, or [b] default shall be made in the due and punctual observance or performance of any of the covenants, conditions and agreements on the part of the District, in the Bonds or in the Resolution, or in any pertinent law contained, and such default shall continue for a period of thirty (30) days.

## **Rights Arising Upon Occurrence of Event of Default**

That upon the happening of any event of default specified in the Resolution as described immediately above, the provisions of said Section 76.160 of Kentucky Revised Statutes shall become operative, and the holder or holders of twenty percent (20%) in principal amount or more of the Bonds then Outstanding pursuant to the Resolution may, by an instrument or instruments filed in the office of the County Clerk of Jefferson County, Kentucky, and approved or acknowledged in the same manner as a deed to be recorded, apply to a Judge in the Circuit Court of such County to appoint a trustee to represent all of the Bondholders. Upon such application, such Judge shall appoint a trustee and such trustee may, and upon the written request of the holder or holders of twenty percent (20%) in principal amount or more of the Bonds Outstanding under the Resolution, shall, in his or its name, (a) by mandamus or other suit, action or proceeding at law, or in equity, mandatory injunction, enforce all rights of the District to collect rates, rentals and other charges adequate to carry out any agreement as to, or pledge of, the revenues and income of the District, and to require the District and its officers to carry out any other agreement with the Bondholders and to perform its and their duties imposed by law; (b) bring suit upon the Bonds; (c) by action or suit in equity require the District to account as if it were the trustee of an express trust for the Bondholders; (d) by action or suit in equity enjoin any acts or things which may be unlawful or in violation of the rights of Bondholders; (e) declare all Bonds due and payable; and (f) pursue any other rights or remedies available at law or in equity. For any Bonds registered in Book-Entry Form, notwithstanding the above definition of "Bondholder," the Paying Agent shall be entitled to rely upon written instructions from a majority of the beneficial owners of the Bonds with reference to consent, if any, required from Holders pursuant to the terms of the Resolution.

Any such trustee, whether or not all Bonds have been declared due and payable, shall be entitled as of right upon application to such Court to the appointment of a receiver, who may enter upon and take possession of the System, or any part or parts thereof, and operate and maintain the same, and collect and receive all rentals, rates, and other charges, and other revenues and income, of the District, thereafter arising therefrom, in the same manner as the District and its officers might do, and shall deposit all such monies in a separate account and apply the same in such manner as such Court shall direct. In any suit, action or proceeding, by the trustee, the fees, counsel fees and expenses of the trustee and of the receiver, if any, shall constitute disbursements taxable as costs. All costs and disbursements allowed by the Court shall be a first charge on any revenue and income derived from the System. Such trustee shall, in addition to the foregoing, have and possess all of the powers necessary or appropriate for the exercise of any functions specifically set forth herein or incident to the general representation of the Bondholders in the enforcement and protection of their rights.

## **Rights of Insurer**

Any other provision of the Resolution to the contrary notwithstanding, and to the extent permitted by law (including the Act), for each particular Series of Bonds or portion thereof that is insured by an Insurer, the exercise by the court appointed trustee or the Bondholders of any rights, powers or privileges granted thereto in the Resolution shall require the written consent of the Insurer, if the Insurer is not then in breach or default of its obligations under its insurance policy.

## **Bond Registrar; Paying Agents**

The Resolution permits the appointment by the District of a Bond Registrar and one or more Paying Agents. Any Paying Agent or Bond Registrar may at any time resign and be discharged of the duties and obligations created by the Resolution by giving at least 60 days written notice to the District and the other Paying Agents or Bond Registrars. Any Paying Agent or Bond Registrar may be removed at any time by an instrument filed with such Paying Agent or Bond Registrar and signed by an Authorized Officer of the

District. Any successor Paying Agent or Bond Registrar shall be appointed by the District and shall be a bank or trust company organized under the laws of any state of the United States or a national banking association, having capital stock, surplus and undivided earnings aggregating at least \$10,000,000, and willing and able to accept the office on reasonable and customary terms and authorized by law to perform all the duties imposed upon it by the Resolution.

### **Amendments and Supplemental Resolutions**

Any modification or amendment of the Resolution and of the rights and obligations of the District and of the Holders of the Bonds thereunder, in any particular, may be made by a Supplemental Resolution, with the written consent given as provided in the Resolution of [i] the Holders of at least a majority in principal amount of the Bonds Outstanding at the time such consent is given and [ii] if less than all of the Series of Bonds then Outstanding are affected by the modification or amendment, the Holders of at least a majority in principal amount of the Bonds of each Series so affected and Outstanding at the time such consent is given; provided that if such modification or amendment will, by its terms, not take effect so long as any Bonds of any specified like Series and maturity remain Outstanding, the consent of the Holders of such Bonds shall not be required and such Bonds shall not be deemed to be Outstanding for the purpose of any calculation of Outstanding Bonds under this Section. No such modification or amendment shall permit a change in the terms of redemption (including Sinking Fund Installments) or maturity of the principal of any Outstanding Bond or of any installment of interest thereon or a reduction in the principal amount or the Redemption Price thereof or in the rate of interest thereof without the consent of the Holder of such Bond, or shall reduce the percentages or otherwise affect the classes of Bonds the consent of the Holders of which is required to effect any such modification or amendment, or shall change or modify any of the rights or obligations of any Fiduciary without its written assent thereto. For the purpose of this caption, a Series shall be deemed to be affected by a modification or amendment of the Resolution if the same adversely affects or diminishes the rights of the Holders of Bonds of such Series. The District may in its sole discretion determine whether or not, in accordance with the foregoing powers of amendment, Bonds of any particular Series or maturity would be affected by any modification or amendment of the Resolution and any such determination shall be binding and conclusive on the District and all Holders of Bonds.

For any one or more of the following purposes and at any time or from time to time, a Supplemental Resolution of the District may be adopted, which, when adopted, shall be fully effective in accordance with its terms: [1] to close the Resolution against, or provide limitations and restrictions in addition to the limitations and restrictions contained in the Resolution on, the authentication and delivery of Bonds or the issuance of other evidences of indebtedness; or [2] to add to the covenants and agreements of the District in the Resolution, other covenants and agreements to be observed by the District which are not contrary to or inconsistent with the resolutions as theretofore in effect; or [3] to add to the limitations and restrictions in the Resolution, other limitations and restrictions to be observed by the District which are not contrary to or inconsistent with the Resolution as theretofore in effect; or [4] to authorize Bonds of a Series; or [5] to authorize one or more series of Subordinated Debt; or [6] to authorize, in compliance with all applicable law, Bonds of each Series to be issued in the form of coupon Bonds; or [7] to authorize, in compliance with all applicable law, Bonds of each Series to be issued in the form of Bonds issued and held in book-entry form on the books of the District or any Fiduciary appointed for that purpose by the District; or [8] notwithstanding any other provisions of the Resolution, to authorize Bonds of a Series having terms and provisions different than the terms and provisions theretofore provided in the Resolution; or [9] to confirm, as further assurance, any pledge or assignment under, and the subjection to any security interest, pledge or assignment created or to be created by, the Resolution of the Pledged Property and Credit Facilities or other agreements; or [10] to comply with the provisions of any federal or state securities law, including, without limitation, the Trust Indenture Act of 1939, as amended or comply with Section 103 of the Internal Revenue Code of 1986 or 1954, as applicable, as amended, or successor provisions; or [11] to modify any of the provisions of the Resolution in any other respect whatever, provided that [i] such modification shall be, and

be expressed to be, effective only after all Bonds of each Series Outstanding at the date of the adoption of such Supplemental Resolution shall cease to be Outstanding and [ii] such Supplemental Resolution shall be specifically referred to in the text of all Bonds of any Series authenticated and delivered after the date of the adoption of such Supplemental Resolution and of Bonds issued in exchange therefore or in place thereof; or [12] to cure any ambiguity, defect or inconsistency provided that there is no material adverse impact on Bondholders.

### **Consent of the Insurer When Consent of Bondholder Required; Notice**

The Insurer, and not the registered Holders thereof, shall be deemed to be the Holder of Bonds of any Series as to which it is the Insurer at all times for the purpose of giving any approval or consent to the execution and delivery of any Supplemental Resolution or any amendment, change or modification of the Resolution which, as specified in the Resolution, requires the written approval or consent of the Holders of at least a majority in aggregate principal amount of Bonds of such Series at the time Outstanding. In such cases where the consent of the Insurer shall be necessary pursuant to the Resolution for the execution of a particular amendment, the District shall be required to send a copy of such amendment to S&P's. In addition, in such cases where the consent of the Insurer shall not be necessary pursuant to the Resolution for the execution of a particular amendment, the District shall provide the Insurer with written notice of such amendment prior to or within a reasonable time after the execution thereof.

### **Defeasance**

If the District shall pay or cause to be paid, or there shall otherwise be paid, to the Holders of all Bonds the principal or Redemption Price, if applicable, and interest due or to become due thereon, at the times and in the manner stipulated in the Bonds and in the Resolution, then the pledge of the Pledged Property and all covenants, agreements and other obligations of the District to the Bondholders, shall thereupon cease, terminate and become void and be discharged and satisfied.

Bonds or interest installments, or portions thereof, for the payment or redemption of which monies shall have been set aside and shall be held in trust by the Paying Agents (through deposit by the District of funds for such payment or redemption or otherwise) at the maturity or redemption date thereof shall be deemed to have been paid within the meaning and with the effect expressed in the Resolution. Subject to the provisions of the Resolution, any Outstanding Bonds shall prior to the maturity or redemption date thereof be deemed to have been paid within the meaning and with the effect expressed in the Resolution if the following conditions are met: (a) if any of such Bonds are to be redeemed on any date prior to their maturity, the District shall have instructed the Bond Registrar to mail as provided in the Resolution notice of redemption of such Bonds (other than Bonds which have been purchased or otherwise acquired by the District and delivered to the Bond Registrar as hereinafter provided prior to the mailing of notice of redemption), (b) there shall have been deposited with an escrow agent either cash (including amounts, if any, withdrawn and deposited pursuant to the Resolution as described herein under the captions "Bond Fund--Debt Service Account" and "Bond Fund--Reserve Account") in an amount which shall be sufficient, or Defeasance Obligations (including any Defeasance Obligations issued or held in book-entry form on the books of the Department of the Treasury of the United States) the principal of and the interest on which when due will provide cash which, together with any other cash on deposit with the escrow agent, shall be sufficient, to pay when due the principal or Redemption Price, if applicable, and interest due and to become due on the Bonds on or prior to the redemption date or maturity date thereof, as the case may be and (c) if the Bonds are not by their terms subject to redemption within the next succeeding 60 days, the District shall have instructed the Bond Registrar to mail a notice to the Holders of such Bonds to be paid or redeemed, that the deposit required by (b) above has been made and that the Bonds are deemed to have been paid in accordance with this Section and stating the maturity or redemption date upon which monies are expected to be available for the payment.

Such escrow agent shall, as and to the extent necessary, apply amounts held by it pursuant to this Section to the retirement of Bonds in amounts equal to the unsatisfied balances (determined as provided in the Resolution as described herein under the caption "Bond Fund--Debt Service Account") of any Sinking Fund Installments with respect to such Bonds, all in the manner provided in the Resolution. The escrow agent shall, if so directed by the District prior to the maturity or redemption date, as applicable, of Bonds deemed to have been paid in accordance with the provisions of the Resolution described under this caption, apply cash, redeem or sell Defeasance Obligations so deposited with such escrow agent and apply the proceeds thereof, together with any cash on deposit with the escrow agent, to the purchase of such Bonds (and the Bond Registrar shall immediately thereafter cancel all such Bonds so purchased and delivered to it); provided, however, that the cash and Defeasance Obligations remaining on deposit with such escrow agent after the purchase and cancellation shall be sufficient to pay when due the principal or Redemption Price, as applicable, and interest due or to become due on all remaining Bonds in respect of which such cash and Defeasance Obligations are being held by such escrow agent on or prior to the redemption date or maturity date thereof, as the case may be. Except as otherwise provided in the Resolution, neither Defeasance Obligations nor cash deposited with such escrow agent pursuant to the Resolution nor principal or interest payments on any such Defeasance Obligations shall be withdrawn or used for any purpose other than, and shall be held in trust for, the payment of the principal or Redemption Price, as applicable, and interest on the Bonds with respect to which such cash and Defeasance Obligations have been deposited. Any excess cash received from such principal or interest payments on such Defeasance Obligations shall be paid over to the District as received by such escrow agent, free and clear of any trust, lien or pledge.

Notwithstanding any of the provisions of the Resolution regarding Defeasance, no forward supply contract shall constitute a "Defeasance Obligation" or otherwise be used to refund all or any portion of Bonds which are insured as to the payment of principal and interest by an Insurer, without first obtaining the prior written consent of such Insurer.



**APPENDIX B**

**ANNUAL COMPREHENSIVE FINANCIAL REPORT OF THE DISTRICT,  
FISCAL YEAR ENDED JUNE 30, 2022**

Louisville and Jefferson County  
Metropolitan Sewer District

## **ANNUAL COMPREHENSIVE FINANCIAL REPORT**

Fiscal Years Ended June 30, 2022 and 2021



A Component Unit of Louisville  
Jefferson County Metro Government  
Commonwealth of Kentucky



# **ANNUAL COMPREHENSIVE FINANCIAL REPORT**

**Louisville/Jefferson County Metropolitan Sewer District  
Louisville, Kentucky**

**A Component Unit of Louisville/Jefferson County Metro Government  
Commonwealth of Kentucky**

**Fiscal Years Ended June 30, 2022 and 2021**

**Prepared by the Department of Finance  
Brad Good, Chief Financial Officer**

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**INTRODUCTORY SECTION  
(Unaudited)**



**Community gardens sprout atop MSD-owned land, which holds vital infrastructure deep below the soil.**



700 West Liberty Street | Louisville, KY 40203-1911  
Phone: 502.540.6000 | LouisvilleMSD.org

October 24, 2022

## Letter of Transmittal

To the customers and investors of Louisville and Jefferson County Metropolitan Sewer District,

I am pleased to present the Annual Comprehensive Financial Report for the fiscal year ended June 30, 2022. MSD's financial statements have been prepared in accordance with U.S. Generally Accepted Accounting Principles (GAAP). In accordance with Kentucky Revised Statute 65A.030, MSD is required to undergo an annual independent audit of its financial statements.

Responsibility for the accuracy, completeness and fairness of the data presented herein, including all disclosures, rests with MSD. To provide a reasonable basis for making these representations, the management of MSD has established a comprehensive internal control framework that is designed to both protect its assets from loss, theft, or misuse and to compile sufficient reliable information for the preparation of MSD's financial statements in conformity with GAAP. MSD's internal control framework has been designed to provide reasonable, rather than absolute assurance, that the financial statements as of June 30, 2022 and 2021 are free from material misstatement. Reasonable assurance recognizes that (1) the cost of a control should not exceed the benefits derived and (2) the valuation of costs and benefits requires the use of estimates and judgements by management. To the best of my knowledge and belief, the accompanying data is accurate in all material respects and is reported in a manner designed to present fairly the financial position and results of the operations of MSD. All disclosures necessary to enable the reader to understand MSD's financial activities have been included.

GAAP requires that management provide a narrative to accompany the basic financial statements in the form of Management's Discussion and Analysis which is found beginning on page 4. This letter of transmittal is intended to be read in conjunction with that analysis.

Crowe LLP has been retained by MSD to serve as its independent auditors and has issued an unmodified opinion on MSD's financial statements for the years ended June 30, 2022 and 2021. The independent auditor's report can be found at the beginning of the financial section of this report.

As a recipient of federal funding, MSD is required to undergo a Single Audit in conformity with the Single Audit Act of 1984 and the Single Audit Act Amendments of 1996 and U.S. Office of Management and Budget Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards 2CFR200 (Uniform Guidance). Information related to the Single Audit, including the Schedule of Expenditures of Federal Awards, findings and recommendations and the auditor's reports on internal controls is provided in a separate report.

### **Profile:**

MSD was created in 1946 as a public body corporate and subdivision of the Commonwealth of Kentucky. MSD has complete control, possession and supervision of the sewer, drainage and flood protection systems within the majority of Louisville Metro, which comprises all of Jefferson County, Kentucky. In addition, MSD has control, possession and supervision of the sewer system in portions of Oldham County and Bullitt County, Kentucky. Chapter 76 of the Kentucky Revised Statutes authorizes MSD to construct additions, betterments, and extensions within its service area and to recover the cost of its services in accordance with rate schedules adopted by its Board.

MSD is a component unit of the Louisville/Jefferson County Metro Government. The Louisville Metro Mayor appoints, with the approval of the Louisville Metro Council, the members to MSD's governing Board, its Executive Director, Chief Engineer and Secretary/Treasurer. The Board, which has statutory authority to enter into contracts and agreements for the management, regulation and financing of MSD, manages its business and activities. The Board has full statutory responsibility for approving and revising MSD's annual budgets, for financing deficits and for disposition of surplus funds. MSD has no special financial relationship

with the Louisville Metro Government; however, effective July 1, 2006, MSD began providing free wastewater and drainage services to Louisville Metro Government. The value of these services in fiscal year 2022 was \$6,796,857.

### **Customer Base:**

MSD's revenue is derived from wastewater and drainage service charges collected from residential, commercial, and industrial customers. Wastewater service charges are distributed to respective customer classes on the basis of actual costs incurred to collect and treat wastewater. For fiscal year 2022, 59% of MSD's wastewater service charge revenue came from residential customers, 32% came from commercial customers and 9% from industrial customers. MSD's top 10 wastewater customers remained stable from fiscal year 2021 to fiscal year 2022. The top 10 customers provided \$16,690,174, or 6.2%, of MSD's total wastewater revenue in fiscal year 2022. Drainage service charges are assessed based on the equivalent service units (ESU) for each parcel of property. An ESU is defined by MSD as 2,500 square feet of impervious area. For fiscal year 2022, 37% of MSD's drainage service charge revenue came from residential customers, 56% came from commercial customers and 7% from industrial customers. MSD's top 10 drainage customers remained stable from fiscal year 2021 to fiscal year 2022. The top 10 customers provided \$6,293,747 or 7.3%, of MSD's total drainage revenue in fiscal year 2022.

### **Local Economy:**

Louisville is the largest city in the Commonwealth of Kentucky and home to the Kentucky Derby and a bourbon-centric tourism industry. The U.S. Census Bureau estimated that there were 771,874 residents in Louisville as of July 1, 2021. This is a decrease of 0.7% from the last estimate taken April 1, 2020. The Louisville metropolitan area has a population of over 1.2 million residents.

According to the Bureau of Labor Statistics, Louisville employment was at 662,503 jobs in June of 2022 compared to 636,202 jobs in June 2021, an increase of 4.13%. MSD's employment base has grown 4.0% over the last fiscal year with 674 full time employees at June 30, 2022 compared to 648 full time employees at June 30, 2021. Major employers in the Louisville metropolitan area include United Parcel Service, Jefferson County Public Schools, Norton Healthcare, Ford Motor Company, and Humana Inc.

Per capita personal income for Jefferson County, Kentucky was listed at \$57,863 for 2020 which is an increase of 3.6% over the prior year. The United States Department of Labor's Bureau of Labor Statistics listed the unemployment rate for Jefferson County, Kentucky, as 3.4% in June 2022 compared to 5.5% in June of 2021. Additional information on demographic and economic conditions for Louisville can be found in the Statistical Section of this report.

### **Financial Planning:**

MSD is focused on continuously strengthening its financial position through planning and analysis in order to meet its short-term and long-term operational and infrastructure plans.

MSD's short-term plan looks forward five years at a time. Formalized budgets are developed and approved annually by the Board for operating and capital spending. Budgets are developed with an eye toward maintaining operational efficiency and achieving incremental improvement of MSD's critical debt service coverage and debt to operating ratios.

MSD's long-term financial planning window is twenty years and is supported by the Critical Repair and Reinvestment Program and a twenty year comprehensive financial model. The financial model enables MSD to analyze alternative scenarios in order to optimize resources in the face of competing priorities. Key long-term considerations are debt service coverage, maintaining level debt service payments, and maintaining adequate cash reserves.

### **Major Initiatives:**

- *Waterway Protection Tunnel:* MSD's largest infrastructure project to date, the Waterway Protection Tunnel, was capped on May 16, 2022 and placed into service in early June. The Waterway Protection Tunnel stretches four miles from 11th and Rowan streets to Grinstead Drive and Lexington Road. The tunnel can store up to 55 million gallons of combined stormwater drainage and wastewater until sewage treatment capacity is available, preventing the water from passing

untreated into the Ohio River and Beargrass Creek. The Waterway Protection Tunnel will ultimately prevent 439 million gallons of a mixture of rainwater and wastewater from overflowing and polluting the Ohio River and Beargrass Creek in a typical rainfall year.

- *Bullitt County Sanitation District (BCSD) Acquisition:* MSD completed a multi-year effort to acquire the adjacent Bullitt County wastewater system on November 30, 2021. MSD now provides wastewater service to approximately 4,200 former customers of BSCD, Hunter's Hollow Treatment Plant and Big Valley Sewer Utility. Among the many benefits of the acquisition, MSD will begin to decommission some of Bullitt County's smaller treatment plants that have passed their useful life and manage that service through MSD's larger regional treatment facilities. One of MSD's first projects will divert wastewater flow from the former Hunters Hollow Treatment Plant and Big Wood Pump Station to MSD's recently constructed large sewer line in southern Jefferson County, the Mud Lane Interceptor. In addition, MSD will develop a long-term facility plan to identify capital improvements or elimination plans for all of the wastewater treatment plants within the Bullitt County service area.
- *Consent Decree Update:* MSD is making significant progress toward its amended consent decree requirements of mitigating sewer overflows that pollute the Ohio River and our streams. Through all of the consent decree work to date, including completing the required combined sewer overflow basins and the Waterway Protection Tunnel, overflows to local waterways have reduced from approximately 6.5 billion gallons to less than 650 million gallons in a typical rainfall year. The basins and tunnel hold the contents until system capacity is available for proper treatment and release to the Ohio River.

MSD proactively approached federal and state regulators in 2019 to renegotiate the timing for completing the remaining projects required by the amended consent decree in order to reprioritize capital dollars for rehabilitation of MSD's aging biosolids systems, failing sewer interceptors and flood protection system rehabilitation. MSD, along with the federal government and the Commonwealth of Kentucky, have negotiated the second amended consent decree which grants a time extension for completing the remaining projects to 2035. In exchange, MSD has agreed to invest a minimum of \$25 million annually for asset management projects through 2035. Additionally, MSD agreed to incorporate \$70 million for critical sewer rehabilitation in its 5-year capital improvement plan. These financial commitments are achievable within the MSD Board's rate increase authority of 6.9% per year. The United States District Court granted final approval of the second amended consent decree on September 14, 2022.

- *Community Benefits Program:* MSD launched a community benefits program in 2019 to leverage economic, environmental and social impacts through the district's large-scale engineering, construction and professional service projects. The program focuses on MSD's construction contracts over \$2 million or professional service contracts over \$200,000. During the contractor proposal stage, MSD encourages contractors to voluntarily submit community benefit commitments they will pursue if awarded the project. These can include charitable contributions, volunteer hours, or in-kind services to area nonprofits or schools. In June of 2022 the program passed the \$2 million local impact threshold.
- *Climate Bonds:* On February 1, 2022, MSD issued its first certified climate bond to pay at maturity commercial paper notes previously issued to finance capital improvements to MSD's wastewater, drainage and flood protection systems. This \$225 million issuance was certified by an independent verifier. The issuance achieved its certification by financing projects that improve wastewater, drainage, flood protection systems, and mitigate overflows with green infrastructure. The climate bond certification allowed MSD to connect the programmatic work associated with its mission to the financings that support it.
- *Credit Rating:* MSD strives continuously to maintain strong financial performance and bond ratings. The credit ratings on our senior lien bonds remained at Aa3, AA, and AA- by Moody's Investors Service, Standard and Poor's Ratings Services, and Fitch, respectively, during fiscal year 2022. Strong credit ratings enable MSD to issue debt at lower interest rates which reduces ratepayer costs over the long term.
- *Rate Increase:* On August 1, 2021, MSD rates for wastewater and drainage service charges in Jefferson County increased by 6.9%. The average monthly residential wastewater bill (based on



4,000 gallons of water consumed per month) increased by \$3.54 from \$51.45 to \$54.99. The monthly residential drainage service charge increased by \$0.77 from \$11.11 to \$11.88.

### **Awards**

Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to MSD for its annual comprehensive financial report for the fiscal year ended June 30, 2021. This was the 31st consecutive year that MSD has achieved this prestigious award. In order to be awarded a Certificate of Achievement, MSD must publish an easily readable and efficiently organized annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our 2022 Annual Comprehensive Financial Report continues to meet the Certificate of Achievement Program's requirements and we will submit it to GFOA to determine its eligibility for another certificate.

### **Acknowledgements**

The Finance division of MSD has worked hard to make possible timely publication of the fiscal year 2022 Annual Comprehensive Financial Report and I would like to thank them for their individual contributions. I would also like to take this opportunity to thank the MSD Board of Directors and the Executive Leadership Team for their continued support.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "Brad Good", is placed over a light gray rectangular background.

Brad Good  
Chief Financial Officer



Government Finance Officers Association

Certificate of  
Achievement  
for Excellence  
in Financial  
Reporting

Presented to

**Louisville and Jefferson County  
Metropolitan Sewer District  
Kentucky**

For its Annual Comprehensive  
Financial Report  
For the Fiscal Year Ended

June 30, 2021

*Christopher P. Morill*

Executive Director/CEO

## OUR VISION

The Innovative, regional utility for safe, clean waterways.

## OUR MISSION

Provide quality wastewater, stormwater and flood protection services to protect public health and safety through sustainable solutions, fiscal stewardship, and strategic partnerships.

## CRITICAL SUCCESS FACTORS

### Sustain Quality and Compliant Wastewater, Stormwater, and Flood Protection Services:

Champion the protection of public health and safety and the environment through sustainable solutions, sound management practices, and effective operational processes and support systems.

### Earn the Community's Trust Daily as the Leading Provider of Quality Wastewater, Stormwater, and Flood Protection Services:

Earn community trust through consistent delivery of quality services and respectful interactions with our customers.

### Transform into an Employer of Purpose Where Employees are Provided the Opportunity to Thrive:

Attract, equip and retain an effective workforce, reflective and supportive of our community, which consistently delivers high-quality service to customers internally and externally.

### Ensure Financial Stewardship and Sustainability of Community Resources:

Meet today's operating and capital investment needs while managing risk and long-term affordability for the future.

### Realize Operational Efficiencies and Revenue Generation through Strategic Partnerships and Innovation:

Implement innovative ideas and partnerships that drive organizational resiliency and sustainability.



Sunset reflected in the water at the Falls of the Ohio.

## Structure

MSD is governed by an eight-member Board of Directors appointed to serve our community by the Louisville Metro Mayor. Board members are residents of Louisville Metro and represent State Senatorial Districts in our city ensuring a broad-based representation for the entire community. No more than five members of the Board can be affiliated with one political party. The MSD Board meets monthly and has established the following standing committees who meet as needed: Audit Committee, Customer Service Committee, Finance Committee, Infrastructure Committee, and the Personnel Committee. The Board has delegated and placed the conduct of the day-to-day business affairs of the District under the direction of an Executive Director supported by administrative, engineering, legal and business staffs.

## Fiscal Year 2022 Board of Directors

| <u>Board Members</u>              | <u>State Senate District</u> | <u>Political Party</u> | <u>Term Expires</u> |
|-----------------------------------|------------------------------|------------------------|---------------------|
| <b>Marita Willis - Chair</b>      | 20th                         | Democrat               | June 30, 2025       |
| <b>Keith Jackson - Vice Chair</b> | 14th                         | Independent            | August 31, 2023     |
| <b>Rebecca Cox</b>                | 37th                         | Democrat               | August 31, 2023     |
| <b>Gerald Joiner</b>              | 33rd                         | Democrat               | February 28, 2024   |
| <b>Ricky Mason</b>                | 35th                         | Independent            | July 31, 2022       |
| <b>Carmen Moreno-Rivera</b>       | 19th                         | Democrat               | June 30, 2024       |
| <b>John Selent</b>                | 26th                         | Democrat               | July 31, 2024       |
| <b>JT Sims</b>                    | 36th                         | Republican             | August 31, 2022     |

## Fiscal Year 2022 Principal Staff Members

**James A. Parrott**, Executive Director, Secretary/ Treasurer

**Angela Akridge**, Chief Strategy Officer for Business Transformation and Regulatory Compliance

**Paul Bagley**, Chief Information Officer

**Brian Bingham**, Chief Operations Officer

**Lynne Fleming**, Human Resources Director

**Brad Good**, Chief Financial Officer

**David Johnson**, Chief Engineer

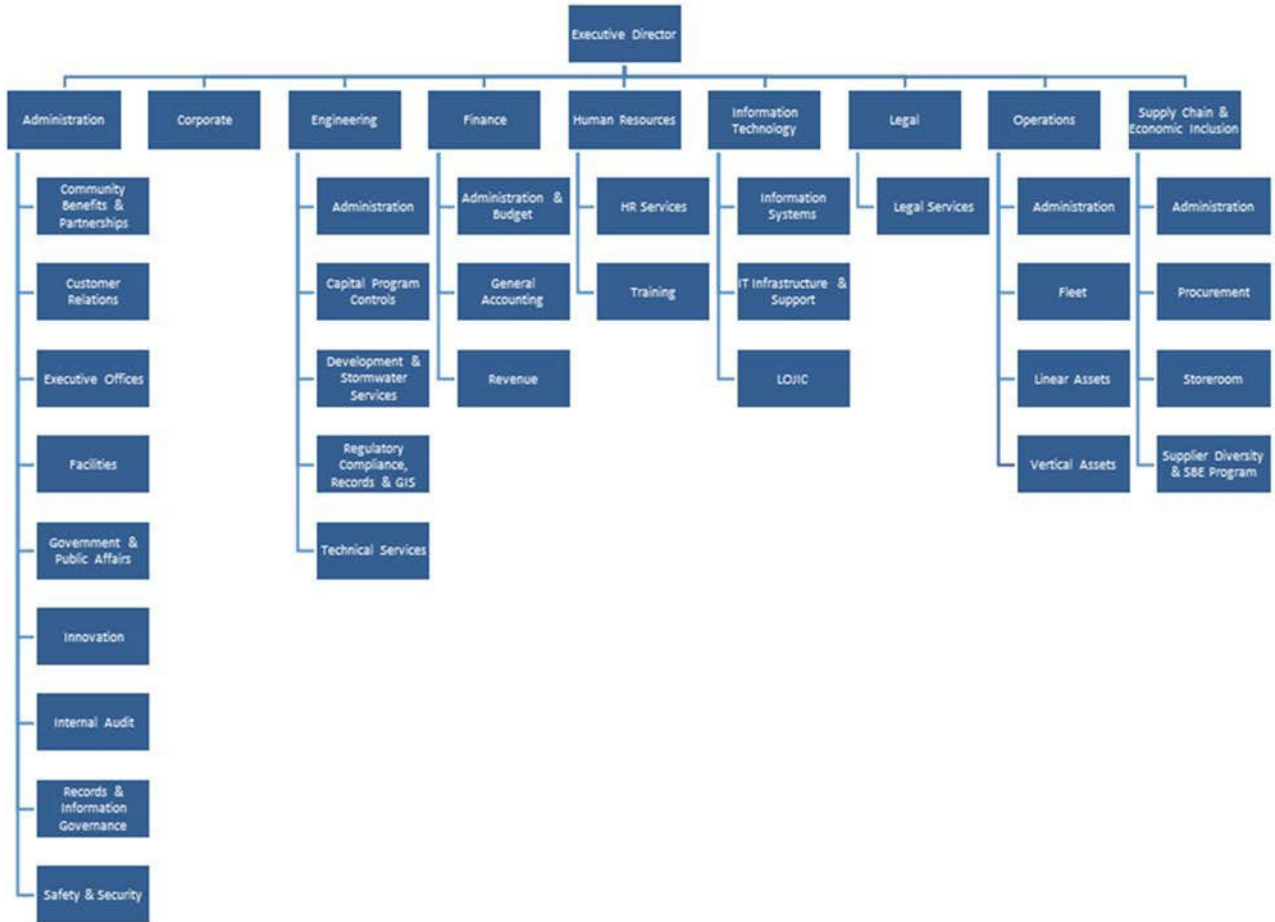
**Rene Lindsay**, One Water Chief Procurement Officer

**Paula Middleton Purifoy**, General Counsel and Legal Director

**Kim Reed**, Chief Innovation Officer

**Wes Sydnor**, Chief of Government and Public Affairs

# Organizational Chart



## Strategic Plan

MSD's Strategic Business Plan, branded as Blueprint 2025, now forms the foundational vision, mission, and critical success factors necessary for MSD's transformation into a Utility of the Future. Our aspirational vision under Blueprint 2025 is the driving force behind our mission to provide wastewater, stormwater, and flood protection to protect public health and safety through sustainable solutions, fiscal stewardship, and strategic partnerships. Blueprint 2025 desired outcomes are as follows:

- Guide alignment and allocation of organizational resources
- Deliver MSD's three core business functions in a collaborative, efficient and innovative manner to meet regulatory requirements and community level of service through a sustainable, purpose-driven, and appropriately-skilled workforce
- Be the trusted regional provider of wastewater, stormwater and flood protection services

Blueprint 2025 provides a structured approach for MSD's success, positioning the organization to deliver our three core business services to the community with confidence by providing clarity for every employee about our vision, mission, and critical success factors. It represents a plan designed to unite us and strengthen our bond as we target specific initiatives and metrics in support of the services we provide to the our customers.

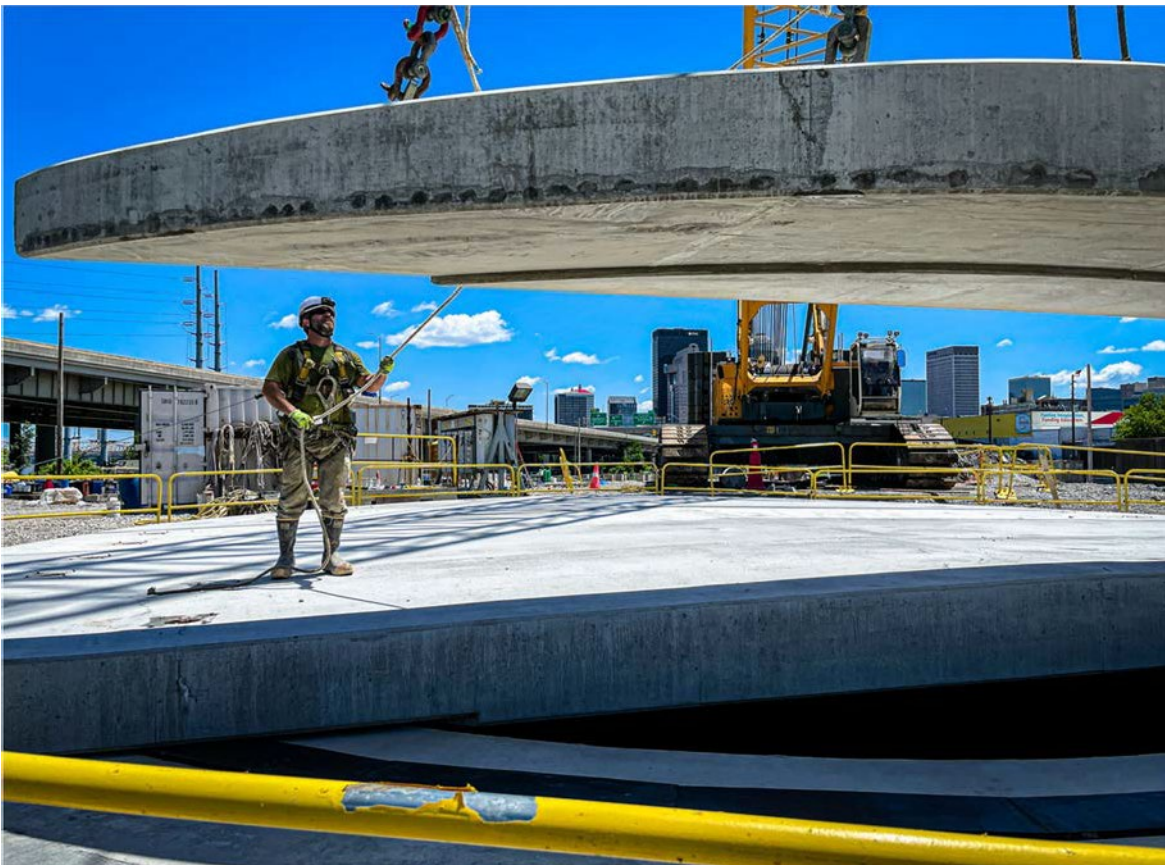
MSD establishes annual organizational performance goals that are in alignment with Blueprint 2025. Each goal category has two focus areas: (1) business activities critical to the attainment of the goal category desired outcome and (2) strategic transformational initiatives designed to enhance the attainment of each critical success factor. There are four overarching goal areas in our fiscal year 2022 organizational performance goals:

|  |  |  |
|--|--|--|
| <b>Goal Area 1: Sustain Quality &amp; Compliant Wastewater, Stormwater and Flood Protection Services</b>                     |  |  |
| <b>Component 1:</b><br>Reclaimed Water Effluent Quality<br>Flood Protection Readiness  | <b>Component 2:</b><br>Infrastructure System Inspections<br>Preventive Maintenance | <b>Component 3:</b><br>Completion of Strategic Business Plan Initiatives |
| <b>Goal Area 2: Earn Community's Trust Daily as Leading Provider of Wastewater, Stormwater and Flood Protection Services</b> |  |  |
| <b>Component 1:</b><br>Responsiveness to Customers   | <b>Component 2:</b><br>Responsiveness to Supply Chain Partners                     | <b>Component 3:</b><br>Completion of Strategic Business Plan Initiatives |
| <b>Goal Area 3: Transform into an Employer of Purpose Where Employees Have the Opportunity to Thrive</b>                     |  |  |
| <b>Component 1:</b><br>Management Effectiveness  | <b>Component 2:</b><br>Employee Training and Development                           | <b>Component 3:</b><br>Completion of Strategic Business Plan Initiatives |
| <b>Goal Area 4: Ensure Financial Stewardship and Sustainability of Community Resources</b>                                   |  |  |
| <b>Component 1:</b><br>Capital Budget Utilization  | <b>Component 2:</b><br>Operating Budget Utilization                                | <b>Component 3:</b><br>Completion of Strategic Business Plan Initiatives |

Strategic Business Plan Initiatives are developed for each goal area and assigned as team performance goals. These initiatives involve creating programs or processes that didn't previously exist and guide enhancement of existing programs, processes and tools to improve efficiencies within the organization. Blueprint 2025 includes a Blueprint for Organizational Performance Management Framework that ensures alignment of organizational goals, division/department goals, team goals and individual contributor goals. These goals are directly tied to annual performance evaluations for each employee.



## FINANCIAL SECTION



Crews lower the cap on the working shaft of the Waterway Protection Tunnel, allowing the tunnel to begin service.

## INDEPENDENT AUDITOR'S REPORT

Board of Directors  
Louisville and Jefferson County Metropolitan Sewer District  
Louisville, Kentucky

**Report on the Audit of the Financial Statements*****Opinion***

We have audited the financial statements of the Louisville and Jefferson County Metropolitan Sewer District, a component unit of the Louisville-Jefferson County Metro Government, as of and for the years ended June 30, 2022 and 2021, and the related notes to the financial statements, which collectively comprise the Louisville and Jefferson County Metropolitan Sewer District'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 financial position of the Louisville and Jefferson County Metropolitan Sewer District, as of June 30, 2022 and 2021, and the changes in financial position and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

***Basis for Opinion***

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards (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 the Louisville and Jefferson County Metropolitan Sewer District, 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 opinion.

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

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

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



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

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

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Louisville and Jefferson County Metropolitan Sewer District's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Louisville and Jefferson County Metropolitan Sewer District'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 on pages 4 through 16, the Schedule of Proportionate Share of the Net Pension Liability on page 68, the Schedule of Employer Contributions – Pension on page 70, the Schedule of Proportionate Share of the Net OPEB Liability on page 71, and the Schedule of Employer Contributions – OPEB on page 72 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.

### **Supplementary Information**

Our audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Louisville and Jefferson County Metropolitan Sewer District's basic financial statements. The introductory and statistical sections are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the introductory and statistical sections are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

### **Other Reporting Required by Government Auditing Standards**

In accordance with *Government Auditing Standards*, we have also issued our report dated October 24, 2022 on our consideration of the Louisville and Jefferson County Metropolitan Sewer District's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Louisville and Jefferson County Metropolitan Sewer District's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Louisville and Jefferson County Metropolitan Sewer District's internal control over financial reporting and compliance.

  
Crowe LLP

Louisville, Kentucky  
October 24, 2022

## LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT MANAGEMENT'S DISCUSSION AND ANALYSIS

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The management of Louisville and Jefferson County Metropolitan Sewer District (MSD) present this Management's Discussion and Analysis (MD&A) for the fiscal year ended June 30, 2022 and 2021. This narrative provides the reader with condensed comparative financial data, an analysis of the results of our operations, a description of capital asset and long term debt activity, and a discussion of future economic factors that will impact our operations. This MD&A is intended to be read in conjunction with the financial statements immediately following this section.

### FINANCIAL HIGHLIGHTS

#### Fiscal Year 2022:

- Total net position increased from fiscal 2021 to fiscal 2022 by \$75.2 million, or 8.9%.
- Total assets and deferred outflows of resources increased \$128.2 million, or 3.4%, from fiscal 2021 to fiscal 2022.
- Operating revenues increased \$35.9 million, or 10.9%, from fiscal 2021 to fiscal 2022.
- Service and administrative costs increased \$9.2 million, or 8.4%, from fiscal 2021 to fiscal 2022.
- MSD maintained unrestricted cash and investments totaling \$118.6 million as of June 30, 2022 compared to \$107.4 million as of June 30, 2021.
- MSD had 269 days cash on hand at June 30, 2022 compared to 259 days cash on hand at June 30, 2021.
- Senior debt coverage was 1.95x for fiscal 2022 compared to 1.86x for fiscal 2021.

#### Fiscal Year 2021:

- Total net position increased from fiscal 2020 to fiscal 2021 by \$51.0 million, or 6.4%.
- Total assets and deferred outflows of resources increased \$167.8 million, or 4.6%, from fiscal 2020 to fiscal 2021.
- Operating revenues increased \$10.3 million, or 3.2%, from fiscal 2020 to fiscal 2021.
- Service and administrative costs decreased \$0.5 million, or 0.5%, from fiscal 2020 to fiscal 2021.
- MSD maintained unrestricted cash and investments totaling \$107.4 million as of June 30, 2021 compared to \$100 million as of June 30, 2020.
- MSD had 259 days cash on hand at June 30, 2021 compared to 242 days cash on hand at June 30, 2020.
- Senior debt coverage was 1.86x for fiscal 2021 compared to 1.88x for fiscal 2020.

### OVERVIEW OF THE FINANCIAL STATEMENTS

MSD uses the accrual basis of accounting to prepare its financial statements wherein revenues are recorded when earned and expenses are recorded at the time a liability is incurred. MD&A serves as a narrative introduction to the financial statements which consist of the following parts:

- *Statement of Net Position:* This statement includes all of MSD's assets, liabilities and deferred outflow and inflow of resources. It provides information about the nature and amounts of investments in assets and the obligations to creditors. In addition, it provides the basis for computing rate of return, evaluating the capital structure of MSD and assessing the liquidity and financial flexibility of the organization.
- *Statement of Revenues, Expenses and Changes in Net Position:* This statement identifies the revenues generated and expenses incurred during the fiscal year and helps the user to assess the financial efficiency of MSD during the time period for which the statement relates.

## LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT MANAGEMENT'S DISCUSSION AND ANALYSIS

- **Statement of Cash Flows:** This statement provides information related to MSD's cash receipts and cash expenditures during the fiscal year. It reports cash receipts, cash payments, and net changes in cash resulting from operations, investing, and financing activities.
- **Notes to the Financial Statements:** The notes contain descriptions of the policies underlying the amounts displayed in the financial statements along with other information that is essential to a full understanding of the data provided in the financial statements.
- **Required Supplementary Information:** Information is presented related to MSD's pension and Other Post-Employment Benefits (OPEB) including annual contributions made to the plans and annual investment returns.

Other supplemental information is presented for comparative analysis and is not part of the basic financial statements. Other supplemental information consists of:

- **Statistical Section:** Ten years of financial statement information, operating indicators, and demographic information is presented for comparative analysis.

### STATEMENT OF NET POSITION

MSD's total net position at June 30, 2022 was \$923.0 million, an increase of \$75.2, or 8.9%, from June 30, 2021 (see Figure 1). Total assets and deferred outflows increased \$128.2 million, or 3.4%, to \$3.9 billion. Total liabilities and deferred inflows increased \$52.9 million, or 1.8%, to \$3.0 billion.

MSD's total net position at June 30, 2021 was \$847.7 million, an increase of \$51.0 or 6.4%, from June 30, 2020 (see Figure 1). Total assets and deferred outflows increased \$167.8 million, or 4.6%, to \$3.8 billion. Total liabilities and deferred inflows increased \$116.7 million, or 4.1%, to \$2.9 billion.

| (amounts in thousands)                             |              |              |              | 2022-2021              |             | 2021-2020              |             |
|--|--------------|--------------|--------------|------------------------|-------------|------------------------|-------------|
|  | FY 2022      | FY 2021      | FY 2020      | Increase<br>(Decrease) | %<br>Change | Increase<br>(Decrease) | %<br>Change |
| Unrestricted current assets                        | \$ 153,423   | \$ 143,541   | \$ 136,424   | \$ 9,882               | 6.9%        | \$ 7,117               | 5.2%        |
| Restricted current assets                          | 33,735       | 21,181       | 17,776       | 12,554                 | 59.3%       | 3,405                  | 19.2%       |
| Capital assets                                     | 3,293,005    | 3,168,614    | 3,014,066    | 124,391                | 3.9%        | 154,548                | 5.1%        |
| Unrestricted non-current assets                    | 7,138        | 10,478       | 12,776       | (3,340)                | (31.9%)     | (2,298)                | (18.0%)     |
| Restricted non-current assets                      | 80,331       | 82,930       | 79,555       | (2,599)                | (3.1%)      | 3,375                  | 4.2%        |
| Other non-current assets                           | 302,370      | 306,175      | 305,714      | (3,805)                | (1.2%)      | 461                    | 0.2%        |
| Total assets                                       | 3,870,002    | 3,732,919    | 3,566,311    | 137,083                | 3.7%        | 166,608                | 4.7%        |
| Deferred outflows of resources                     | 72,110       | 80,984       | 79,767       | (8,874)                | (11.0%)     | 1,217                  | 1.5%        |
| Total assets and deferred outflows                 | 3,942,112    | 3,813,903    | 3,646,078    | 128,209                | 3.4%        | 167,825                | 4.6%        |
| Current liabilities                                | 20,395       | 29,099       | 24,176       | (8,704)                | (29.9%)     | 4,923                  | 20.4%       |
| Current liabilities from restricted assets         | 103,924      | 118,469      | 105,856      | (14,545)               | (12.3%)     | 12,613                 | 11.9%       |
| Non-current liabilities                            | 2,846,272    | 2,808,293    | 2,702,796    | 37,979                 | 1.4%        | 105,497                | 3.9%        |
| Total liabilities                                  | 2,970,591    | 2,955,861    | 2,832,828    | 14,730                 | 0.5%        | 123,033                | 4.3%        |
| Deferred inflows of resources                      | 48,489       | 10,277       | 16,520       | 38,212                 | 371.8%      | (6,243)                | (37.8%)     |
| Total liabilities and deferred inflows             | 3,019,080    | 2,966,138    | 2,849,348    | 52,942                 | 1.8%        | 116,790                | 4.1%        |
| Net investment in capital assets                   | 850,316      | 762,848      | 684,412      | 87,468                 | 11.5%       | 78,436                 | 11.5%       |
| Restricted, net                                    | 84,607       | 84,429       | 80,421       | 178                    | 0.2%        | 4,008                  | 5.0%        |
| Unrestricted                                       | (11,891)     | 488          | 31,897       | (12,379)               | (2536.7%)   | (31,409)               | (98.5%)     |
| Total net position                                 | 923,032      | 847,765      | 796,730      | 75,267                 | 8.9%        | 51,035                 | 6.4%        |
| Total liabilities, deferred inflows & net position | \$ 3,942,112 | \$ 3,813,903 | \$ 3,646,078 | \$ 128,209             | 3.4%        | \$ 167,825             | 4.6%        |

Following is a discussion of significant changes in assets, liabilities and net position between fiscal years 2022 and 2021, and between fiscal years 2021 and 2020, respectively.

**Fiscal Year 2022:** The largest portion of MSD's net position is its net investment in capital assets. Net investment in capital assets increased \$87.4 million, or 11.5%, in fiscal 2022. Capital asset construction

## LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT MANAGEMENT'S DISCUSSION AND ANALYSIS

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and acquisitions were funded in fiscal 2022 by \$135 million of commercial paper notes<sup>1</sup>, draws on State Revolving Fund loans<sup>2</sup>, cash generated from operations and contributions in aid of construction from developers.

Funds restricted for a specific purpose by the 1993 Sewer and Drainage System Revenue Bond Resolution (the General Bond Resolution) are classified as restricted net position. MSD is required by the General Bond Resolution to make monthly transfers to its debt service accounts sufficient to meet the semi-annual debt service payments on outstanding bonds. The General Bond Resolution sets a debt service reserve requirement equal to at least 10% of the face amount of all bonds issued under the resolution, 100% of the maximum aggregate net debt service in the current or any future fiscal year or 125% of the average aggregate net debt service in the current or any future fiscal year. MSD funds the reserve at the lowest of these three with a combination of cash, investments and a \$75 million debt service reserve surety policy<sup>3</sup>. Restricted net position increased \$178 thousand from fiscal 2021 to fiscal 2022 due to higher cash and investment balances on hand for debt service, debt reserves and construction.

The remaining balance of MSD's net position is unrestricted and may be used for any allowable purpose. Unrestricted net position decreased \$12.3 million from fiscal 2021 to fiscal 2022 primarily as the result of the increased net investment in capital assets.

**Fiscal Year 2021:** The largest portion of MSD's net position is its net investment in capital assets. Net investment in capital assets increased \$78.4 million in fiscal 2021. Capital asset construction and acquisitions were funded in fiscal 2021 by \$120 million of commercial paper notes<sup>4</sup>, a draw on a State Revolving Fund loan, cash generated from operations and contributions in aid of construction from developers.

The remaining balance of MSD's net position is unrestricted and may be used for any allowable purpose. Unrestricted net position decreased \$31.4 million from fiscal 2020 to fiscal 2021 primarily as the result of increases to the net pension and net OPEB liabilities.

### STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

The increase in net position at June 30, 2022 was \$24.2 million, or 47.5%, as compared with June 30, 2021 (see Figure 2). MSD's total operating revenues increased by 10.9 % to \$365.3 million and total operating expenses increased by 2.4% to \$231.6 million.

The increase in net position at June 30, 2021 was \$38.5 million, or 310.2%, as compared with June 30, 2020 (see Figure 2). MSD's total operating revenues increased by 3.2% to \$329.4 million and total operating expenses decreased by 0.4 % to \$226.1 million.

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<sup>1</sup> See Note 7 – Long-Term Debt.

<sup>2</sup> See Note 7 – Long-Term Debt.

<sup>3</sup> See Note 3 – Restricted Cash, Cash Equivalents, and Investments.

<sup>4</sup> See Note 7 – Long-Term Debt.

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
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**FIGURE 2 - CONDENSED STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION INFORMATION**

| <i>(amounts in thousands)</i>         |                   |                   |                   | 2022-2021              |               | 2021-2020              |               |
|---------------------------------------|-------------------|-------------------|-------------------|------------------------|---------------|------------------------|---------------|
|                                       | FY 2022           | FY 2021           | FY 2020           | Increase<br>(Decrease) | %<br>Change   | Increase<br>(Decrease) | %<br>Change   |
| Operating revenues                    |                   |                   |                   |                        |               |                        |               |
| Service charges                       | \$ 356,870        | \$ 325,717        | \$ 312,859        | \$ 31,153              | 9.6%          | \$ 12,858              | 4.1%          |
| Other operating income                | 8,497             | 3,701             | 6,198             | 4,796                  | 129.6%        | (2,497)                | (40.3%)       |
| Total operating revenues              | <u>365,367</u>    | <u>329,418</u>    | <u>319,057</u>    | <u>35,949</u>          | <u>10.9%</u>  | <u>10,361</u>          | <u>3.2%</u>   |
| Non-operating revenues                | 9,001             | 12,154            | 592               | (3,153)                | (25.9%)       | 11,562                 | 1953.0%       |
| Total revenues                        | <u>374,368</u>    | <u>341,572</u>    | <u>319,649</u>    | <u>32,796</u>          | <u>9.6%</u>   | <u>21,923</u>          | <u>6.9%</u>   |
| Operating expenses                    |                   |                   |                   |                        |               |                        |               |
| Service and administrative costs      | 118,978           | 109,741           | 110,302           | 9,237                  | 8.4%          | (561)                  | (0.5%)        |
| GASB 68/75 pension expense            | 8,725             | 18,547            | 17,826            | (9,822)                | (53.0%)       | 721                    | 4.0%          |
| Depreciation & amortization expense   | 103,964           | 97,874            | 98,872            | 6,090                  | 6.2%          | (998)                  | (1.0%)        |
| Total operating expenses              | <u>231,667</u>    | <u>226,162</u>    | <u>227,000</u>    | <u>5,505</u>           | <u>2.4%</u>   | <u>(838)</u>           | <u>(0.4%)</u> |
| Non-operating expenses                |                   |                   |                   |                        |               |                        |               |
| Interest expense                      | 101,703           | 103,915           | 100,387           | (2,212)                | (2.1%)        | 3,528                  | 3.5%          |
| Amortization of debt discount/premium | (13,404)          | (14,322)          | (10,284)          | 918                    | (6.4%)        | (4,038)                | 39.3%         |
| Change in fair value - swaps          | (11,293)          | (8,796)           | (812)             | (2,497)                | 28.4%         | (7,984)                | 983.3%        |
| Total non-operating expenses          | <u>77,006</u>     | <u>80,797</u>     | <u>89,291</u>     | <u>(3,791)</u>         | <u>(4.7%)</u> | <u>(8,494)</u>         | <u>(9.5%)</u> |
| Total expenses                        | <u>308,673</u>    | <u>306,959</u>    | <u>316,291</u>    | <u>1,714</u>           | <u>0.6%</u>   | <u>(9,332)</u>         | <u>(3.0%)</u> |
| Income before capital contributions   | 65,695            | 34,613            | 3,358             | 31,082                 | 89.8%         | 31,255                 | 930.8%        |
| Capital contributions                 | 9,572             | 16,422            | 9,085             | (6,850)                | (41.7%)       | 7,337                  | 80.8%         |
| Increase (decrease) in net position   | <u>75,267</u>     | <u>51,035</u>     | <u>12,443</u>     | <u>24,232</u>          | <u>47.5%</u>  | <u>38,592</u>          | <u>310.2%</u> |
| Net position - Beginning              | 847,765           | 796,730           | 770,552           | 51,035                 | 6.4%          | 26,178                 | 3.4%          |
| Net position - OCEA Merger            | -                 | -                 | 13,735            | -                      | 0.0%          | (13,735)               | 0.0%          |
| Net position - Ending                 | <u>\$ 923,032</u> | <u>\$ 847,765</u> | <u>\$ 796,730</u> | <u>\$ 75,267</u>       | <u>8.9%</u>   | <u>\$ 51,035</u>       | <u>6.4%</u>   |

Following is a discussion of the primary reasons for changes in MSD's revenues and expenses between fiscal years 2022 and 2021, and between fiscal years 2021 and 2020, respectively.

**Fiscal Year 2022:** Operating revenues increased by \$35.9 million, or 10.9%, to \$365.3 million primarily due to a 6.9% rate increase effective August 1, 2021 to wastewater and drainage service charges and the acquisition of the Bullitt County Sanitation system on November 30, 2021 which added \$2.2 million in operating revenue to fiscal 2022.

Operating expenses increased by \$5.5 million, or 2.4%, to \$231.6 million primarily due to higher insurance premiums, chemical cost and depreciation and amortization expense. These expenses were partially offset by a reduction in GASB 68 and GASB 75 pension expense.

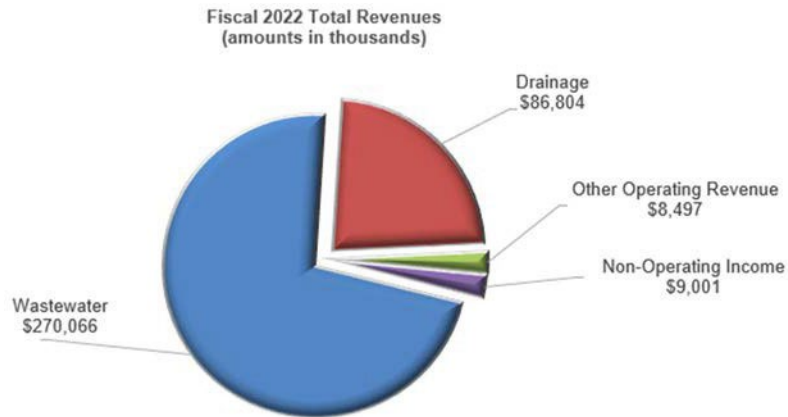
**Fiscal Year 2021:** Operating revenues increased by \$10.3 million, or 3.2%, to \$329.4 million primarily due to a 5.0% rate increase effective August 1, 2020 to wastewater and drainage service charges.

Operating expenses decreased by \$838 thousand, or 0.4%, to \$226.1 million primarily due reductions in contractual services expenses and utility expenses. These reductions were partially offset by an increase in GASB 68 pension and GASB 75 OPEB expenses.

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
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**Fiscal 2022 Total Revenues:**



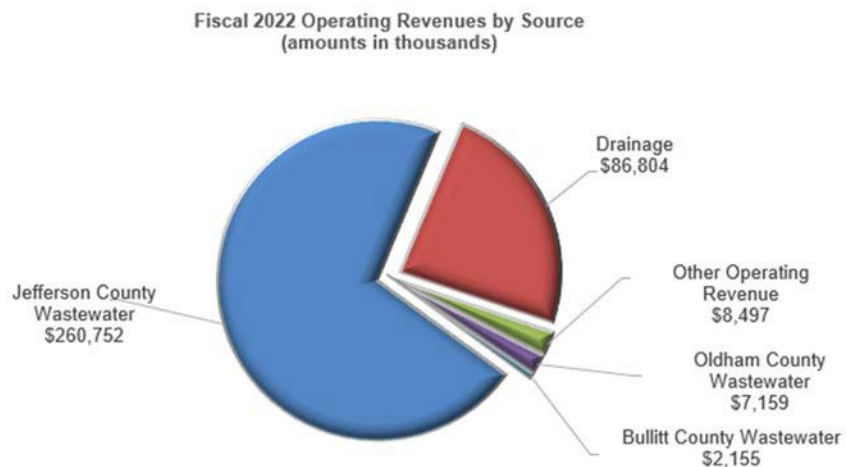
Wastewater service charges totaled \$270.0 million which is an increase of \$24.2 million, or 9.8%, from fiscal 2021. Wastewater service charge rates in Jefferson County increased 6.9% on August 1, 2021.

Drainage service charges totaled \$86.8 million which is an increase of \$6.8 million, or 8.6%, from fiscal 2021. Drainage service charge rates in Jefferson County increased 6.9% on August 1, 2021.

Other operating income totaled \$8.4 million, which is a increase of \$4.7 million, or 129.5%, from fiscal 2021. This increase was driven by higher capacity fees and inflow and infiltration fees in fiscal 2022.

Non-operating revenues, which represent gain or loss on disposal of assets, interest income earned on investments and the federal interest subsidy on MSD's Build America Bonds totaled \$9.0 million, which is a decrease of \$3.1 million, or 25.9%, from fiscal 2021. This reduction was driven primarily by a decrease in the market value of MSD's investment portfolio.

**Fiscal 2022 Operating Revenues by Source:**



Wastewater service charges totaled \$270.0 million and consisted of \$260.8 million for MSD's Jefferson County service area, \$7.1 million for MSD's Oldham County service area and \$2.1 million for MSD's Bullitt

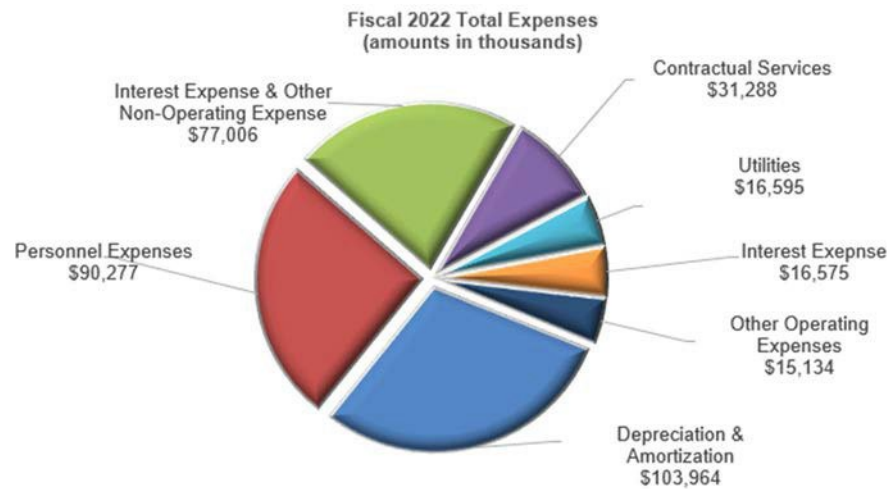
**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
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County service area. Wastewater service charges were 59.5% Residential, 31.8% Commercial and 8.7% Industrial<sup>5</sup>.

Drainage service charges totaled \$86.8 million and consisted of MSD's Jefferson County drainage service area. Drainage service charges were 37.6% Residential, 55.9% Commercial and 6.5% Industrial<sup>6</sup>.

Other operating revenue totaled \$8.4 million and consisted of \$8.1 million for Jefferson County, \$190 thousand for Oldham County and \$134 thousand for Bullitt County.

**Fiscal 2022 Total Operating Expenses:**



Personnel expenses decreased \$6.0 million, or 6.3%, to \$90.2 million due to lower GASB 68 pension and GASB 75 OPEB expenses as a result of better investment performance in fiscal 2021<sup>7</sup>.

Contractual services decreased \$2.7 million, or 8.2% to \$31.2 million primarily due to lower legal fees.

Utility expenses increased slightly by \$330 thousand, or 2.0%, to \$16.5 million due to increases in natural gas and water costs.

Interest expense and other non-operating expenses decreased by \$3.7 million, or 1.4% to \$77.0 million primarily due to the refunding of the Series 2011A revenue bonds<sup>8</sup>.

Depreciation and amortization increased by \$6.0 million, or 6.2%, to \$103.9 million as \$428 million in new assets were placed into service.

Total expenses in fiscal 2022 increased \$2.0 million, or 0.6%, to \$350.8 million before capitalization. Capitalized overhead totaled \$42.1 million bringing net total expenses to \$308.7 million.

<sup>5</sup> See Top 10 Customers in the Statistical Section

<sup>6</sup> See Top 10 Customers in the Statistical Section

<sup>7</sup> See Note 14 – Defined Benefit Pension and Other Postemployment Benefits Plan - Cost Sharing - CERS

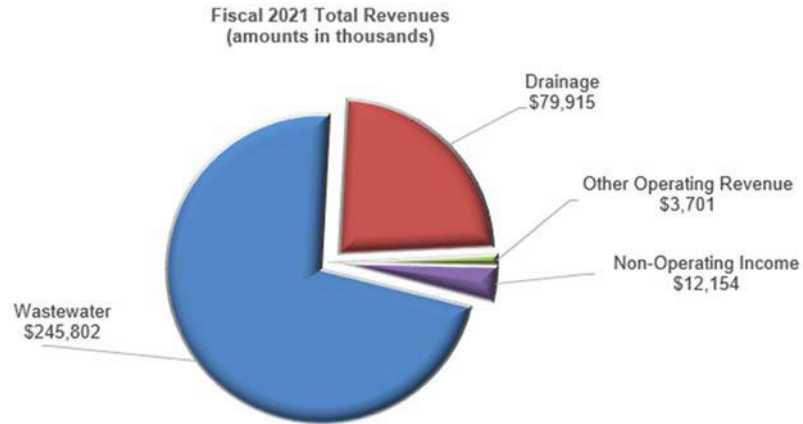
<sup>8</sup> See Note 7 – Long Term Debt



**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
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**Fiscal 2021 Total Revenues:**



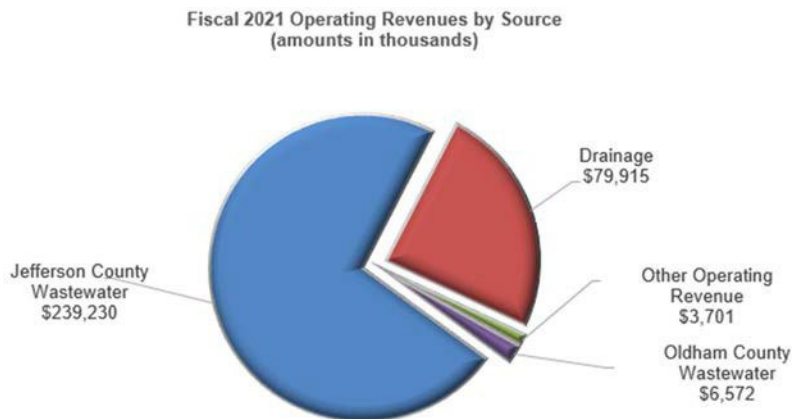
Wastewater service charges totaled \$245.8 million which is an increase of \$7.9 million, or 3.4%, from fiscal 2020. Wastewater service charge rates in Jefferson County increased 5.0% on August 1, 2020.

Drainage service charges totaled \$79.9 million which represents an increase of \$4.8 million, or 6.5%, from fiscal 2020. Drainage service charge rates in Jefferson County increased 5.0% on August 1, 2020.

Other operating income totaled \$3.7 million, which is a decrease of \$2.4 million, or 40.3%, from fiscal 2020. The decrease was driven primarily by lower capacity charges in fiscal 2021.

Non-operating revenues, which represent gain or loss on disposal of assets, interest income earned on investments and the federal interest subsidy on MSD's Build America Bonds totaled \$12.1 million, which is an increase of \$11.5 million, or 96.6%, from fiscal 2020. Non-operating revenues totaled \$592 thousand in fiscal 2020 due to a \$15 million loss on disposal of assets.

**Fiscal 2021 Operating Revenues by Source:**



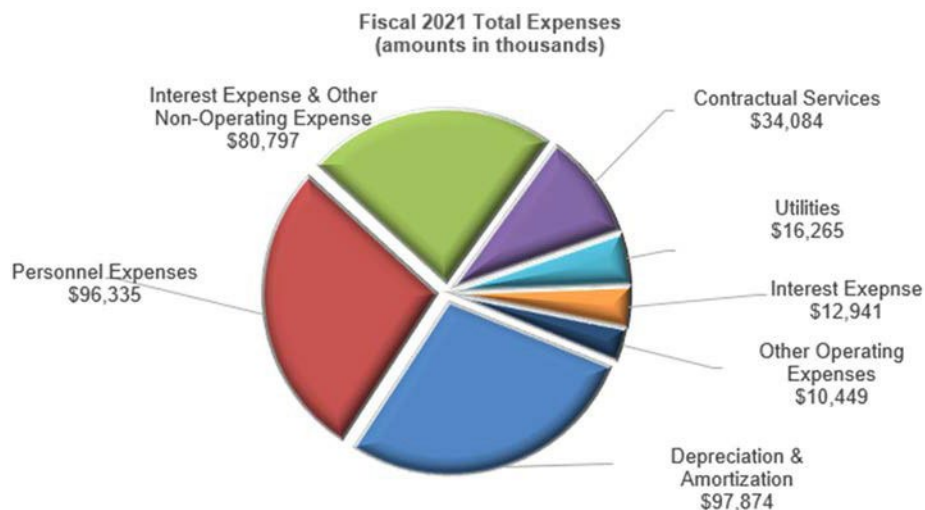
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Wastewater service charges totaled \$245.8 million and consisted of \$239.2 million for MSD's Jefferson County service area and \$6.6 million for MSD's Oldham County service area. Wastewater service charges were 60.3% Residential, 30.3% Commercial and 9.4% Industrial<sup>9</sup>.

Drainage service charges totaled \$79.9 million and consisted of MSD's Jefferson County drainage service area. Drainage service charges were 36.8% Residential, 56.6% Commercial and 6.6% Industrial<sup>10</sup>.

Other operating revenue totaled \$3.7 million and consisted of \$3.6 million for Jefferson County and \$102 thousand for Oldham County.

**Fiscal 2021 Total Operating Expenses:**



Personnel expenses increased \$5.0 million, or 6.3%, to \$96.3 million due primarily to increases in headcount, compensation and medical insurance premiums.

Contractual services decreased \$3.2 million, or 8.7% to \$34.0 million primarily due to lower expenditures for other contractual services.

Utility expenses decreased by \$1.6 million, or 9.3%, to \$16.2 million primarily due to lower electrical costs.

Interest expense and other non-operating expenses decreased by \$8.4 million, or 9.5% to \$80.7 million primarily due to changes in the fair value of MSD's swaps<sup>11</sup>.

Depreciation and amortization decreased by \$998 thousand, or 1.0%, to \$97.8 million.

Total expenses in fiscal 2021 decreased \$7.1 million, or 2.0%, to \$348.7 million before capitalization. Capitalized overhead totaled \$41.8 million which brought net operating expenses to \$306.9 million.

<sup>9</sup> See Top 10 Customers in the Statistical Section

<sup>10</sup> See Top 10 Customers in the Statistical Section

<sup>11</sup> See Note 9 – Derivative Instruments

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**Capital Contributions:** Capital contributions decreased \$6.8 million, or 41.7%, to \$9.5 million in fiscal 2022 (see Figure 3). This decrease is primarily attributable to a reduction in wastewater infrastructure contributions from developers.

Capital contributions increased \$7.3 million, or 80.8%, to \$16.4 million in fiscal 2021 (see Figure 3). This increase is primarily attributable to an increase in wastewater infrastructure contributions from developers.

**FIGURE 3 - CAPITAL CONTRIBUTIONS**

| (amounts in thousands)             | FY 2022         | FY 2021          | FY 2020         | 2022-2021              |                | 2021-2020              |              |
|------------------------------------|-----------------|------------------|-----------------|------------------------|----------------|------------------------|--------------|
|                                    |                 |                  |                 | Increase<br>(Decrease) | %<br>Change    | Increase<br>(Decrease) | %<br>Change  |
| Cash flows from:                   |                 |                  |                 |                        |                |                        |              |
| Developer's capital - wastewater   | \$ 3,068        | \$ 9,810         | \$ 2,474        | \$ (6,742)             | (68.7%)        | \$ 7,336               | 296.5%       |
| Developer's capital - drainage     | 3,841           | 4,646            | 4,826           | (805)                  | 100.0%         | (180)                  | 0.0%         |
| Federal grants                     | 2,611           | 963              | 937             | 1,648                  | 171.1%         | 26                     | 2.8%         |
| Capital recovery                   | 52              | 1,003            | 436             | (951)                  | 100.0%         | 567                    | 0.0%         |
| Miscellaneous claims recovery      | -               | -                | 412             | -                      | 100.0%         | (412)                  | 0.0%         |
| <b>Total capital contributions</b> | <b>\$ 9,572</b> | <b>\$ 16,422</b> | <b>\$ 9,085</b> | <b>\$ (6,850)</b>      | <b>(41.7%)</b> | <b>\$ 7,337</b>        | <b>80.8%</b> |

**CAPITAL ASSETS**

Total capital assets net of depreciation increased \$124.3 million, or 3.9%, to \$3.2 billion in fiscal 2022 (see Figure 4)<sup>12</sup>. Construction in progress was the driver for the growth in capital assets.

Total capital assets net of depreciation increased \$154.5 million, or 5.1%, to \$3.1 billion in fiscal 2021 (see Figure 4)<sup>13</sup>. Construction in progress was the driver for the growth in capital assets.

**FIGURE 4 - CAPITAL ASSETS NET OF DEPRECIATION**

| (amounts in thousands)          | FY 2022             | FY 2021             | FY 2020             | 2022-2021              |             | 2021-2020              |             |
|---------------------------------|---------------------|---------------------|---------------------|------------------------|-------------|------------------------|-------------|
|                                 |                     |                     |                     | Increase<br>(Decrease) | %<br>Change | Increase<br>(Decrease) | %<br>Change |
| Sewer lines                     | \$ 1,638,136        | \$ 1,355,258        | \$ 1,363,408        | \$ 282,878             | 20.9%       | \$ (8,150)             | -0.6%       |
| Wastewater treatment facilities | 242,875             | 208,553             | 215,163             | 34,322                 | 16.5%       | (6,610)                | -3.1%       |
| Drainage facilities             | 787,664             | 794,261             | 697,632             | (6,597)                | -0.8%       | 96,629                 | 13.9%       |
| Pumping and lift stations       | 160,774             | 147,917             | 157,849             | 12,857                 | 8.7%        | (9,932)                | -6.3%       |
| Administrative facilities       | 9,273               | 10,279              | 11,379              | (1,006)                | -9.8%       | (1,100)                | -9.7%       |
| Maintenance facilities          | 6,851               | 6,941               | 5,419               | (90)                   | -1.3%       | 1,522                  | 28.1%       |
| Machinery and equipment         | 23,625              | 18,490              | 23,722              | 5,135                  | 27.8%       | (5,232)                | -22.1%      |
| Miscellaneous                   | 3,607               | 1,801               | 1,481               | 1,806                  | 100.3%      | 320                    | 21.6%       |
| Construction in progress        | 420,200             | 625,113             | 538,013             | (204,913)              | -32.8%      | 87,100                 | 16.2%       |
| <b>Total</b>                    | <b>\$ 3,293,005</b> | <b>\$ 3,168,613</b> | <b>\$ 3,014,066</b> | <b>\$ 124,392</b>      | <b>3.9%</b> | <b>\$ 154,547</b>      | <b>5.1%</b> |

**DEBT ADMINISTRATION**

MSD ended fiscal 2022 with \$2.6 billion in outstanding long-term debt compared to \$2.5 billion in outstanding long-term debt at the end of fiscal 2021<sup>14</sup> (see Figure 5). This is primarily due to the issuance of additional commercial paper to finance construction in progress. Short term debt outstanding payable from restricted assets at the end of fiscal 2022 totaled \$55.4 million compared to \$49.3 million at the end of fiscal 2021.

<sup>12</sup> See Note 5 – Capital Assets – Plant, Lines and Other Facilities

<sup>13</sup> See Note 5 – Capital Assets – Plant, Lines and Other Facilities

<sup>14</sup> See Note 7 – Long-Term Debt.

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
MANAGEMENT'S DISCUSSION AND ANALYSIS**

MSD ended fiscal 2021 with \$2.5 billion in outstanding long-term debt compared to \$2.4 billion in outstanding long-term debt at the end of fiscal 2020 (see Figure 5)<sup>15</sup>. This is primarily due to the issuance of additional commercial paper to finance construction in progress. Short term debt outstanding payable from restricted assets at the end of fiscal 2021 totaled \$49.3 million compared to \$45.6 million at the end of fiscal 2020.

**FIGURE 5 - SCHEDULE OF BONDS AND OTHER FINANCING**

| <i>(amounts in thousands)</i>  | FY 2022             | FY 2021             | FY 2020             | Increase<br>(Decrease)<br>2022-2021 | Increase<br>(Decrease)<br>2021-2020 |
|--------------------------------|---------------------|---------------------|---------------------|-------------------------------------|-------------------------------------|
| <b>Senior Revenue Bonds</b>    |                     |                     |                     |                                     |                                     |
| Series 2009C                   | 180,000             | 180,000             | 180,000             | -                                   | -                                   |
| Series 2010A                   | 330,000             | 330,000             | 330,000             | -                                   | -                                   |
| Series 2011A                   | -                   | 243,910             | 246,225             | (243,910)                           | (2,315)                             |
| Series 2013A                   | 115,790             | 115,790             | 115,790             | -                                   | -                                   |
| Series 2013B                   | 109,280             | 110,970             | 112,575             | (1,690)                             | (1,605)                             |
| Series 2013C                   | 125                 | 250                 | 99,250              | (125)                               | (99,000)                            |
| Series 2014A                   | 79,650              | 79,700              | 79,750              | (50)                                | (50)                                |
| Series 2015A                   | 171,395             | 172,175             | 173,160             | (780)                               | (985)                               |
| Series 2015B                   | 65,975              | 68,815              | 71,515              | (2,840)                             | (2,700)                             |
| Series 2016A                   | 147,500             | 148,415             | 149,290             | (915)                               | (875)                               |
| Series 2016B                   | 19,910              | 21,960              | 23,915              | (2,050)                             | (1,955)                             |
| Series 2016C                   | 12,995              | 32,305              | 50,515              | (19,310)                            | (18,210)                            |
| Series 2017A                   | 149,390             | 155,790             | 161,895             | (6,400)                             | (6,105)                             |
| Series 2017B                   | 31,210              | 32,055              | 32,885              | (845)                               | (830)                               |
| Series 2018A                   | 60,380              | 60,380              | 60,380              | -                                   | -                                   |
| Series 2019A                   | 8,845               | 17,065              | 24,770              | (8,220)                             | (7,705)                             |
| Series 2020A                   | 224,000             | 224,750             | -                   | (750)                               | 224,750                             |
| Series 2020C                   | 109,605             | 110,790             | -                   | (1,185)                             | 110,790                             |
| Series 2021A                   | 240,485             | -                   | -                   | 240,485                             | -                                   |
| Series 2022A                   | 224,750             | -                   | -                   | 224,750                             | -                                   |
| <b>Bond Anticipation Notes</b> |                     |                     |                     |                                     |                                     |
| Series 2019A                   | -                   | -                   | 226,340             | -                                   | (226,340)                           |
| Series 2020A                   | -                   | 226,340             | -                   | (226,340)                           | 226,340                             |
| Series 2021A                   | 226,340             | -                   | -                   | 226,340                             | -                                   |
| <b>Other Subordinate Debt</b>  |                     |                     |                     |                                     |                                     |
| General Obligation Bonds       | 10,774              | 11,629              | 12,453              | (855)                               | (824)                               |
| Commercial Paper Notes         | 50,000              | 150,000             | 255,000             | (100,000)                           | (105,000)                           |
| SRF Loans                      | 39,998              | 32,462              | 15,818              | 7,536                               | 16,644                              |
| KACO Lease                     | 1,870               | 2,030               | 2,180               | (160)                               | (150)                               |
| Notes Payable - LOC            | -                   | -                   | 100                 | -                                   | (100)                               |
|                                | <u>\$ 2,610,267</u> | <u>\$ 2,527,581</u> | <u>\$ 2,423,806</u> | <u>\$ 82,686</u>                    | <u>\$ 103,775</u>                   |

*Excludes bond premiums/discounts*

On March 25, 2020, MSD entered into a Forward Delivery Bond Purchase agreement to refund \$243,910,000 of the Series 2011A bonds. The Series 2021A bonds were dated and delivered on August

<sup>15</sup> See Note 7 – Long-Term Debt.

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
MANAGEMENT'S DISCUSSION AND ANALYSIS**

17, 2021 to complete the refunding which reduces debt service payments by \$56.5 million beginning in fiscal year 2022 through fiscal year 2034<sup>16</sup>.

On February 1, 2022, MSD issued \$225,000,000 of climate bond certified revenue bonds, Series 2022A. The proceeds of the Series 2022A bonds were used to refund commercial paper notes at maturity and to finance the ongoing costs of MSD's capital improvement program. The final maturity of Series 2022A bonds is May 15, 2052<sup>17</sup>.

**Debt Service Ratio:** Although net operating income is the most significant component of determining MSD's debt service coverage ratio, other sources, including investment income and current period payments of property owner assessments, are also included in available revenues and net revenues for purposes of demonstrating MSD's compliance with the debt service ratio tests in the General Bond Resolution.

The General Bond Resolution and its supplements require MSD to provide available revenues for each fiscal year sufficient to pay the sum of 110% of each year's aggregate net debt service on revenue bonds, the amount, if any, required to be paid into the reserve account, all operating expenses as estimated in the annual budget, debt service on senior subordinated debt and any other subordinate debt and amounts necessary to pay and discharge all charges or liens payable out of available revenues. Available revenues, as used for purposes of the General Bond Resolution, means all revenues and other amounts received by MSD and pledged as security for payment of bonds issued pursuant to the resolution, but excludes interest income which is capitalized in accordance with generally accepted accounting principles.

Net operating expenses include all reasonable, ordinary, usual or necessary current expenses of maintenance, repair, and operation determined in accordance with generally accepted accounting principles and the enterprise basis of accounting. Operating expenses do not include reserves for extraordinary maintenance and repair or administrative and engineering expenses of MSD which are necessary or incidental to capital improvements for which debt has been issued and which may be paid from proceeds of such debt.

Aggregate net debt service is debt service on all bonds issued pursuant to the resolution including principal payments, excluding (i) interest expense which, in accordance with generally accepted accounting principles, is capitalized and which may be paid from the proceeds of debt and (ii) other amounts, if any, available or expected to be available in the ordinary course of business for payment of debt service.

MSD's debt service coverage ratio<sup>18</sup>, calculated on the foregoing basis, was 195% in 2022, 186% in 2021 and 188% in 2020 (see Figure 6).

| <b>FIGURE 6- DEBT SERVICE COVERAGE</b> |                |                |                |  |  |
|--|----------------|----------------|----------------|--|--|
| <i>(amounts in thousands)</i>          | <b>FY 2022</b> | <b>FY 2021</b> | <b>FY 2020</b> | <b>Increase<br/>(Decrease)<br/>2022-2021</b> | <b>Increase<br/>(Decrease)<br/>2021-2020</b> |
| Total available revenues               | \$ 374,827     | \$ 342,392     | \$ 335,566     | 9.5%   | 2.0%   |
| Total net operating expenses           | 118,978        | 109,741        | 110,302        | 8.4%   | (0.5%)                                       |
| Net revenue                            | 255,849        | 232,651        | 225,264        | 10.0%  | 3.3%   |
| Aggregate net debt service             | \$ 130,925     | \$ 124,819     | \$ 119,868     | 4.9%   | 4.1%   |
| Debt service coverage ratio            | 195%           | 186%           | 188%           | 4.8%   | (0.8%)                                       |

<sup>16</sup> See Note 7 – Long-Term Debt

<sup>17</sup> See Note 7 – Long-Term Debt

<sup>18</sup> Excludes depreciation, amortization, GASB 68 pension expense and GASB 75 OPEB expense.

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
MANAGEMENT’S DISCUSSION AND ANALYSIS**

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**Credit Ratings:** See Figure 7 for MSD’s existing credit ratings.

| <b>FIGURE 7- BOND AND COMMERCIAL PAPER RATINGS</b> |                          |  |   |
|--|--------------------------|--|---|
|  | <b>Revenue<br/>Bonds</b> | <b>Subordinate<br/>Bond<br/>Anticipation<br/>Notes</b> | <b>Subordinate<br/>Commercial<br/>Paper Notes</b> |
| Fitch Ratings                                      | AA-                      |  |   |
| Moody’s Investors Service, Inc.                    | Aa3                      | MIG 1  | P-1   |
| S&P Global Ratings                                 | AA                       | SP-1+  | A-1+  |

**FUTURE ECONOMIC FACTORS**

On July 25, 2022, the MSD Board approved a 5.0% rate increase for wastewater and drainage service charges for the Jefferson County service area effective August 1, 2022. Our five-year financial plan projects annual wastewater and drainage rate increases in Jefferson County to provide funding for ongoing work associated with MSD’s consent decree.

Pursuant to the terms of an Interlocal Cooperation Agreement, on July 25, 2022, the MSD Board approved a \$2 reduction in the wastewater volume charge for MSD’s Oldham County service area effective August 1, 2022. Starting August 1, 2023, rate increases for wastewater service in Oldham County will not exceed 3% annually until rates for MSD’s Oldham County service area equal its Jefferson County service area.

Pursuant to the terms of an Interlocal Cooperation Agreement, on December 20, 2021, the MSD Board approved a 12% rate increase for wastewater service charges in its Bullitt County service area effective January 1, 2022. Through December 31, 2026, rate increases for wastewater service will not exceed the increases authorized by Bullitt County Ordinance No. 17-2 adopted by Bullitt County Fiscal Court on February 7, 2017. Starting January 1, 2027, rate increases for wastewater service in Bullitt County will not exceed 3% annually until rates for MSD’s Bullitt County service area equal its Jefferson County service area.

**CONSENT DECREE**

In April 2009, MSD agreed to enter into an amended consent decree with the Commonwealth of Kentucky’s Environmental and Public Protection Cabinet (KEPPC) and the U.S. Environmental Protection Agency (EPA) that superseded the original consent decree entered on August 12, 2005. The amended consent decree focuses on eliminating sewer overflows in MSD’s service area through an Integrated Overflow Abatement Plan (IOAP). The IOAP was amended in 2014 to improve compliance and adjust capital project schedules. To date, MSD has spent approximately \$1.1 billion developing and completing IOAP projects and compliance measures mandated by the consent decree.

After several months of negotiation, MSD, the Commonwealth of Kentucky and United States of America have reached an agreement on important modifications to the 2009 amended consent decree. The parties have agreed to enter into a second amended consent decree which will supersede and replace the 2009 amended consent decree and update the IOAP modification approved on June 19, 2014 with the 2021

## **LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT MANAGEMENT'S DISCUSSION AND ANALYSIS**

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IOAP modification. The United States District Court granted final approval of the second amended consent decree on September 14, 2022.<sup>19</sup>

### **REQUESTS FOR ADDITIONAL INFORMATION**

This report is intended to provide readers with a general overview of MSD's finances and to provide information regarding the receipts and uses of funds. If you need clarification regarding a statement(s) made in the report or need additional information, please contact the Louisville and Jefferson County Metropolitan Sewer District, 700 West Liberty Street, Louisville Kentucky 40203. You can also submit a request for additional information via MSD's website, [www.msdlouky.org](http://www.msdlouky.org).

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<sup>19</sup> See Note 12 – Consent Decree

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**  
**COMPARATIVE STATEMENT OF NET POSITION**  
**AS OF JUNE 30**  
**DOLLARS IN THOUSANDS**

| <b>Assets and Deferred Outflows of Resources</b>   | <b>2022</b>         | <b>2021</b>         |
|--|---------------------|---------------------|
| <b>Current Assets</b>  |                     |                     |
| Unrestricted Current Assets  |                     |                     |
| Cash and cash equivalents  | \$ 48,875           | \$ 79,281           |
| Investments  | 69,754              | 28,124              |
| Accounts receivable, less allowance for<br>doubtful accounts of \$4,271 (2022), \$4,946 (2021) | 26,242              | 24,664              |
| Inventories  | 5,262               | 5,086               |
| Accrued interest receivable  | 341                 | 231                 |
| Prepaid expenses and other current assets  | 2,949               | 6,155               |
| Total unrestricted current assets  | 153,423             | 143,541             |
| Restricted Current Assets  |                     |                     |
| Cash and cash equivalents  | 20,788              | 21,181              |
| Investments  | 12,947              | -                   |
| Total restricted current assets  | 33,735              | 21,181              |
| <b>Total Current Assets</b>  | <b>187,158</b>      | <b>164,722</b>      |
| <b>Noncurrent Assets</b>   |                     |                     |
| Unrestricted Noncurrent Assets   |                     |                     |
| Accounts receivable, non-current   | 7,138               | 10,478              |
| Restricted Noncurrent Assets:  |                     |                     |
| Cash and cash equivalents  | 2,191               | 1,524               |
| Investments  | 78,140              | 81,406              |
| Total restricted noncurrent assets   | 80,331              | 82,930              |
| Capital Assets   |                     |                     |
| Utility plant in service   | 4,269,739           | 3,849,048           |
| Less accumulated depreciation  | (1,396,934)         | (1,305,547)         |
| Net capital assets in service  | 2,872,805           | 2,543,501           |
| Construction in progress   | 420,200             | 625,113             |
| Net capital assets   | 3,293,005           | 3,168,614           |
| Other Noncurrent Assets  |                     |                     |
| Prepaid regulatory assets  | 436,432             | 428,968             |
| Less accumulated amortization  | (149,411)           | (138,676)           |
| Net prepaid regulatory assets  | 287,021             | 290,292             |
| Unamortized bond issuance costs  | 14,585              | 15,089              |
| Unamortized reserve fund insurance   | 764                 | 794                 |
| Total other noncurrent assets  | 302,370             | 306,175             |
| <b>Total Noncurrent Assets</b>   | <b>3,682,844</b>    | <b>3,568,197</b>    |
| <b>Total Assets</b>  | <b>3,870,002</b>    | <b>3,732,919</b>    |
| <b>Deferred Outflow of Resources</b>   |                     |                     |
| Deferred outflow - pension   | 21,836              | 25,932              |
| Deferred outflow - OPEB  | 23,447              | 21,962              |
| Deferred outflow - derivative instruments  | -                   | 8,541               |
| Deferred loss on refunding   | 26,827              | 24,549              |
| Total deferred outflow of resources  | 72,110              | 80,984              |
| <b>Total Assets and Deferred Outflow of Resources</b>  | <b>\$ 3,942,112</b> | <b>\$ 3,813,903</b> |

*See the accompanying notes to the financial statements.*



**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**  
**COMPARATIVE STATEMENT OF NET POSITION**  
**AS OF JUNE 30**  
**DOLLARS IN THOUSANDS**

| <b>Liabilities, Deferred Inflow of Resources and Net Position</b>  | <b>2022</b>         | <b>2021</b>         |
|--|---------------------|---------------------|
| <b>Current Liabilities</b>   |                     |                     |
| Current Liabilities To Be Paid From Unrestricted Assets  |                     |                     |
| Accounts payable   | \$ 9,807            | \$ 18,345           |
| Accrued salaries and related benefits  | 10,588              | 10,754              |
| Total unrestricted current liabilities   | 20,395              | 29,099              |
| Current Liabilities To Be Paid From Restricted Assets  |                     |                     |
| Accounts payable and accrued expenses (capital),<br>includes contractor retainage of \$4,697 (2022), \$12,634 (2021) | 30,464              | 46,237              |
| Accrued interest payable   | 16,622              | 20,093              |
| Refundable deposits  | 1,920               | 2,757               |
| Revenue bonds payable  | 52,880              | 47,565              |
| Other subordinate debt   | 2,038               | 1,817               |
| Total restricted current liabilities   | 103,924             | 118,469             |
| <b>Total Current Liabilities</b>   | <b>124,319</b>      | <b>147,568</b>      |
| <b>Noncurrent Liabilities</b>  |                     |                     |
| Bonds payable, net of unamortized premiums and discounts   | 2,316,455           | 2,132,372           |
| Bond anticipation note   | 226,340             | 226,340             |
| Commercial paper notes   | 50,000              | 150,000             |
| Other subordinate debt   | 50,604              | 44,304              |
| Net pension liability  | 124,564             | 139,401             |
| Net OPEB liability   | 37,395              | 43,904              |
| Investment derivative asset liability  | 40,914              | 63,431              |
| At-market derivative asset liability   | -                   | 8,541               |
| <b>Total Noncurrent Liabilities</b>  | <b>2,846,272</b>    | <b>2,808,293</b>    |
| <b>Total Liabilities</b>   | <b>2,970,591</b>    | <b>2,955,861</b>    |
| <b>Deferred Inflow of Resources</b>  |                     |                     |
| Deferred inflow - pension  | 17,811              | -                   |
| Deferred inflow - OPEB   | 17,068              | 7,420               |
| Deferred inflow - derivative instruments   | 11,224              | -                   |
| Other deferred inflows   | 2,386               | 2,857               |
| Total deferred inflow of resources   | 48,489              | 10,277              |
| <b>Total Liabilities and Deferred Inflow of Resources</b>  | <b>\$ 3,019,080</b> | <b>\$ 2,966,138</b> |
| <b>Net Position</b>  |                     |                     |
| Net investment in capital assets   | \$ 850,316          | \$ 762,848          |
| Restricted for debt service  | 84,607              | 84,429              |
| Unrestricted   | (11,891)            | 488                 |
| Total net position   | 923,032             | 847,765             |
| <b>Total Liabilities, Deferred Inflow of Resources and Net Position</b>  | <b>\$ 3,942,112</b> | <b>\$ 3,813,903</b> |

*See the accompanying notes to the financial statements.*

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**  
**COMPARATIVE STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION**  
**AS OF JUNE 30**  
**DOLLARS IN THOUSANDS**

|  | <b>2022</b>     | <b>2021</b>     |
|--|-----------------|-----------------|
| <b>Operating Revenues</b>                      |                 |                 |
| Service charges                                | \$ 356,870      | \$ 325,717      |
| Other operating income                         | 8,497           | 3,701           |
| Total operating revenues                       | <u>365,367</u>  | <u>329,418</u>  |
| <b>Operating Expenses</b>                      |                 |                 |
| Service and administrative costs               | 118,978         | 109,741         |
| GASB 68 pension/GASB 75 OPEB actuarial expense | 8,725           | 18,547          |
| Depreciation and amortization                  | 103,964         | 97,874          |
| Total operating expenses                       | <u>231,667</u>  | <u>226,162</u>  |
| <b>Income from Operations</b>                  | <u>133,700</u>  | <u>103,256</u>  |
| <b>Non-operating Revenue (Expenses)</b>        |                 |                 |
| Gain/Loss disposal of assets                   | 124             | (21)            |
| Investment income                              | (1,467)         | 1,777           |
| Build America bond refund                      | 10,344          | 10,398          |
| Interest expense - bonds                       | (86,792)        | (93,067)        |
| Interest expense - swaps                       | (9,502)         | (9,793)         |
| Interest expense - other                       | (12,873)        | (13,104)        |
| Amortization of debt discount / premium        | 17,172          | 17,429          |
| Amortization of loss on refunding              | (3,768)         | (3,107)         |
| Capitalized interest                           | 7,464           | 12,049          |
| Change in fair value - derivative instruments  | 11,293          | 8,796           |
| Total non-operating revenue (expenses) - net   | <u>(68,005)</u> | <u>(68,643)</u> |
| <b>Income before capital contributions</b>     | 65,695          | 34,613          |
| <b>Capital contributions</b>                   | <u>9,572</u>    | <u>16,422</u>   |
| <b>Increase in net position</b>                | 75,267          | 51,035          |
| <b>Net position, beginning</b>                 | <u>847,765</u>  | <u>796,730</u>  |
| <b>Net position, ending</b>                    | \$ 923,032      | \$ 847,765      |

*See the accompanying notes to the financial statements.*

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**  
**COMPARATIVE STATEMENT OF CASH FLOWS**  
**AS OF JUNE 30**  
**DOLLARS IN THOUSANDS**

|   | <u>2022</u> | <u>2021</u> |
|---|-------------|-------------|
| <b>Cash Flows from Operating Activities</b>                         |             |             |
| Cash received from customers  | \$ 362,992  | \$ 331,767  |
| Cash paid to suppliers  | (70,302)    | (55,030)    |
| Cash paid to employees  | (54,351)    | (52,092)    |
| <b>Net Cash Provided by Operating Activities</b>                    | 238,339     | 224,645     |
| <br><b>Cash Flows from Capital and Related Financing Activities</b> |             |             |
| Proceeds from issuance of revenue bonds                             | 248,821     | 233,133     |
| Proceeds from issuance of bond anticipation note                    | 232,924     | 237,295     |
| Proceeds from issuance of commercial paper                          | 375,000     | 365,000     |
| Proceeds from other subordinate debt                                | 7,824       | 17,788      |
| Payments for retirement of revenue bonds                            | (55,497)    | (48,033)    |
| Payments for retirement of bond anticipation note                   | (226,340)   | (226,340)   |
| Payments for retirement of commercial paper                         | (475,000)   | (470,000)   |
| Payments for retirement of notes                                    | -           | (100)       |
| Payments for retirement of other subordinated debt                  | (1,926)     | (2,119)     |
| Payments for interest expense                                       | (103,136)   | (103,393)   |
| Payments for interest on swaps                                      | (9,502)     | (9,793)     |
| Build America bond interest subsidy                                 | 10,344      | 10,398      |
| Proceeds from capital grants  | 2,662       | 1,914       |
| Proceeds from sales of capital assets                               | 124         | (21)        |
| Payments for capital assets   | (224,712)   | (219,888)   |
| Proceeds from assessments   | 3,378       | 2,465       |
| <b>Net Cash Provided (Used) by Capital and Related Financing</b>    | (215,036)   | (211,694)   |
| <br><b>Cash Flows from Investing Activities</b>                     |             |             |
| Purchase of investments   | (127,427)   | (212,292)   |
| Maturity of investments   | 71,789      | 157,087     |
| Investment income   | 2,203       | 1,423       |
| <b>Net Cash Provided (Used) by Investing Activities</b>             | (53,435)    | (53,782)    |
| <br>Net Increase (Decrease) in Cash and Cash Equivalents            | (30,132)    | (40,831)    |
| Cash and Cash Equivalents, Beginning of Year                        | 101,986     | 142,817     |
| <b>Cash and Cash Equivalents, End of Year</b>                       | \$ 71,854   | \$ 101,986  |

*See the accompanying notes to the financial statements.*

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**  
**COMPARATIVE STATEMENT OF CASH FLOWS**  
**AS OF JUNE 30**  
**DOLLARS IN THOUSANDS**

|  | <u>2022</u>       | <u>2021</u>       |
|--|-------------------|-------------------|
| <b>Reconciliation of Operating Income to Net Cash provided by Operating Activities</b> |                   |                   |
| Income from operations   | \$ 133,700        | \$ 103,256        |
| Adjustments to reconcile operating income to net cash provided by operating activities |                   |                   |
| Depreciation and amortization  | 103,964           | 97,874            |
| Accounts receivable  | (1,539)           | 2,546             |
| Inventories  | (176)             | (109)             |
| Prepaid expense  | 3,206             | (2,194)           |
| Accounts payable   | (8,538)           | 3,656             |
| Customer deposits  | (837)             | (198)             |
| Accrued liabilities  | (166)             | 1,267             |
| Pension liability  | 7,071             | 15,807            |
| OPEB liability   | 1,654             | 2,740             |
| <b>Net Cash Provided by Operating Activities</b>                                       | <b>\$ 238,339</b> | <b>\$ 224,645</b> |
| <b>Non-Cash Capital Financing and Investing Activities</b>                             |                   |                   |
| Contribution of plant, lines and other facilities by developers and property owners    | \$ 6,909          | \$ 14,456         |
| Construction costs in accounts payable   | 30,464            | 46,237            |
| Unrealized (gain)/loss on investments  | 3,587             | (499)             |
| Decrease in interest rate swap deferred revenue  | 497               | 497               |
| Change in fair value - derivative instruments  | 11,293            | 8,796             |
| Bonds issued for refunding of debt - Series 2011A                                      | 246,555           | -                 |
| Bonds issued for refunding of debt - Series 2020C                                      | -                 | 112,065           |

*See the accompanying notes to the financial statements.*

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
NOTES TO THE FINANCIAL STATEMENTS**

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**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
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**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**  
**NOTES TO THE FINANCIAL STATEMENTS**

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**NOTE 1 – SIGNIFICANT ACCOUNTING POLICIES**

The financial statements of the Louisville and Jefferson County Metropolitan Sewer District (MSD), a discretely presented component unit of Louisville/Jefferson County Metro Government, are prepared in conformity with accounting principles generally accepted in the United States of America as applied to government units. The Governmental Accounting Standards Board (GASB) is the accepted standard-setting body for establishing governmental accounting and financial reporting principles. MSD follows GASB Pronouncements as codified under GASB 62, including electing to report as a regulated operation. MSD uses proprietary fund accounting (enterprise fund). Due to the election as a regulated operation under GASB 62, to meet industry accounting standards and follow transactional intent, MSD uses, as applicable, ASC 980, Regulated Accounting.

**Reporting Entity:** MSD is a public body corporate, and political subdivision of the Commonwealth of Kentucky. MSD was created in 1946 pursuant to Chapter 76 of the Kentucky Revised Statutes, in the interest of the public health and for the purpose of providing adequate sewer and drainage facilities in the urbanized area of the Louisville Metropolitan Area. Pursuant to Chapter 76, MSD is governed by a Board which consists of eight members who are appointed by the Mayor of Louisville Metro Government, subject to approval of Louisville Metro Council. Not more than five Board members may be of the same political party. However, there is not a continuing supervisory relationship exercised by Louisville Metro Government over MSD with respect to MSD's statutory public functions.

Chapter 76 authorizes MSD to provide sewer and drainage facilities and services. MSD is further authorized by the statute to establish and collect service charges and to budget accordingly for operations and maintenance, capital outlays and debt service on obligations it is authorized by the statute to incur. No special financing relationship exists between Louisville Metro Government and MSD, nor is Louisville Metro Government empowered by law or custom to approve MSD's operating or capital budgets; nor are they responsible for financing deficits or disposing of surplus funds.

MSD has complete control, possession and supervision of the sewer and drainage system in large portions of Jefferson County, and has statutory authority to construct additions, betterments and extensions within its service area. Additionally, MSD has statutory responsibility for approval of the design and proper construction of sewer and drainage facilities within the County's boundaries. There are cities within Jefferson County that, by statute, have the option of using MSD sewer services on a contractual basis. Third and fourth class cities also have the option of obtaining drainage services from MSD.

In 2018 the Kentucky General Assembly amended KRS 76.080 to allow MSD to enter into agreements with other entities to acquire by purchase, any real or personal property, or any interest, right, easement, or privilege therein, outside of its Jefferson County boundaries in connection with the acquisition, construction, operation, repair or maintenance of any sewage, wastewater or drainage facility. Subsequent to this change, MSD has reached four agreements extending its service area outside of Jefferson County. On May 31, 2019, MSD acquired the Crestwood wastewater collection system pursuant to the terms and conditions of an Interlocal Cooperation Agreement (ILA). On April 27, 2020, MSD entered into an ILA with Shelby County to own, maintain, and operate sewer and wastewater facilities and collections systems in a prescribed service area in the easternmost corner of Shelby County. On June 30, 2020, MSD completed a merger with the Oldham County Environmental Authority (OCEA) pursuant to the terms and conditions of an ILA. On November 30, 2021, MSD acquired the Bullitt County Sanitation District (BCSD) pursuant to the terms and conditions of an ILA.

MSD classified the ILA with BCSD as a government acquisition since significant consideration was exchanged. GASB Statement No. 69, Government Combinations and Disposals of Government Operations, requires that for government acquisitions, the acquiring government should recognize the assets, deferred outflows of resources, liabilities, or deferred inflows of resources acquired or assumed at the acquisition date, or November 30, 2021. Assets, deferred outflows of resources, liabilities, or deferred inflows of resources were measured at acquisition value. No significant adjustments were made to bring amounts into conformity with MSD's accounting policies or to adjust for impairment of capital assets resulting from the acquisition.

## LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT NOTES TO THE FINANCIAL STATEMENTS

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MSD's enterprise business activities are managed by its Board, which has statutory authority to elect officers, enact bylaws and enter into agreements and contracts for the management and regulation of MSD's affairs. MSD's revenue is derived from wastewater and drainage service charges which are collected from residential, commercial and industrial customers. MSD controls the collection of all revenue, disbursement of payables and title to all sewer and drainage assets. Wastewater service charges are distributed among customer classes on the basis of actual costs incurred to collect and treat wastewater. Drainage service charges are distributed among customer classes on the basis of actual costs of drainage services per equivalent unit of impervious surface.

Changes in MSD's service charges are implemented by MSD's Board. Kentucky statute provides that MSD's service charge revenues shall be sufficient to provide for the operation and maintenance of the system and for debt service. By ordinance, Louisville Metro Government has provided that MSD's Board may amend its service charge schedule to maintain a debt service ratio of 1.10 for MSD's sewer and drainage revenue bonds, and that such amendments will be effective within the metropolitan area when adopted by MSD's Board, so long as the amended rates do not generate additional revenue from service charges in excess of 7% during the twelve months succeeding the period in which the deficiency was identified. Amendments that would generate additional revenues in excess of 7% require Louisville Metro Council approval.

Chapter 76 permits MSD to finance sewer and drainage system construction, acquisition and other capital improvements through the issuance of its revenue bonds and with the proceeds of governmental grants, property owner contributions in aid of construction and bonds and loans for which pledge of repayment is subordinated to the pledge of all revenues given by MSD for the security of its revenue bond holders. MSD indebtedness does not constitute indebtedness of Louisville Metro Government or the Commonwealth, but Louisville Metro Government must authorize by ordinance the issuance by MSD of revenue bonds to finance projects within the service area.

**Basis of Accounting:** The sewer and drainage system owned and operated by MSD is accounted for using a flow of economic resources measurement focus. With this measurement focus, all assets and all liabilities associated with the operation of the system are included on the Statement of Net Position. Total net position is segregated into net investment in capital assets, restricted for payment of bond principal and interest and unrestricted. Operating statements present increases (e.g., revenues) and decreases (e.g., expenses) in net position. MSD utilizes the accrual basis of accounting wherein revenues are recorded when earned and expenses are recorded at the time the liability is incurred.

**Cash and Cash Equivalents:** For purposes of the Statements of Cash Flows, MSD includes repurchase agreements and other investments with an original maturity of three months or less in cash and cash equivalents. Both restricted and unrestricted amounts are included on the Statements of Cash Flows.

**Restricted and Unrestricted Funds:** Restricted funds are reserved for the purpose of bond debt service, funding of capital construction, cost of issuance, and debt service reserves. Unrestricted funds, generated from service fees and other operating income, are used to pay for operating expenses. When an expense or outlay is incurred for which both restricted and unrestricted net position is available, it is MSD's general practice is to use revenue from operations to finance construction, then to reimburse from restricted net position for construction as it is needed.

**Investment Securities:** Investments are stated at fair value. Investment income consists of interest income and the change in fair value of investments<sup>1</sup>. Investment income is reduced by applicable estimated federal arbitrage liability.<sup>2</sup>

**Revenues, Expenses and Receivables:** Operating revenues are those revenues that are generated directly from the primary activity of MSD. These revenues are wastewater and drainage service charges and other operating income. The Louisville Water Company and Oldham County Water are responsible for the billing

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<sup>1</sup> See Note 2 – Deposits and Investments

<sup>2</sup> See Note 7 – Long-Term Debt



**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
NOTES TO THE FINANCIAL STATEMENTS**

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and collection of these charges on behalf of MSD on a monthly basis. Operating expenses are expenses incurred through the activities of operating and maintaining MSD facilities.

Non-operating revenues and expenses are comprised of investment and financing earnings and costs, changes in the fair value of derivatives, as well as contributions from outside sources.

Accounts receivable are stated at the amount management expects to collect from outstanding customer accounts. Accounts are considered past due 30 days from the invoice date. Management provides an allowance for doubtful account that is based on historical collection experience and a review of the current status of individual accounts. Accounts that remain outstanding after management has exerted reasonable collection efforts are written off through a charge to allowance for doubtful accounts and a credit to accounts receivable. The allowance for doubtful accounts was valued at June 30, 2022 and June 30, 2021 as \$4,270,981 and \$4,946,357, respectively.

Assessment receivables represent amounts billed to residents to have sewer lines installed in their neighborhood. Assessment receivables are considered past due once the balance is 90 days in arrears. Assessment receivables that remain outstanding after management has exerted reasonable collection efforts are written off through a charge to allowance for doubtful accounts and a credit to accounts receivable. The allowance for doubtful accounts was valued at June 30, 2022 and June 30, 2021 at \$5,140,847 and \$2,539,950, respectively. These receivables may be current or non-current assets.

**Inventory:** Inventory is stated at cost. Inventory consists of supplies and parts used in the operation of MSD's treatment plants and for the maintenance of sewers, fleet vehicles and other related equipment. Inventory totaled \$5,262,281 at June 30, 2022 and \$5,086,088 at June 30, 2021.

**Contributed Capital and Construction Grants:** MSD finances construction of sewer and drainage plant, lines and other facilities, in part, through government grants and contributions from property owners and developers. Governmental grants in aid of construction represent the estimated portion of construction costs incurred for which grants are expected to be paid to MSD by the governmental grantor. These amounts are recorded as a receivable and revenues from contributions at the time the related expenditures are incurred. Revenues from contributions are part of the change in net position. Government grants in aid of construction and other recoveries at June 30, 2022 and June 30, 2021 were \$2,662,193 and \$1,966,789, respectively. Contributed capital in the form of sewer and drainage infrastructure constructed by developers at June 30, 2022 and June 30, 2021 were \$6,909,247 and \$14,455,781, respectively.

**Capital Assets - Plant, Lines and Other Facilities:** Plant, lines and other facilities are recorded at historical cost or, if contributed, at acquisition value as determined by engineering estimates on the date the contribution is received. It is MSD's policy to depreciate the costs of these assets over their estimated useful lives on a straight line basis<sup>3</sup>.

Estimated useful lives on depreciable assets are as follows:

|                                   |             |
|-----------------------------------|-------------|
| Building and other structures     | 30-50 years |
| Land improvements                 | 10-30 years |
| Miscellaneous machinery           | 10-20 years |
| Vehicles                          | 6-12 years  |
| Equipment, heavy                  | 15-30 years |
| Equipment, light                  | 5-15 years  |
| Sewer lines and drainage channels | 20-80 years |

Costs incurred for capital construction and acquisition are carried in construction in progress until disposition or completion of the related projects. The major components of construction in progress are sewer lines,

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<sup>3</sup> See Note 5 – Capital Assets – Plant, Lines, and Other Facilities

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**  
**NOTES TO THE FINANCIAL STATEMENTS**

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wastewater treatment and drainage facilities. Costs relating to projects not pursued are expensed, while costs relating to completed projects are capitalized as plant, lines and other facilities.

**Capitalized Interest:** In accordance with the provisions for regulated utility entities under GASB 62, MSD follows the practice of capitalizing the interest incurred as part of the cost of acquiring assets that are debt-financed for rate-making purposes. Total interest cost of \$109,167,238 was incurred during the year, of which \$7,463,578 was capitalized as a regulatory asset.

**Prepaid Regulatory Assets:** Capitalized interest is presented as a prepaid regulatory asset. MSD depreciates capitalized interest over forty years. Prepaid regulatory assets have a historical cost of \$436,432,482. The carrying value, stated net of depreciation, was \$287,022,342 as of June 30, 2022.

**Impairment of Capital Assets:** In accordance with GASB Statement No. 42, *Accounting and Financial Reporting for Impairment of Capital Assets and for Insurance Recoveries*, management evaluates prominent events or changes in circumstances affecting capital assets to determine whether impairment of a capital asset has occurred. Such events or changes in circumstances that may be indicative of impairment include evidence of physical damage, enactment or approval of laws or regulations, other changes in environmental factors, technology changes or evidence of obsolescence, changes in the manner of duration of use of a capital asset, and construction stoppage. A capital asset is generally considered impaired if both (a) the decline in service utility of the capital asset is large in magnitude and (b) the event or change in circumstance is outside the normal life cycle of the capital asset. No impairment losses were recognized in fiscal year 2022 or 2021.

**Bonds Payable:** Bonds payable are recorded at the principal amount outstanding, net of any applicable premium or discount<sup>4</sup>.

Bonds outstanding, which have been refunded and economically defeased, are not included in long-term debt. The related assets are not included in investments. Any loss on refunding, which is the difference between the reacquisition price and the net carrying amount of the old debt, is deferred outflow of resources and amortized as a component of interest expense over the shorter of either 1) the original life of the refunded debt or 2) the life of the refunding debt.

MSD enters into interest rate swap agreements to modify interest rates on outstanding debt. MSD records the net interest expenditures resulting from these agreements and amortizes gains/losses resulting from the termination of these agreements until the original termination date of the agreement. The changes in fair value of derivative instruments that are classified as hedging derivative instruments are reported in the Statement of Net Position as deferred outflow of resources. Changes in fair value of investment derivative instruments are reported in non-operating revenue (expenses) on the Statement of Revenues, Expenses and Changes in Net Position<sup>5</sup>.

Bond issue costs are capitalized and amortized over the life of the respective bond issue using the straight-line method, which approximates the effective interest method, pursuant to the election of regulatory operation under GASB 62, as they are deemed recoverable through future rates.

Original issue discounts and premiums on bonds are amortized as a component of interest expense using the straight-line method, which approximates the effective interest method, over the lives of the bonds to which they relate.

**Compensated Absences:** Vacation and personal pay benefits are accrued as accumulated and vested by MSD employees.

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<sup>4</sup> See Note 7 – Long-Term Debt

<sup>5</sup> See Note 9 – Derivative Instruments.

## LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT NOTES TO THE FINANCIAL STATEMENTS

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**Allocation of Overhead:** MSD allocates overhead costs to its core business processes: operations and maintenance; design, construction and acquisition of plant lines and other facilities; and subsidiary business enterprises.

**Use of Estimates:** The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make assumptions and estimates 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.

**Income Tax Status:** MSD is exempt from federal income tax under the Internal Revenue Code as a political subdivision of the Commonwealth of Kentucky.

**Adoption of New Accounting Pronouncements:** Effective July 1, 2021 MSD adopted the following GASB pronouncements and implementation guide:

- Statement No. 87: *Leases*
- Statement No. 89: *Accounting for Interest Cost Incurred before the End of a Construction Period.*
- Statement No. 92: *Omnibus 2020*
- Statement No. 93: *Replacement of Interbank Offered Rates*
- Statement No. 97: *Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans—an amendment of GASB Statements No. 14 and No. 84, and a supersession of GASB Statement No. 32*
- Statement No. 98: *The Annual Comprehensive Financial Report*
- Implementation Guide No. 2019-3: *Leases*

GASB Statements No. 87, No. 89, No. 92, No. 93, No. 97, and No. 98 and Implementation Guide No. 2019-3 do not have a material impact on MSD's financial reporting.

**Recent Accounting Pronouncements:** GASB has issued additional guidance that is not yet effective. MSD is currently reviewing the provisions of the following GASB Statements and Implementation Guides to determine the impact of implementation in future periods.

- Statement No. 91: *Conduit Debt Obligations (fiscal 2023)*
- Statement No. 94: *Public-Private and Public-Public Partnerships and Availability Payment Arrangements (fiscal 2023)*
- Statement No. 96: *Subscription-based Information Technology Arrangements (fiscal 2023)*
- Statement No. 99: *Omnibus 2022*
- Statement No. 100: *Accounting Changes and Error Corrections—as an amendment of GASB Statement No. 62*
- Statement No. 101: *Compensated Absences*

**Reclassifications:** Prior period financial statement amounts have been reclassified to conform to current period presentation. These reclassifications had no effect on the changes in net position or total net position.

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**  
**NOTES TO THE FINANCIAL STATEMENTS**

**NOTE 2 – CASH DEPOSITS AND INVESTMENTS**

A reconciliation of cash, cash equivalents and investments as shown on the Comparative Statement of Net Position for MSD follows:

| (dollars in thousands)                       | June 30,          |                   |
|--|-------------------|-------------------|
|  | 2022              | 2021              |
| Reported in Statements of Net Position:      |                   |                   |
| Cash and cash equivalents                    |                   |                   |
| Unrestricted                                 | \$ 48,875         | \$ 79,281         |
| Restricted - current                         | 20,788            | 21,181            |
| Restricted - noncurrent                      | <u>2,191</u>      | <u>1,524</u>      |
| Total cash and cash equivalents              | <u>71,854</u>     | <u>101,986</u>    |
| Investments                                  |                   |                   |
| Unrestricted                                 | 69,754            | 28,124            |
| Restricted - current                         | 12,947            | -                 |
| Restricted - noncurrent                      | <u>78,140</u>     | <u>81,406</u>     |
| Total investments                            | <u>160,841</u>    | <u>109,530</u>    |
| Total Cash, Cash Equivalents and Investments | <u>\$ 232,695</u> | <u>\$ 211,516</u> |

The following comparative schedule presents the cash, cash equivalents and investments in MSD's portfolio at fair value with investment maturities and credit risk ratings from Moody's Investors Service.

| June 30, 2022<br>(dollars in thousands)      |                       |   |                          |
|--|-----------------------|---|--------------------------|
|  | <u>Reported Value</u> | <u>Weighted Average<br/>Maturity in Years</u> | <u>Credit<br/>Rating</u> |
| Commercial paper                             | \$ 54,926             | 0.41  | P-1                      |
| U.S. treasuries                              | 67,533                | 0.43  | Aaa                      |
| U.S. agency securities                       | 16,594                | 1.41  | Aaa                      |
| Municipal bonds                              | 36,693                | 2.64  | Aaa, Aa, A               |
| Money market funds                           | 23,252                | 0.07  | Aaa                      |
| Repurchase agreement/cash                    | 33,597                | 0.01  |                          |
| Certificate of deposit                       | <u>100</u>            | <u>0.00</u>                                   |                          |
| Total cash, cash equivalents and investments | <u>\$ 232,695</u>     | 4.27  |                          |
| Accrued interest                             | \$ 341                |   |                          |
| June 30, 2021<br>(dollars in thousands)      |                       |   |                          |
|  | <u>Reported Value</u> | <u>Weighted Average<br/>Maturity in Years</u> | <u>Credit<br/>Rating</u> |
| Commercial Paper                             | \$ 24,996             | 0.21  | P-1                      |
| U.S. treasuries                              | 22,746                | 0.38  | Aaa                      |
| U.S. agency securities                       | 36,003                | 1.19  | Aaa                      |
| Municipal bonds                              | 40,685                | 2.38  | Aaa, Aa, A               |
| Money market funds                           | 30,254                | 0.06  | Aaa                      |
| Repurchase agreement/cash                    | 56,732                |   |                          |
| Certificate of deposit                       | <u>100</u>            | <u>0.00</u>                                   |                          |
| Total cash, cash equivalents and investments | <u>\$ 211,516</u>     | 4.27  |                          |
| Accrued interest                             | \$ 231                |   |                          |

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**  
**NOTES TO THE FINANCIAL STATEMENTS**

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Section 66.480 of the Kentucky Revised Statutes and MSD's bond resolutions authorize MSD to invest money subject to its control in, among other securities, (i) obligations of the United States and of its agencies and instrumentalities, including obligations subject to repurchase agreements, (ii) certificates of deposit or other interest-bearing accounts of any bank or savings and loan institution which are insured by the Federal Deposit Insurance Corporation or, to the extent not so insured, collateralized by obligations described in clause (i) above, (iii) securities issued by a state or local government, or any instrumentality or agency thereof, in the United States, and rated in either of the two highest categories by a nationally recognized rating agency, and (iv) money market mutual funds investing in any of the securities described above.

Investments are made based upon prevailing market conditions at the time of the transaction with the intent to hold the instrument until maturity. With this strategy, investments would be expected to reach maturity with limited realized gains or losses. If the yield of the portfolio can be improved upon by the sale of an investment, prior to its maturity, with the reinvestment of the proceeds, then this provision is also allowed.

**Risks: Concentration of Credit Risk:** MSD's Investment Policy (the Policy) requires that investments be diversified to eliminate the risk of loss resulting from over-concentration of assets in a specific maturity, a specific issuer, or a specific class of securities. Section 4.4.1 of the Policy limits the amount of money invested at any time in one or more categories of the investments authorized by KRS 66.480 1e, 1f, 1g, and 1i shall not exceed 20% of the total amount invested. MSD was in compliance with its investment policy at June 30, 2022 and 2021.

**Interest Rate Risk:** MSD minimizes interest rate risk by structuring the investment portfolio so that securities mature to meet cash requirements for ongoing operations, thereby avoiding the need to sell securities on the open market prior to maturity. The weighted average maturity in years represents the interest rate risk for MSD.

**Custodial Credit Risk:** This is the risk that, in the event of the failure of the counterparty, MSD would not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. The collateral provided by financial institutions is considered adequate to cover all balances in excess of limits set forth by the Federal Deposit Insurance Corporation. All of MSD's investments are held by MSD or in the name of MSD by a Trustee.

**Foreign Currency Risk:** This risk relates to any potential adverse effects on the fair value of an investment from changes in exchange rates. MSD did not hold any foreign currency as of June 30, 2022 and 2021.

**Fair Value Measurement:** GASB 72 requires MSD to disclose how we measure the fair value of investments and the underlying valuation techniques. Debt and equity securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for these securities or repurchase agreements. Debt securities classified in Level 2 of the fair value hierarchy are valued using a matrix pricing approach. Matrix pricing is used to value securities based on the securities' relationship to the benchmark quoted prices. A comparative statement of investments subject to fair value measurements and valuation techniques follows:

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**  
**NOTES TO THE FINANCIAL STATEMENTS**

| June 30, 2022<br>(dollars in thousands) | Quoted Prices in<br>Active Markets<br>for Identical<br>Assets<br>(Level 1) | Significant<br>Other<br>Observable<br>Inputs<br>(Level 2) | Significant<br>Unobservable<br>Inputs<br>(Level 3) | Total             |
|---|--|---|--|-------------------|
| Investments by fair value level:        |  |   |  |                   |
| Commercial paper                        | \$ -   | \$ 54,926   | \$ -   | \$ 54,926         |
| U.S. treasuries                         | -  | 67,533  | -  | 67,533            |
| U.S. agencies                           | -  | 16,594  | -  | 16,594            |
| State and municipal obligations         | <u>-</u>   | <u>36,693</u>   | <u>-</u>   | <u>36,693</u>     |
| Total investments by fair value level   | <u>\$ -</u>  | <u>\$ 175,746</u>   | <u>\$ -</u>  | <u>\$ 175,746</u> |

| June 30, 2021<br>(dollars in thousands) | Quoted Prices in<br>Active Markets<br>for Identical<br>Assets<br>(Level 1) | Significant<br>Other<br>Observable<br>Inputs<br>(Level 2) | Significant<br>Unobservable<br>Inputs<br>(Level 3) | Total             |
|---|--|---|--|-------------------|
| Investments by fair value level:        |  |   |  |                   |
| Commercial paper                        | \$ -   | \$ 24,996   | \$ -   | \$ 24,996         |
| U.S. treasuries                         | -  | 22,746  | -  | 22,746            |
| U.S. agencies                           | -  | 36,003  | -  | 36,003            |
| State and municipal obligations         | <u>-</u>   | <u>40,685</u>   | <u>-</u>   | <u>40,685</u>     |
| Total investments by fair value level   | <u>\$ -</u>  | <u>\$ 124,430</u>   | <u>\$ -</u>  | <u>\$ 124,430</u> |

**NOTE 3 - RESTRICTED CASH, CASH EQUIVALENTS, AND INVESTMENTS**

MSD's General Bond Resolution sets a debt service reserve requirement equal to at least 10% of the face amount of all bonds issued under the resolution, 100% of the maximum aggregate net debt service in the current or any future fiscal year or 125% of the average aggregate net debt service in the current or any future fiscal year (the three-prong test). The General Bond Resolution allows, in lieu of cash and investments in that amount, a letter of credit or policy of bond insurance payable in the required amount. On June 26, 2019 MSD purchased a debt service reserve surety policy (the Reserve Policy) from Build America Mutual Assurance Company with a maximum policy limit of \$75,000,000. The Reserve Policy terminates on May 15, 2048. Draws under the Reserve Policy may only be used to make payments of principal and interest on the bonds. Cash and investments in the debt service reserve funds shall be transferred to the debt service funds for payment of debt service on the bonds before any draw may be made on the Reserve Policy.

As of June 30, 2022, total assets restricted for debt service were \$100,907,023, which included the debt service reserve of \$80,320,673 and other debt service trust accounts of \$20,586,350. Total assets restricted for construction were \$13,158,729 which were comprised of unspent 2022A bond proceeds. Total assets restricted for the debt service reserve, together with the Reserve Policy, totaled \$155,330,673. The lesser of the three-prong test as of June 30, 2022 was 125% of MSD's average annual aggregate net debt service, or \$155,086,014.

As of June 30, 2021, total assets restricted for debt service were \$104,110,840, which included the debt service reserve of \$82,929,526 and other debt service trust accounts of \$21,181,314. Total assets restricted for the debt service reserve, together with the Reserve Policy, totaled \$157,929,526. The lesser of the three-prong test as of June 30, 2021 was 100% of the maximum aggregate net debt service in the current or any future fiscal year, or \$151,252,519.

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
NOTES TO THE FINANCIAL STATEMENTS**

**NOTE 4 - SCHEDULE OF NET POSITION**

A comparative Schedule of Net Position follows:

| <i>(dollars in thousands)</i>  | June 30,          |                   |
|--|-------------------|-------------------|
|  | 2022              | 2021              |
| Net investment in capital assets:  |                   |                   |
| Plant, lines and other facilities net of depreciation including capitalized interest | \$ 3,580,027      | \$ 3,458,906      |
| Outstanding debt that applies to plant, lines and other facilities                   | (2,739,232)       | (2,674,370)       |
| Unspent bond proceeds - construction   | 13,158            | -                 |
| Accounts payable and accrued expenses (capital)                                      | (30,464)          | (46,237)          |
| Deferred outflows and inflows of resources   | <u>26,827</u>     | <u>24,549</u>     |
| Total  | <u>850,316</u>    | <u>762,848</u>    |
| Restricted for:  |                   |                   |
| Assets restricted for debt service   | 100,907           | 104,111           |
| Liabilities associated with restricted debt service                                  | <u>(16,300)</u>   | <u>(19,682)</u>   |
|  | 84,607            | 84,429            |
| Unrestricted net position  | <u>(11,891)</u>   | <u>488</u>        |
| Total net position   | <u>\$ 923,032</u> | <u>\$ 847,765</u> |

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**  
**NOTES TO THE FINANCIAL STATEMENTS**

**NOTE 5 - CAPITAL ASSETS - PLANT, LINES AND OTHER FACILITIES**

A comparative schedule of plant, lines and other facilities follows:

| June 30, 2022<br>(dollars in thousands)            | Beginning<br>Balance | Transfers In/<br>Additions | Retirements /<br>Reclassifications | Ending<br>Balance   |
|--|----------------------|----------------------------|------------------------------------|---------------------|
| Capital assets:                                    |                      |                            |                                    |                     |
| Sewer lines  | \$ 1,761,425         | \$ 308,916                 | \$ -                               | \$ 2,070,341        |
| Wastewater treatment facilities                    | 641,414              | 55,486                     | -                                  | 696,900             |
| Drainage facilities                                | 997,461              | 14,218                     | -                                  | 1,011,679           |
| Pumping and lift stations                          | 260,231              | 26,743                     | -                                  | 286,974             |
| Administrative facilities                          | 52,348               | 123                        | -                                  | 52,471              |
| Maintenance facilities                             | 14,301               | 276                        | -                                  | 14,577              |
| Machinery and equipment                            | 88,493               | 13,072                     | (703)                              | 100,862             |
| Miscellaneous                                      | <u>33,375</u>        | <u>2,560</u>               | <u>-</u>                           | <u>35,935</u>       |
| Total capital assets                               | 3,849,048            | 421,394                    | (703)                              | 4,269,739           |
| Less accumulated depreciation<br>and amortization: |                      |                            |                                    |                     |
| Sewer lines  | (406,166)            | (26,039)                   | -                                  | (432,205)           |
| Wastewater treatment facilities                    | (432,861)            | (21,164)                   | -                                  | (454,025)           |
| Drainage facilities                                | (203,200)            | (20,815)                   | -                                  | (224,015)           |
| Pumping and lift stations                          | (112,314)            | (13,886)                   | -                                  | (126,200)           |
| Administrative facilities                          | (42,069)             | (1,129)                    | -                                  | (43,198)            |
| Maintenance facilities                             | (7,360)              | (366)                      | -                                  | (7,726)             |
| Machinery and equipment                            | (70,003)             | (7,927)                    | 693                                | (77,237)            |
| Miscellaneous                                      | <u>(31,574)</u>      | <u>(754)</u>               | <u>-</u>                           | <u>(32,328)</u>     |
| Total accumulated depreciation/amortization        | (1,305,547)          | (92,080)                   | 693                                | (1,396,934)         |
| Construction in progress                           | <u>625,113</u>       | <u>136,301</u>             | <u>(341,214)</u>                   | <u>420,200</u>      |
| Net capital assets                                 | <u>\$ 3,168,614</u>  | <u>\$ 465,615</u>          | <u>\$ (341,224)</u>                | <u>\$ 3,293,005</u> |

Capital assets include non-depreciable assets for land related to all facilities and pumping and lift stations. The carrying value was \$41,641,692 and \$38,161,779 at June 30, 2022 and 2021 respectively.



**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**  
**NOTES TO THE FINANCIAL STATEMENTS**

| June 30, 2021<br>(dollars in thousands)            | Beginning<br>Balance | Transfers In/<br>Additions | Retirements /<br>Reclassifications | Ending<br>Balance   |
|--|----------------------|----------------------------|------------------------------------|---------------------|
| Capital assets:                                    |                      |                            |                                    |                     |
| Sewer lines  | \$ 1,746,706         | \$ 14,719                  | \$ -                               | \$ 1,761,425        |
| Wastewater treatment facilities                    | 627,902              | 13,512                     | -                                  | 641,414             |
| Drainage facilities                                | 880,863              | 116,598                    | -                                  | 997,461             |
| Pumping and lift stations                          | 256,229              | 4,207                      | (205)                              | 260,231             |
| Administrative facilities                          | 52,297               | 51                         | -                                  | 52,348              |
| Maintenance facilities                             | 12,459               | 1,842                      | -                                  | 14,301              |
| Machinery and equipment                            | 89,137               | 1,652                      | (2,296)                            | 88,493              |
| Miscellaneous                                      | <u>32,229</u>        | <u>1,246</u>               | <u>-</u>                           | <u>33,375</u>       |
| Total capital assets                               | 3,697,722            | 153,827                    | (2,501)                            | 3,849,048           |
| Less accumulated depreciation<br>and amortization: |                      |                            |                                    |                     |
| Sewer lines  | (383,297)            | (22,869)                   | -                                  | (406,166)           |
| Wastewater treatment facilities                    | (412,741)            | (20,120)                   | -                                  | (432,861)           |
| Drainage facilities                                | (183,231)            | (19,969)                   | -                                  | (203,200)           |
| Pumping and lift stations                          | (98,378)             | (13,936)                   | -                                  | (112,314)           |
| Administrative facilities                          | (40,918)             | (1,151)                    | -                                  | (42,069)            |
| Maintenance facilities                             | (7,040)              | (320)                      | -                                  | (7,360)             |
| Machinery and equipment                            | (65,414)             | (6,884)                    | 2,295                              | (70,003)            |
| Miscellaneous                                      | <u>(30,649)</u>      | <u>(925)</u>               | <u>-</u>                           | <u>(31,574)</u>     |
| Total accumulated depreciation/amortization        | (1,221,668)          | (86,174)                   | 2,295                              | (1,305,547)         |
| Construction in progress                           | <u>538,013</u>       | <u>221,005</u>             | <u>(133,905)</u>                   | <u>625,113</u>      |
| Net capital assets                                 | <u>\$ 3,014,067</u>  | <u>\$ 288,658</u>          | <u>\$ (134,111)</u>                | <u>\$ 3,168,614</u> |

**NOTE 6 - CAPITALIZED INTEREST**

A comparative schedule of capitalized interest and net interest expense reported in non-operating expenses during the year:

| (dollars in thousands)       | June 30,         |                  |
|------------------------------|------------------|------------------|
|                              | 2022             | 2021             |
| Interest incurred            | \$ 95,764        | \$ 101,642       |
| Less interest capitalization | <u>(7,464)</u>   | <u>(12,049)</u>  |
| Interest expense, net        | <u>\$ 88,300</u> | <u>\$ 89,593</u> |

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
NOTES TO THE FINANCIAL STATEMENTS**

A roll forward of net prepaid regulatory assets follows:

| <i>(dollars in thousands)</i>                     | 2022              | June 30,<br>2021  | 2020              |
|---|-------------------|-------------------|-------------------|
| Net prepaid regulatory assets - beginning of year | \$ 290,292        | \$ 288,690        | \$ 285,744        |
| Additions   | 7,464             | 12,049            | 13,043            |
| Amortization                                      | (10,735)          | (10,447)          | (10,097)          |
| Net prepaid regulatory assets - end of year       | <u>\$ 287,021</u> | <u>\$ 290,292</u> | <u>\$ 288,690</u> |

**NOTE 7 - LONG-TERM DEBT**

A schedule of long-term debt outstanding at June 30, 2022 and 2021 follows.

| June 30, 2022                 |  |                   |                   |                                  |                               |
|-------------------------------|--|-------------------|-------------------|----------------------------------|-------------------------------|
| <i>(dollars in thousands)</i> |  |                   |                   |                                  |                               |
| Issue Description             | Outstanding<br>at Beginning<br>of Year | Issued            | Retired           | Outstanding<br>at End of<br>Year | Payable<br>Within One<br>Year |
| Revenue bonds                 | \$ 2,105,120                           | \$ 471,555        | \$ 295,390        | \$2,281,285                      | \$ 52,880                     |
| Unamortized premium/discount  | 74,817                                 | 30,454            | 17,221            | 88,050                           | -                             |
| Commercial paper notes        | 150,000                                | 375,000           | 475,000           | 50,000                           | -                             |
| Bank notes                    | -                                      | -                 | -                 | -                                | -                             |
| Other subordinate debt:       |  |                   |                   |                                  |                               |
| General obligation bonds      | 11,629                                 | -                 | 855               | 10,774                           | 880                           |
| SRF loans                     | 32,462                                 | 8,448             | 912               | 39,998                           | 988                           |
| Financing lease               | 2,030                                  | -                 | 160               | 1,870                            | 170                           |
| Total                         | <u>\$ 2,376,058</u>                    | <u>\$ 885,457</u> | <u>\$ 789,538</u> | <u>\$2,471,977</u>               | <u>\$ 54,918</u>              |

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
NOTES TO THE FINANCIAL STATEMENTS**

| June 30, 2021<br>(dollars in thousands) |  |                   |                   |                                  |                               |
|---|--|-------------------|-------------------|----------------------------------|-------------------------------|
| Issue Description                       | Outstanding<br>at Beginning<br>of Year | Issued            | Retired           | Outstanding<br>at End of<br>Year | Payable<br>Within One<br>Year |
| Revenue bonds                           | \$ 1,911,915                           | \$ 337,065        | \$ 143,860        | \$2,105,120                      | \$ 47,565                     |
| Unamortized premium/discount            | 74,458                                 | 18,072            | 17,713            | 74,817                           | -                             |
| Commercial paper notes                  | 255,000                                | 365,000           | 470,000           | 150,000                          | -                             |
| Bank notes                              | 100                                    | -                 | 100               | -                                | -                             |
| Other subordinate debt:                 |  |                   |                   |                                  |                               |
| General obligation bonds                | 12,453                                 | -                 | 824               | 11,629                           | 855                           |
| SRF loans                               | 15,818                                 | 17,860            | 1,216             | 32,462                           | 802                           |
| Financing lease                         | 2,180                                  | -                 | 150               | 2,030                            | 160                           |
| <b>Total</b>                            | <b>\$ 2,271,924</b>                    | <b>\$ 737,997</b> | <b>\$ 633,863</b> | <b>\$2,376,058</b>               | <b>\$ 49,382</b>              |

**Revenue Bonds:** MSD's long-term revenue bonds are publicly issued under its General Bond Resolution adopted December 7, 1992, to pay at maturity program notes issued and outstanding as senior subordinated debt under the Program Note Resolution adopted June 25, 2018. Prior to 2018, MSD publicly issued revenue bonds to finance sewer and drainage projects. MSD has pledged all revenues to the payment of principal and interest on its outstanding revenue bonds. Pursuant to the General Bond Resolution, upon the occurrence of any event of default, holder or holders of twenty percent in principal amount or more of the bonds then outstanding may apply to a Judge in the Circuit Court of Jefferson County to appoint a trustee to represent all Bondholders and the trustee may declare all bonds due and payable. MSD has remedies available under the Resolution to cure the event of default even after all bonds are declared due and payable.

Federal tax regulations generally require the periodic payment to the U.S. Treasury of investment earnings on the proceeds of an issue of tax-exempt municipal bonds to the extent those earnings exceed the yield on the bonds. Such payments, known as arbitrage rebate, are normally payable every fifth year following the issuance of a Series of bonds and upon the retirement of the bond issue. MSD has arbitrage calculations performed as needed by an independent third party to comply with these regulations. As of June 30, 2022 and 2021, MSD's accrued liability for arbitrage rebate was \$21,378 and \$773,553, respectively. During fiscal year 2022, MSD paid \$770,367 for arbitrage rebate related to the 2011A bond issue. There is currently no arbitrage rebate accruing in relation to the 2011A bonds.

A debt service coverage ratio covenant has been established under the 1992 General Bond Resolution. MSD was in compliance with the ratio covenant as of June 30, 2022 and 2021.

**Fiscal Year 2022 Significant Debt Transactions:** On March 25, 2020, MSD entered into a Forward Delivery Bond Purchase agreement to refund \$243,910,000 of the Series 2011A bonds. Under the terms of the agreement, MSD authorized the issuance, on a direct placement, forward delivery basis, of its sewer and drainage system revenue refunding bonds, Series 2021A in the amount of \$246,555,000. The bonds were dated and delivered on August 17, 2021. Under the terms of a continuing covenant agreement for the 2021A bonds, if an event of default occurs the purchaser may declare the outstanding amount of principal and interest on the bonds to be immediately due and payable. The refunding reduces debt service payments by \$56,554,774 beginning in 2022 through 2034 which results in a net present value savings of \$45,575,104. The net loss on refunding was \$2,421,948. The final maturity of Series 2021A bonds is May 15, 2034.

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**  
**NOTES TO THE FINANCIAL STATEMENTS**

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On February 1, 2022, MSD issued \$225,000,000 of Climate Bond Certified revenue bonds, Series 2022A. The proceeds of the Series 2022A bonds were used: (i) together with other available funds of the District, to pay at maturity, redeem, and refund program notes issued and outstanding as senior subordinated debt under the resolution and MSD's program note resolution, the proceeds of which were used for the purpose of financing the cost of capital improvements and additions to MSD's sewer and drainage system and refinancing other program notes previously used under the program note resolution and (ii) to pay the costs of issuance of the Series 2022A bonds. The net premium received on the Series 2022A bonds was \$23,821,123. The final maturity of Series 2022A bonds is May 15, 2052.

*Fiscal Year 2021 Significant Debt Transactions:* On July 30, 2020, MSD issued \$225,000,000 of revenue bonds, Series 2020A. The proceeds of the Series 2020A bonds were used (i) to pay at maturity, redeem, and refund program notes issued and outstanding as senior subordinated debt under the resolution and MSD's program note resolution, the proceeds of which were used for the purpose of financing the cost of capital improvements and additions to MSD's sewer and drainage stem and refinancing other program notes previously used under the program note resolution and (ii) to pay the costs of issuance of the Series 2020A bonds. The final maturity of Series 2020A bonds is May 15, 2050.

On September 22, 2020 MSD sold \$112,065,000 of its taxable sewer and drainage system revenue refunding bonds Series 2020C. The proceeds of the Series 2020C bonds were used: (i) together with other available funds of the District, to advance refund and redeem on May 15, 2023, MSD's sewer and drainage system revenue refunding bonds, Series 2013C maturing on and after May 15, 2024 and (ii) to pay the costs of issuance of the Series 2020C bonds. The proceeds of the prior bonds were used to pay the costs of capital improvements and additions to MSD's sewer and drainage system. The sale of the Series 2020C bonds closed on October 15, 2020. The refunding reduces debt service payments over the next twenty four years by \$26,590,053 which is a net present value savings of \$18,675,198. The final maturity of Series 2020C bonds is May 15, 2044.

Proceeds of the Series 2020C bonds were deposited in an escrow account at the Bank of New York Mellon and will be used to redeem the Series 2013C bonds at maturity. As of June 30, 2022, the amount outstanding on the refunded portion of the Series 2013C bond is \$98,875,000 maturing on May 13, 2023. The refunded portion of the Series 2013C bonds is considered legally defeased. As such, the escrow accounts' assets and liabilities for the defeased bonds are not included in MSD's financial statements.

On March 15, 2021 MSD issued under the General Bond Resolution, to the United States Environmental Protection Agency (EPA), its sewer and drainage system revenue bonds, Series 2020B, in the principal amount of \$96,126,000. The Series 2020B bonds evidence a loan from the EPA to MSD under the federal Water Infrastructure Finance and Innovation Act (WIFIA) for the purpose of financing the costs of constructing the Morris Forman Water Quality Treatment Center Biosolids Processing project. MSD's loan agreement with the EPA prohibits MSD from incurring additional debt without the permission of the EPA if a payment default has occurred and is continuing under the WIFIA loan agreement. As of June 30, 2022, no draws on this loan have been made.

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
NOTES TO THE FINANCIAL STATEMENTS**

A comparative schedule of revenue bonds payable at June 30, 2022 and 2021 follows:

| <i>(dollars in thousands)</i>          |              |                |                        |                            |                     |  |
|--|--------------|----------------|------------------------|----------------------------|---------------------|--|
| Revenue Bonds                          | Original     |                | Final<br>Payment<br>In | Outstanding as of June 30: |                     |  |
|  | Issue Amount | Interest Rates |                        | 2022                       | 2021                |  |
| 2009C Series Revenue Bonds             | 180,000      | 5.98%          | 2040                   | 180,000                    | 180,000             |  |
| 2010A Series Revenue Bonds             | 330,000      | 6.25%          | 2043                   | 330,000                    | 330,000             |  |
| 2011A Series Revenue Bonds             | 263,360      | 3.00% - 5.00%  | 2034                   | -                          | 243,910             |  |
| 2013A Series Revenue Bonds             | 115,790      | 4.00%          | 2036                   | 115,790                    | 115,790             |  |
| 2013B Series Revenue Bonds             | 119,515      | 4.00% - 5.00%  | 2038                   | 109,280                    | 110,970             |  |
| 2013C Series Revenue Bonds             | 100,000      | 3.00% - 5.00%  | 2023                   | 125                        | 250                 |  |
| 2014A Series Revenue Bonds             | 80,000       | 4.00% - 5.00%  | 2045                   | 79,650                     | 79,700              |  |
| 2015A Series Revenue Bonds             | 175,000      | 3.125% - 5.00% | 2046                   | 171,395                    | 172,175             |  |
| 2015B Series Revenue Bonds             | 81,750       | 2.63% - 5.00%  | 2038                   | 65,975                     | 68,815              |  |
| 2016A Series Revenue Bonds             | 150,000      | 3.00% - 5.00%  | 2047                   | 147,500                    | 148,415             |  |
| 2016B Series Revenue Bonds             | 28,315       | 2.00% - 5.00%  | 2036                   | 19,910                     | 21,960              |  |
| 2016C Series Revenue Bonds             | 67,685       | 5.00%          | 2023                   | 12,995                     | 32,305              |  |
| 2017A Series Revenue Bonds             | 175,000      | 3.00% - 5.00%  | 2048                   | 149,390                    | 155,790             |  |
| 2017B Series Revenue Bonds             | 35,725       | 5.00%          | 2025                   | 31,210                     | 32,055              |  |
| 2018A Series Revenue Bonds             | 60,380       | 4.00%          | 2038                   | 60,380                     | 60,380              |  |
| 2019A Series Revenue Bonds             | 30,910       | 5.00%          | 2023                   | 8,845                      | 17,065              |  |
| 2020A Series Revenue Bonds             | 225,000      | 2.00% - 5.00%  | 2050                   | 224,000                    | 224,750             |  |
| 2020C Series Revenue Bonds             | 112,065      | 0.29% - 2.65%  | 2044                   | 109,605                    | 110,790             |  |
| 2021A Series Revenue Bonds             | 246,555      | 2.22%          | 2034                   | 240,485                    | -                   |  |
| 2022A Series Revenue Bonds             | 225,000      | 2.63% - 5.00%  | 2052                   | <u>224,750</u>             | <u>-</u>            |  |
| Total revenue bonds                    |              |                |                        | 2,281,285                  | 2,105,120           |  |
| Add: unamortized premium/discount      |              |                |                        | <u>88,050</u>              | <u>74,817</u>       |  |
| Total bonds payable                    |              |                |                        | 2,369,335                  | 2,179,937           |  |
| Less: current maturities               |              |                |                        | <u>(52,880)</u>            | <u>(47,565)</u>     |  |
| Total bonds payable, long term portion |              |                |                        | <u>\$ 2,316,455</u>        | <u>\$ 2,132,372</u> |  |

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
NOTES TO THE FINANCIAL STATEMENTS**

A schedule of future revenue bond debt service requirements after June 30, 2022 follows:

| <i>(dollars in thousands)</i> | Revenue Bonds       |                     |                     |
|-------------------------------|---------------------|---------------------|---------------------|
|                               | Principal           | Interest            | Total               |
| Year Ending June 30,          |                     |                     |                     |
| 2023                          | 52,880              | 91,740              | 144,620             |
| 2024                          | 52,375              | 89,506              | 141,881             |
| 2025                          | 55,670              | 87,391              | 143,061             |
| 2026                          | 56,180              | 85,106              | 141,286             |
| 2027                          | 74,465              | 82,901              | 157,366             |
| 2028-2032                     | 278,240             | 382,689             | 660,929             |
| 2033-2037                     | 454,560             | 339,689             | 794,249             |
| 2038-2042                     | 611,780             | 231,098             | 842,878             |
| 2043-2047                     | 565,440             | 80,150              | 645,590             |
| 2048-2052                     | 79,695              | 15,471              | 95,166              |
|                               | <u>\$ 2,281,285</u> | <u>\$ 1,485,741</u> | <u>\$ 3,767,026</u> |

A comparative summary of current and long-term revenue bond activity follows:

| <i>(dollars in thousands)</i>     | June 30,            |                     |
|-----------------------------------|---------------------|---------------------|
|                                   | 2022                | 2021                |
| Revenue bonds - beginning of year | \$ 2,105,120        | \$ 1,911,915        |
| Bonds issued                      | 471,555             | 337,065             |
| Principal paid on bonds           | (51,480)            | (44,985)            |
| Bond refunding                    | (243,910)           | (98,875)            |
| Revenue bonds - end of year       | <u>\$ 2,281,285</u> | <u>\$ 2,105,120</u> |

**Commercial Paper and Bank Notes:** On June 25, 2018, the MSD Board adopted a Program Note Resolution authorizing the issuance of one or more Series of sewer and drainage system subordinated program notes in an aggregate principal amount not to exceed \$500,000,000 for the purpose of financing eligible sewer and drainage projects and to refund program notes or subordinate lien bond anticipation notes. Program notes issued under the Program Note Resolution are subordinate and junior in all respects to revenue bonds issued under the General Bond Resolution. Program notes are issued as senior subordinated debt secured on a parity with the bond anticipation notes<sup>6</sup>.

MSD has issued two subseries of commercial paper notes under the Program Note Resolution: Series 2018A-1 with a maximum outstanding of \$250,000,000 and Series 2018A-2 with a maximum outstanding of \$250,000,000. Commercial paper notes may be issued and sold, at public or private sale, as taxable or tax-exempt notes, maturing in 270 days or less (but in any event not later than June 30, 2023) as determined by MSD, and bearing interest at a rate not in excess of 12% per annum for taxable notes or 10% per annum for tax-exempt notes. Commercial paper notes are payable only from (i) proceeds of the sale of other commercial paper notes issued under the Program Note Resolution and used to refund outstanding commercial paper

<sup>6</sup> See Note 8 – Bond Anticipation Notes.

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notes, (ii) the proceeds of direct purchase notes or other loans used to refund outstanding commercial paper notes, and (iii) the proceeds of revenue bonds issued to pay outstanding commercial paper notes.

Liquidity support for the Commercial Paper Series 2018A-1 is provided by Bank of America, N.A (BANA) pursuant to a Revolving Credit Agreement dated July 1, 2018 and amended December 22, 2020. BANA has provided a commitment of \$250,000,000 for the payment of the principal of and interest on the Series 2018A-1 notes. MSD and BANA entered into a Note Purchase Agreement dated July 1, 2018 and amended December 22, 2020 providing for the purchase of direct purchase notes by BANA up to the aggregate principal amount of \$250,000,000. The BANA Revolving Credit Agreement and the BANA Note Purchase Agreement limit the aggregate principal amount of commercial paper notes Series 2018A-1 and the BANA direct purchase notes to \$250,000,000. Merrill Lynch, Pierce, Fenner & Smith Inc. is acting as the dealer for Series 2018A-1 notes.

Liquidity support for the Commercial Paper Series 2018A-2 is provided by JPMorgan Chase Bank (JPMCB) pursuant to a revolving credit agreement dated July 1, 2018 and amended December 22, 2020. JPMCB has provided a commitment of \$250,000,000 for the payment of the principal of and interest on the Series 2018A-2 notes. MSD and JPMCB entered into a Note Purchase Agreement dated July 1, 2018 and amended December 22, 2020 providing for the purchase of direct purchase notes by JPMCB up to the aggregate principal amount of \$250,000,000. The JPMCB Revolving Credit Agreement and the JPMCB Note Purchase Agreement limit the aggregate principal amount of commercial paper notes Series 2018A-2 and the JPMCB direct purchase notes to \$250,000,000. J.P. Morgan Securities is acting as the dealer for Series 2018A-2 notes.

Upon the occurrence of any special event of default under the Revolving Credit Agreements and Note Purchase Agreements, the commitment shall immediately terminate with respect to all commercial paper notes and the banks shall have no obligation to make any loan or to fund any outstanding commercial paper note. Upon the occurrence of an event of default that is not a special event of default, the banks may, by notice to MSD, terminate the commitment, if any (except as provided below), deliver a notice of no-issuance to MSD and to the Issuing and Paying Agent directing the Issuing and Paying Agent to cease issuing all commercial paper notes. The available commitment shall immediately be reduced to the then outstanding principal amount of commercial paper notes plus the amount of interest to accrue on such notes and the available commitment shall be further reduced in a similar manner when commercial paper notes mature provided the commitment does not terminate, and the right of the bank to accelerate the maturity of the note and the loans shall not affect the obligation of the bank to make loans in aggregate principal amount equal to the commitment to the extent necessary for MSD to make required payments of principal on the commercial paper notes issued and sold prior to the date upon which the notice of no-issuance is received by the Issuing and Paying Agent; provided further that if any loans are made that would not have been made but for the application of the preceding provision, such loans shall be immediately due and payable on the date such loans are made.

Moody's Investors Service and Standard and Poor's Ratings Services assigned ratings of P-1 and A-1+, respectively, to the commercial paper notes on June 29, 2018.

Commercial paper notes of \$50,000,000 were outstanding as of June 30, 2022 in accordance with the respective Revolving Credit Agreements. Interest rates on the notes outstanding ranged from 0.77% to 1.59% and maturities ranged from 14 to 95 days.

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The following tables summarize the outstanding and available balance of the commercial paper program for the years ended June 30, 2022 and 2021:

| June 30, 2022<br>(dollars in thousands) |                   |                    |                   |
|---|-------------------|--------------------|-------------------|
| Issue Description                       | Authorized Amount | Amount Outstanding | Unissued Portion  |
| Series 2018A-1                          | \$ 250,000        | \$ 20,000          | \$ 230,000        |
| Series 2018A-2                          | <u>250,000</u>    | <u>30,000</u>      | <u>220,000</u>    |
| Total                                   | <u>\$ 500,000</u> | <u>\$ 50,000</u>   | <u>\$ 450,000</u> |

| June 30, 2021<br>(dollars in thousands) |                   |                    |                   |
|---|-------------------|--------------------|-------------------|
| Issue Description                       | Authorized Amount | Amount Outstanding | Unissued Portion  |
| Series 2018A-1                          | \$ 250,000        | \$ 75,000          | \$ 175,000        |
| Series 2018A-2                          | <u>250,000</u>    | <u>75,000</u>      | <u>175,000</u>    |
| Total                                   | <u>\$ 500,000</u> | <u>\$ 150,000</u>  | <u>\$ 350,000</u> |

MSD has classified all outstanding commercial paper notes as long-term debt in accordance with GASB 62 as it intends to redeem the notes with the proceeds of long-term revenue bonds.

The following tables summarize transactions of the commercial paper program for the years ended June 30, 2022 and 2021:

| June 30, 2022<br>(dollars in thousands) |   |                   |                   |  |                               |
|---|---|-------------------|-------------------|--|-------------------------------|
| Issue Description                       | Outstanding<br>Notes at<br>Beginning of<br>Year | Notes Issued      | Notes Retired     | Outstanding<br>Notes at End<br>of Year | Payable<br>Within One<br>Year |
| Series 2018A-1                          | \$ 75,000                                       | \$ 195,000        | \$ 250,000        | \$ 20,000                              | \$ -                          |
| Series 2018A-2                          | <u>75,000</u>                                   | <u>180,000</u>    | <u>225,000</u>    | <u>30,000</u>                          | <u>-</u>                      |
| Total                                   | <u>\$ 150,000</u>                               | <u>\$ 375,000</u> | <u>\$ 475,000</u> | <u>\$ 50,000</u>                       | <u>\$ -</u>                   |



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| June 30, 2021<br>(dollars in thousands) |   |                   |                   |  |                               |
|---|---|-------------------|-------------------|--|-------------------------------|
| Issue Description                       | Outstanding<br>Notes at<br>Beginning of<br>Year | Notes Issued      | Notes Retired     | Outstanding<br>Notes at<br>End of Year | Payable<br>Within<br>One Year |
| Series 2018A-1                          | \$ 155,000                                      | \$ 205,000        | \$ 285,000        | \$ 75,000                              | \$ -                          |
| Series 2018A-2                          | 100,000   | 160,000           | 185,000           | 75,000                                 | -                             |
| <b>Total</b>                            | <b>\$ 255,000</b>                               | <b>\$ 365,000</b> | <b>\$ 470,000</b> | <b>\$ 150,000</b>                      | <b>\$ -</b>                   |

**General Obligation Bonds:** MSD merged with the OCEA on June 30, 2020. Oldham County previously issued its County of Oldham general obligation bonds Series 2009, Series 2014, and general obligation Series 2017 refunding bonds, the proceeds of which financed the costs of various improvements to the sanitary sewer system owned by OCEA. The balance of the bonds outstanding as of June 30, 2022 and June 30, 2021 was \$10,774,113 and \$11,628,805, respectively. MSD agreed to support Oldham County's payment of debt service for the supported bonds subject to the terms of an Assistance Agreement dated June 30, 2020. Upon the occurrence of an uncured event of default under the Assistance Agreement, Oldham County is entitled to exercise any and all remedies available at law or in equity.

A comparative summary of current and long-term general obligation bond activity follows:

| (dollars in thousands)                 |                          |                |                        |                            |                  |  |
|--|--------------------------|----------------|------------------------|----------------------------|------------------|--|
| General Obligation Bonds               | Original<br>Issue Amount | Interest Rates | Final<br>Payment<br>In | Outstanding as of June 30: |                  |  |
|  |                          |                |                        | 2022                       | 2021             |  |
| 2009 Series general obligation bonds   | 7,335                    | 2.00% - 4.00%  | 2023                   | 400                        | 785              |  |
| 2017 Series general obligation bonds   | 3,750                    | 2.08%          | 2030                   | 3,364                      | 3,399            |  |
| 2014 Series general obligation bonds   | 9,790                    | 3.00% - 3.20%  | 2035                   | <u>7,010</u>               | <u>7,445</u>     |  |
| Total general obligation bonds         |                          |                |                        | 10,774                     | 11,629           |  |
| Less: current maturities               |                          |                |                        | <u>(880)</u>               | <u>(855)</u>     |  |
| Total bonds payable, long term portion |                          |                |                        | <u>\$ 9,894</u>            | <u>\$ 10,774</u> |  |

**State Revolving Fund Loans:** MSD utilizes funding provided through the Kentucky Infrastructure Authority's (KIA) State Revolving Fund (SRF). The SRF financing program provides low interest loans for infrastructure projects that are considered a priority based on the water pollution control criteria outlined in the Clean Water Act. MSD's SRF loans are considered direct placement debt and carry interest rates ranging between 1.75% and 3.8%. Under the assistance agreements entered into with the KIA, upon the occurrence and continuance of any event of default, the Authority may declare all payments due at a default rate of 8%. Additionally, when an event of default occurs and is continuing, the Authority can declare all payments due, exercise all rights and remedies, take legal action to enforce its rights under the agreement, and submit a formal referral to the appropriate federal agency.

**Fiscal Year 2022 Significant SRF Transactions:** On July 1, 2021, the KIA approved an increase to loan A17-028 in the amount of \$1,100,000 to fund additional work eliminating a pump station and increasing pipe diameter to facilitate future regionalization opportunities in Oldham County. The new total loan amount is

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\$7,400,000. Interest is payable semiannually at a fixed rate of 1.75% per annum commencing after funds are first drawn on the loan. The loan shall be repaid over a period not to exceed 20 years from the date of initiation of operation for the project. No draws were made in fiscal year 2022 or 2021.

On July 1, 2021, the KIA approved loan A20-040 for the lift station rehabilitation, renovation and replacement project. This project will rehabilitate or replace three lift stations at Club Drive, Cliffwood Drive and Cardinal Harbor in Oldham County. The total amount of the loan shall not exceed \$2,944,345. Interest is payable semiannually at a fixed rate of 1.0% per annum commencing after funds are first drawn on the loan. The loan shall be repaid over a period not to exceed 20 years from the date of initiation of operation for the project. No draws have been made as of June 30, 2022.

MSD entered into an assistance agreement with the KIA on November 30, 2021, as part of its acquisition of BCSD, to assume three existing SRF loans, B10-01 in the amount of \$500,000, B10-04 in the amount of \$500,000, and B15-006 in the amount of \$87,000, extended to the BCSD with total outstanding principal in the amount of \$623,136. These loans financed various sewer system infrastructure projects in the BCSD service area. These loans are for completed projects and principal repayment has begun. Interest will be paid semiannually at fixed rates ranging from 1.75% to 3.00% per annum. The loans will be repaid according to the original amortization schedule with final maturity of the last loan being December 1, 2037.

MSD entered into an assistance agreement with the KIA on June 27, 2022 for SRF loan A21-022 in an amount not to exceed \$8,270,000 to finance the rehabilitation or replacement of several sewer pump stations. Interest will be payable semiannually at a fixed rate of 2.5% per annum commencing after funds are first drawn on the loan. The loan will be repaid over a period not to exceed 20 years from the date the project is placed in operation. No draws have been made as of June 30, 2022.

As of June 30, 2022, MSD has expended \$24,200,000 in eligible project costs for loan number A19-028. \$22,917,697 has been drawn and the remainder will be drawn in fiscal year 2023.

As of June 30, 2022, MSD has expended \$2,695,235 in eligible project costs for loan number A19-015. The project is complete.

*Fiscal Year 2021 Significant SRF Transactions:* On March 5, 2021, KIA approved loan number A21-022 for \$8,270,000 to rehabilitate or replace several sewer pump stations

As of June 30, 2021, MSD had expended \$24,200,000 in eligible project costs for loan number A19-028. \$17,788,487 has been drawn.

As of June 30, 2021, MSD had expended \$1,690,760 in eligible project costs for loan number A19-015.

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At June 30, 2022 and 2021 MSD had the following SRF direct placement debt outstanding:

| June 30, 2022<br>(dollars in thousands)  |                    |                     |                      |                         |                                   |
|--|--------------------|---------------------|----------------------|-------------------------|-----------------------------------|
| <u>Loan Number</u>   | <u>Loan Amount</u> | <u>Drawn Amount</u> | <u>Interest Rate</u> | <u>Final Payment In</u> | <u>Outstanding at end of Year</u> |
| A09-41   | 2,395              | 2,395               | 3.00%                | 2033                    | 1,434                             |
| A10-04   | 2,843              | 2,843               | 2.00%                | 2033                    | 1,702                             |
| A10-05   | 1,000              | 1,000               | 3.00%                | 2033                    | 622                               |
| A10-06   | 121                | 121                 | 2.00%                | 2033                    | 70                                |
| A10-07   | 2,538              | 2,538               | 2.00%                | 2034                    | 1,581                             |
| A11-15   | 671                | 671                 | 2.00%                | 2033                    | 402                               |
| A12-29   | 6,500              | 6,500               | 1.75%                | 2037                    | 4,932                             |
| A17-028  | 7,400              | 2,013               | 1.75%                | *                       | 2,084                             |
| A18-010  | 1,116              | 1,116               | 1.75%                | 2040                    | 1,045                             |
| A19-015  | 3,870              | 2,695               | 2.00%                | 2042                    | 2,640                             |
| A19-028  | 24,200             | 22,918              | 2.00%                | **                      | 22,918                            |
| B10-01   | 500                | 500                 | 3.00%                | 2030                    | 236                               |
| B10-04   | 500                | 500                 | 3.00%                | 2031                    | 262                               |
| B15-006  | 87                 | 87                  | 1.75%                | 2038                    | 70                                |
| Total loans payable  |                    |                     |                      |                         | 39,998                            |
| Less: current maturities   |                    |                     |                      |                         | <u>(988)</u>                      |
| Total long-term loans payable, long term portion   |                    |                     |                      |                         | <u>\$39,010</u>                   |
| * Loan is partially drawn. Final payment will be 20 years following project completion currently scheduled for FY23. |                    |                     |                      |                         |                                   |
| **Loan is partially drawn. Final payment will be 20 years following project completion currently scheduled for FY23. |                    |                     |                      |                         |                                   |

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| June 30, 2021<br>(dollars in thousands)  |                    |                     |                      |                         |                                   |
|--|--------------------|---------------------|----------------------|-------------------------|-----------------------------------|
| <u>Loan Number</u>   | <u>Loan Amount</u> | <u>Drawn Amount</u> | <u>Interest Rate</u> | <u>Final Payment In</u> | <u>Outstanding at end of Year</u> |
| A98-04   | 6,498              | 6,498               | 3.80%                | 2021                    | -                                 |
| A09-41   | 2,395              | 2,395               | 3.00%                | 2033                    | 1,548                             |
| A10-04   | 2,843              | 2,843               | 2.00%                | 2033                    | 1,839                             |
| A10-05   | 1,000              | 1,000               | 3.00%                | 2033                    | 670                               |
| A10-06   | 121                | 121                 | 2.00%                | 2033                    | 76                                |
| A10-07   | 2,538              | 2,538               | 2.00%                | 2034                    | 1,703                             |
| A11-15   | 671                | 671                 | 2.00%                | 2033                    | 434                               |
| A12-29   | 6,500              | 6,500               | 1.75%                | 2037                    | 5,228                             |
| A17-028  | 6,300              | 2,013               | 1.75%                | *                       | 2,084                             |
| A18-010  | 1,116              | 1,116               | 1.75%                | 2040                    | 1,092                             |
| A19-028  | 24,200             | 17,788              | 2.00%                | **                      | 17,788                            |
| Total loans payable  |                    |                     |                      |                         | 32,462                            |
| Less: current maturities   |                    |                     |                      |                         | <u>(802)</u>                      |
| Total long-term loans payable, long term portion   |                    |                     |                      |                         | <u>\$ 31,660</u>                  |
| * Loan is partially drawn. Final payment will be 20 years following project completion currently scheduled for FY23. |                    |                     |                      |                         |                                   |
| **Loan is partially drawn. Final payment will be 20 years following project completion currently scheduled for FY22. |                    |                     |                      |                         |                                   |

**KACO Financing Lease:** Oldham County Fiscal Court, on behalf of OCEA, previously entered into a lease financing obligation with the Kentucky Association of Counties Leasing Trust in the amount of \$4,000,000 at an interest rate of 4.94% to finance various treatment facilities. MSD entered into a sublease agreement with the County of Oldham Kentucky, as part of its merger with OCEA, on June 30, 2020 to make the remaining lease rental payments when due. In the event of default, the sublessor may by written notice, take possession of the project, sell or lease the project, or exercise any remedy available to it under applicable law. At June 30, 2022 and 2021, the remaining principal balance is \$1,870,000 and 2,030,000, respectively. Final maturity is in 2031.

**Line of Credit:** MSD secured an uncommitted \$25,000,000 line of credit in October 2015. As of June 30, 2022 and 2021 MSD does not owe anything on its line of credit. There was no activity on the line of credit in fiscal year 2022 or 2021.

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**NOTE 8 – BOND ANTICIPATION NOTES**

MSD issues bond anticipation notes (BAN) under its Subordinated Bond Resolution adopted April 26, 2010. Bonds issued under the Subordinated Resolution are subordinate to bonds issued under the General Bond Resolution, at parity with revenue debt issued under the Program Note Resolution, and superior to all other revenue debt of the district. Pursuant to the Subordinated Resolution, upon the occurrence and continuance of any event of default, the paying agent may or the holders of more than fifty percent in principal amount of outstanding notes may, by notice delivered to MSD, declare the principal and interest of all notes immediately due and payable. MSD has remedies under the resolution to cure the event of default and annul the declaration of acceleration.

MSD first publicly offered and issued a \$226,340,000 BAN to partially refund its then outstanding sewer and drainage system revenue bonds, Series 1999A and a portion of its Series 1997A and 1998A revenue bonds on August 19, 2009. The BAN has been reissued annually. Under GASB 62, the BAN is considered a non-current liability because MSD intends to replace the Series 2021 BAN with a new BAN in October 2022 which will extend the debt to October 2023. Total BAN outstanding at June 30, 2022 and June 30, 2021 was \$226,340,000 and \$226,340,000, respectively. MSD's plan is to continue to reissue the BAN annually and amortize the BAN principal over the same period as Series 1999A bonds.

*Fiscal Year 2022 Significant Debt Transactions:* On September 30, 2021, MSD sold \$226,340,000 of sewer and drainage system subordinated BAN, Series 2021 with a coupon rate of 3.00% and an effective interest rate of 0.104%. The proceeds of the notes were used to (i) refund the 2020 notes at maturity on October 20, 2021 and (ii) to pay the costs of issuance of the Series 2021 notes. The 2021 notes closed on October 12, 2021 and mature on October 14, 2022.

*Fiscal Year 2021 Significant Debt Transactions:* On September 22, 2020, MSD sold \$226,340,000 of sewer and drainage system subordinated BAN, Series 2020 with a coupon rate of 5.00% and an effective interest rate of 0.228%. The proceeds of the notes were used to (i) refund the 2019 notes at maturity on October 23, 2020 and (ii) to pay the costs of issuance of the Series 2020 notes. The 2020 notes closed on October 14, 2020 and mature on October 20, 2021.

A summary of changes in the BAN in fiscal years 2022 and 2021 follows:

| June 30, 2022<br>(dollars in thousands) |  |            |            |                                  |                               |
|---|--|------------|------------|----------------------------------|-------------------------------|
| Issue Description                       | Outstanding<br>at Beginning<br>of Year | Issued     | Retired    | Outstanding<br>at End of<br>Year | Payable<br>Within One<br>Year |
| 2020 Bond anticipation note             | \$ 226,340                             | \$ -       | \$ 226,340 | \$ -                             | \$ -                          |
| 2021 Bond anticipation note             | -                                      | 226,340    | -          | 226,340                          | 226,340                       |
| Total                                   | \$ 226,340                             | \$ 226,340 | \$ 226,340 | \$ 226,340                       | \$ 226,340                    |

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| June 30, 2021<br>(dollars in thousands) |  |                   |                   |                                  |                               |
|---|--|-------------------|-------------------|----------------------------------|-------------------------------|
| Issue Description                       | Outstanding<br>at Beginning<br>of Year | Issued            | Retired           | Outstanding<br>at End of<br>Year | Payable<br>Within One<br>Year |
| 2019 Bond anticipation note             | \$ 226,340                             | \$ -              | \$ 226,340        | \$ -                             | \$ -                          |
| 2020 Bond anticipation note             | -                                      | 226,340           | -                 | 226,340                          | 226,340                       |
| <b>Total</b>                            | <b>\$ 226,340</b>                      | <b>\$ 226,340</b> | <b>\$ 226,340</b> | <b>\$ 226,340</b>                | <b>\$ 226,340</b>             |

**NOTE 9 – DERIVATIVE INSTRUMENTS**

At June 30, 2022, MSD had the following two interest rate derivative instruments outstanding:

| (dollars in thousands)   |                                 |  |                          |                      |                                 |                   |                     |   |
|--------------------------|---------------------------------|--|--------------------------|----------------------|---------------------------------|-------------------|---------------------|---|
| Derivative<br>Instrument | Type                            | Objective                                      | Counterparty             | Original<br>Notional | Notional<br>Amount<br>6/30/2022 | Effective<br>Date | Termination<br>Date | Terms   |
| A                        | Pay-fixed interest<br>rate swap | Hedge interest rate risk on<br>Series 2020 BAN | Wells Fargo,<br>N.A.     | \$ 180,716           | \$ 180,716                      | 6/15/2013         | 5/15/2033           | Pay 4.4125%<br>Receive 67% USD-<br>LIBOR -BBA |
| B                        | Pay-fixed interest<br>rate swap | Hedge interest rate risk on<br>Series 2020 BAN | Bank of<br>America, N.A. | 56,433               | 45,179                          | 11/16/2009        | 5/15/2033           | Pay 4.4125%<br>Receive 67% USD-<br>LIBOR -BBA |
|                          |                                 |  |                          | <u>237,149</u>       | <u>225,895</u>                  |                   |                     |   |

MSD originally entered into interest rate swaps as a hedging derivative instrument in anticipation of refinancing the 1999 Series bonds at their call date. Two swaps remain in the portfolio to lower interest rate risk associated with the BAN<sup>7</sup>. The hedgeable item is interest rate risk associated with the expected future issuance of fixed-rate BAN. The BAN are expected to be reissued every year. The swaps are structured so that the notional amounts of the swaps decrease over time corresponding with the planned amortization of the BAN principal.

Interest rate swaps are classified as hedging derivative instruments if they meet the criteria outlined in GASB 53 or as investment derivative instruments if they do not. MSD has designated its interest rate swaps as hedging derivatives under GASB 53 as of July 1, 2019. At June 30, 2022, MSD's interest rate derivatives are effective cash flow hedges and were classified as hedging derivatives in its financial statement. The fair value of the at-market portion, the hedging derivative, is reported as other assets and deferred inflows if positive and other liabilities and deferred outflows if negative on the Statement of Net Position. The difference between the fair value of the at-market hedging derivatives and the fair value of the interest rate swaps is reported as investment derivatives on the Statement of Net Position. All changes in fair value of the derivatives are recorded as a separate component of non-operating revenue (expense).

<sup>7</sup> See Note 8 – Bond Anticipation Notes

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Both swaps have termination dates of May 15, 2033. Payments are due on the fifteenth of each month. MSD receipt terms are 67% of the 30-day London Inter-Bank Offered Rate (LIBOR). A comparative summary of the change in fair value of the swaps for the years ended June 30, 2022 and 2021 follows:

| <i>(dollars in thousands)</i>  | June 30,           |                    |
|--------------------------------|--------------------|--------------------|
|                                | 2022               | 2021               |
| Fair value - beginning of year | \$ (72,384)        | \$ (93,455)        |
| Change in fair value           | <u>31,151</u>      | <u>21,071</u>      |
| Fair value - end of year       | <u>\$ (41,233)</u> | <u>\$ (72,384)</u> |

Fair values at June 30, 2022 for the non-credit adjusted, at-market portion of the derivatives follows:

| <i>(dollars in thousands)</i>           | June 30, 2022      |                |
|---|--------------------|----------------|
|   | Clean              | Accrued        |
| Derivatives (at-market)                 |                    |                |
| 1999-1 - \$180.7M 67% LIBOR fixed payer | \$ (8,980)         | \$ (18)        |
| 1999-2 - \$56.4M 67% LIBOR fixed payer  | <u>(2,244)</u>     | <u>(5)</u>     |
| Total                                   | <u>\$ (11,224)</u> | <u>\$ (23)</u> |

Classification at June 30, 2022 of the at-market portion and investment portion of the derivatives follows:

| <i>(dollars in thousands)</i>  | Changes in Fair Value  |                    | Fair Value as of June 30, 2022 |                    |            |
|--------------------------------|------------------------|--------------------|--------------------------------|--------------------|------------|
|                                | Classification         | Amount             | Classification                 | Amount             | Notional   |
| <b>Governmental Activities</b> |                        |                    |                                |                    |            |
| Cash flow hedges:              |                        |                    |                                |                    |            |
| Pay-fixed interest rate swaps  | Deferred outflows      | \$ -               | Other liabilities              | \$ (40,914)        | \$ 225,895 |
|                                |                        |                    | Accrued interest               | (319)              |            |
|                                |                        |                    |                                | <u>\$ (41,233)</u> |            |
| Investment derivatives:        |                        |                    |                                |                    |            |
| Pay-fixed interest rate swaps  | Non-operating expenses | <u>(40,914)</u>    |                                |                    |            |
|                                |                        | <u>\$ (40,914)</u> |                                |                    |            |

**Valuation Techniques:** The fair values of the interest rate swaps were estimated using the zero-coupon method. This method calculates the future net settlement payments required by the swap, assuming that the current forward rates implied by the yield curve correctly anticipate future spot interest rates. These payments are then discounted using the spot rates implied by the current yield curve for hypothetical zero-coupon bonds due on the date of each future net settlement on the swaps.

Non-performance risk was measured using credit spreads implied by the credit rating for debt issues by entities with similar credit characteristics. This is the best method available under current market conditions since MSD has no credit default swaps that actively trade in the marketplace. For a derivative asset, the adjustment for non-performance risk of counterparties is determined by analyzing counterparty-specific credit default swaps, if available. If not available, credit default swaps in the market for entities of similar type and rating are used with information found in various public and private information services. This analysis is used to construct a credit curve that is applied to the discount curve on the net settlement payments of the derivative. A level two

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(2) category hierarchy was employed for fair valuation measurement. The positive and negative fair values of the swap agreements were provided by a third-party financial advisor.

**Risks:** *Credit Risk* - MSD has implemented steps to safeguard it against the risks associated with the aforementioned swap transactions. If the swap counterparties do not maintain A1/A+ ratings from Moody's Investors Service and Standard and Poor's Rating Service, the swaps contain provisions that require them to be marked to market weekly with monthly statements sent to MSD and the value will be collateralized with U.S. Treasury and Agency securities with the securities held by a tri-party custodian approved by MSD. All costs of collateralization will be borne by the downgraded party who must post the collateral. In addition, the swaps were awarded to multiple firms to further mitigate the credit risk associated with the transactions.

The credit ratings as of June 30th, 2022 for the swap counterparties are as follows:

|                        | <b>Credit Ratings</b> |                              |
|------------------------|-----------------------|------------------------------|
|                        | <u>Moody's</u>        | <u>Standard &amp; Poor's</u> |
| Bank of America, N.A.  | P-1                   | A-1                          |
| Wells Fargo Bank, N.A. | P-1                   | A-1+                         |

The agreements also provide for automatic termination if MSD's unenhanced bond rating is downgraded below BBB/Baa. MSD's obligations under all of its outstanding swap agreements are unsecured and subordinate to all bonds issued and outstanding.

The credit adjusted at-market portion, the accrued interest portion and off-market fair value of derivative instruments A and B are in liability positions of \$11,224,465, \$319,756 and \$29,689,130, respectively, at June 30, 2022. The aggregate fair value is negative \$41,233,351 (gross of implied note outstanding balance as of June 30, 2022). This represents the maximum loss that would be recognized at the reporting date if one or both swap counterparties failed to perform as contracted. There is no posted collateral to net against the aforementioned fair value.

The contracts for derivative instruments A and B are held by Wells Fargo, N.A. and Bank of America, N.A., respectively, and comprise 100% of the net exposure to credit risk.

**Termination Risk** - Termination risk is generally referred to as the risk that a derivative instrument could be terminated causing MSD to owe a termination payment as a result of any of several events, which may include: a ratings downgrade of the swap counterparty; covenant violations by either party; bankruptcy of either party; a swap payment default of either party; and other default events as defined by the derivative instrument. Any such termination may require MSD to make significant termination payments in the future. The approximate amount of termination payment that MSD would have to pay if each of the derivative instruments were terminated on June 30, 2022 is approximately \$41,233,351. It should be noted that this is the non-credit adjusted (non GASB 72) mark-to-market valuation as of last business day of the fiscal year. The provisions of the agreements related to each derivative instrument allow for the offset of certain reimbursable costs related to the termination process.

To further mitigate the effect of termination risk relative to derivative instruments A and B, the agreements contain certain safeguards which include (i) collateral posting requirements as discussed in the preceding Credit Risk section and (ii) except for certain types of termination events there is no automatic early termination.

Derivative instruments A and B may be terminated, if the underlying rating of MSD's obligations that are subject to annual appropriation falls below "BBB" from Standard and Poor's Ratings Service or below "Baa2" from Moody's Investors Service.



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While there is no optional termination language in the confirmations of derivative instruments A and B, Wells Fargo, N.A. and Bank of America, N.A., respectively, may accommodate MSD to terminate the derivative instruments early, subject to credit approval.

If, at the time of termination, a swap has a negative fair value, MSD could be liable to the counterparty for a payment equal to the derivative instrument's fair value. If any of the derivative instruments are terminated, either the associated variable rate bonds would no longer be hedged with a synthetic fixed interest rate or the nature of the basis risk associated with the derivative instrument may change. As of June 30, 2022, MSD is not aware of any pending event that would lead to a termination event with respect to any of its existing derivative instruments, which are in force and effect as of such date.

*Basis Risk* – Each of the derivative instruments is associated with certain debt obligations. The debt associated with each of the derivative instruments pays interest at variable interest rates. MSD receives variable payments under the derivative instrument. To the extent these variable payments are not equal to the variable interest payments on the associated debt there may be either a net loss or net benefit to MSD. The net swap payments made by MSD in fiscal year 2022 and fiscal year 2021 were \$9,501,841 and \$9,792,937, respectively.

*Rollover Risk* – Rollover risk occurs when the term of the derivative instrument is not coincident with the repayment term of the underlying debt obligation. Derivative instruments A and B have terms equal to the critical terms of the hedged interest rate exposure.

*Interest Rate Risk* – MSD is exposed to interest rate risk on its interest rate derivative instruments. On its pay-fixed, receive-variable interest rate swaps, there may be either a net loss or net benefit to MSD depending upon decrease or increases in the USD-LIBOR-BBA yield curve.

**Swap Terminations:** MSD entered into swaps and other derivative contracts to lock in long term rates in advance of issuing long term debt to create and manage variable rate exposure in its debt portfolio and to take advantage of market opportunities to hedge embedded interest rate risk and tax regulation risk that exists on its Statement of Net Position.

Upon a termination of a swap, any termination receipt or payment is amortized into income or expense until the original expiration date of that swap. Any unamortized portion of the receipt or payment is recorded as a deferred debit or credit in long-term liabilities. MSD has swap agreement terminations with deferred inflow of resources balances accreting to non-operating revenue as follows:

- In April 2006, MSD entered into a swap agreement with Deutsche Bank AG for an initial notional amount of \$171,405,000 which provided that beginning May 15, 2006, a net payment will be made based on MSD paying 78.78% of the 3-month LIBOR index on the notional amount and receiving 73.45% of the 5-year LIBOR Index on the notional amount. On January 23, 2008, MSD terminated this swap agreement and received a termination payment of \$4,170,000 that will be amortized until 2023, the original termination date of the agreement.
- On January 25, 2008, MSD terminated a twenty-seven year floating to floating (basis) interest rate swap agreement with a notional amount of \$282,165,000. MSD entered into this agreement with Morgan Stanley in April 2006 and paid 67% of the 1-month LIBOR index and received 62.2% of the 5-year LIBOR index. The termination of this swap agreement resulted in the receipt of a payment in the amount of \$5,756,000. This payment will be amortized annually into income until 2033, the original termination date of the agreement.

**NOTE 10 - RISK MANAGEMENT**

MSD is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; errors and omissions; natural disasters; and injuries to MSD's employees. These risks are provided through the insurance programs described below.

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**Self-Insurance – Group Liability:** MSD participates in the Louisville Area Governmental Self-Insurance Trust (LAGIT). LAGIT, which is certified by the Kentucky Department of Insurance to practice as a group liability self-insurance trust, was created on January 1, 1987. LAGIT members currently include Louisville Metro Government, six smaller cities, and six government agencies. LAGIT was formed to provide better risk protection and lower cost liability insurance by sharing the risk with all of its members. MSD's payments to LAGIT are reflected on the financial statements as an expense. LAGIT provides, after a \$300,000 deductible, various liability coverages up to \$5,000,000 per occurrence. The amount of coverage available to MSD could be limited by the total assets of LAGIT and/or claims of other Members under the excess insurance policy.

No claims were paid in fiscal year 2022 that exceeded the \$300,000 deductible with LAGIT.

For fiscal year 2021, MSD exceeded its \$300,000 deductible on two LAGIT claims. In *Michael Drew v. MSD, et al*, MSD settled the plaintiff's case for \$100,000 at mediation in June 2020. MSD's fees and expenses to defense counsel totaled \$282,396. In total LAGIT paid \$82,396 towards MSD's defense fees and costs which were paid in fiscal year 21. MSD also resolved the matter of *Brenda Stotts-Young as Administrator of the Estate of Deidre Mengedoht, et al., v. Roger Burdette and MSD* in fiscal year 21. Specifically, MSD paid the Estate of Det. Mengedoht, \$10,000,000; Jason Mengedoht, as father, guardian and next of kin of P.M., a minor, \$3,650,000; and the "Brady" plaintiffs, the four occupants of the vehicle driven by Quentin Brady, a global \$250,000. Of this total settlement, LAGIT contributed the first \$7,000,000. MSD's excess liability policies that were in effect at the time of the accident contributed the remainder of the settlement with Nationwide making payment of \$5,000,000 and Gemini Berkley making payment of approximately \$1,900,000.

For fiscal year 2020, LAGIT provided, after a \$300,000 deductible, various liability coverages up to \$5,000,000 per occurrence. Excess insurance may provide an additional \$2,000,000 of coverage, above the LAGIT \$5,000,000, to MSD. The amount of coverage available to MSD could be limited by the total assets of LAGIT and/or claims of other Members under the excess insurance policy. For fiscal year 2021, LAGIT did not make any claim payments on behalf of MSD.

MSD maintained additional excess liability coverage for fiscal year 2022. Allied World National Assurance Company (A) provided \$5,000,000 of excess liability coverage beyond the \$5,000,000 provided through LAGIT. The Princeton Excess & Surplus Lines Insurance Company (A+) provided another \$5,000,000 of excess liability coverage beyond \$10,000,000. In total, MSD maintained liability coverage of \$15,000,000. No claims were made on either policy in fiscal year 2022.

MSD maintained additional excess liability coverage for fiscal year 2021. Allied World National Assurance Company (A) provided \$10,000,000 of excess liability coverage beyond the \$7,000,000 provided through LAGIT. Gemini Insurance Company (A+) provided another \$10,000,000 of excess liability coverage beyond \$17,000,000. In total, MSD maintained liability coverage of \$27,000,000. No claims were made on either policy in fiscal year 2021.

MSD maintained additional excess liability coverage for fiscal year 2020. Scottsdale Insurance Company (A+) provided \$5,000,000 of excess liability coverage beyond the \$7,000,000 provided through LAGIT. Gemini Insurance Company (A+) provided another \$15,000,000 of excess liability coverage beyond \$12,000,000. In total, MSD maintained liability coverage of \$27,000,000.

**Workers Compensation Insurance:** MSD has chosen to self-insure the basic worker's compensation insurance. Claims administration is handled by a third-party administrator and includes claims monitoring check issuance, settlement negotiations and loss control services. Liabilities are reported when it is probable that a loss has occurred and the amount of the loss can be reasonably estimated. A separate insurance policy provides maximum coverage of \$1,000,000 per occurrence and aggregate. A roll forward of worker's compensation claims follows:

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| <i>(dollars in thousands)</i>   | June 30,        |                 |                 |
|---------------------------------|-----------------|-----------------|-----------------|
|                                 | 2022            | 2021            | 2020            |
| Liability - beginning of year   | \$ 2,626        | \$ 2,280        | \$ 2,326        |
| Claims and changes in estimates | 353             | 1,143           | 775             |
| Payments                        | <u>(1,182)</u>  | <u>(797)</u>    | <u>(821)</u>    |
| Liability - end of year         | <u>\$ 1,797</u> | <u>\$ 2,626</u> | <u>\$ 2,280</u> |

**Self-Insurance – Property:** MSD joined the Louisville Area Governmental General Insurance Trust (LAGGIT) in September 2002. LAGGIT was created to provide lower cost to participants and broader coverage for property risks. MSD is responsible for covered property damage up to \$100,000 except for flood and vehicle collision coverage, which have separate deductibles. LAGGIT provides coverage for the next \$1,000,000 per occurrence, except for Flood Zone A locations. An excess insurance policy with a third-party carrier covers claims in excess of \$1,100,000.

No claims were made under the LAGGIT policy in fiscal year 2022, 2021, or 2020.

MSD’s facilities were affected by Ohio River flooding in February of 2018 and MSD made a claim on the LAGGIT policy. Payments on this claim totaled \$3,757,562. The final payment of \$637,408 on this claim was received in fiscal year 2020.

**NOTE 11 - DEFERRED COMPENSATION**

MSD offers its employees deferred compensation plans created in accordance with Internal Revenue Service Code Sections 401(k) and 457. These plans, available to all MSD employees, permit them to defer the payment of a portion of their salary until future years. Participation in these plans is voluntary and MSD makes no contributions to these plans on behalf of the employee and maintains no custodial role for investments or investment transactions. The deferred compensation is not available to employees until termination, retirement, death, or unforeseen emergency. All amounts of compensation deferred, including the investments and earnings thereon, vest with the employee and are not subject to the claims of MSD’s general creditors.

**NOTE 12 - COMMITMENTS AND CONTINGENCIES**

**Sale of Sewer Assessments:** MSD has entered into agreements to sell sanitary sewer assessments to a local bank. These assessments reflect the portion of the cost that residents pay to have sewer lines installed in their neighborhood. Residents are given the opportunity to pay the assessment in full or to finance it over a twenty-year period at 7% interest per annum. The original agreement called for the bank to accept up to \$25,000,000 of outstanding assessments and for MSD to receive 104% of the face value of the assessments.

The subsequent agreement allows an additional \$5,000,000 of assessments to be sold to the bank at face value. These agreements give the bank the option to place the assessments back with MSD if the property owner’s payments are 90 days in arrears or the property owner does not respond to the bank’s demand for payment within a 90-day period after the issuance of the assessment. Sales to the bank are net of any subsequent repurchases of warrants by MSD. The unpaid principal balance of loans held by the bank at June 30, 2022 and 2021 was \$221,885 and \$353,974, respectively.

**Consent Decree:** On August 12, 2005, MSD agreed to enter into a consent decree with the Commonwealth of Kentucky’s Environmental and Public Protection Cabinet (KEPPC) and the U.S. Environmental Protection Agency (EPA). The consent decree called for MSD to submit a final Long-Term Control Plan (LTCP) to the KEPPC and EPA for review and joint approval. The final Sanitary Sewer Discharge Plan (SSDP) and the LTCP were certified on December 19, 2008 under the title of the Integrated Overflow Abatement Plan (IOAP). The SSDP included schedules and deadlines for capital projects to be completed by the end of 2024. The LTCP

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included schedules, and deadlines for combined sewer overflow projects to be completed by December 31, 2020. MSD agreed to pay a civil penalty to the Commonwealth of Kentucky in the amount of \$1,000,000 to resolve the violations alleged in the KEPPC's and EPA's complaints up through the date of entry of the consent decree. The agreement called for MSD to perform supplemental environmental projects at an amount of not less than \$2,250,000. MSD neither admitted nor denied the alleged violations but acknowledged that discharges occurred and accepted the obligations imposed in the consent decree.

On April 10, 2009, MSD agreed to enter into an amended consent decree with the KEPPC and the EPA. The amended consent decree resolved all pending claims of violations of the Federal Water Pollution Control Act and the Water Quality Act of 1987. The amended consent decree superseded and replaced the original consent decree entered on August 12, 2005. The amended consent decree contains stipulated penalties for MSD's failure to comply with the provisions contained therein. The IOAP was amended in 2012 and 2014 to improve compliance and adjust capital project schedules. To date, MSD has complied with all submittal and report requirements contained in the amended consent decree.

In 2019, MSD proactively approached Federal and state regulators to renegotiate the timing for completing remaining LTCP and SSDP projects required by the amended consent decree in order to reprioritize capital dollars for rehabilitation of MSD's aging biosolids systems, failing sewer interceptors and flood protection system rehabilitation. MSD, along with KEPPC and EPA, have negotiated the second amended consent decree which grants a time extension for completing the remaining LTCP and SSDP projects to 2035. In exchange, MSD agreed to invest a minimum of \$25 million annually for asset management projects through 2035. Additionally, MSD agreed to incorporate \$70 million for critical sewer rehabilitation in its 5-year capital improvement plan. These financial commitments are achievable within the MSD Board's rate increase authority of 6.9% per year. The United States District Court granted final approval of the second amended consent decree on September 14, 2022.

Since the start of the consent decree, MSD has seen a significant reduction in sewer overflows. For a 2-year cloudburst storm, 134 sanitary sewer overflow locations have been eliminated, from 197 modeled locations in 2007, to 65 in 2021, and 63 in 2022. Combined sewer overflow volumes have been reduced by 5.85 billion gallons per typical year, from 6.5 billion gallons in 2001, to 1.1 billion gallons in 2021, and 648 million gallons in 2022. Through June 30, 2022, capital expenditures related to the consent decree totaled approximately \$1.1 billion. MSD estimates that capital expenditures associated with the requirements of the consent decree, including the pending requirements of the second amended consent decree, could range from \$1.9 billion to \$2.0 billion. As with any estimate, the actual costs incurred could differ materially.

**Claims and Litigation:** MSD is a defendant in various active lawsuits. Although the outcome of these lawsuits is not presently determinable, it is the opinion of the MSD's management that resolution of these matters will not have a material adverse effect on the financial statements of MSD. All material claims and litigation settlements that are both probable and reasonably measureable are recorded in accounts payable.

**Other Commitments:** MSD is committed under various contracts for completion of construction or acquisition of utility plant and equipment. Outstanding contractual commitments related to the capital improvement program as of June 30, 2022 and 2021 were \$172,476,352 and \$120,066,183, respectively. These commitments will be financed primarily with unspent bond proceeds, commercial paper, grants and future pay-as-you-go revenues.

On January 1, 2022, MSD entered into an agreement with Louisville Water Company to provide billing services through December 31, 2027. The projected cost of the contract through 2027 is \$40,783,649.

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**NOTE 13 - SUBSEQUENT EVENTS**

**Rate Increase:** On August 1, 2022, MSD's rates for wastewater and drainage service charges increased by 5.0% for Jefferson County customers. Wastewater volume rates decreased by 34.4% for Oldham County customers.

**Series 2022 BAN:** On September 14, 2022, MSD sold \$226,340,000 of sewer and drainage system subordinated BAN, Series 2022 with an average coupon rate of 4% and a true interest cost of 2.57%. The proceeds of the notes were used to (i) refund the 2021 notes at maturity on October 14, 2022 and (ii) to pay the costs of issuance of the Series 2022 notes. The Series 2022 notes closed on October 5, 2022 and mature on October 6, 2023.

**Commercial Paper Program:** Commercial paper notes of \$90,000,000 are outstanding as of October 24, 2022 in accordance with the respective Revolving Credit Agreements. Interest rates on the notes outstanding range from 1.87% to 3.05% and maturities range from 10 to 86 days. MSD intends to reissue maturing commercial paper in accordance with the refinancing terms of the Revolving Credit Agreements and periodically refund such maturities with proceeds from the issuance of long-term revenue bonds.

**NOTE 14 - DEFINED BENEFIT PENSION AND OTHER POSTEMPLOYMENT BENEFITS PLAN – COST SHARING – CERS**

**General Information about the Pension and OPEB Plan:** All full-time and eligible part-time employees of MSD participate in County Employee Retirement System (CERS), a cost-sharing, multiple-employer defined benefit pension plan administered by the Kentucky Public Pension Authority (KPPA, the system), an agency of the Commonwealth. Under the provisions of Kentucky Revised Statute Section 78.782 and 61.645, the Board of Trustees (the Board) of KPPA administers CERS, Kentucky Employee Retirement System, and State Police Retirement System. Although the assets of the systems are invested as a whole, each system's assets are accounted for separately; invested according to plan-specific asset allocation goals; and, are used only for the payment of benefits to the members of that plan and a pro rata share of administrative costs, in accordance with the provisions of Kentucky Revised Statute Sections 78.632, 613571, and 16.555.

The plan provides for retirement, disability and death benefits to plan members. Retirement benefits may also be extended to beneficiaries of plan members under certain circumstances. Under the provisions of Kentucky Revised Statute Section 61.701, the Board of KPPA also administers the Kentucky Retirement System's Insurance Fund. The statutes provide for a single insurance fund to provide group hospital and medical benefits to retirees drawing a benefit from the three pension funds administered by KPPA. The assets of the insurance fund are invested as a whole. KPPA and the Commonwealth have statutory authority to determine Plan benefits and employer contributions.

KPPA issues a publicly available financial report that includes financial statements and required supplementary information for CERS. The report may be obtained by writing to Kentucky Public Pension Authority, 1260 Louisville Road, Frankfort, Kentucky 40601, or it may be found at the KPPA website at [www.kyret.ky.gov](http://www.kyret.ky.gov).

**Basis of Accounting:** For purposes of measuring the net pension and other post-employment benefits plan (OPEB) liabilities, deferred outflow of resources and deferred inflow of resources related to pensions and OPEB, pension and OPEB expense, information about the fiduciary net position of CERS and additions to/deductions from CERS's fiduciary net position have been determined on the same basis as they are reported by CERS. 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.

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**Pension Benefits Provided:**

The information below summarizes the major retirement benefit provisions of CERS-Nonhazardous. It is not intended to be, nor should it be interpreted as, a complete statement of all benefit provisions.

*Members whose participation began before 8/1/2004:*

Age and Service Requirement: Age 65 with at least one month of Nonhazardous duty service credit, or at any age with 27 or more years of service credit.

Benefit: If a member has at least 48 months of service, the monthly benefit is 2.20% times final average compensation times years of service depending on participation and retirement dates. Final compensation is calculated by taking the average of the highest five (5) fiscal years of salary. If the number of months of service credit during the five (5) year period is less than forty-eight (48), one (1) or more additional fiscal years shall be used. If a member has less than 48 months of service, the monthly benefit is the actuarial equivalent of two times the member's contributions with interest.

*Members whose participation began on or after 8/1/2004, but before 9/1/2008:*

Age and Service Requirement: Age 65 with at least one month of Nonhazardous duty service credit, or at any age with 27 or more years of service credit.

Benefit: If a member has at least 48 months of service, the monthly benefit is 2.00% multiplied by final average compensation, multiplied by years of service. Final compensation is calculated by taking the average of the highest five (5) fiscal years of salary. If the number of months of service credit during the five (5) year period is less than forty-eight (48), one (1) or more additional fiscal years shall be used. If a member has less than 48 months of service, the monthly benefit is the actuarial equivalent of two times the member's contributions with interest.

*Members whose participation began on or after 9/1/2008, but before 1/1/2014:*

Age and Service Requirement: Age 65 with 60 months of Nonhazardous duty service credit, or age 57 if age plus service equals at least 87.

Benefit: The monthly benefit is the following benefit factor based on service credit at retirement plus 2.00% for each year of service greater than 30 years, multiplied by final average compensation, multiplied by years of service.

| <u>Service Credit</u> | <u>Benefit Factor</u> |
|-----------------------|-----------------------|
| 10 years or less      | 1.10%                 |
| 10+ - 20 years        | 1.30%                 |
| 20+ - 26 years        | 1.50%                 |
| 26+ - 30 years        | 1.75%                 |

Final compensation is calculated by taking the average of the last (not highest) five (5) complete fiscal years of salary. Each fiscal year used to determine final compensation must contain twelve (12) months of service credit.

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*Members whose participation began on or after 1/1/2014:*

Age and Service Requirement: Age 65 with 60 months of Nonhazardous duty service credit, or age 57 if age plus service equals at least 87.

Benefit: Each year that a member is an active contributing member to the System, the member contributes 5% of creditable compensation, and the member's employer contributes 4.00% of creditable compensation, which is a portion of the total employer contribution, into a hypothetical account. The hypothetical account will earn interest annually on both the member's and employer's contribution at a minimum rate of 4%. If the System's geometric average net investment return for the previous five years exceeds 4%, then the hypothetical account will be credited with an additional amount of interest equal to 75% of the amount of the return which exceeds 4%. All interest credits will be applied to the hypothetical account balance on June 30 based on the account balance as of June 30 of the prior year. Upon retirement the hypothetical account which includes member contributions, employer contributions and interest credits can be withdrawn from the System as a lump sum or annuitized into a single life annuity option.

**OPEB Benefits Provided:**

The information below summarizes the major retirement benefit provisions of CERS-Nonhazardous. It is not intended to be, nor should it be interpreted as, a complete statement of all benefit provisions.

*Insurance Tier 1: Participation began before 7/1/2003*

Benefit Eligibility: Recipient of a retirement allowance

Benefit: The percentage of member premiums paid by the retirement system are dependent on the number of years of service. Benefits also include duty disability retirements, duty death in service, non-duty death in service and surviving spouse of a retiree.

*Insurance Tier 2: Participation began on or after 7/1/2003, but before 9/1/2008*

Benefit Eligibility: Recipient of a retirement allowance with at least 120 months of service at retirement Benefit:

The system provides a monthly contribution subsidy of \$10 for each year of earned service. The monthly contribution is increased by 1.5% each July 1. Benefits also include duty disability retirements, duty death in service and non-duty death in service.

*Insurance Tier 3: Participation began on or after 9/1/2008*

Benefit Eligibility: Recipient of a retirement allowance with at least 180 months of service at retirement Benefit:

The system provides a monthly contribution subsidy of \$10 for each year of earned service. The monthly contribution is increased by 1.5% each July 1. Benefits also include duty disability retirements, duty death in service and non-duty death in service.

**Contributions:** MSD is required to contribute at an actuarially determined rate determined by Statute. Per Kentucky Revised Statute Section 78.545(33) normal contribution and past service contribution rates shall be determined by the KPPA Board on the basis of an annual valuation last preceding July 1 of a new biennium. The KPPA Board may amend contribution rates as of the first day of July of the second year of a biennium, if it is determined on the basis of a subsequent actuarial valuation that amended contribution rates are necessary to satisfy requirements determined in accordance with actuarial bases adopted by the KPPA Board.

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For the fiscal years ended June 30, 2022 and 2021, participating employers contributed 26.95% (21.17% allocated to pension and 5.78% allocated to OPEB) and 24.06% (19.3% allocated to pension and 4.76% allocated to OPEB), respectively, of each Nonhazardous employee's creditable compensation. These percentages are inclusive of both pension and insurance payments for employers. Administrative costs of KPPA are financed through employer contributions and investments earnings.

MSD has met 100% of the contribution funding requirement for the fiscal years ended June 30, 2022 and 2021. Total current year contributions recognized by the Plan were \$14,015,093 (\$11,009,259 related to pension and \$3,005,834 related to OPEB) and \$12,279,191 (\$9,849,892 related to pension and \$2,429,300 related to OPEB) for the years ended June 30, 2022 and 2021, respectively. The OPEB contribution amounts do not include the implicit subsidies reported in the amount of \$1,230,443 and \$1,077,498 for the years ended June 30, 2022 and 2021 respectively.

*Members whose participation began before 9/1/2008:*

Nonhazardous member contributions equal 5% of all creditable compensation. Interest paid on the members' accounts is currently 2.5%; and per statute shall not be less than 2.0%. Members are entitled to a full refund of contributions with interest.

*Members whose participation began on or after 9/1/2008, but before 1/1/2014:*

Nonhazardous member contributions equal to 6% of all creditable compensation, with 5% being credited to the member's account and 1% deposited to the KPPA 401(h) Account. Interest paid on the members' accounts will be set at 2.5%. Members are entitled to a full refund of contributions and interest in their individual account, however, the 1% contributed to the insurance fund is non-refundable.

*Members whose participation began on or after 1/1/2014*

Nonhazardous member contributions equal to 6% of all creditable compensation, with 5% being credited to the member's account and 1% deposited to the KPPA 401(h) Account. Members are entitled to a full refund of contributions and interest on the member's portion of the hypothetical account, however, the 1% contributed to the insurance fund is non-refundable.

**Pension Plan Information for June 30, 2022 Financial Statements:**

**Total Pension Liability:** The total pension liability (TPL) was determined by an actuarial valuation as of June 30, 2021. An expected TPL was determined at June 30, 2021 using standard roll-forward techniques. The following actuarial assumptions were applied to all periods included in the measurement:

|                           |  |
|---------------------------|--|
| Price Inflation           | 2.30%  |
| Salary increases          | 3.30 to 10.30%, varies by service                                  |
| Investment rate of return | 6.25%, net of pension plan investment expense, including inflation |

The mortality table used for active members was a Pub-2010 General Mortality table, for the Non-Hazardous System, and the Pub-2010 Public Safety Mortality table for the Hazardous System, projected with the ultimate rates from the MP-2014 mortality improvement scale using a base year of 2010. The mortality table used for healthy retired members is a system-specific mortality table based on mortality experience from 2013-2018, projected with the ultimate rates from MP-2014 mortality improvement scale using a base year of 2019. The mortality table used for the disabled members was PUB-2010 Disabled Mortality table, with a 4-year set-forward for both male and female rates, projected with the ultimate rates from the MP-2014 mortality improvement scale using a base year of 2010.



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Discount rate assumptions:

- (a) Discount Rate: The discount rate used to measure the total pension liability was 6.25% which did not change from the prior year.
- (b) Projected Cash Flows: The projection of cash flows used to determine the discount rate assumes that the funds receive the required employer contributions each future year, as determined by the current funding policy established by Statute as amended by House Bill 362 (passed in 2018) over the remaining 30 years (closed) amortization period of the unfunded actuarial accrued liability.
- (c) Long-Term Rate of Return: The long-term expected return on plan assets is reviewed as part of the regular experience studies prepared every five years for the System. The most recent analysis, performed for the period covering fiscal years 2008 through 2013 is outlined in a report dated April 30, 2014. However, the Board of KPPA has the authority to review the assumptions on a more frequent basis and adopt new assumptions prior to the next scheduled experience study. The long-term expected rate of return was determined by using a building-block method in which best-estimate ranges of expected future real rate of returns are developed for each asset class. The ranges are combined by weighting the expected future real rate of return by the target asset allocation percentage.
- (d) Municipal Bond Rate: The discount rate determination does not use a municipal bond rate.
- (e) Periods of Projected Benefit Payments: The long-term assumed rate of return was applied to all periods of projected benefit payments to determine the TPL.
- (f) Assumed Asset Allocation: 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                 | Target<br>Allocation  | Long Term<br>Expected Real<br>Rate of Return |
|-----------------------------|-----------------------|--|
| U.S. equity                 | 21.75%                | 5.70%  |
| Non-US equity               | 21.75%                | 6.35%  |
| Private equity              | 10.00%                | 9.70%  |
| Specialty credit/high yield | 15.00%                | 2.80%  |
| Core bonds                  | 10.00%                | 0.00%  |
| Cash                        | 1.50%                 | (0.60%)                                      |
| Real estate                 | 10.00%                | 5.40%  |
| Opportunistic               | 0.00%                 | 0.00%  |
| Real return                 | 10.00%                | 4.55%  |
| <b>Total</b>                | <b><u>100.00%</u></b> |  |

The long-term expected rate of return on pension plan assets was established by the KPPA Board of Trustees at 6.25% based on a blending of the factors described above.

- (g) Sensitivity Analysis: This paragraph requires disclosure of the sensitivity of the net pension liability (NPL) to changes in the discount rate. The following presents MSD's allocated portion of the NPL of the System, calculated using the current discount rate of 6.25%, as well as what MSD's allocated portion of the NPL would be if it were calculated using a discount rate that is one percentage-point lower (5.25%) or 1 percentage-point higher (7.25%) than the current rate:

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| <i>(dollars in thousands)</i> | 1% Decrease<br>(5.25%) | Current<br>Discount Rate<br>(6.25%) | 1% Increase<br>(7.25%) |
|-------------------------------|------------------------|-------------------------------------|------------------------|
| MSD's net pension liability   | \$ 159,760             | \$ 124,564                          | \$ 95,441              |

**Employer's Portion of the Collective NPL:** MSD's proportionate share of the NPL, as indicated in the prior table, is \$124,564,401, or approximately 1.95%. This is an increase of 0.14% from fiscal year 2021. The NPL was distributed based on 2021 actual employer contributions to the plan.

**Measurement Date:** The total pension liability, NPL and sensitivity information shown in this report are based on an actuarial valuation date of June 30, 2020. The total pension liability was rolled forward from the valuation date to the plan's fiscal year ending June 30, 2021 using generally accepted actuarial principles.

**Changes in Assumptions and Benefit Terms:** Since the prior measurement date, there were no changes in assumptions and benefit terms.

**Changes Since Measurement Date:** There were no changes between the measurement date of the collective NPL and the employer's reporting date.

**Pension Expense:** MSD was allocated pension expense of \$7,070,825 related to the CERS for the year ending June 30, 2022.

**Deferred Outflows and Deferred Inflows:** Since certain expense items are amortized over closed periods each year, the deferred portions of these items must be tracked annually. If the amounts serve to reduce pension expense, they are labeled as deferred inflows. If they will increase pension expense, they are labeled deferred outflows. The amortization of these amounts is accomplished on a level dollar basis, with no interest included in the deferred amounts. Experience gains/losses and the impact of changes in actuarial assumptions, if any, are amortized over the average remaining service life of the active and inactive System members at the beginning of the fiscal year. Investment gains and losses are amortized over a fixed five-year period. Deferred inflows and outflows as of the measurement date include:

| <i>(dollars in thousands)</i>  | Deferred Outflow<br>of Resources | Deferred Inflow<br>of Resources |
|--|----------------------------------|---------------------------------|
| Difference between expected and actual experience  | \$ 1,431                         | \$ 1,209                        |
| Change of assumptions  | 1,672                            | -                               |
| Changes in proportion and differences between employer contributions and proportionate shares of contributions | -                                | 16,602                          |
| Differences between expected and actual investment earning on plan investments                                 | 7,724                            | -                               |
|  | <u>10,827</u>                    | <u>17,811</u>                   |
| Contributions subsequent to the measurement date   | <u>11,009</u>                    | -                               |
| Total  | <u>\$ 21,836</u>                 | <u>\$ 17,811</u>                |

Deferred outflows of resources resulting from employer contributions subsequent to the measurement date of \$11,009,259 will be recognized as a reduction of NPL in the year ending June 30, 2023. The remainder of the deferred outflows and deferred inflows of resources are amortized over three to five years with remaining amortization as follows:

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|                               |            |
|-------------------------------|------------|
| <i>(dollars in thousands)</i> |            |
| Year Ending June 30:          |            |
| 2022                          | \$ 2,405   |
| 2023                          | (683)      |
| 2024                          | (3,508)    |
| 2025                          | (5,199)    |
|                               | \$ (6,985) |

**Pension Plan Fiduciary Net Position:** Detailed information about the pension plans' fiduciary net position is available in the separately issued pension plan financial reports.

**OPEB Information for June 30, 2022 Financial Statements:**

**Total OPEB Liability:** The total other post-employment benefits plan (OPEB) was determined by an actuarial valuation as of June 30, 2021. An expected total OPEB liability was determined at June 30, 2021 using standard roll-forward techniques. The following actuarial assumptions were applied to all periods included in the measurement:

|                           |                                    |
|---------------------------|------------------------------------|
| Price inflation           | 2.30%                              |
| Payroll growth rate       | 2.00%                              |
| Salary increases          | 3.30% to 10.30%, varies by service |
| Investment rate of return | 6.25%                              |

Healthcare trend rates:

|         |  |
|---------|--|
| Pre-65  | Initial trend starting at 6.30 % at January 1, 2023 and gradually decreasing to an ultimate trend rate of 4.05% over a period of 13 years. |
| Post-65 | Initial trend starting at 6.30% at January 1, 2023 and gradually decreasing to an ultimate trend rate of 4.05% over a period of 13 years.  |

Mortality:

|                                |   |
|--------------------------------|---|
| Pre-retirement                 | PUB-2010 General Mortality table, for the Non-Hazardous Systems, and the PUB-2010 Public Safety Mortality table for the Hazardous Systems, projected with the ultimate rates from the MP-2014 mortality improvement scale using a base year of 2010 |
| Post-retirement (non-disabled) | System-specific mortality table based on mortality experience from 2013-2018 projected with the ultimate rates from MP-2104 mortality improvement scale using a base year of 2019   |
| Post-retirement (disabled)     | PUB-2010 Disabled Mortality table with a 4-year set-forward for both male and female rates, projected with the ultimate rates from the MP-2014 mortality improvement scale using a base year of 2010  |

Discount rate assumptions:

- (a) Discount Rate: The discount rate used to measure the total OPEB liability was 5.20%, which decreased from the prior year rate of 5.34%.

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- (b) **Projected Cash Flows:** The projection of cash flows used to determine the discount rate assumed the local employers and plan members would contribute the actuarially determined contribution rate of projected compensation over the remaining 24-year amortization period of the unfunded actuarial accrued liability.
- (c) **Long-Term Rate of Return:** The long-term expected return on plan assets is reviewed as part of the regular experience studies prepared every five years for the System. The most recent analysis, performed for the period covering fiscal years 2013 through 2018 is outlined in a report dated April 12, 2019. However, the Board of KPPA has the authority to review the assumptions on a more frequent basis and adopt new assumptions prior to the next scheduled experience study. The long-term expected rate of return was determined by using a building-block method in which best-estimate ranges of expected future real rate of returns are developed for each asset class. The ranges are combined by weighting the expected future real rate of return by the target asset allocation percentage.
- (d) **Municipal Bond Rate:** The discount rate determination used a municipal bond rate of 1.92% as reported in Fidelity Index's "20 – Year Municipal GO AA Index" as of June 30, 2021.
- (e) **Period of Projected Benefit Payments:** Current assets, future contributions, and investment earnings are projected to be sufficient to pay the projected benefit payments from the retirement system. However, the cost associated with the implicit employer subsidy is not currently being included in the calculation of the system's actuarial determined contributions, and it is the actuary's understanding that any cost associated with the implicit subsidy will not be paid out of the system's trust. Therefore, the municipal bond rate was applied to future expected benefit payments associated with the implicit subsidy.
- (f) **Assumed Asset Allocations:** 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                 | Target<br>Allocation  | Long Term<br>Expected Real<br>Rate of Return |
|-----------------------------|-----------------------|--|
| U.S. equity                 | 21.75%                | 5.70%  |
| Non-US equity               | 21.75%                | 6.35%  |
| Private equity              | 10.00%                | 9.70%  |
| Specialty credit/high yield | 15.00%                | 2.80%  |
| Core bonds                  | 10.00%                | 0.00%  |
| Cash                        | 1.50%                 | (0.60%)                                      |
| Real estate                 | 10.00%                | 5.40%  |
| Opportunistic               | 0.00%                 | 0.00%  |
| Real return                 | 10.00%                | 4.55%  |
| <b>Total</b>                | <b><u>100.00%</u></b> |  |

The long-term expected rate of return on pension plan assets was established by the KPPA Board of Trustees at 6.25% based on a blending of the factors described above.

- (g) **Sensitivity Analysis:** This paragraph requires disclosure of the sensitivity of the net OPEB liability to changes in the current discount rate and changes in the current healthcare cost trend rate. The following presents MSD's allocated portion of the net OPEB liability of the System, calculated using the discount rate of 5.20%, as well as what the MSD's allocated portion of the System's net OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower (4.20%) or 1-percentage-point higher (6.20%) than the current rate for Nonhazardous:

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| <i>(dollars in thousands)</i> | <u>1% Decrease<br/>(4.20%)</u> | <u>Current<br/>Discount Rate<br/>(5.20%)</u> | <u>1% Increase<br/>(6.20%)</u> |
|-------------------------------|--------------------------------|--|--------------------------------|
| MSD's net OPEB liability      | \$ 51,343                      | \$ 37,395                                    | \$ 25,948                      |

The following presents MSD's allocated portion of the net OPEB liability of the System, calculated using the current healthcare cost trend rate, as well as what MSD's allocated portion of the System's net OPEB liability would be if it were calculated using a healthcare cost trend rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate for Nonhazardous:

| <i>(dollars in thousands)</i> | <u>1% Decrease</u> | <u>Current Healthcare<br/>Cost Trend Rate</u> | <u>1% Increase</u> |
|-------------------------------|--------------------|---|--------------------|
| MSD's net OPEB liability      | \$ 26,920          | \$ 37,935                                     | \$ 50,038          |

**Employer's Portion of the Collective OPEB Liability:** MSD's proportionate share of the net OPEB liability, as indicated in the prior table, is \$37,394,836, or approximately 1.95%. This is an increase of 0.14% from fiscal year 2021. The net OPEB liability was distributed based on 2021 actual employer contributions to the plan.

**Measurement Date:** The total OPEB liability, net OPEB liability, and sensitivity information shown in this report are based on an actuarial valuation date of June 30, 2020. The total OPEB liability was rolled-forward from the valuation date to the plan's fiscal year ending June 30, 2021 using generally accepted actuarial principles.

**Changes in Assumptions and Benefit Terms:** Since the prior measurement date, the demographic and economic assumptions that affect the measurement of the total OPEB liability have been updated as follows:

- The discount rate used to calculate the total OPEB liability decreased from 5.34% to 5.20%.
- The assumed increase in future health care costs, or trend assumption, is reviewed on an annual basis and was updated (i.e. increased) to better reflect more current expectations relating to anticipated future increase in the medical costs.

**Changes Since Measurement Date:** There were no changes between the measurement date of the collective net OPEB liability and the employer's reporting date.

**OPEB Expense:** MSD was allocated OPEB expense of \$1,635,851 related to the CERS for the year ending June 30, 2022.

**Deferred Outflows and Deferred Inflows:** Since certain expense items are amortized over closed periods each year, the deferred portions of these items must be tracked annually. If the amounts serve to reduce OPEB expense they are labeled as deferred inflows. If they will increase OPEB expense they are labeled deferred outflows. The amortization of these amounts is accomplished on a level dollar basis, with no interest included in the deferred amounts. Experience gains/losses and the impact of changes in actuarial assumptions, if any, are amortized over the average remaining service life of the active and inactive System members at the beginning of the fiscal year. Investment gains and losses are amortized over a fixed five-year period. Deferred inflows and outflows as of the measurement date include:

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| <i>(dollars in thousands)</i>  | Deferred Outflow<br>of Resources | Deferred Inflow<br>of Resources |
|--|----------------------------------|---------------------------------|
| Difference between expected and actual experience  | \$ 5,880                         | \$ 11,165                       |
| Change of assumptions  | 9,914                            | 35                              |
| Changes in proportion and differences between employer contributions and proportionate shares of contributions | -                                | 5,850                           |
| Differences between expected and actual investment earning on plan investments                                 | <u>3,417</u>                     | <u>18</u>                       |
|  | 19,211                           | 17,068                          |
| Contributions subsequent to the measurement date   | <u>4,236</u>                     | <u>-</u>                        |
| Total  | <u>\$ 23,447</u>                 | <u>\$ 17,068</u>                |

Deferred outflows of resources resulting from employer contributions subsequent to the measurement date of \$4,236,277, which include the implicit subsidy reported of \$1,230,443, will be recognized as a reduction of net OPEB liability in the year ending June 30, 2023. The remainder of the deferred outflows and deferred inflows of resources are amortized over three to five years with remaining amortization as follows:

| <i>(dollars in thousands)</i> |                 |
|-------------------------------|-----------------|
| Year Ending June 30:          |                 |
| 2022                          | \$ 1,970        |
| 2023                          | 1,080           |
| 2024                          | 774             |
| 2025                          | <u>(1,681)</u>  |
|                               | <u>\$ 2,143</u> |

**OPEB Plan Fiduciary Net Position:** Detailed information about the OPEB plans' fiduciary net position is available in the separately issued OPEB plan financial reports.

**Pension Plan Information for June 30, 2021 Financial Statements:**

**Total Pension Liability:** The total pension liability (TPL) was determined by an actuarial valuation as of June 30, 2020. An expected TPL was determined at June 30, 2020 using standard roll-forward techniques. The following actuarial assumptions were applied to all period included in the measurement:

|                           |  |
|---------------------------|--|
| Price Inflation           | 2.30%  |
| Salary increases          | 3.30 to 10.30% varies by service                                   |
| Investment rate of return | 6.25%, net of pension plan investment expense, including inflation |

The mortality table used for active members was a Pub-2010 General Mortality table, for the Non-Hazardous System, and the Pub-2010 Public Safety Mortality table for the Hazardous System, projected with the ultimate rates from the MP-2014 mortality improvement scale using a base year of 2010. The mortality table used for healthy retired members is a system-specific mortality table based on mortality experience from 2013-2018, projected with the ultimate rates from MP-2014 mortality improvement scale using a base year of 2020. The mortality table used for the disabled members was PUB-2010 Disabled Mortality table, with a 4-year set-forward for both male and female rates, projected with the ultimate rates from the MP-2014 mortality improvement scale using a base year of 2010.

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Discount rate assumptions:

- (a) Discount Rate: The discount rate used to measure the total pension liability was 6.25% which did not change from the prior year.
- (b) Projected Cash Flows: The projection of cash flows used to determine the discount rate assumed the local employers and plan members would contribute the statutorily determined contribution rate of projected compensation over the remaining 24-year amortization period of the unfunded actuarial accrued liability. The actuarial determined contribution rate is adjusted to reflect the phase-in of anticipated gains on the actuarial value of assets over the first four years of the projection period.
- (c) Long-Term Rate of Return: The long-term expected return on plan assets is reviewed as part of the regular experience studies prepared every five years for the System. The most recent analysis, performed for the period covering fiscal years 2008 through 2013 is outlined in a report dated April 30, 2014. However, the Board of KPPA has the authority to review the assumptions on a more frequent basis and adopt new assumptions prior to the next scheduled experience study. The long-term expected rate of return was determined by using a building-block method in which best-estimate ranges of expected future real rate of returns are developed for each asset class. The ranges are combined by weighting the expected future real rate of return by the target asset allocation percentage.
- (d) Municipal Bond Rate: The discount rate determination does not use a municipal bond rate.
- (e) Periods of Projected Benefit Payments: The long-term assumed rate of return was applied to all periods of projected benefit payments to determine the total pension liability.
- (f) Assumed Asset Allocation: 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                 | Target<br>Allocation  | Long Term<br>Expected Real<br>Rate of Return |
|-----------------------------|-----------------------|--|
| U.S. equity                 | 18.75%                | 4.50%  |
| Non-US equity               | 18.75%                | 5.25%  |
| Private equity              | 10.00%                | 6.65%  |
| Specialty credit/high yield | 15.00%                | 3.90%  |
| Core bonds                  | 13.50%                | -0.25%                                       |
| Cash                        | 1.00%                 | -0.75%                                       |
| Real estate                 | 5.00%                 | 5.30%  |
| Opportunistic               | 3.00%                 | 2.25%  |
| Real return                 | 15.00%                | 3.95%  |
| <b>Total</b>                | <b><u>100.00%</u></b> |  |

The long-term expected rate of return on pension plan assets was established by the KPPA Board of Trustees at 6.25% based on a blending of the factors described above.

- (g) Sensitivity Analysis: This paragraph requires disclosure of the sensitivity of the NPL to changes in the current discount rate. The following presents MSD's allocated portion of the NPL of the System, calculated using the discount rate of 6.25%, as well as what MSD's allocated portion of the NPL would be if it were calculated using a discount rate that is one percentage-point lower (5.25%) or 1 percentage-point higher (7.25%) than the current rate:

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| <i>(dollars in thousands)</i> | 1% Decrease<br><u>(5.25%)</u> | Current<br>Discount Rate<br>(6.25%) | 1% Increase<br>(7.25%) |
|-------------------------------|-------------------------------|-------------------------------------|------------------------|
| MSD's net pension liability   | \$ 171,912                    | \$ 139,401                          | \$ 112,481             |

**Employer's Portion of the Collective NPL:** MSD's proportionate share of the NPL, as indicated in the prior table, is \$139,400,975, or approximately 1.82%. This is an increase of 0.02% from fiscal year 2020. The NPL was distributed based on 2020 actual employer contributions to the plan.

**Measurement Date:** The total pension liability, NPL and sensitivity information shown in this report are based on an actuarial valuation date of June 30, 2019. The total pension liability was rolled forward from the valuation date to the plan's fiscal year ending June 30, 2020 using generally accepted actuarial principles.

**Changes in Assumptions and Benefit Terms:** Since the prior measurement date, there were no changes in assumptions, however benefit terms were updated as follows, which did not have a material impact on the total pension liability:

- The monthly payment to a surviving spouse of a member whose death was due to a duly-related injury upon remarriage of the spouse was reduced.
- Benefits were increased for a small number of beneficiaries.

**Changes Since Measurement Date:** There were no changes between the measurement date of the collective NPL and the employer's reporting date.

**Pension Expense:** MSD was allocated pension expense of \$21,408,455 related to the CERS for the year ending June 30, 2021.

**Deferred Outflows and Deferred Inflows:** Since certain expense items are amortized over closed periods each year, the deferred portions of these items must be tracked annually. If the amounts serve to reduce pension expense, they are labeled as deferred inflows. If they will increase pension expense, they are labeled deferred outflows. The amortization of these amounts is accomplished on a level dollar basis, with no interest included in the deferred amounts. Experience gains/losses and the impact of changes in actuarial assumptions, if any, are amortized over the average remaining service life of the active and inactive System members at the beginning of the fiscal year. Investment gains and losses are amortized over a fixed five-year period. Deferred inflows and outflows as of the measurement date include:

| <i>(dollars in thousands)</i>  | Deferred Outflow<br>of Resources | Deferred Inflow<br>of Resources |
|--|----------------------------------|---------------------------------|
| Difference between expected and actual experience  | \$ 3,477                         | \$ -                            |
| Change of assumptions  | 5,443                            | -                               |
| Changes in proportion and differences between employer contributions and proportionate shares of contributions | 3,488                            | -                               |
| Differences between expected and actual investment earning on plan investments                                 | <u>3,674</u>                     | -                               |
|  | 16,082                           | -                               |
| Contributions subsequent to the measurement date   | <u>9,850</u>                     | -                               |
| Total  | <u>\$ 25,932</u>                 | <u>\$ -</u>                     |



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Deferred outflows of resources resulting from employer contributions subsequent to the measurement date of \$9,849,892 will be recognized as a reduction of NPL in the year ending June 30, 2022. The remainder of the deferred outflows and deferred inflows of resources are amortized over three to five years with remaining amortization as follows:

|                               |                  |
|-------------------------------|------------------|
| <i>(dollars in thousands)</i> |                  |
| Year Ending June 30:          |                  |
| 2021                          | \$ 8,261         |
| 2022                          | 4,678            |
| 2023                          | 1,741            |
| 2024                          | 1,401            |
|                               | <u>\$ 16,081</u> |

**Pension Plan Fiduciary Net Position:** Detailed information about the pension plans' fiduciary net position is available in the separately issued pension plan financial reports.

**OPEB Information for June 30, 2021 Financial Statements:**

**Total OPEB Liability:** The total other post-employment benefits plan (OPEB) was determined by an actuarial valuation as of June 30, 2020. An expected total OPEB liability was determined at June 30, 2020 using standard roll-forward techniques. The following actuarial assumptions were applied to all periods included in the measurement:

|                           |                                    |
|---------------------------|------------------------------------|
| Price inflation           | 2.30%                              |
| Payroll growth rate       | 2.00%                              |
| Salary increases          | 3.30% to 10.30%, varies by service |
| Investment rate of return | 6.25%                              |
| Healthcare trend rates:   |                                    |

|         |  |
|---------|--|
| Pre-65  | Initial trend starting at 7.00 % at January 1, 2020 and gradually decreasing to an ultimate trend rate of 4.05% over a period of 12 years. |
| Post-65 | Initial trend starting at 5.00% at January 1, 2020 and gradually decreasing to an ultimate trend rate of 4.05% over a period of 10 years.  |

**Mortality:**

|                                |   |
|--------------------------------|---|
| Pre-retirement                 | PUB-2010 General Mortality table, for the Non-Hazardous Systems, and the PUB-2010 Public Safety Mortality table for the Hazardous Systems, projected with the ultimate rates from the MP-2014 mortality improvement scale using a base year of 2010 |
| Post-retirement (non-disabled) | System-specific mortality table based on mortality experience from 2013-2018 projected with the ultimate rates from MP-2104 mortality improvement scale using a base year of 2019   |
| Post-retirement (disabled)     | PUB-2010 Disabled Mortality table with a 4-year set-forward for both male and female rates, projected with the ultimate rates from the MP-2014 mortality improvement scale using a base year of 2010  |

**Discount rate assumptions:**

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- (a) Discount Rate: The discount rate used to measure the total OPEB liability was 5.34%, which decreased from the prior year rate of 5.68%.
- (b) Projected Cash Flows: The projection of cash flows used to determine the discount rate assumed the local employers and plan members would contribute the actuarially determined contribution rate of projected compensation over the remaining 23-year amortization period of the unfunded actuarial accrued liability.
- (c) Long-Term Rate of Return: The long-term expected return on plan assets is reviewed as part of the regular experience studies prepared every five years for the System. The most recent analysis, performed for the period covering fiscal years 2013 through 2018 is outlined in a report dated April 12, 2019. However, the Board of KPPA has the authority to review the assumptions on a more frequent basis and adopt new assumptions prior to the next scheduled experience study. The long-term expected rate of return was determined by using a building-block method in which best-estimate ranges of expected future real rate of returns are developed for each asset class. The ranges are combined by weighting the expected future real rate of return by the target asset allocation percentage.
- (d) Municipal Bond Rate: The discount rate determination used a municipal bond rate of 2.45% as reported in Fidelity Index's "20 – Year Municipal GO AA Index" as of June 30, 2020.
- (e) Period of Projected Benefit Payments: Current assets, future contributions, and investment earnings are projected to be sufficient to pay the projected benefit payments from the retirement system. However, the cost associated with the implicit employer subsidy is not currently being included in the calculation of the system's actuarial determined contributions, and it is the actuary's understanding that any cost associated with the implicit subsidy will not be paid out of the system's trust. Therefore, the municipal bond rate was applied to future expected benefit payments associated with the implicit subsidy.
- (f) Assumed Asset Allocations: 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                 | Target<br>Allocation  | Long Term<br>Expected Real<br>Rate of Return |
|-----------------------------|-----------------------|--|
| U.S. equity                 | 18.75%                | 4.50%  |
| Non-US equity               | 18.75%                | 5.25%  |
| Private equity              | 10.00%                | 6.65%  |
| Specialty credit/high yield | 15.00%                | 3.90%  |
| Core bonds                  | 13.50%                | -0.25%                                       |
| Cash                        | 1.00%                 | -0.75%                                       |
| Real estate                 | 5.00%                 | 5.30%  |
| Opportunistic               | 3.00%                 | 2.25%  |
| Real return                 | 15.00%                | 3.95%  |
| <b>Total</b>                | <b><u>100.00%</u></b> |  |

The long-term expected rate of return on pension plan assets was established by the KPPA Board of Trustees at 6.25% based on a blending of the factors described above.

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
NOTES TO THE FINANCIAL STATEMENTS**

(g) Sensitivity Analysis: This paragraph requires disclosure of the sensitivity of the net OPEB liability to changes in the current discount rate and changes in the current healthcare cost trend rate. The following presents MSD's allocated portion of the net OPEB liability of the System, calculated using the current discount rate of 5.34%, as well as what the MSD's allocated portion of the System's net OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower (4.34%) or 1-percentage-point higher (6.34%) than the current rate for Nonhazardous:

| <i>(dollars in thousands)</i> | 1% Decrease<br><u>(4.34%)</u> | Current<br>Discount Rate<br><u>(5.34%)</u> | 1% Increase<br><u>(6.34%)</u> |
|-------------------------------|-------------------------------|--|-------------------------------|
| MSD's net OPEB liability      | \$ 56,404                     | \$ 43,904                                  | \$ 33,638                     |

The following presents the MSD's allocated portion of the net OPEB liability of the System, calculated using the current healthcare cost trend rate, as well as what the MSD's allocated portion of the System's net OPEB liability would be if it were calculated using a healthcare cost trend rate that is 1-percentage-point lower or 1-percentage-point higher than the current rate for Nonhazardous:

| <i>(dollars in thousands)</i> | 1% Decrease | Current Healthcare<br>Cost Trend Rate | 1% Increase |
|-------------------------------|-------------|---------------------------------------|-------------|
| MSD's net OPEB liability      | \$ 33,993   | \$ 43,904                             | \$ 55,932   |

**Employer's Portion of the Collective OPEB Liability:** MSD's proportionate share of the net OPEB liability, as indicated in the prior table, is \$43,904,049 or approximately 1.82%, or an increase of 0.02% from fiscal year 2020. The net OPEB liability was distributed based on 2020 actual employer contributions to the plan.

**Measurement Date:** The total OPEB liability, net OPEB liability, and sensitivity information shown in this report are based on an actuarial valuation date of June 30, 2019. The total OPEB liability was rolled-forward from the valuation date to the plan's fiscal year ending June 30, 2020 using generally accepted actuarial principles.

**Changes in Assumptions and Benefit Terms:** Since the prior measurement date, the demographic and economic assumptions that affect the measurement of the total OPEB liability have been updated as follows:

- The discount rate used to calculate the total OPEB liability decreased from 5.68% to 5.34%.
- The assumed increase in future health care costs, or trend assumption, is reviewed on an annual basis and was updated (i.e. increased) to better reflect more current expectations relating to anticipated future increase in the medical costs.
- Actuarial information has been updated to reflect anticipated savings from the repeal of the "Cadillac Tax" and "Health Insurer Fee", which occurred in December 2019.

**Changes Since Measurement Date:** There were no changes between the measurement date of the collective net OPEB liability and the employer's reporting date.

**OPEB Expense:** MSD was allocated OPEB expense of \$5,946,362 related to the CERS for the year ending June 30, 2021.

**Deferred Outflows and Deferred Inflows:** Since certain expense items are amortized over closed periods each year, the deferred portions of these items must be tracked annually. If the amounts serve to reduce OPEB expense they are labeled as deferred inflows. If they will increase OPEB expense they are labeled deferred

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**  
**NOTES TO THE FINANCIAL STATEMENTS**

outflows. The amortization of these amounts is accomplished on a level dollar basis, with no interest included in the deferred amounts. Experience gains/losses and the impact of changes in actuarial assumptions, if any, are amortized over the average remaining service life of the active and inactive System members at the beginning of the fiscal year. Investment gains and losses are amortized over a fixed five-year period. Deferred inflows and outflows as of the measurement date include:

| <i>(dollars in thousands)</i>  | <u>Deferred Outflow<br/>of Resources</u> | <u>Deferred Inflow<br/>of Resources</u> |
|--|--|---|
| Difference between expected and actual experience  | \$ 7,335                                 | \$ 7,342                                |
| Change of assumptions  | 7,637                                    | 46                                      |
| Changes in proportion and differences between employer contributions and proportionate shares of contributions | 1,459                                    | -                                       |
| Differences between expected and actual investment earning on plan investments                                 | <u>2,024</u>                             | <u>32</u>                               |
|  | 18,455                                   | 7,420                                   |
| Contributions subsequent to the measurement date   | <u>3,507</u>                             | -                                       |
| Total  | <u>\$ 21,962</u>                         | <u>\$ 7,420</u>                         |

Deferred outflows of resources resulting from employer contributions subsequent to the measurement date of \$3,506,798 which include the implicit subsidy reported of \$1,077,498, will be recognized as a reduction of net OPEB liability in the year ending June 30, 2022. The remainder of the deferred outflows and deferred inflows of resources are amortized over three to five years with remaining amortization as follows:

| <i>(dollars in thousands)</i> |                  |
|-------------------------------|------------------|
| Year Ending June 30:          |                  |
| 2021                          | \$ 2,935         |
| 2022                          | 3,367            |
| 2023                          | 2,539            |
| 2024                          | 2,240            |
| 2025                          | <u>(45)</u>      |
|                               | <u>\$ 11,036</u> |

**OPEB Plan Fiduciary Net Position:** Detailed information about the OPEB plans' fiduciary net position is available in the separately issued OPEB plan financial reports.

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
REQUIRED SUPPLEMENTARY INFORMATION**

| Louisville and Jefferson County Metropolitan Sewer District<br>Schedule of Proportionate Share of the Net Pension Liability<br>For the Years Ended June 30,<br>(dollars in thousands) |           |           |           |           |          |          |          |          |
|---|-----------|-----------|-----------|-----------|----------|----------|----------|----------|
|   | 2022      | 2021      | 2020      | 2019      | 2018     | 2017     | 2016     | 2015     |
| MSD's proportion of the net pension liability   | 1.95%     | 1.82%     | 1.80%     | 1.72%     | 1.60%    | 1.51%    | 1.60%    | 1.60%    |
| MSD's proportionate share of the net pension liability  | \$124,564 | \$139,401 | \$126,866 | \$104,511 | \$93,517 | \$74,132 | \$68,653 | \$51,988 |
| MSD's covered payroll   | 52,828    | 49,808    | 48,391    | 45,859    | 43,084   | 39,596   | 37,900   | 37,100   |
| MSD's proportion of the net pension liability<br>as a percentage of its covered payroll   | 235.8%    | 279.9%    | 262.2%    | 227.9%    | 217.1%   | 187.2%   | 181.1%   | 140.1%   |
| Plan fiduciary net position as a percentage<br>of the total pension liability   | 57.33%    | 47.81%    | 50.45%    | 53.54%    | 53.32%   | 55.50%   | 59.97%   | 66.80%   |

**Notes:**

- 1) The amounts presented for each fiscal year were determined as of the prior year end.
- 2) This schedule is presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, governments should present information for those years that information is available.

**Changes in Assumptions and Benefit Terms:**

**2015:** Since the prior measurement date, the demographic and economic assumptions that affect the measurement of the total pension liability have been updated as described in Schedule D of the CERS actuary report. The changes are noted below:

- The assumed investment rate of return was decreased from 7.75% to 7.50%.
- The assumed rate of inflation was reduced from 3.50% to 3.25%.
- The assumed rate of wage inflation was reduced from 1.00% to 0.75%.
- Payroll growth assumption was reduced from 4.50% to 4.00%.
- The mortality table used for active members is RP-2000 Combined Mortality Table projected with Scale BB to 2013 (multiplied by 50% for males and 30% for females).
- For healthy retired members and beneficiaries, the mortality table used is the RP-2000 Combined Mortality Table projected with Scale BB to 2013 (set back 1 year for females). For disabled members, the RP-2000 Combined Disabled Mortality Table projected with Scale BB to 2013 (set back 4 years for males) is used for the period after disability retirement.
- The assumed rates of retirement, withdrawal and disability were updated to more accurately reflect experience.

**2016:** There were no changes in assumptions and benefit terms since the prior measurement date.

**2017:** Since the prior measurement date, the demographic and economic assumptions that affect the measurement of the total pension liability have been updated as follows:

- The assumed investment rate of return was decreased from 7.50% to 6.25%.
- The assumed rate of inflation was reduced from 3.25% to 2.30%.
- Payroll growth assumption was reduced from 4.00% to 3.05%.

**2018:** Since the prior measurement date, there have been no changes in actuarial assumptions. However, during the 2018 legislative session, House Bill 185 was enacted, which updated the benefit provisions for active members who die in the line of duty. Benefits paid to the spouses of deceased members have been increased from 25% of the member's final rate of pay to 75% of the member's average pay. If the member does not have a surviving spouse, benefits paid to surviving dependent children have been increased from 10% of the member's final pay rate to 50% of average pay for one child, 65% of average pay for two

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
REQUIRED SUPPLEMENTARY INFORMATION**

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children, or 75% of average pay for three children. The total pension liability as of June 30, 2018 was determined using these updated benefit provisions.

**2019:** Since the prior measurement date, the demographic and economic assumptions that affect the measurement of the total pension liability have been updates as follows:

- Salary increases were increased from 3.05% to a range of 3.30% - 10.30%.
- The Mortality Table was changed from RP-2000 to PUB-2010.

**2020:** Since the prior measurement date, there were no changes in assumptions, however benefit terms were updated as follows, which did not have a material impact on the total pension liability:

- The monthly payment to a surviving spouse of a member whose death was due to a duty-related injury upon remarriage of the spouse was reduced.
- Benefits were increased for a small number of beneficiaries.

**2021:** There were no changes in assumptions and benefit terms since the prior measurement date.

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
REQUIRED SUPPLEMENTARY INFORMATION**

| Louisville and Jefferson County Metropolitan Sewer District<br>Schedule of Employer Contributions - Pension<br>For the Years Ended June 30,<br>(dollars in thousands) |           |           |           |           |           |           |           |           |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|   | 2022      | 2021      | 2020      | 2019      | 2018      | 2017      | 2016      | 2015      |
| Statutorily required contribution for pension   | \$ 11,009 | \$ 9,850  | \$ 9,133  | \$ 7,534  | \$ 6,196  | \$ 5,279  | \$ 4,767  | \$ 4,576  |
| Contribution in relation to the statutorily required contribution   | (11,009)  | (9,850)   | (9,133)   | (7,534)   | (6,196)   | (5,279)   | (4,767)   | (4,576)   |
| Annual contribution deficiency (excess)   | \$ -      | \$ -      | \$ -      | \$ -      | \$ -      | \$ -      | \$ -      | \$ -      |
| MSD contributions as a percentage of statutorily required contribution for pension  | 100%      | 100%      | 100%      | 100%      | 100%      | 100%      | 100%      | 100%      |
| MSD covered payroll   | \$ 54,678 | \$ 52,828 | \$ 49,808 | \$ 48,391 | \$ 45,859 | \$ 43,084 | \$ 39,596 | \$ 37,900 |
| Contributions as a percentage of MSD's covered payroll  | 20.13%    | 18.65%    | 18.34%    | 15.57%    | 13.51%    | 12.25%    | 12.04%    | 12.07%    |

**Notes:**

- 1) This schedule is presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, governments should present information for those years that information is available.

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
REQUIRED SUPPLEMENTARY INFORMATION**

| <b>Louisville and Jefferson County Metropolitan Sewer District<br/>Schedule of Proportionate Share of the Net OPEB Liability<br/>For the Years Ended June 30,<br/>(dollars in thousands)</b> |          |          |          |          |          |
|--|----------|----------|----------|----------|----------|
|  | 2022     | 2021     | 2020     | 2019     | 2018     |
| MSD's proportion of the net OPEB liability   | 1.95%    | 1.82%    | 1.80%    | 1.72%    | 1.60%    |
| MSD's proportionate share of the net OPEB liability  | \$37,395 | \$43,904 | \$30,343 | \$30,470 | \$32,119 |
| MSD's covered payroll  | 52,828   | 49,808   | 48,391   | 45,859   | 43,084   |
| MSD's proportion of the net OPEB liability as a percentage of its covered payroll  | 70.79%   | 88.15%   | 62.70%   | 66.44%   | 74.55%   |
| Plan fiduciary net position as a percentage of the total OPEB liability  | 62.91%   | 51.67%   | 60.44%   | 57.62%   | 52.39%   |

**Notes:**

- 1) This schedule is presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, governments should present information for those years that information is available.

**Changes in Assumptions and Benefit Terms:**

**2017:** Since the prior measurement date, the demographic and economic assumptions that affect the measurement of the total OPEB liability have been updated as follows:

- The assumed rate of return was decreased from 7.50% to 6.25%.
- The assumed rate of inflation was reduced from 3.25% to 2.30%.
- Payroll growth assumption was reduced from 4.0% to 3.05%.

**2018:** Since the prior measurement date, there have been no changes in actuarial assumptions. However, during the 2018 legislative session, House Bill 185 was enacted, which updated the benefit provisions for active members who die in the line of duty. The system shall now pay 100% of the insurance premium for spouses and children of all active members who die in the line of duty. The total OPEB liability as of June 30, 2018 was determined using these updated benefit provisions.

**2019:** Since the prior measurement date, the demographic and economic assumptions that affect the measurement of the total pension liability have been updated as follows:

- Salary increases were increased from 3.05% to a range of 3.30% - 10.30%.
- The Mortality Table was changed from RP-2000 to PUB-2010.

**2020:** Since the prior measurement date, the demographic and economic assumptions that affect the measurement of the total OPEB liability have been updated as follows:

- The discount rate used to calculate the total OPEB liability decreased from 5.68% to 5.34%.
- The assumed increase in future health care costs, or trend assumption, is reviewed on an annual basis and was updated (i.e. increased) to better reflect more current expectations relating to anticipated future increases in the medical costs.
- Actuarial information has been updated to reflect anticipated savings from the repeal of the "Cadillac Tax" and "Health Insurer Fee" which occurred in December 2019.

**2021:** Since the prior measurement date, the demographic and economic assumptions that affect the measurement of the total OPEB liability have been updated as follows:

- The discount rate used to calculate the total OPEB liability decreased from 5.34% to 5.20%.
- The assumed increase in future health care costs, or trend assumption, is reviewed on an annual basis and was updated (i.e. increased) to better reflect more current expectations relating to anticipated future increases in the medical costs.



**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
REQUIRED SUPPLEMENTARY INFORMATION**

| Louisville and Jefferson County Metropolitan Sewer District<br>Schedule of Employer Contributions - OPEB<br>For the Years Ended June 30,<br>(dollars in thousands) |                |                |                |                |                |
|--|----------------|----------------|----------------|----------------|----------------|
|  | 2022           | 2021           | 2020           | 2019           | 2018           |
| Statutorily required contribution  | \$ 3,006       | \$ 2,429       | \$ 2,252       | \$ 2,443       | \$ 2,011       |
| Contributions in relation to the statutorily required contribution   | <u>(3,006)</u> | <u>(2,429)</u> | <u>(2,252)</u> | <u>(2,443)</u> | <u>(2,011)</u> |
| Annual contribution deficiency (excess)  | <u>\$ -</u>    | <u>\$ -</u>    | <u>\$ -</u>    | <u>\$ -</u>    | <u>\$ -</u>    |
| MSD contributions as a percentage of statutorily required contribution for OPEB  | 100%           | 100%           | 100%           | 100%           | 100%           |
| MSD covered payroll  | \$54,678       | \$52,828       | \$49,808       | \$48,391       | \$45,859       |
| Contributions as a percentage of MSD's covered payroll   | 5.50%          | 4.60%          | 4.52%          | 5.05%          | 4.39%          |

**Notes:**

- 1) This schedule is presented to illustrate the requirement to show information for 10 years. However, until a full 10-year trend is compiled, governments should present information for those years that information is available.



**STATISTICAL SECTION  
(Unaudited)**



**Floyds Fork, which runs through The Parklands of Floyds Fork in eastern Jefferson County, is the receiving stream for MSD's award-winning Floyds Fork Water Quality Treatment Center.**

## STATISTICAL SECTION

This section of the Louisville & Jefferson County Metropolitan Sewer District's (MSD) Annual Comprehensive Financial Report presents detailed information as a supplement to the information presented in the financial statements and note disclosures to assist readers in assessing MSD's overall financial health.

### **Financial Trends..... 73**

These schedules contain trend information to help readers understand how MSD's financial performance and position have changed over time. The information presented includes changes in net assets, changes in net liabilities, an analysis of revenues and expenses and a comparative statement of cash flows.

### **Revenue Capacity ..... 77**

These schedules contain trend information to help readers understand how MSD's revenues have changed over time. The information presented includes changes in operating revenues, changes in rates and top 10 customers.

### **Debt Capacity..... 80**

These schedules present information showing trends in MSD's debt service coverage and changes in levels of outstanding debt.

### **Operating Information ..... 82**

These schedules contain information to help readers understand MSD's operations. The information presented includes a schedule of assets, service and administrative costs, 2022 budget to actual results, miscellaneous operating indicators and MSD's current wastewater treatment plant capacity.

### **Demographic and Economic Information ..... 87**

These schedules contain Louisville area employers of 1,000 or more and local demographic information.

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**  
**COMPARATIVE STATEMENT OF NET POSITION**  
**ASSETS AND DEFERRED OUTFLOW OF RESOURCES**  
**YEARS ENDED JUNE 30**  
**DOLLARS IN THOUSANDS**

|   | 2022                | 2021                | 2020                | 2019                | 2018                | 2017                | 2016                | 2015                | 2014                | 2013                |
|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| <b>Current assets:</b>                    |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |
| Unrestricted cash and cash equivalents    | \$ 48,875           | \$ 79,281           | \$ 99,973           | \$ 43,728           | \$ 50,276           | \$ 42,449           | \$ 69,481           | \$ 63,013           | \$ 84,780           | \$ 66,376           |
| Unrestricted investments                  | 69,754              | 28,124              | 100                 | 36,744              | 25,080              | 10,095              | 100                 | 100                 | 100                 | 100                 |
| Restricted cash and cash equivalents      | 20,788              | 21,181              | 17,776              | 22,348              | 29,987              | 19,454              | 5,379               | 16,342              | 39,507              | 62,249              |
| Restricted investments                    | 12,947              | -                   | -                   | 30,172              | -                   | 22,675              | 14,999              | -                   | -                   | -                   |
| Accounts receivable                       | 26,242              | 24,664              | 27,227              | 27,915              | 26,332              | 23,480              | 26,696              | 23,787              | 21,809              | 18,465              |
| Inventories                               | 5,262               | 5,086               | 4,977               | 4,623               | 4,407               | 4,184               | 4,210               | 3,981               | 3,808               | 3,579               |
| Prepaid expenses and other current assets | 3,290               | 6,386               | 4,147               | 3,918               | 3,845               | 2,877               | 3,184               | 2,880               | 2,636               | 2,110               |
| <b>Total current assets</b>               | <b>187,158</b>      | <b>164,722</b>      | <b>154,200</b>      | <b>169,448</b>      | <b>139,927</b>      | <b>125,214</b>      | <b>124,049</b>      | <b>110,103</b>      | <b>152,640</b>      | <b>152,879</b>      |
| <b>Noncurrent assets:</b>                 |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |
| Unrestricted noncurrent assets            | 7,138               | 10,478              | 12,776              | 13,730              | 1,399               | 37,642              | 29,235              | 18,615              | -                   | -                   |
| Restricted noncurrent assets              | 80,331              | 82,930              | 79,555              | 76,678              | 151,039             | 86,550              | 120,212             | 120,165             | 121,216             | 90,574              |
| Plant, lines and other facilities:        |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |
| Utility plant in service                  | 4,269,739           | 3,849,047           | 3,697,720           | 3,580,741           | 3,047,458           | 2,943,414           | 2,812,333           | 2,455,476           | 2,451,961           | 2,419,751           |
| Less: accumulated depreciation            | (1,396,934)         | (1,305,547)         | (1,221,668)         | (1,208,329)         | (1,109,966)         | (1,046,707)         | (979,405)           | (925,901)           | (871,412)           | (816,291)           |
| Net capital assets in service             | 2,872,805           | 2,543,500           | 2,476,052           | 2,372,412           | 1,937,492           | 1,896,707           | 2,085,588           | 1,769,285           | 1,580,549           | 1,603,460           |
| Construction in progress                  | 420,200             | 625,113             | 538,013             | 460,501             | 711,655             | 581,222             | 487,674             | 623,181             | 463,167             | 371,816             |
| Net capital assets                        | 3,293,005           | 3,168,613           | 3,014,065           | 2,832,913           | 2,649,147           | 2,477,929           | 2,573,262           | 2,392,466           | 2,043,716           | 1,975,276           |
| Other noncurrent assets                   | 302,370             | 306,176             | 305,715             | 303,660             | 309,056             | 296,876             | 281,975             | 270,517             | 260,287             | 251,051             |
| <b>Total noncurrent assets</b>            | <b>3,682,844</b>    | <b>3,568,197</b>    | <b>3,412,111</b>    | <b>3,226,981</b>    | <b>3,110,641</b>    | <b>2,898,997</b>    | <b>3,004,684</b>    | <b>2,801,763</b>    | <b>2,425,219</b>    | <b>2,316,901</b>    |
| <b>Total assets</b>                       | <b>3,870,002</b>    | <b>3,732,919</b>    | <b>3,566,311</b>    | <b>3,396,429</b>    | <b>3,250,568</b>    | <b>3,024,211</b>    | <b>3,128,733</b>    | <b>2,911,866</b>    | <b>2,577,859</b>    | <b>2,469,780</b>    |
| <b>Deferred outflow of resources</b>      | <b>72,110</b>       | <b>80,984</b>       | <b>79,767</b>       | <b>52,018</b>       | <b>54,267</b>       | <b>35,911</b>       | <b>23,708</b>       | <b>20,407</b>       | <b>22,862</b>       | <b>13,511</b>       |
| <b>Total assets and deferred outflows</b> | <b>\$ 3,942,112</b> | <b>\$ 3,813,903</b> | <b>\$ 3,646,078</b> | <b>\$ 3,448,447</b> | <b>\$ 3,304,835</b> | <b>\$ 3,060,122</b> | <b>\$ 2,899,781</b> | <b>\$ 2,692,563</b> | <b>\$ 2,600,721</b> | <b>\$ 2,483,291</b> |

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**  
**COMPARATIVE STATEMENT OF NET POSITION**  
**LIABILITIES AND DEFERRED INFLOW OF RESOURCES AND NET POSITION**  
**YEARS ENDED JUNE 30**  
**DOLLARS IN THOUSANDS**

|   | 2022                | 2021                | 2020                | 2019                | 2018                | 2017                | 2016                | 2015                | 2014                | 2013                |
|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| <b>Liabilities:</b>   |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |
| <b>Current liabilities (payable from current assets):</b>         |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |
| Accounts payable and accrued expenses                             | \$ 20,395           | \$ 29,099           | \$ 24,176           | \$ 18,168           | \$ 16,342           | \$ 16,550           | \$ 17,420           | \$ 14,936           | \$ 13,653           | \$ 12,693           |
| <b>Total current liabilities (payable from current assets)</b>    | <b>20,395</b>       | <b>29,099</b>       | <b>24,176</b>       | <b>18,168</b>       | <b>16,342</b>       | <b>16,550</b>       | <b>17,420</b>       | <b>14,936</b>       | <b>13,653</b>       | <b>12,693</b>       |
| <b>Current liabilities (payable from restricted assets):</b>      |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |
| Accounts payable and accrued expenses                             | 30,464              | 46,237              | 39,860              | 31,945              | 47,472              | 30,764              | 33,271              | 30,607              | 14,712              | 16,168              |
| Accrued interest  | 16,622              | 20,093              | 17,315              | 17,819              | 18,455              | 15,935              | 17,533              | 13,036              | 12,834              | 12,458              |
| Revenue bonds payable   | 52,880              | 47,565              | 43,460              | 42,200              | 40,190              | 33,655              | 31,825              | 29,415              | 28,525              | 27,035              |
| Bank notes  | -                   | -                   | 100                 | 100                 | -                   | -                   | -                   | -                   | -                   | -                   |
| Other subordinate debt  | 2,038               | 1,817               | 2,167               | 545                 | 105                 | -                   | -                   | -                   | -                   | -                   |
| Refundable deposits   | 1,920               | 2,757               | 2,954               | 2,928               | 2,861               | 2,300               | 2,557               | 1,639               | 1,568               | 1,137               |
| <b>Total current liabilities (payable from restricted assets)</b> | <b>103,924</b>      | <b>118,469</b>      | <b>105,856</b>      | <b>95,537</b>       | <b>109,083</b>      | <b>82,654</b>       | <b>85,186</b>       | <b>74,697</b>       | <b>57,639</b>       | <b>56,798</b>       |
| <b>Noncurrent liabilities:</b>                                    |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |
| Bonds payable   | 2,228,405           | 2,057,555           | 1,868,455           | 1,914,340           | 1,956,540           | 1,831,605           | 1,722,745           | 1,583,390           | 1,549,700           | 1,478,225           |
| Bond anticipation note  | 226,340             | 226,340             | 226,340             | 226,340             | 226,340             | 226,340             | 226,340             | 226,340             | 226,340             | 226,340             |
| Commercial paper notes  | 50,000              | 150,000             | 255,000             | 120,000             | -                   | -                   | -                   | -                   | -                   | -                   |
| Other subordinated debt   | 50,604              | 44,304              | 28,284              | 2,113               | 1,766               | 1,973               | 2,072               | 2,168               | 2,261               | 2,351               |
| Unamortized debt premium/discount                                 | 88,050              | 74,817              | 74,458              | 80,421              | 90,628              | 74,328              | 67,462              | 60,797              | 60,263              | 56,764              |
| Investment derivative asset liability                             | 40,914              | 63,431              | 72,228              | 73,040              | 59,443              | -                   | -                   | -                   | -                   | -                   |
| At-market derivative asset liability                              | -                   | 8,541               | 20,822              | -                   | -                   | -                   | -                   | -                   | -                   | -                   |
| Net Pension liability and Net OPEB liability                      | 161,959             | 183,305             | 157,209             | 134,981             | 125,636             | 74,132              | 68,653              | 51,988              | 58,825              | -                   |
| Other long-term liabilities                                       | -                   | -                   | -                   | -                   | -                   | -                   | 690                 | 944                 | 761                 | 973                 |
| <b>Total long-term debt</b>                                       | <b>2,846,272</b>    | <b>2,808,293</b>    | <b>2,702,796</b>    | <b>2,551,235</b>    | <b>2,460,353</b>    | <b>2,208,378</b>    | <b>2,087,962</b>    | <b>1,925,627</b>    | <b>1,898,150</b>    | <b>1,764,653</b>    |
| <b>Total liabilities</b>  | <b>2,970,591</b>    | <b>2,955,861</b>    | <b>2,832,828</b>    | <b>2,664,940</b>    | <b>2,585,778</b>    | <b>2,307,582</b>    | <b>2,190,568</b>    | <b>2,015,260</b>    | <b>1,969,442</b>    | <b>1,834,144</b>    |
| <b>Deferred inflow of resources</b>                               | <b>48,489</b>       | <b>10,277</b>       | <b>16,520</b>       | <b>12,955</b>       | <b>10,383</b>       | <b>84,052</b>       | <b>108,633</b>      | <b>92,233</b>       | <b>82,293</b>       | <b>82,233</b>       |
| <b>Net position:</b>  |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |
| Net investment in capital assets                                  | 850,316             | 762,848             | 684,412             | 672,304             | 528,377             | 562,784             | 501,675             | 506,187             | 418,784             | 365,225             |
| Restricted  | 84,607              | 84,429              | 80,421              | 81,207              | 156,425             | 150,386             | 84,639              | 80,424              | 148,451             | 136,939             |
| Unrestricted  | (11,891)            | 488                 | 31,897              | 17,041              | 23,872              | (44,682)            | 14,266              | (1,541)             | (18,249)            | 64,750              |
| <b>Total net position</b>   | <b>923,032</b>      | <b>847,765</b>      | <b>796,730</b>      | <b>770,552</b>      | <b>708,674</b>      | <b>668,488</b>      | <b>600,580</b>      | <b>585,070</b>      | <b>548,986</b>      | <b>566,914</b>      |
| <b>Total liabilities, deferred inflows and net position</b>       | <b>\$ 3,942,112</b> | <b>\$ 3,813,903</b> | <b>\$ 3,646,078</b> | <b>\$ 3,448,447</b> | <b>\$ 3,304,835</b> | <b>\$ 3,060,122</b> | <b>\$ 2,899,781</b> | <b>\$ 2,692,563</b> | <b>\$ 2,600,721</b> | <b>\$ 2,483,291</b> |

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**  
**COMPARATIVE STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION**  
**YEARS ENDED JUNE 30**  
**DOLLARS IN THOUSANDS**

|   | 2022              | 2021              | 2020              | 2019              | 2018              | 2017              | 2016              | 2015              | 2014              | 2013              |
|---|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <b>Operating revenue:</b>                           |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Wastewater service charges                          | \$ 270,066        | \$ 245,802        | \$ 237,807        | \$ 219,467        | \$ 210,636        | \$ 194,965        | \$ 183,592        | \$ 173,895        | \$ 165,599        | \$ 159,791        |
| Drainage service charges                            | 86,804            | 79,915            | 75,052            | 69,706            | 63,868            | 58,978            | 54,888            | 51,567            | 48,457            | 45,431            |
| Other operating income                              | 8,497             | 3,701             | 6,198             | 5,195             | 4,645             | 5,691             | 4,810             | 4,407             | 2,576             | 4,823             |
| <b>Total operating revenue</b>                      | <b>365,367</b>    | <b>329,418</b>    | <b>319,057</b>    | <b>294,368</b>    | <b>279,149</b>    | <b>259,634</b>    | <b>243,290</b>    | <b>229,869</b>    | <b>216,632</b>    | <b>210,045</b>    |
| <b>Operating expenses:</b>                          |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Service and administrative costs                    | 169,869           | 170,073           | 167,771           | 154,325           | 142,711           | 122,098           | 121,674           | 106,174           | 108,814           | 108,041           |
| Capitalization/recovery of cost                     | (42,166)          | (41,785)          | (39,643)          | (38,383)          | (38,147)          | (31,949)          | (30,516)          | (30,056)          | (33,568)          | (32,200)          |
| Capitalized overhead (over) under applied           | -                 | -                 | -                 | -                 | 88                | -                 | -                 | -                 | -                 | (910)             |
| Depreciation and amortization                       | 103,964           | 97,874            | 98,872            | 87,882            | 77,954            | 77,156            | 62,820            | 63,321            | 63,516            | 60,335            |
| <b>Total operating expenses</b>                     | <b>231,667</b>    | <b>226,162</b>    | <b>227,000</b>    | <b>203,824</b>    | <b>182,606</b>    | <b>167,305</b>    | <b>153,978</b>    | <b>139,439</b>    | <b>138,762</b>    | <b>135,266</b>    |
| <b>Income (loss) from operations</b>                | <b>133,700</b>    | <b>103,256</b>    | <b>92,057</b>     | <b>90,544</b>     | <b>96,543</b>     | <b>92,329</b>     | <b>89,312</b>     | <b>90,430</b>     | <b>77,870</b>     | <b>74,779</b>     |
| <b>Non-operating revenue (expense):</b>             |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Gain/loss disposal of assets                        | 124               | (21)              | (15,008)          | 15                | -                 | -                 | -                 | -                 | -                 | -                 |
| Investment income                                   | (1,467)           | 1,777             | 5,275             | 8,338             | 6,280             | 4,047             | 7,559             | 7,527             | 10,234            | 3,695             |
| Build America bond refund                           | 10,344            | 10,398            | 10,325            | 10,339            | 10,249            | 10,226            | 10,332            | 10,096            | 10,096            | 10,986            |
| Interest expense - bonds                            | (86,792)          | (93,067)          | (92,274)          | (94,831)          | (95,041)          | (90,117)          | (86,818)          | (83,404)          | (80,613)          | (92,616)          |
| Interest expense - swaps                            | (9,502)           | (9,793)           | (8,027)           | (6,468)           | (7,724)           | (8,926)           | (9,514)           | (9,737)           | (9,733)           | (10,200)          |
| Interest expense - other                            | (12,873)          | (13,104)          | (13,129)          | (13,497)          | (9,873)           | (9,317)           | (8,601)           | (4,611)           | (4,629)           | (4,829)           |
| Amortization of debt discount/premium               | 17,172            | 17,429            | 12,688            | 14,344            | 15,198            | 13,701            | 12,052            | 7,887             | 7,296             | 6,735             |
| Amortization of loss on refunding                   | (3,768)           | (3,107)           | (2,404)           | (2,817)           | (3,147)           | (3,070)           | (1,949)           | (1,980)           | (2,552)           | -                 |
| Capitalized interest                                | 7,464             | 12,049            | 13,043            | 18,582            | 21,859            | 20,074            | 21,051            | 20,511            | 19,103            | 26,358            |
| Change in fair values - swaps                       | 11,293            | 8,796             | 812               | (13,597)          | 16,317            | 26,072            | (22,951)          | (5,240)           | (1,222)           | 36,286            |
| <b>Total non-operating revenue (expenses), net</b>  | <b>(68,005)</b>   | <b>(68,643)</b>   | <b>(88,699)</b>   | <b>(79,592)</b>   | <b>(45,882)</b>   | <b>(37,310)</b>   | <b>(78,839)</b>   | <b>(58,951)</b>   | <b>(52,020)</b>   | <b>(23,585)</b>   |
| <b>Net income / (loss) before contributions</b>     | <b>65,695</b>     | <b>34,613</b>     | <b>3,358</b>      | <b>10,952</b>     | <b>50,661</b>     | <b>55,019</b>     | <b>10,473</b>     | <b>31,479</b>     | <b>25,850</b>     | <b>51,194</b>     |
| <b>Contributions</b>                                |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Property owner assessments                          | -                 | -                 | -                 | -                 | -                 | 2,376             | -                 | -                 | -                 | -                 |
| All other   | 9,572             | 16,422            | 9,085             | 50,926            | 12,726            | 10,513            | 5,037             | 4,605             | 8,103             | 7,134             |
| <b>Increase (decrease) in net position</b>          | <b>75,267</b>     | <b>51,035</b>     | <b>12,443</b>     | <b>61,878</b>     | <b>63,387</b>     | <b>67,908</b>     | <b>15,510</b>     | <b>36,084</b>     | <b>33,953</b>     | <b>58,328</b>     |
| <b>Net position, beginning of year</b>              | <b>847,765</b>    | <b>796,730</b>    | <b>770,552</b>    | <b>708,674</b>    | <b>668,488</b>    | <b>600,580</b>    | <b>585,070</b>    | <b>548,986</b>    | <b>566,914</b>    | <b>508,586</b>    |
| <b>Net position, OCEA merger</b>                    | -                 | -                 | 13,735            | -                 | -                 | -                 | -                 | -                 | -                 | -                 |
| <b>Restatement for GASB 68 implementation</b>       | -                 | -                 | -                 | -                 | -                 | -                 | -                 | -                 | (51,881)          | -                 |
| <b>Restatement for GASB 75 implementation</b>       | -                 | -                 | -                 | -                 | (23,201)          | -                 | -                 | -                 | -                 | -                 |
| <b>Net Position, beginning of year, as restated</b> | <b>847,765</b>    | <b>796,730</b>    | <b>784,287</b>    | <b>708,674</b>    | <b>645,287</b>    | <b>600,580</b>    | <b>585,070</b>    | <b>548,986</b>    | <b>515,033</b>    | <b>508,586</b>    |
| <b>Net position, end of year</b>                    | <b>\$ 923,032</b> | <b>\$ 847,765</b> | <b>\$ 796,730</b> | <b>\$ 770,552</b> | <b>\$ 708,674</b> | <b>\$ 668,488</b> | <b>\$ 600,580</b> | <b>\$ 585,070</b> | <b>\$ 548,986</b> | <b>\$ 566,914</b> |

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**  
**COMPARATIVE STATEMENTS OF CASH FLOWS**  
**YEARS ENDED JUNE 30**  
**DOLLARS IN THOUSANDS**

|   | 2022             | 2021              | 2020              | 2019             | 2018             | 2017             | 2016              | 2015             | 2014              | 2013              |
|---|------------------|-------------------|-------------------|------------------|------------------|------------------|-------------------|------------------|-------------------|-------------------|
| <b>Cash flows from operating activities:</b>                                |                  |                   |                   |                  |                  |                  |                   |                  |                   |                   |
| Cash received from customers  | \$ 362,992       | \$ 331,767        | \$ 319,701        | \$ 292,791       | \$ 276,711       | \$ 262,055       | \$ 240,202        | \$ 227,976       | \$ 213,215        | \$ 207,905        |
| Cash paid to suppliers and employees  | (124,653)        | (107,122)         | (105,649)         | (103,173)        | (95,150)         | (88,300)         | (85,202)          | (75,258)         | (73,175)          | (79,926)          |
| <b>Net cash provided by operating activities</b>                            | <b>238,339</b>   | <b>224,645</b>    | <b>214,052</b>    | <b>189,618</b>   | <b>181,561</b>   | <b>173,755</b>   | <b>155,000</b>    | <b>152,718</b>   | <b>140,040</b>    | <b>127,979</b>    |
| <b>Cash flows from capital and related financing activities:</b>            |                  |                   |                   |                  |                  |                  |                   |                  |                   |                   |
| Proceeds from issuance of revenue bonds                                     | 248,821          | 233,133           | -                 | -                | 175,000          | 150,000          | 175,000           | 80,000           | 100,000           | 115,790           |
| Proceeds from issuance of bond anticipation note                            | 232,924          | 237,295           | 230,079           | 230,334          | 226,340          | 226,340          | 226,340           | 226,340          | 226,340           | 228,735           |
| Proceeds from issuance of commercial paper                                  | 375,000          | 365,000           | 770,000           | 319,112          | -                | -                | -                 | -                | -                 | -                 |
| Proceeds from issuance of notes   | -                | -                 | 90,200            | 100              | -                | -                | -                 | -                | -                 | -                 |
| Proceeds from issuance of other subordinate debt                            | 7,824            | 17,788            | -                 | -                | -                | -                | -                 | -                | -                 | -                 |
| Premium from sale of bonds  | -                | -                 | -                 | -                | 21,894           | 15,715           | 16,887            | -                | -                 | -                 |
| Payments for retirement of revenue bonds                                    | (55,497)         | (48,033)          | (43,120)          | (40,190)         | -                | -                | -                 | -                | -                 | -                 |
| Payments for retirement of bond anticipation note                           | (226,340)        | (226,340)         | (226,340)         | (226,340)        | -                | -                | -                 | -                | -                 | -                 |
| Payments for retirement of commercial paper                                 | (475,000)        | (470,000)         | (635,000)         | (200,000)        | -                | -                | -                 | -                | -                 | -                 |
| Payments for retirement of notes  | -                | (100)             | (90,200)          | -                | -                | -                | -                 | -                | -                 | -                 |
| Payments for retirement of other subordinate debt                           | (1,926)          | (2,119)           | (2,120)           | (317)            | -                | -                | -                 | -                | -                 | -                 |
| Principal paid on debt  | -                | -                 | -                 | -                | (263,395)        | (271,064)        | (255,291)         | (271,853)        | (253,465)         | (399,424)         |
| Payments for interest expense   | (103,136)        | (103,393)         | (106,312)         | (108,511)        | (102,394)        | (103,919)        | (92,246)          | -                | -                 | -                 |
| Payments for interest on swaps  | (9,502)          | (9,793)           | (7,622)           | (6,468)          | (7,724)          | (8,926)          | (9,514)           | (9,737)          | (9,733)           | (10,200)          |
| Build America bond refund   | 10,344           | 10,398            | 10,325            | 10,339           | 10,248           | 10,226           | 10,332            | 10,096           | 10,096            | 10,986            |
| Proceeds from capital grants  | 2,610            | 1,914             | 1,786             | 9,373            | 7,183            | 6,386            | 91                | -                | -                 | -                 |
| Proceeds from sale of capital assets  | 124              | -                 | -                 | 15               | 3                | 10               | 614               | -                | -                 | -                 |
| Payments for capital assets   | (224,660)        | (219,909)         | (224,418)         | (233,360)        | (216,503)        | (220,892)        | (213,996)         | -                | -                 | -                 |
| Proceeds from assessments   | 3,378            | 2,465             | 1,169             | 780              | 1,621            | 1,254            | 2,329             | -                | -                 | -                 |
| Assessments extended  | -                | -                 | -                 | -                | -                | (2,376)          | -                 | -                | -                 | -                 |
| Capital contributed by governments, property owners & developers            | -                | -                 | -                 | -                | -                | -                | -                 | 4,605            | 8,103             | 7,134             |
| Assessments receivable  | -                | -                 | -                 | -                | -                | -                | -                 | 2,050            | 1,695             | 1,833             |
| Interest income - assessments   | -                | -                 | -                 | -                | -                | -                | -                 | 340              | 687               | 731               |
| Interest paid on revenue bonds  | -                | -                 | -                 | -                | -                | -                | -                 | (87,813)         | (91,719)          | (98,944)          |
| Acquisition and construction of capital assets                              | -                | -                 | -                 | -                | -                | -                | -                 | (147,842)        | (121,237)         | (113,144)         |
| Acquisition of non-operating property                                       | -                | -                 | -                 | -                | -                | -                | -                 | (247)            | (211)             | (223)             |
| <b>Net cash provided (used) by capital and related financing activities</b> | <b>(215,036)</b> | <b>(211,694)</b>  | <b>(231,573)</b>  | <b>(245,133)</b> | <b>(147,727)</b> | <b>(197,246)</b> | <b>(139,454)</b>  | <b>(194,061)</b> | <b>(129,444)</b>  | <b>(256,726)</b>  |
| <b>Cash flows from investing activities:</b>                                |                  |                   |                   |                  |                  |                  |                   |                  |                   |                   |
| Change in investments   | (55,638)         | (55,205)          | 86,661            | 34,428           | (56,798)         | 15,990           | (15,047)          | 1,052            | (30,642)          | 4,064             |
| Investment income   | 2,203            | 1,423             | 6,864             | 6,238            | 5,081            | 2,951            | 5,626             | 13,974           | 15,708            | 13,941            |
| <b>Net cash provided (used) by investing activities</b>                     | <b>(53,435)</b>  | <b>(53,782)</b>   | <b>93,525</b>     | <b>40,666</b>    | <b>(51,717)</b>  | <b>18,941</b>    | <b>(9,421)</b>    | <b>15,026</b>    | <b>(14,934)</b>   | <b>18,005</b>     |
| <b>Net increase (decrease) in cash and cash equivalents</b>                 | <b>(30,132)</b>  | <b>(40,831)</b>   | <b>76,004</b>     | <b>(14,849)</b>  | <b>(17,883)</b>  | <b>(4,550)</b>   | <b>6,125</b>      | <b>(26,317)</b>  | <b>(4,338)</b>    | <b>(110,742)</b>  |
| <b>Cash and cash equivalents, beginning of year</b>                         | <b>101,986</b>   | <b>142,817</b>    | <b>66,813</b>     | <b>81,662</b>    | <b>99,545</b>    | <b>104,095</b>   | <b>97,970</b>     | <b>124,287</b>   | <b>128,625</b>    | <b>239,367</b>    |
| <b>Cash and cash equivalents, end of year</b>                               | <b>\$ 71,854</b> | <b>\$ 101,986</b> | <b>\$ 142,817</b> | <b>\$ 66,813</b> | <b>\$ 81,662</b> | <b>\$ 99,545</b> | <b>\$ 104,095</b> | <b>\$ 97,970</b> | <b>\$ 124,287</b> | <b>\$ 128,625</b> |

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**  
**COMPARATIVE STATEMENTS OF OPERATING REVENUE**  
**YEARS ENDED JUNE 30**  
**DOLLARS IN THOUSANDS**

|   | 2022              | 2021              | 2020              | 2019              | 2018              | 2017              | 2016              | 2015              | 2014              | 2013              |
|---|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <b>Service charges:</b>                 |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| <b>Wastewater service charges:</b>      |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Residential                             | \$ 156,764        | \$ 148,091        | \$ 140,125        | \$ 122,830        | \$ 116,458        | \$ 108,809        | \$ 101,405        | \$ 96,563         | \$ 89,691         | \$ 86,409         |
| Commercial                              | 86,009            | 74,459            | 74,134            | 71,054            | 66,651            | 61,860            | 58,343            | 62,257            | 58,812            | 57,192            |
| Industrial                              | 23,558            | 23,080            | 21,758            | 23,171            | 24,439            | 21,218            | 19,878            | 17,605            | 19,738            | 19,536            |
| Other - net                             | 7,840             | 2,588             | 5,997             | 6,803             | 7,517             | 6,853             | 8,186             | 2,806             | 2,611             | 2,267             |
| Free wastewater to Metro Government     | (4,105)           | (2,416)           | (4,207)           | (4,391)           | (4,429)           | (3,775)           | (4,220)           | (5,336)           | (5,253)           | (5,613)           |
| <b>Total wastewater service charges</b> | <b>270,066</b>    | <b>245,802</b>    | <b>237,807</b>    | <b>219,467</b>    | <b>210,636</b>    | <b>194,965</b>    | <b>183,592</b>    | <b>173,895</b>    | <b>165,599</b>    | <b>159,791</b>    |
| <b>Drainage service charges:</b>        |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Residential                             | 31,497            | 29,413            | 27,684            | 25,716            | 23,811            | 22,111            | 20,439            | 20,090            | 18,522            | 17,372            |
| Commercial                              | 48,525            | 45,220            | 41,960            | 38,775            | 35,778            | 35,372            | 32,971            | 28,936            | 27,910            | 26,123            |
| Industrial                              | 5,671             | 5,239             | 4,815             | 4,373             | 3,864             | 3,445             | 3,219             | 3,030             | 3,112             | 2,956             |
| Other - net                             | 3,802             | 2,576             | 2,999             | 2,834             | 2,533             | -                 | -                 | -                 | -                 | -                 |
| Free drainage to Metro Government       | (2,691)           | (2,533)           | (2,406)           | (1,992)           | (2,118)           | (1,950)           | (1,741)           | (489)             | (1,087)           | (1,020)           |
| <b>Total stormwater service charges</b> | <b>86,804</b>     | <b>79,915</b>     | <b>75,052</b>     | <b>69,706</b>     | <b>63,868</b>     | <b>58,978</b>     | <b>54,888</b>     | <b>51,567</b>     | <b>48,457</b>     | <b>45,431</b>     |
| <b>Total service charges</b>            | <b>356,870</b>    | <b>325,717</b>    | <b>312,859</b>    | <b>289,173</b>    | <b>274,504</b>    | <b>253,943</b>    | <b>238,480</b>    | <b>225,462</b>    | <b>214,056</b>    | <b>205,222</b>    |
| <b>Other operating income:</b>          |                   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Capacity charges                        | 5,072             | 2,309             | 4,151             | 3,552             | 3,132             | 3,318             | 2,087             | 2,667             | 1,620             | 1,624             |
| Connection fees                         | 151               | 135               | 363               | 14                | 76                | (723)             | 1,118             | 379               | 133               | 93                |
| Inflow & infiltration fees              | 1,610             | 628               | 1,155             | 1,162             | -                 | -                 | -                 | -                 | -                 | -                 |
| Regional facilities fees                | -                 | -                 | -                 | -                 | -                 | -                 | 16                | 34                | -                 | -                 |
| Reserve capacity charges                | -                 | -                 | -                 | -                 | -                 | -                 | -                 | -                 | -                 | 64                |
| Wastewater miscellaneous                | 1,664             | 629               | 529               | 467               | 1,437             | 3,096             | 1,589             | 1,327             | 823               | 2,984             |
| Drainage miscellaneous                  | -                 | -                 | -                 | -                 | -                 | -                 | -                 | -                 | -                 | 58                |
| <b>Total other operating income</b>     | <b>8,497</b>      | <b>3,701</b>      | <b>6,198</b>      | <b>5,195</b>      | <b>4,645</b>      | <b>5,691</b>      | <b>4,810</b>      | <b>4,407</b>      | <b>2,576</b>      | <b>4,823</b>      |
| <b>Total operating revenue</b>          | <b>\$ 365,367</b> | <b>\$ 329,418</b> | <b>\$ 319,057</b> | <b>\$ 294,368</b> | <b>\$ 279,149</b> | <b>\$ 259,634</b> | <b>\$ 243,290</b> | <b>\$ 229,869</b> | <b>\$ 216,632</b> | <b>\$ 210,045</b> |



**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**  
**AVERAGE RESIDENTIAL WATER AND DRAINAGE CHARGES**  
**YEARS ENDED JUNE 30**

|  | 2022            | 2021            | 2020            | 2019            | 2018            | 2017            | 2016            | 2015            | 2014            | 2013            |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| <b>Jefferson County:</b>   |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| <b>Wastewater service charges:</b>                               |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| Service charge   | \$ 18.90        | \$ 17.68        | \$ 16.83        | \$ 15.75        | \$ 14.73        | \$ 13.78        | \$ 12.89        | \$ 12.22        | \$ 11.59        | \$ 10.95        |
| Volume charge <sup>1</sup>                                       | 20.64           | 19.32           | 18.40           | 17.20           | 16.08           | 15.04           | 14.08           | 13.36           | 12.68           | 12.00           |
| Consent decree charge  | 15.45           | 14.45           | 13.76           | 12.87           | 12.04           | 11.26           | 10.53           | 9.98            | 9.46            | 8.94            |
| <b>Total wastewater service charges</b>                          | <b>54.99</b>    | <b>51.45</b>    | <b>48.99</b>    | <b>45.82</b>    | <b>42.85</b>    | <b>40.08</b>    | <b>37.50</b>    | <b>35.56</b>    | <b>33.73</b>    | <b>31.89</b>    |
| <b>Drainage service charges:</b>                                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| Residential  | 11.88           | 11.11           | 10.58           | 9.90            | 9.26            | 8.66            | 8.10            | 7.68            | 7.28            | 6.88            |
| <b>Total drainage service charges</b>                            | <b>11.88</b>    | <b>11.11</b>    | <b>10.58</b>    | <b>9.90</b>     | <b>9.26</b>     | <b>8.66</b>     | <b>8.10</b>     | <b>7.68</b>     | <b>7.28</b>     | <b>6.88</b>     |
| <b>Total MSD bill</b>  | <b>\$ 66.87</b> | <b>\$ 62.56</b> | <b>\$ 59.57</b> | <b>\$ 55.72</b> | <b>\$ 52.11</b> | <b>\$ 48.74</b> | <b>\$ 45.60</b> | <b>\$ 43.24</b> | <b>\$ 41.01</b> | <b>\$ 38.77</b> |
| <b>Oldham County:</b>  |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| <b>Wastewater service charges:</b>                               |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| Service charge   | \$ 47.92        | \$ 47.92        | \$ -            | \$ -            | \$ -            | \$ -            | \$ -            | \$ -            | \$ -            | \$ -            |
| Volume charge <sup>1</sup>                                       | 31.20           | 31.20           | -               | -               | -               | -               | -               | -               | -               | -               |
| <b>Total MSD bill</b>  | <b>\$ 79.12</b> | <b>\$ 79.12</b> | <b>\$ -</b>     | <b>\$ -</b>     | <b>\$ -</b>     | <b>\$ -</b>     | <b>\$ -</b>     | <b>\$ -</b>     | <b>\$ -</b>     | <b>\$ -</b>     |
| <b>Bullitt County (former BCSD):</b>                             |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| <b>Wastewater service charges:</b>                               |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| Service charge   | \$ 35.58        | \$ -            | \$ -            | \$ -            | \$ -            | \$ -            | \$ -            | \$ -            | \$ -            | \$ -            |
| Volume charge <sup>1</sup>                                       | 20.70           | -               | -               | -               | -               | -               | -               | -               | -               | -               |
| <b>Total MSD bill</b>  | <b>\$ 56.28</b> | <b>\$ -</b>     | <b>\$ -</b>     | <b>\$ -</b>     | <b>\$ -</b>     | <b>\$ -</b>     | <b>\$ -</b>     | <b>\$ -</b>     | <b>\$ -</b>     | <b>\$ -</b>     |
| <b>Bullitt County (former Hunter's Hollow &amp; Big Valley):</b> |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| <b>Wastewater service charges:</b>                               |                 |                 |                 |                 |                 |                 |                 |                 |                 |                 |
| Service charge   | \$ 26.83        | \$ -            | \$ -            | \$ -            | \$ -            | \$ -            | \$ -            | \$ -            | \$ -            | \$ -            |
| Volume charge <sup>1</sup>                                       | 8.00            | -               | -               | -               | -               | -               | -               | -               | -               | -               |
| <b>Total MSD bill</b>  | <b>\$ 34.83</b> | <b>\$ -</b>     | <b>\$ -</b>     | <b>\$ -</b>     | <b>\$ -</b>     | <b>\$ -</b>     | <b>\$ -</b>     | <b>\$ -</b>     | <b>\$ -</b>     | <b>\$ -</b>     |

<sup>1</sup>Average residential volume charge is based on 4,000 gallons/month of water use

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
TOP 10 WASTEWATER AND DRAINAGE CUSTOMERS**

| <u>Rank</u>                     | <u>Customer Name</u>         | <u>FY 22 Wastewater Billed</u> | <u>Percent Total Wastewater Revenue</u> |
|---------------------------------|------------------------------|--------------------------------|---|
| 1                               | Heaven Hill Distilleries     | \$ 4,219,789                   | 1.56%                                   |
| 2                               | Lubrizol Advanced Material   | 2,751,255                      | 1.02%                                   |
| 3                               | The Chemours Company FC LLC  | 1,723,158                      | 0.64%                                   |
| 4                               | Swift Pork Co.               | 1,461,306                      | 0.54%                                   |
| 5                               | Clariant Corporation         | 1,437,880                      | 0.53%                                   |
| 6                               | Early Times Distillery       | 1,420,078                      | 0.53%                                   |
| 7                               | Ford Motor Co.               | 1,193,083                      | 0.44%                                   |
| 8                               | Haier US Appliance Solutions | 955,585                        | 0.35%                                   |
| 9                               | Rohm & Haas                  | 783,570                        | 0.29%                                   |
| 10                              | Ford Motor Co.               | <u>744,470</u>                 | <u>0.28%</u>                            |
| Total                           |                              | 16,690,174                     | 6.18%                                   |
| Total FY 22 Wastewater Revenue: |                              | \$ 270,066,040                 |   |

| <u>Rank</u>                     | <u>Customer Name</u>         | <u>FY 21 Wastewater Billed</u> | <u>Percent Total Wastewater Revenue</u> |
|---------------------------------|------------------------------|--------------------------------|---|
| 1                               | Heaven Hill Distilleries     | \$ 3,715,684                   | 1.51%                                   |
| 2                               | Lubrizol Advanced Material   | 2,071,550                      | 0.84%                                   |
| 3                               | Swift Pork Co.               | 2,053,342                      | 0.84%                                   |
| 4                               | The Chemours Company FC LLC  | 1,388,385                      | 0.56%                                   |
| 5                               | Early Times Distillery       | 1,373,275                      | 0.56%                                   |
| 6                               | Ford Motor Co.               | 1,124,209                      | 0.46%                                   |
| 7                               | Haier US Appliance Solutions | 778,537                        | 0.32%                                   |
| 8                               | Rohm & Haas                  | 739,411                        | 0.30%                                   |
| 9                               | Ford Motor Co.               | 717,704                        | 0.29%                                   |
| 10                              | Clariant Corporation         | <u>590,926</u>                 | <u>0.24%</u>                            |
| Total                           |                              | 14,553,023                     | 5.92%                                   |
| Total FY 21 Wastewater Revenue: |                              | \$ 245,801,703                 |   |

| <u>Rank</u>                   | <u>Customer Name</u>                | <u>FY 22 Drainage Billed</u> | <u>Percent Total Drainage Revenue</u> |
|-------------------------------|-------------------------------------|------------------------------|---------------------------------------|
| 1                             | Regional Airport Authority          | \$ 1,645,863                 | 1.90%                                 |
| 2                             | United Parcel Service               | 1,456,321                    | 1.68%                                 |
| 3                             | Jeff Co Bd Of Ed                    | 865,812                      | 1.00%                                 |
| 4                             | Ford Motor Co.                      | 456,942                      | 0.53%                                 |
| 5                             | LIT Industrial Limited Partner      | 346,273                      | 0.40%                                 |
| 6                             | Kentucky State Fair                 | 321,966                      | 0.37%                                 |
| 7                             | Regional Airport Authority          | 320,679                      | 0.37%                                 |
| 8                             | The University of Louisville Campus | 308,517                      | 0.36%                                 |
| 9                             | Churchill Downs Inc                 | 298,224                      | 0.34%                                 |
| 10                            | Seaboard System RR-00822            | <u>273,149</u>               | <u>0.31%</u>                          |
| Total                         |                                     | 6,293,746                    | 7.25%                                 |
| Total FY 22 Drainage Revenue: |                                     | \$ 86,804,258                |                                       |

| <u>Rank</u>                   | <u>Customer Name</u>                | <u>FY 21 Drainage Billed</u> | <u>Percent Total Drainage Revenue</u> |
|-------------------------------|-------------------------------------|------------------------------|---------------------------------------|
| 1                             | Regional Airport Authority          | \$ 1,546,213                 | 1.93%                                 |
| 2                             | United Parcel Service               | 1,358,550                    | 1.70%                                 |
| 3                             | Jeff Co Bd of Ed                    | 855,119                      | 1.07%                                 |
| 4                             | Ford Motor Co.                      | 428,087                      | 0.54%                                 |
| 5                             | LIT Industrial Limited Partner      | 320,852                      | 0.40%                                 |
| 6                             | Regional Airport Authority          | 305,126                      | 0.38%                                 |
| 7                             | Kentucky State Fair                 | 300,720                      | 0.38%                                 |
| 8                             | Churchill Downs Inc                 | 278,017                      | 0.35%                                 |
| 9                             | The University of Louisville Campus | 275,408                      | 0.34%                                 |
| 10                            | Seaboard System RR-00822            | <u>260,138</u>               | <u>0.33%</u>                          |
| Total                         |                                     | 5,928,230                    | 7.42%                                 |
| Total FY 21 Drainage Revenue: |                                     | \$ 79,915,505                |                                       |

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**  
**COMPARATIVE SCHEDULE OF DEBT SERVICE COVERAGE**  
**YEARS ENDED JUNE 30**  
**DOLLARS IN THOUSANDS**

|  | 2022              | 2021              | 2020              | 2019              | 2018              | 2017              | 2016             | 2015             | 2014             | 2013             |
|--|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|
| <b>Revenues:</b>                               |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |
| Service charges                                | \$ 356,870        | \$ 325,717        | \$ 312,859        | \$ 289,173        | \$ 274,504        | \$ 253,943        | \$ 238,480       | \$ 225,462       | \$ 214,056       | \$ 205,222       |
| Other operating income                         | 8,497             | 3,701             | 6,198             | 5,195             | 4,645             | 5,691             | 4,810            | 4,407            | 2,576            | 4,823            |
| Assessments                                    | 583               | 799               | 909               | 1,258             | 1,232             | 1,375             | 9,457            | 1,901            | 2,129            | 2,392            |
| Investment income                              | 8,877             | 12,175            | 15,600            | 18,692            | 16,531            | 14,273            | 17,278           | 17,623           | 20,330           | 20,119           |
| Less: capitalized investment income            | -                 | -                 | -                 | -                 | -                 | -                 | -                | -                | -                | (3,817)          |
| <b>Total revenues</b>                          | <b>374,827</b>    | <b>342,392</b>    | <b>335,566</b>    | <b>314,318</b>    | <b>296,912</b>    | <b>275,282</b>    | <b>270,025</b>   | <b>249,393</b>   | <b>239,091</b>   | <b>228,739</b>   |
| <b>Operating expenses:</b>                     |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |
| Service and administrative costs <sup>1</sup>  | 161,144           | 151,527           | 149,945           | 142,082           | 131,948           | 119,586           | 117,671          | 106,301          | 108,814          | 108,041          |
| Less: capitalized overhead                     | (42,166)          | (41,785)          | (39,643)          | (38,383)          | (38,148)          | (31,949)          | (30,516)         | (30,056)         | (33,568)         | (33,110)         |
| Capitalization Rate                            | 26%               | 28%               | 26%               | 27%               | 29%               | 27%               | 26%              | 28%              | 31%              | 31%              |
| <b>Total operating expenses</b>                | <b>118,978</b>    | <b>109,742</b>    | <b>110,302</b>    | <b>103,699</b>    | <b>93,800</b>     | <b>87,637</b>     | <b>87,155</b>    | <b>76,245</b>    | <b>75,246</b>    | <b>74,931</b>    |
| <b>Net revenues</b>                            | <b>255,849</b>    | <b>232,650</b>    | <b>225,264</b>    | <b>210,619</b>    | <b>203,112</b>    | <b>187,645</b>    | <b>182,870</b>   | <b>173,148</b>   | <b>163,845</b>   | <b>153,808</b>   |
| <b>Aggregate debt service:</b>                 |                   |                   |                   |                   |                   |                   |                  |                  |                  |                  |
| Current maturities of long-term debt           | 51,597            | 43,802            | 40,637            | 40,358            | 33,906            | 33,655            | 31,825           | 29,415           | 28,525           | 27,035           |
| Interest expense - senior lien                 | 86,792            | 93,067            | 92,274            | 94,831            | 95,041            | 90,117            | 86,818           | 83,404           | 80,613           | 92,616           |
| Less: capitalized interest expense             | (7,464)           | (12,050)          | (13,043)          | (18,582)          | (21,859)          | (20,074)          | (21,051)         | (20,511)         | (19,103)         | (26,358)         |
| <b>Aggregate net debt service</b>              | <b>\$ 130,925</b> | <b>\$ 124,819</b> | <b>\$ 119,868</b> | <b>\$ 116,607</b> | <b>\$ 107,088</b> | <b>\$ 103,698</b> | <b>\$ 97,592</b> | <b>\$ 92,308</b> | <b>\$ 90,035</b> | <b>\$ 93,293</b> |
| <b>Debt service coverage ratio<sup>2</sup></b> | <b>195%</b>       | <b>186%</b>       | <b>188%</b>       | <b>181%</b>       | <b>190%</b>       | <b>181%</b>       | <b>187%</b>      | <b>188%</b>      | <b>182%</b>      | <b>165%</b>      |

<sup>1</sup>Excludes the actuarial portion of changes to GASB 68 pension expense and GASB 75 OPEB for the year

<sup>2</sup>Excludes the actuarial portion of changes to GASB 68 pension expense and GASB 75 OPEB for the year

This table has been prepared using the definitions of revenue, expense and debt service contained in MSD's 1993 Sewer & Drainage System Revenue Bond Resolution.

The 1993 Resolution and its supplements require MSD to provide "Available Revenues", as defined in the Resolution, sufficient to pay 110% of each fiscal year's "Aggregate Net Debt Service" on Revenue Bonds and 100% of "Operating Expenses". "Available Revenues", as used only for purposes of the Resolution, means all revenues and other amounts received by MSD and pledged as security for payment of Bonds issued pursuant to the Resolution, but excludes any interest income which is capitalized in accordance with generally accepted accounting principles. "Operating Expenses" includes all reasonable, ordinary, usual or necessary current expenses of maintenance, repair and operation determined in accordance with generally accepted accounting principles and the enterprise basis of accounting. "Operating Expenses" does not include reserves for extraordinary maintenance and repair, nor does it include administrative and engineering expenses of MSD which are necessary or incidental to capital improvements for which debt has been issued and which may be paid from the proceeds of such debt. "Aggregate Net Debt Service" is aggregate current principal and interest requirements on all Bonds issued pursuant to the Resolution, excluding (i) interest expense, which in accordance with generally accepted accounting principles, is capitalized and which may be paid from the proceeds of debt, and (ii) other amounts, if any, available, or expected to become available in the ordinary course for payment of principal and interest, and not included in "Available Revenues".

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**  
**COMPARATIVE SCHEDULE OF OUTSTANDING DEBT**  
**YEARS ENDED JUNE 30**  
**DOLLARS IN THOUSANDS (except per capita)**

|   | 2022                | 2021                | 2020                | 2019                | 2018                | 2017                | 2016                | 2015                | 2014                | 2013                |
|---|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| <b>Senior debt:</b>                               |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |
| Series 2005A                                      | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                | \$ -                | \$ 18,820           | \$ 20,770           |
| Series 2006A                                      | -                   | -                   | -                   | -                   | -                   | -                   | -                   | 87,290              | 89,325              | 91,280              |
| Series 2007A                                      | -                   | -                   | -                   | -                   | -                   | 42,965              | 44,425              | 45,815              | 48,080              | 50,240              |
| Series 2008A                                      | -                   | -                   | -                   | -                   | -                   | 65,520              | 97,860              | 99,850              | 100,860             | 101,810             |
| Series 2009A                                      | -                   | -                   | -                   | -                   | 6,640               | 13,040              | 41,485              | 47,280              | 52,720              | 57,945              |
| Series 2009B                                      | -                   | -                   | -                   | 35,155              | 52,975              | 69,725              | 136,115             | 150,900             | 164,785             | 177,785             |
| Series 2009C                                      | 180,000             | 180,000             | 180,000             | 180,000             | 180,000             | 180,000             | 180,000             | 180,000             | 180,000             | 180,000             |
| Series 2010A                                      | 330,000             | 330,000             | 330,000             | 330,000             | 330,000             | 330,000             | 330,000             | 330,000             | 330,000             | 330,000             |
| Series 2011A                                      | -                   | 243,910             | 246,225             | 248,440             | 250,565             | 252,610             | 254,590             | 256,490             | 258,330             | 260,125             |
| Series 2013A                                      | 115,790             | 117,480             | 115,790             | 115,790             | 115,790             | 115,790             | 115,790             | 115,790             | 115,790             | 115,790             |
| Series 2013B                                      | 109,280             | 109,280             | 112,575             | 114,100             | 115,550             | 116,940             | 118,255             | 119,515             | 119,515             | 119,515             |
| Series 2013C                                      | 125                 | 250                 | 99,250              | 99,375              | 99,500              | 99,625              | 99,750              | 99,875              | 100,000             | -                   |
| Series 2014A                                      | 79,650              | 79,700              | 79,750              | 79,800              | 79,850              | 79,900              | 79,950              | 80,000              | -                   | -                   |
| Series 2015A                                      | 171,395             | 172,175             | 173,160             | 173,360             | 173,735             | 174,280             | 175,000             | -                   | -                   | -                   |
| Series 2015B                                      | 65,975              | 68,815              | 71,515              | 74,160              | 76,685              | 79,085              | 81,350              | -                   | -                   | -                   |
| Series 2016A                                      | 147,500             | 148,415             | 149,290             | 149,530             | 149,760             | 150,000             | -                   | -                   | -                   | -                   |
| Series 2016B                                      | 19,910              | 21,960              | 23,915              | 25,825              | 28,095              | 28,095              | -                   | -                   | -                   | -                   |
| Series 2016C                                      | 12,995              | 32,305              | 50,515              | 67,685              | 73,415              | 67,685              | -                   | -                   | -                   | -                   |
| Series 2017A                                      | 149,390             | 155,790             | 161,895             | 169,270             | 169,270             | -                   | -                   | -                   | -                   | -                   |
| Series 2017B                                      | 31,210              | 32,055              | 32,885              | 33,670              | 34,520              | -                   | -                   | -                   | -                   | -                   |
| Series 2018A                                      | 60,380              | 60,380              | 60,380              | 60,380              | 60,380              | -                   | -                   | -                   | -                   | -                   |
| Series 2019A                                      | 8,845               | 17,065              | 24,770              | -                   | -                   | -                   | -                   | -                   | -                   | -                   |
| Series 2020A                                      | 224,000             | 224,750             | -                   | -                   | -                   | -                   | -                   | -                   | -                   | -                   |
| Series 2020C                                      | 109,605             | 110,790             | -                   | -                   | -                   | -                   | -                   | -                   | -                   | -                   |
| Series 2021A                                      | 240,485             | -                   | -                   | -                   | -                   | -                   | -                   | -                   | -                   | -                   |
| Series 2022A                                      | 224,750             | -                   | -                   | -                   | -                   | -                   | -                   | -                   | -                   | -                   |
| <b>Total senior debt</b>                          | <b>2,281,285</b>    | <b>2,105,120</b>    | <b>1,911,915</b>    | <b>1,956,540</b>    | <b>1,996,730</b>    | <b>1,865,260</b>    | <b>1,754,570</b>    | <b>1,612,805</b>    | <b>1,578,225</b>    | <b>1,505,260</b>    |
| <b>Subordinate debt:</b>                          |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |
| Bond anticipation note                            | 226,340             | 226,340             | 226,340             | 226,340             | 226,340             | 226,340             | 226,340             | 226,340             | 226,340             | 226,340             |
| Commercial paper                                  | 50,000              | 150,000             | 255,000             | 120,000             | -                   | -                   | -                   | -                   | -                   | -                   |
| Notes payable                                     | -                   | -                   | 100                 | 100                 | -                   | -                   | -                   | -                   | -                   | -                   |
| Series 2009 general obligation bonds              | 400                 | 785                 | 1,155               | -                   | -                   | -                   | -                   | -                   | -                   | -                   |
| Series 2014 general obligation bonds              | 7,010               | 7,445               | 7,865               | -                   | -                   | -                   | -                   | -                   | -                   | -                   |
| Series 2017 general obligation bonds              | 3,364               | 3,399               | 3,433               | -                   | -                   | -                   | -                   | -                   | -                   | -                   |
| Financing lease                                   | 1,870               | 2,030               | 2,180               | -                   | -                   | -                   | -                   | -                   | -                   | -                   |
| Loan A09-41                                       | 1,433               | 1,548               | 1,659               | 1,767               | 1,871               | 1,973               | 2,072               | 2,168               | 2,261               | 2,351               |
| Loan A10-04                                       | 1,702               | 1,840               | 1,974               | -                   | -                   | -                   | -                   | -                   | -                   | -                   |
| Loan A10-05                                       | 622                 | 670                 | 715                 | -                   | -                   | -                   | -                   | -                   | -                   | -                   |
| Loan A10-06                                       | 70                  | 76                  | 81                  | -                   | -                   | -                   | -                   | -                   | -                   | -                   |
| Loan A10-07                                       | 1,581               | 1,703               | 1,821               | -                   | -                   | -                   | -                   | -                   | -                   | -                   |
| Loan A11-15                                       | 402                 | 434                 | 466                 | -                   | -                   | -                   | -                   | -                   | -                   | -                   |
| Loan A12-29                                       | 4,932               | 5,228               | 5,520               | -                   | -                   | -                   | -                   | -                   | -                   | -                   |
| Loan A17-028                                      | 2,084               | 2,084               | 2,013               | -                   | -                   | -                   | -                   | -                   | -                   | -                   |
| Loan A18-010                                      | 1,045               | 1,092               | 1,116               | -                   | -                   | -                   | -                   | -                   | -                   | -                   |
| Loan A98-04                                       | -                   | -                   | 454                 | 891                 | -                   | -                   | -                   | -                   | -                   | -                   |
| Loan A19-015                                      | 2,640               | -                   | -                   | -                   | -                   | -                   | -                   | -                   | -                   | -                   |
| Loan A19-028                                      | 22,918              | 17,788              | -                   | -                   | -                   | -                   | -                   | -                   | -                   | -                   |
| Loan B10-01                                       | 236                 | -                   | -                   | -                   | -                   | -                   | -                   | -                   | -                   | -                   |
| Loan B10-04                                       | 262                 | -                   | -                   | -                   | -                   | -                   | -                   | -                   | -                   | -                   |
| Loan B15-006                                      | 70                  | -                   | -                   | -                   | -                   | -                   | -                   | -                   | -                   | -                   |
| <b>Total subordinate debt</b>                     | <b>328,982</b>      | <b>422,461</b>      | <b>511,891</b>      | <b>349,098</b>      | <b>228,211</b>      | <b>228,313</b>      | <b>228,412</b>      | <b>228,508</b>      | <b>228,601</b>      | <b>228,691</b>      |
| <b>Total senior and subordinate debt</b>          | <b>2,610,267</b>    | <b>2,527,581</b>    | <b>2,423,806</b>    | <b>2,305,638</b>    | <b>2,224,941</b>    | <b>2,093,573</b>    | <b>1,982,982</b>    | <b>1,841,313</b>    | <b>1,806,826</b>    | <b>1,733,951</b>    |
| Unamortized bond premiums                         | (1,052)             | (1,101)             | (868)               | (916)               | (963)               | (1,011)             | (1,431)             | (1,495)             | (1,560)             | (7,562)             |
| Unamortized bond discounts                        | 89,102              | 75,918              | 75,326              | 81,337              | 91,591              | 75,339              | 68,893              | 62,292              | 61,823              | 64,326              |
| <b>Total debt</b>                                 | <b>\$ 2,698,317</b> | <b>\$ 2,602,398</b> | <b>\$ 2,498,265</b> | <b>\$ 2,386,059</b> | <b>\$ 2,315,569</b> | <b>\$ 2,167,901</b> | <b>\$ 2,050,444</b> | <b>\$ 1,902,110</b> | <b>\$ 1,867,088</b> | <b>\$ 1,790,715</b> |
| Debt per capita <sup>1</sup>                      | NA                  | \$ 3,346            | \$ 3,194            | \$ 3,112            | \$ 3,005            | \$ 2,833            | \$ 2,682            | \$ 2,491            | \$ 2,457            | \$ 2,366            |
| Debt - percentage of personal income <sup>1</sup> | NA                  | NA                  | 1.78%               | 1.76%               | 1.73%               | 1.74%               | 1.78%               | 1.82%               | 1.85%               | 1.86%               |

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
COMPARATIVE SCHEDULES OF PLANT, LINES AND OTHER FACILITIES  
YEARS ENDED JUNE 30  
DOLLARS IN THOUSANDS**

|  | 2022                | 2021                | 2020                | 2019                | 2018                | 2017                | 2016                | 2015                | 2014                | 2013                |
|--|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| <b>Completed projects</b>                          |                     |                     |                     |                     |                     |                     |                     |                     |                     |                     |
| Sewer lines  | \$ 2,070,342        | \$ 1,761,425        | \$ 1,746,705        | \$ 1,648,891        | \$ 1,497,090        | \$ 1,440,360        | \$ 1,379,153        | \$ 1,277,745        | \$ 1,274,180        | \$ 1,265,437        |
| Wastewater treatment facilities                    | 696,900             | 641,414             | 627,903             | 669,041             | 648,503             | 637,166             | 629,083             | 489,292             | 489,289             | 479,998             |
| Drainage facilities                                | 1,011,678           | 997,461             | 880,863             | 839,159             | 561,341             | 542,271             | 515,898             | 448,853             | 448,899             | 443,577             |
| Pumping and lift stations                          | 286,975             | 260,231             | 256,228             | 240,963             | 183,795             | 166,158             | 139,651             | 96,812              | 96,819              | 89,503              |
| Administrative facilities                          | 52,471              | 52,348              | 52,297              | 51,734              | 50,818              | 50,817              | 49,342              | 49,342              | 49,342              | 49,317              |
| Maintenance facilities                             | 14,576              | 14,301              | 12,459              | 12,074              | 8,504               | 8,504               | 8,504               | 8,037               | 8,037               | 8,037               |
| Machinery, equipment and other                     | 136,797             | 121,868             | 121,265             | 118,879             | 97,407              | 98,138              | 90,702              | 85,395              | 85,395              | 83,882              |
| <b>Total completed projects</b>                    | <b>4,269,739</b>    | <b>3,849,048</b>    | <b>3,697,720</b>    | <b>3,580,741</b>    | <b>3,047,458</b>    | <b>2,943,414</b>    | <b>2,812,333</b>    | <b>2,455,476</b>    | <b>2,451,961</b>    | <b>2,419,751</b>    |
| <b>Less accumulated depreciation</b>               | <b>(1,396,934)</b>  | <b>(1,305,547)</b>  | <b>(1,221,668)</b>  | <b>(1,208,329)</b>  | <b>(1,109,966)</b>  | <b>(1,046,707)</b>  | <b>(979,405)</b>    | <b>(925,901)</b>    | <b>(871,412)</b>    | <b>(816,291)</b>    |
| <b>Total completed projects - net</b>              | <b>2,872,805</b>    | <b>2,543,501</b>    | <b>2,476,052</b>    | <b>2,372,412</b>    | <b>1,937,492</b>    | <b>1,896,707</b>    | <b>1,832,928</b>    | <b>1,529,575</b>    | <b>1,580,549</b>    | <b>1,603,460</b>    |
| <b>Total construction in progress</b>              | <b>420,200</b>      | <b>625,113</b>      | <b>538,013</b>      | <b>460,501</b>      | <b>711,655</b>      | <b>581,222</b>      | <b>487,674</b>      | <b>623,181</b>      | <b>463,167</b>      | <b>371,816</b>      |
| <b>Total net plant, lines and other facilities</b> | <b>\$ 3,293,005</b> | <b>\$ 3,168,614</b> | <b>\$ 3,014,065</b> | <b>\$ 2,832,913</b> | <b>\$ 2,649,147</b> | <b>\$ 2,477,929</b> | <b>\$ 2,320,602</b> | <b>\$ 2,152,756</b> | <b>\$ 2,043,716</b> | <b>\$ 1,975,276</b> |

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
COMPARATIVE SUMMARIES OF SERVICE AND ADMINISTRATIVE COSTS  
YEARS ENDED JUNE 30  
DOLLARS IN THOUSANDS**

|   | 2022              | 2021              | 2020              | 2019              | 2018             | 2017             | 2016             | 2015             | 2014             | 2013             |
|---|-------------------|-------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| <b>Service and administrative costs:</b>    |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |
| Labor <sup>1</sup>                          | \$ 81,552         | \$ 77,789         | \$ 73,476         | \$ 71,379         | \$ 64,718        | \$ 59,183        | \$ 55,229        | \$ 54,378        | \$ 55,356        | \$ 55,028        |
| Utilities                                   | 16,595            | 16,265            | 17,923            | 19,520            | 16,640           | 14,427           | 18,256           | 13,817           | 14,563           | 12,821           |
| Materials & supplies                        | 8,012             | 6,840             | 7,591             | 8,639             | 8,647            | 7,976            | 4,183            | 9,706            | 8,151            | 8,990            |
| Contractual services                        | 31,288            | 34,084            | 37,326            | 28,604            | 27,864           | 25,021           | 27,448           | 20,478           | 19,036           | 20,540           |
| Chemicals                                   | 6,905             | 5,017             | 4,649             | 4,761             | 4,429            | 5,298            | 4,372            | 3,681            | 3,306            | 4,082            |
| Fuel  | 1,658             | 1,083             | 1,069             | 1,393             | 1,276            | 1,077            | 1,326            | 1,616            | 1,837            | 1,825            |
| Insurance premiums & claims                 | 7,216             | 3,624             | 2,249             | 2,057             | 2,423            | 1,669            | 1,316            | 1,505            | 1,948            | 1,968            |
| Bad debt                                    | 6,422             | 5,501             | 4,009             | 3,748             | 3,938            | 3,495            | 2,603            | 2,068            | 1,781            | 2,050            |
| Other operating expense                     | 1,496             | 1,323             | 1,654             | 1,981             | 2,012            | 1,440            | 2,939            | 1,052            | 943              | 737              |
| <b>Service and administrative costs</b>     | <b>161,144</b>    | <b>151,526</b>    | <b>149,945</b>    | <b>142,082</b>    | <b>131,947</b>   | <b>119,586</b>   | <b>117,671</b>   | <b>108,301</b>   | <b>106,921</b>   | <b>108,536</b>   |
| <b>Less: capitalized overhead</b>           |                   |                   |                   |                   |                  |                  |                  |                  |                  |                  |
| Capitalized project cost                    | (42,166)          | (41,785)          | (39,643)          | (38,383)          | (38,147)         | (31,949)         | (30,516)         | (30,056)         | (33,568)         | (33,110)         |
| <b>Net service and administrative costs</b> | <b>\$ 118,978</b> | <b>\$ 109,741</b> | <b>\$ 110,302</b> | <b>\$ 103,699</b> | <b>\$ 93,800</b> | <b>\$ 87,637</b> | <b>\$ 87,155</b> | <b>\$ 78,245</b> | <b>\$ 73,353</b> | <b>\$ 75,426</b> |

<sup>1</sup>Excludes the actuarial portion of changes to GASB 68 pension expense and GASB 75 OPEB for the year

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
BUDGETARY COMPARISON SCHEDULE  
FOR FISCAL YEAR 2022  
DOLLARS IN THOUSANDS**

| <b>Expenditures</b>         | <u>Approved Budget</u> | <u>Actual Expenditures</u> | <u>Variance</u> |
|-----------------------------|------------------------|----------------------------|-----------------|
| Salaries & wages            | 56,398                 | 55,014                     | 1,384           |
| Labor related overhead      | 27,012                 | 26,538                     | 474             |
| Utilities                   | 18,277                 | 16,595                     | 1,682           |
| Materials & supplies        | 7,314                  | 8,012                      | (698)           |
| Contractual services        | 35,733                 | 31,288                     | 4,445           |
| Chemicals                   | 6,708                  | 6,905                      | (197)           |
| Fuel                        | 1,356                  | 1,658                      | (302)           |
| Insurance premiums & claims | 3,803                  | 7,216                      | (3,413)         |
| Bad debt                    | 3,516                  | 6,422                      | (2,906)         |
| Other operating expense     | 2,086                  | 1,496                      | 590             |
| Interest expense            | 114,261                | 95,763                     | 18,498          |
|                             | <u>276,464</u>         | <u>256,907</u>             | <u>19,557</u>   |

Reconciliation between total budgetary basis expenditures and total expenses reported in statements of revenues, expenses and changes in net position:

|   |                |
|---|----------------|
| Actual budget expenditures  | 256,907        |
| Capitalized overhead  | (42,166)       |
| Depreciation and amortization expense   | 103,964        |
| GASB 68 pension expense   | 7,071          |
| GASB 75 OPEB expense  | 1,654          |
| Capitalized interest  | (7,464)        |
| Change in fair value - derivative instruments   | (11,293)       |
| Total expenses reported in statements of revenues, expenses and changes in net position | <u>308,673</u> |

Expenses reported in statements of revenues, expenses and changes in net position:4

|   |                |
|---|----------------|
| Total operating expenses  | 231,667        |
| Interest expense - bonds  | 86,792         |
| Interest expense - swaps  | 9,502          |
| Interest expense - other  | 12,873         |
| Amortization of debt discount / premium   | (17,172)       |
| Amortization of loss on refunding   | 3,768          |
| Capitalized interest  | (7,464)        |
| Change in fair value - derivative instruments   | (11,293)       |
| Total expenses reported in statements of revenues, expenses and changes in net position | <u>308,673</u> |

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**  
**MISCELLANEOUS OPERATING INDICATORS**  
**YEARS ENDED JUNE 30**

|   | 2022  | 2021  | 2020  | 2019  | 2018  | 2017  | 2016  | 2015  | 2014  | 2013  | 2012  |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>Miscellaneous Operating Indicators</b> |       |       |       |       |       |       |       |       |       |       |       |
| <b>Jefferson County</b>                   |       |       |       |       |       |       |       |       |       |       |       |
| Miles of sewers                           | 3,390 | 3,372 | 3,488 | 3,348 | 3,463 | 3,322 | 3,293 | 3,240 | 3,263 | 3,240 | 3,332 |
| Miles of stormwater mains*                | 1,175 | 1,160 | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| Number of treatment plants                | 5     | 5     | 5     | 5     | 5     | 5     | 5     | 16    | 19    | 19    | 20    |
| Daily average treatment (MGD)             | 153   | 157   | 164   | 173   | 150   | 112   | 139   | 143   | 141   | 131   | 145   |
| Daily treatment capacity (MGD)            | 200   | 200   | 200   | 200   | 200   | 170   | 170   | 177   | 177   | 177   | 173   |
| <b>Oldham County</b>                      |       |       |       |       |       |       |       |       |       |       |       |
| Miles of sewers                           | 145   | 135   | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| Number of treatment plants                | 8     | 8     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| Daily average treatment (MGD)             | 2     | 2     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| Daily treatment capacity (MGD)            | 4     | 4     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| <b>Bullitt County</b>                     |       |       |       |       |       |       |       |       |       |       |       |
| Miles of sewers                           | 54    | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| Number of treatment plants                | 7     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| Daily average treatment (MGD)             | 1     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |
| Daily treatment capacity (MGD)            | 2     | -     | -     | -     | -     | -     | -     | -     | -     | -     | -     |

MGD - millions of gallons per day

\*Historical data not available



**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
WASTEWATER TREATMENT PLANT CAPACITY  
2022**

| Location <sup>1</sup>                            | Design       | Avg Daily    | Eventual     | Active Customers <sup>2</sup> |               |            | Total          | Year Built | Treatment Process        |
|--|--------------|--------------|--------------|-------------------------------|---------------|------------|----------------|------------|--------------------------|
|  | Capacity     | Flow         | Capacity     | Residential                   | Commercial    | Industrial |                |            |                          |
| Jefferson County Water Quality Treatment Centers |              |              |              |                               |               |            |                |            |                          |
| Morris Forman                                    | 120.0        | 100.3        | 120.0        | 119,846                       | 13,826        | 306        | 133,978        | 1958       | Secondary added in 1976. |
| Derek R. Guthrie                                 | 60.0         | 37.6         | 60.0         | 64,330                        | 3,786         | 38         | 68,154         | 1986       | Secondary                |
| Cedar Creek                                      | 7.5          | 6.9          | 11.3         | 19,075                        | 1,105         | 12         | 20,192         | 1995       | Tertiary: sand filter    |
| Floyd's Fork                                     | 6.5          | 3.8          | 9.8          | 10,476                        | 572           | 5          | 11,053         | 2001       | Tertiary: sand filter    |
| Hite Creek                                       | 6.0          | 4.3          | 9.0          | 11,215                        | 673           | 9          | 11,897         | 1970       | Tertiary: sand filter    |
| Oldham County plants (combined)                  | 4.3          | 2.1          | 4.3          | 6,379                         | 216           | 1          | 6,596          | Varies     |                          |
| Bullitt County plants (combined)                 | 1.7          | 1.2          | 1.7          | 3,896                         | 115           | 1          | 4,012          | Varies     |                          |
| <b>Total wastewater treatment system</b>         | <b>206.0</b> | <b>156.2</b> | <b>216.0</b> | <b>235,217</b>                | <b>20,293</b> | <b>372</b> | <b>245,274</b> |            |                          |

<sup>1</sup>Only MSD-owned treatment plants are included.

<sup>2</sup>Active customer counts include Louisville Metro customers. Metro wastewater services are provided free of charge.

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
GREATER LOUISVILLE, KENTUCKY / INDIANA  
EMPLOYERS OF 1,000 EMPLOYEES OR MORE**

| Employers  | 2022 Rank | 2022 Employees | 2021 Rank | 2021 Employees | 2020 Rank | 2020 Employees | 2019 Rank | 2019 Employees | 2018 Rank | 2018 Employees | 2017 Rank | 2017 Employees | 2016 Rank | 2016 Employees | 2015 Rank | 2015 Employees | 2014 Rank | 2014 Employees | 2013 Rank | 2013 Employees | Type of business                                      |
|--|-----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|---|
| United Parcel Service, Inc.                        | 1         | 25,169         | 1         | 24,110         | 1         | 25,090         | 1         | 23,533         | 1         | 21,233         | 1         | 22,354         | 1         | 22,080         | 1         | 22,189         | 1         | 20,531         | 1         | 20,047         | P Air cargo transport and distribution                |
| Norton Healthcare (formerly Alliant Health)        | 2         | 14,413         | 3         | 14,403         | 3         | 13,828         | 4         | 12,579         | 4         | 12,247         | 5         | 11,944         | 5         | 11,389         | 4         | 10,739         | 4         | 10,245         | 4         | 9,686          | N Hospital and health care facilities                 |
| Jefferson County, KY Public Schools                | 3         | 13,596         | 2         | 14,484         | 2         | 14,484         | 2         | 14,250         | 2         | 14,476         | 2         | 14,553         | 2         | 14,739         | 2         | 14,719         | 2         | 14,676         | 2         | 14,269         | G Primary and secondary education                     |
| UofL Health Inc.                                   | 4         | 13,111         | 5         | 12,568         | 6         | 12,000         | -         | -              | -         | -              | -         | -              | -         | -              | -         | -              | -         | -              | -         | -              | N Hospital and health care facilities                 |
| Ford Motor Company                                 | 5         | 13,020         | 4         | 13,020         | 4         | 13,020         | 3         | 13,042         | 3         | 12,600         | 3         | 12,600         | 3         | 12,990         | 5         | 9,028          | 5         | 8,987          | 6         | 8,512          | P Vehicle manufacturing                               |
| Humana, Inc.                                       | 6         | 11,243         | 6         | 12,526         | 5         | 12,360         | 5         | 12,000         | 5         | 12,000         | 4         | 12,500         | 4         | 12,500         | 3         | 12,900         | 3         | 12,371         | 3         | 11,235         | P Group health insurance/HMOs                         |
| Baptist Healthcare System                          | 7         | 9,030          | 7         | 9,666          | 8         | 7,346          | 7         | 8,143          | 9         | 6,159          | 7         | 6,786          | 10        | 4,995          | 9         | 5,116          | 11        | 5,339          | 11        | 4,854          | N Hospital and health care facilities                 |
| Walmart Inc.                                       | 8         | 8,600          | 8         | 7,500          | 9         | 6,650          | 8         | 6,650          | 8         | 0              | 0         | 0              | 0         | 0              | 0         | 0              | 0         | 0              | 0         | 0              | - P Grocery Retailer                                  |
| GE Appliances, a Haier company                     | 9         | 8,100          | 10        | 7,100          | 11        | 6,000          | 10        | 6,000          | 10        | 6,000          | 10        | 6,000          | 9         | 6,000          | 7         | 6,000          | 6         | 6,230          | 8         | 6,000          | P Appliance manufacturing                             |
| University of Louisville                           | 10        | 6,585          | 11        | 6,574          | 10        | 6,619          | 9         | 6,394          | 6         | 6,933          | 6         | 7,065          | 7         | 6,375          | 6         | 6,264          | 7         | 6,161          | 7         | 6,187          | G Higher education                                    |
| Louisville-Jefferson County Metro Government       | 11        | 5,702          | 13        | 5,628          | 13        | 5,645          | 12        | 5,987          | 8         | 6,226          | 9         | 6,192          | 8         | 6,095          | 8         | 5,584          | 8         | 5,654          | 9         | 5,651          | G City/County Government                              |
| Amazon.com   | 12        | 5,700          | 12        | 5,700          | 12        | 5,700          | 13        | 5,700          | 7         | 6,500          | 8         | 6,500          | 6         | 6,500          | 7         | 6,000          | -         | -              | -         | -              | - P Logistics & Customer Service                      |
| The Kroger Company                                 | 13        | 5,000          | 9         | 7,421          | 7         | 9,235          | 6         | 9,235          | 12        | 3,079          | 12        | 3,079          | 11        | 4,626          | 10        | 4,892          | 10        | 5,417          | 10        | 5,152          | P Grocery Retailer                                    |
| Manna Inc  | 14        | 2,300          | 14        | 2,325          | 15        | 2,300          | 16        | 2,300          | 14        | 2,300          | 14        | 2,600          | 12        | 3,120          | 13        | 2,400          | 16        | 2,250          | -         | -              | - P Food service provider                             |
| Roman Catholic Archdiocese of Louisville           | 15        | 2,193          | 17        | 2,202          | 17        | 2,202          | 18        | 2,202          | 15        | 2,252          | 13        | 2,660          | 17        | 2,263          | 17        | 2,237          | 14        | 2,260          | 14        | 2,345          | N Religious, educational, social services             |
| LG&E and KU Energy (formerly EON)                  | 16        | 2,084          | 15        | 2,209          | 16        | 2,240          | 17        | 2,208          | 16        | 2,162          | 17        | 2,201          | 18        | 2,211          | 18        | 1,993          | 18        | 2,178          | 16        | 2,131          | P Gas & Electric Utility                              |
| Robley Rex VA Medical Center                       | 17        | 2,084          | 18        | 2,002          | 19        | 1,922          | 19        | 1,876          | 18        | 1,816          | 21        | 1,800          | 21        | 1,900          | 19        | 1,800          | 20        | 1,703          | 18        | 1,799          | N Hospital and health care facilities                 |
| Bullitt County Public Schools                      | 18        | 1,716          | 20        | 1,737          | 20        | 1,753          | 23        | 1,649          | 19        | 1,736          | 22        | 1,718          | 22        | 1,739          | 21        | 1,671          | 22        | 1,633          | 21        | 1,629          | G Primary and secondary education                     |
| Oldham County Public Schools                       | 19        | 1,704          | 19        | 1,777          | 21        | 1,710          | 15        | 2,325          | 24        | 1,567          | 23        | 1,638          | 24        | 1,604          | 15        | 2,300          | 23        | 1,576          | 22        | 1,602          | G Primary and secondary education                     |
| Samtec Inc.  | 20        | 1,575          | 21        | 1,575          | 23        | 1,601          | 21        | 1,700          | 26        | 1,500          | 35        | 1,200          | 29        | 1,300          | -         | -              | -         | -              | -         | -              | - P Electronic connectors & microelectronics products |
| Rawlings Group                                     | 21        | 1,505          | 22        | 1,495          | 24        | 1,531          | 24        | 1,520          | 29        | 1,440          | 28        | 1,332          | 30        | 1,211          | -         | -              | -         | -              | -         | -              | - P Insurance subrogation                             |
| New Albany - Floyd County Schools                  | 22        | 1,475          | 23        | 1,475          | 26        | 1,414          | 26        | 1,500          | 21        | 1,652          | 26        | 1,405          | 25        | 1,600          | 22        | 1,622          | 21        | 1,648          | 20        | 1,640          | G Primary and secondary education                     |
| Anthem, Inc.                                       | 23        | 1,400          | 0         | -              | 31        | 1,245          | 30        | 1,320          | 32        | 1,269          | 34        | 1,238          | 29        | 1,300          | 26        | 1,350          | 32        | 1,139          | 37        | 1,100          | P Health Insurance sales and services                 |
| Churchill Downs Inc.                               | 24        | 1,317          | 0         | -              | 38        | 1,000          | 25        | 1,508          | 25        | 1,515          | 25        | 1,526          | 0         | -              | 0         | -              | 0         | -              | 0         | -              | - P Racing, gaming and online entertainment           |
| Trilogy Health Services                            | 25        | 1,271          | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 0         | -              | - P Senior Living Services                            |
| Material Handling Systems                          | 26        | 1,205          | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 0         | -              | - P Conveyor and Automated Sortation Systems          |
| JBS USA  | 27        | 1,200          | 26        | 1,165          | 32        | 1,200          | 35        | 1,200          | 34        | 1,200          | 37        | 1,189          | 34        | 1,180          | -         | -              | -         | -              | -         | -              | - P Pork Products                                     |
| Spectrum (formerly Charter Communications)         | 27        | 1,200          | 25        | 1,200          | 14        | 2,330          | 14        | 2,330          | 13        | 2,400          | 15        | 2,400          | 33        | 1,200          | 35        | 1,131          | 34        | 1,200          | -         | -              | - P Call Center                                       |
| Brown-Forman Corp.                                 | 29        | 1,166          | 27        | 1,149          | 28        | 1,300          | 31        | 1,300          | 30        | 1,300          | 31        | 1,304          | 29        | 1,300          | 31        | 1,266          | 31        | 1,256          | 32        | 1,244          | P Distilled spirits manufacturing                     |
| Seven Counties Services                            | 30        | 1,153          | 31        | 1,072          | 0         | -              | 32        | 1,266          | 31        | 1,284          | 27        | 1,340          | 36        | 1,165          | 34        | 1,168          | 33        | 1,129          | 36        | 1,111          | N Health care provider                                |
| Yum! Brands Inc. (formerly Tricon)                 | 31        | 1,129          | 29        | 1,096          | 0         | -              | 0         | -              | 0         | -              | 30        | 1,314          | 28        | 1,343          | 32        | 1,226          | 30        | 1,270          | 23        | 1,544          | P Food service provider                               |
| Faurecia   | 32        | 1,108          | 0         | -              | 32        | 1,200          | 35        | 1,200          | 34        | 1,200          | 40        | 1,000          | -         | -              | -         | -              | -         | -              | -         | -              | - P Exhaust systems, interiors & seat systems         |
| US Census Bureau                                   | 33        | 1,107          | 16        | 2,147          | 18        | 2,113          | 29        | 1,330          | 33        | 1,209          | 38        | 1,185          | 38        | 1,037          | -         | -              | -         | -              | -         | -              | - N Government  |
| Greater Clark County, IN School Corp.              | 34        | 1,057          | 28        | 1,143          | 30        | 1,253          | 33        | 1,251          | 28        | 1,447          | 32        | 1,295          | 32        | 1,247          | 24        | 1,447          | 24        | 1,303          | 30        | 1,357          | G Primary and secondary education                     |
| Signature Healthcare                               | 35        | 1,013          | 0         | -              | 0         | -              | 40        | 1,093          | 0         | -              | 24        | 1,558          | 0         | -              | 0         | -              | 0         | -              | 0         | -              | - N Post-acute and long-term care provider            |
| ADP Inc.   | 36        | 1,000          | 34        | 1,000          | 38        | 1,000          | 42        | 1,000          | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 0         | -              | - P Grocery Retailer                                  |
| Shelby County Public Schools                       | 36        | 1,000          | 34        | 1,000          | 0         | -              | 0         | -              | 0         | -              | 40        | 1,000          | 0         | -              | 0         | -              | 0         | -              | 0         | -              | - G Primary and secondary education                   |
| Kindred Healthcare (formerly Vencor Inc.)          | 0         | -              | 30        | 1,082          | 35        | 1,185          | 34        | 1,246          | 23        | 1,571          | 16        | 2,216          | 16        | 2,381          | 16        | 2,244          | 17        | 2,249          | 17        | 2,130          | P Long-term health care, facilities                   |
| BrightSpring Health Services                       | 0         | -              | 32        | 1,062          | 37        | 1,057          | 20        | 1,800          | 17        | 1,948          | 19        | 1,948          | 14        | 2,435          | 28        | 1,312          | 35        | 1,054          | 0         | -              | - P Health care provider                              |
| Malone Workforce Solutions                         | 0         | -              | 33        | 1,020          | 27        | 1,400          | 37        | 1,182          | -         | -              | -         | -              | -         | -              | -         | -              | -         | -              | -         | -              | - P Grocery Retailer                                  |
| Texas Roadhouse Inc.                               | 0         | -              | 25        | 1,452          | 25        | 1,452          | 26        | 1,500          | 26        | 1,500          | 29        | 1,320          | 35        | 1,179          | -         | -              | -         | -              | -         | -              | - P Food service provider                             |
| U.S. Postal Service                                | 0         | -              | 0         | -              | 22        | 1,691          | 22        | 1,691          | 20        | 1,691          | 20        | 1,896          | 23        | 1,659          | 12        | 2,401          | 13        | 2,546          | 13        | 2,509          | G Mail distribution                                   |
| Papa John's International                          | 0         | -              | 0         | -              | 29        | 1,263          | 28        | 1,485          | 22        | 1,626          | 18        | 2,088          | 19        | 2,088          | 30        | 1,279          | 25        | 1,503          | 35        | 1,143          | P Quick service restaurant                            |
| Caesars Southern Indiana                           | 0         | -              | 0         | -              | 32        | 1,200          | 38        | 1,135          | 38        | 1,160          | 33        | 1,239          | 31        | 1,252          | 29        | 1,303          | 29        | 1,404          | 26        | 1,418          | P Gaming and entertainment resort                     |
| Clark Memorial Hospital                            | 0         | -              | 0         | -              | 36        | 1,063          | 41        | 1,011          | 39        | 1,060          | 0         | -              | 33        | 1,225          | 33        | 1,225          | 30        | 1,270          | 0         | -              | - P Health care provider                              |
| Martinrea Heavy Stamping                           | 0         | -              | 0         | -              | 0         | -              | 39        | 1,100          | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 0         | -              | - P Grocery Retailer                                  |
| LSC Communications (formerly Publisher's Printing) | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 34        | 1,200          | 35        | 1,200          | 27        | 1,400          | 25        | 1,413          | 28        | 1,432          | 24        | 1,516          | P Trade, professional, special printing               |
| PNC Bank   | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 37        | 1,175          | 39        | 1,175          | 39        | 1,500          | 23        | 1,569          | 0         | -              | 0         | -              | - P Financial Services                                |
| Mortenson Dental Partners                          | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 40        | 1,047          | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 0         | -              | - P Dental Services                                   |
| Commonwealth of Kentucky                           | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 13        | 2,514          | 11        | 3,794          | 12        | 4,042          | 12        | 4,161          | G General purpose government                          |
| U.S. Federal Government                            | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 15        | 2,406          | 14        | 2,397          | 15        | 2,252          | 15        | 2,191          | G General purpose government                          |
| Floyd Memorial Hospital & Health Services          | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 20        | 1,950          | 20        | 1,756          | 19        | 1,769          | 19        | 1,711          | P Hospital and health services provider               |
| Securitas Security Services USA Inc.               | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 27        | 1,328          | 26        | 1,476          | 25        | -              | - P Security Services                                 |
| Al J Schneider Co                                  | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 40        | 1,000          | 37        | 1,047          | 37        | 1,000          | 36        | 1,050          | 0         | -              | - P Hotel / Restaurants                               |
| American Commercial Lines                          | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 0         | -              | 36        | 1,100          | 0         | -              | 0         | -              | - P Marine Transportation Service                     |
| <b>Total employees</b>                             |           | <b>173,231</b> |           | <b>173,085</b> |           | <b>177,602</b> |           | <b>167,741</b> |           | <b>150,680</b> |           | <b>156,558</b> |           | <b>158,045</b> |           | <b>149,163</b> |           | <b>138,603</b> |           | <b>125,854</b> |   |

P=for-profit organization N=not-for-profit organization G=governmental organization  
Source: Business First of Louisville, KY, July 15, 2022

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
MISCELLANEOUS DEMOGRAPHIC INFORMATION**

| <b>Fiscal Year</b> | <b>Population<sup>1</sup></b> | <b>Personal Income<sup>2</sup></b> | <b>Unemployment Rate<sup>3</sup></b> | <b># of MSD Employees</b> | <b>Miles of Sewer Line</b> |
|--------------------|-------------------------------|------------------------------------|--------------------------------------|---------------------------|----------------------------|
| 2013               | 756,832                       | \$ 33,314,513                      | 5.4%                                 | 649                       | 3,240                      |
| 2014               | 760,026                       | \$ 34,609,792                      | 6.4%                                 | 606                       | 3,263                      |
| 2015               | 763,623                       | \$ 34,575,582                      | 4.9%                                 | 591                       | 3,288                      |
| 2016               | 764,378                       | \$ 36,517,217                      | 4.6%                                 | 617                       | 3,293                      |
| 2017               | 765,352                       | \$ 37,813,140                      | 4.6%                                 | 626                       | 3,322                      |
| 2018               | 770,517                       | \$ 40,017,970                      | 4.2%                                 | 632                       | 3,463                      |
| 2019               | 766,757                       | \$ 41,968,275                      | 4.2%                                 | 645                       | 3,348                      |
| 2020               | 782,123                       | \$ 44,407,286                      | 6.4%                                 | 675                       | 3,488                      |
| 2021               | 777,874                       | N/A                                | 5.3%                                 | 648                       | 3,507                      |
| 2022               | N/A                           | N/A                                | 3.4%                                 | 674                       | 3,589                      |

<sup>1</sup>Jefferson County, Kentucky, source: U.S. Census Bureau (<https://www.census.gov/quickfacts/fact/table/jeffersoncountykentucky/POP010220>)

<sup>2</sup>Jefferson County, Kentucky, source: Bureau of Economic Analysis website ([www.bea.gov](http://www.bea.gov))

<sup>3</sup>Louisville Metropolitan Statistical Area, source: U.S. Bureau of Labor Statistics ([https://www.bls.gov/eag/eag.ky\\_louisville\\_msa.htm](https://www.bls.gov/eag/eag.ky_louisville_msa.htm))

Cover photo: Turkey Run



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**APPENDIX C**

**INTERIM AND UNAUDITED FINANCIAL STATEMENTS  
FISCAL YEAR ENDED JUNE 30, 2023 AND THE TWO MONTHS ENDED AUGUST 31, 2023**

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**  
**STATEMENTS OF NET POSITION UNAUDITED**

As of June 30,  
(amounts in thousands)

|  | <b>2023</b>         | <b>2022</b>         |
|--|---------------------|---------------------|
| <b>Current Assets</b>  |                     |                     |
| Unrestricted Current Assets  |                     |                     |
| Cash and cash equivalents  | \$ 66,305           | \$ 48,875           |
| Investments  | 69,417              | 69,754              |
| Accounts receivable, less allowance for<br>doubtful accounts of \$2,095 (2023), \$4,721 (2022) | 28,963              | 26,242              |
| Inventories  | 5,811               | 5,262               |
| Accrued interest receivable  | 588                 | 341                 |
| Prepaid expenses and other current assets  | 238                 | 2,949               |
| Total unrestricted current assets  | 171,322             | 153,423             |
| Restricted Current Assets  |                     |                     |
| Cash and cash equivalents  | 22,414              | 20,788              |
| Investments  | -                   | 12,947              |
| Total restricted current assets  | 22,414              | 33,735              |
| <b>Total Current Assets</b>  | <b>193,736</b>      | <b>187,158</b>      |
| <b>Noncurrent Assets</b>   |                     |                     |
| Unrestricted Noncurrent Assets   |                     |                     |
| Accounts receivable, non-current   | 5,271               | 7,138               |
| Restricted Noncurrent Assets:  |                     |                     |
| Cash and cash equivalents  | 3,067               | 2,191               |
| Investments  | 74,831              | 78,140              |
| Total restricted non-current assets  | 77,898              | 80,331              |
| Capital Assets   |                     |                     |
| Utility plant in service   | 4,603,622           | 4,269,739           |
| Less allowance for depreciation  | (1,485,826)         | (1,396,934)         |
|  | 3,117,796           | 2,872,805           |
| Construction in progress   | 309,372             | 420,200             |
| Net capital assets   | 3,427,168           | 3,293,005           |
| Other Noncurrent Assets  |                     |                     |
| Prepaid regulatory assets  | 443,393             | 436,432             |
| Less allowance for depreciation  | (160,350)           | (149,411)           |
| Net prepaid regulatory assets  | 283,043             | 287,021             |
| Software based IT agreements   | 8,934               | -                   |
| Less accumulated depreciation  | (2,841)             | -                   |
| Net software based IT agreements   | 6,093               | -                   |
| Unamortized bond issuance costs  | 14,221              | 14,585              |
| Unamortized reserve fund insurance   | 735                 | 764                 |
| Total other noncurrent assets  | 304,092             | 302,370             |
| <b>Total Non-current Assets</b>  | <b>3,814,429</b>    | <b>3,682,844</b>    |
| <b>Total Assets</b>  | <b>4,008,165</b>    | <b>3,870,002</b>    |
| <b>Deferred Outflow of Resources</b>   |                     |                     |
| Deferred outflow - pension   | 20,102              | 21,836              |
| Deferred outflow - OPEB  | 16,397              | 23,447              |
| Deferred outflow - derivative instruments  | -                   | -                   |
| Unamortized loss on refunding  | 22,957              | 26,827              |
| Total deferred outflow of resources  | 59,456              | 72,110              |
| <b>Total Assets and Deferred Outflow of Resources</b>  | <b>\$ 4,067,621</b> | <b>\$ 3,942,112</b> |

See the accompanying notes to the financial statements.

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
STATEMENTS OF NET POSITION UNAUDITED**

**As of June 30,  
(amounts in thousands)**

|   | <b>2023</b>         | <b>2022</b>         |
|---|---------------------|---------------------|
| <b>Current Liabilities</b>  |                     |                     |
| Current Liabilities To Be Paid From Unrestricted Assets   |                     |                     |
| Accounts payable  | \$ 8,126            | \$ 9,807            |
| Accrued salaries and related benefits   | 9,814               | 10,588              |
| Total unrestricted current liabilities  | 17,940              | 20,395              |
| Current Liabilities To Be Paid From Restricted Assets   |                     |                     |
| Accounts payable and accrued expenses (capital),<br>includes contractor retainage of \$6,272 (2023), \$4,697 (2022) | 38,706              | 30,464              |
| Accrued interest payable  | 17,895              | 16,622              |
| Refundable deposits   | 2,142               | 1,920               |
| Revenue bonds payable   | 52,375              | 52,880              |
| Other subordinate debt  | 10,240              | 2,038               |
| Total restricted current liabilities  | 121,358             | 103,924             |
| <b>Total Current Liabilities</b>  | <b>139,298</b>      | <b>124,319</b>      |
| <b>Noncurrent Liabilities</b>   |                     |                     |
| Bonds payable, net  | 2,249,954           | 2,316,455           |
| Bond anticipation note  | 219,195             | 226,340             |
| Commercial paper notes  | 165,000             | 50,000              |
| Other subordinate debt  | 48,296              | 50,604              |
| Net pension liability   | 132,407             | 124,564             |
| Net OPEB obligation   | 36,145              | 37,395              |
| Investment derivative asset liability   | 27,247              | 40,914              |
| Subscription asset liability  | 4,952               | -                   |
| <b>Total Noncurrent Liabilities</b>   | <b>2,883,196</b>    | <b>2,846,272</b>    |
| <b>Total Liabilities</b>  | <b>3,022,494</b>    | <b>2,970,591</b>    |
| <b>Deferred Inflow of Resources</b>   |                     |                     |
| Deferred inflow - pension   | 6,605               | 17,811              |
| Deferred inflow - OPEB  | 15,030              | 17,068              |
| Deferred inflow - derivative instruments  | 17,277              | 11,224              |
| Other deferred inflows  | 1,936               | 2,386               |
| Total deferred inflow of resources  | 40,848              | 48,489              |
| <b>Total Liabilities and Deferred Inflow of Resources</b>   | <b>\$ 3,063,342</b> | <b>\$ 3,019,080</b> |
| <b>Net Position</b>   |                     |                     |
| Net investment in capital assets  | \$ 955,494          | \$ 891,231          |
| Assets restricted for debt service  | 82,418              | 84,607              |
| Unrestricted  | (33,633)            | (52,806)            |
| Total net position  | 1,004,279           | 923,032             |
| <b>Total Liabilities, Deferred Inflow of Resources and Net Position</b>   | <b>\$ 4,067,621</b> | <b>\$ 3,942,112</b> |

See the accompanying notes to the financial statements.

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT**  
**STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION UNAUDITED**

For the Fiscal Year Ended June 30,

*(amounts in thousands)*

|  | <u>2023</u>         | <u>2022</u>       |
|--|---------------------|-------------------|
| <b>Operating Revenues</b>                      |                     |                   |
| Service charges                                | \$ 385,163          | \$ 356,870        |
| Other operating income                         | 6,863               | 8,497             |
| Total operating revenues                       | <u>392,026</u>      | <u>365,367</u>    |
| <b>Operating Expenses</b>                      |                     |                   |
| Service and administrative costs               | 124,641             | 118,978           |
| GASB 68 pension/GASB 75 OPEB actuarial expense | 2,132               | 8,725             |
| Depreciation and amortization                  | 114,562             | 103,964           |
| Total operating expenses                       | <u>241,335</u>      | <u>231,667</u>    |
| <b>Income from Operations</b>                  | <u>150,691</u>      | <u>133,700</u>    |
| <b>Non-operating Revenue (Expenses)</b>        |                     |                   |
| Gain/Loss disposal of assets                   | -                   | 124               |
| Transfer of assets                             | (14,320)            | -                 |
| Investment income                              | 7,253               | (1,467)           |
| Build America bond refund                      | 11,350              | 10,344            |
| Interest expense - bonds                       | (91,736)            | (86,792)          |
| Interest expense - derivative instruments      | (3,988)             | (9,502)           |
| Interest expense - other                       | (15,337)            | (12,873)          |
| Amortization of debt discount / premium        | 13,189              | 17,172            |
| Amortization of loss on refunding              | (3,631)             | (3,768)           |
| Capitalized interest                           | 6,961               | 7,464             |
| Change in fair value - swaps                   | 7,614               | 11,293            |
| Total non-operating revenue (expenses) - net   | <u>(82,645)</u>     | <u>(68,005)</u>   |
| <b>Income before capital contributions</b>     | 68,046              | 65,695            |
| <b>Capital contributions</b>                   | <u>13,201</u>       | <u>9,572</u>      |
| <b>Increase in net position</b>                | 81,247              | 75,267            |
| <b>Net position, beginning</b>                 | <u>923,032</u>      | <u>847,765</u>    |
| <b>Net position, ending</b>                    | <u>\$ 1,004,279</u> | <u>\$ 923,032</u> |

See the accompanying notes to the financial statements.



**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
COMPARATIVE STATEMENTS OF CASH FLOWS UNAUDITED**

**For the Fiscal Year Ended June 30,**

*(amounts in thousands)*

|   | <b><u>2023</u></b> | <b><u>2022</u></b> |
|---|--------------------|--------------------|
| <b>Cash Flows from Operating Activities</b>                         |                    |                    |
| Cash received from customers  | \$ 389,490         | \$ 362,992         |
| Cash paid to suppliers  | (106,443)          | (112,467)          |
| Cash paid to employees  | <u>(59,643)</u>    | <u>(54,351)</u>    |
| <b>Net Cash Provided by Operating Activities</b>                    | 223,404            | 196,174            |
| <br><b>Cash Flows from Capital and Related Financing Activities</b> |                    |                    |
| Proceeds from issuance of revenue bonds                             | -                  | 248,821            |
| Proceeds from issuance of bond anticipation note                    | 229,468            | 232,924            |
| Proceeds from issuance of commercial paper                          | 595,000            | 375,000            |
| Proceeds from other subordinate debt                                | 1,282              | 7,824              |
| Payments for retirement of revenue bonds                            | (57,455)           | (55,497)           |
| Payments for retirement of bond anticipation note                   | (226,340)          | (226,340)          |
| Payments for retirement of commercial paper                         | (480,000)          | (475,000)          |
| Payments for retirement of other subordinated debt                  | (2,533)            | (1,926)            |
| Payments for interest expense                                       | (105,800)          | (103,136)          |
| Payments for interest on derivative instruments                     | (3,988)            | (9,502)            |
| Build America bond interest subsidy                                 | 11,350             | 10,344             |
| Proceeds from capital grants  | 1,436              | 2,610              |
| Proceeds from sales of capital assets                               | -                  | 124                |
| Payments for capital assets   | (190,945)          | (182,495)          |
| Proceeds from assessments   | <u>1,956</u>       | <u>3,378</u>       |
| <b>Net Cash Provided (Used) by Capital and Related Financing</b>    | (226,569)          | (172,871)          |
| <br><b>Cash Flows from Investing Activities</b>                     |                    |                    |
| Purchase of investments   | (142,894)          | (127,427)          |
| Maturity of investments   | 160,468            | 71,789             |
| Investment income   | <u>5,523</u>       | <u>2,203</u>       |
| <b>Net Cash Provided (Used) by Investing Activities</b>             | 23,097             | (53,435)           |
| <br>Net Increase (Decrease) in Cash and Cash Equivalents            | 19,932             | (30,132)           |
| Cash and Cash Equivalents, Beginning of Year                        | <u>71,854</u>      | <u>101,986</u>     |
| <b>Cash and Cash Equivalents, End of Year</b>                       | <u>\$ 91,786</u>   | <u>\$ 71,854</u>   |

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT  
COMPARATIVE STATEMENTS OF CASH FLOWS UNAUDITED**

**For the Fiscal Year Ended June 30,**

*(amounts in thousands)*

|  | <b><u>2023</u></b>       | <b><u>2022</u></b>       |
|--|--------------------------|--------------------------|
| <b>Reconciliation of Operating Income to Net Cash provided by Operating Activities</b> |                          |                          |
| Income from operations   | \$ 150,691               | \$ 133,700               |
| Adjustments to reconcile operating income to net cash provided by operating activities |                          |                          |
| Capitalized overhead   | (41,151)                 | (42,168)                 |
| Depreciation and amortization  | 114,562                  | 103,964                  |
| Accounts receivable  | (2,759)                  | (1,539)                  |
| Inventories  | (549)                    | (176)                    |
| Prepaid expense  | 2,711                    | 3,206                    |
| Accounts payable   | (1,681)                  | (8,538)                  |
| Customer deposits  | 222                      | (834)                    |
| Accrued liabilities  | (774)                    | (166)                    |
| Pension liability  | (1,630)                  | 7,071                    |
| OPEB liability   | 3,762                    | 1,654                    |
| <b>Net Cash Provided by Operating Activities</b>                                       | <b><u>\$ 223,404</u></b> | <b><u>\$ 196,174</u></b> |
| <br><b>Non-Cash Capital Financing and Investing Activities</b>                         |                          |                          |
| Contribution of plant, lines and other facilities by developers and property owners    | \$ 11,943                | \$ 6,909                 |
| Construction costs in accounts payable   | 38,706                   | 30,464                   |
| Transfer of assets   | 14,320                   | 0                        |
| Unrealized (gain)/loss on investments  | (2,040)                  | 3,587                    |
| Decrease in interest rate swap deferred revenue  | 474                      | 497                      |
| Change in fair value - derivative instruments  | 7,614                    | 11,293                   |
| Bo Bonds issued for refunding of debt - Series 2011A                                   | 91,695                   | 0                        |
| Bonds issued for refunding of debt - Series 2011A                                      | -                        | 246,555                  |

**Louisville & Jefferson County Metropolitan Sewer District**  
**Monthly Comparative Statement of Net Position**  
**Month Ended, August 31, 2023**

|   | YTD<br>Aug-2023      | YTD<br>Aug-2022      | Variance            | Percent        |
|---|----------------------|----------------------|---------------------|----------------|
| <b>Current Assets</b>   |                      |                      |                     |                |
| Unrestricted Cash & Cash Equivalents                                    | \$122,369,125        | \$123,865,137        | (\$1,496,012)       | -1.21%         |
| Sewer & Drainage Receivable   | 26,548,340           | 27,439,422           | (891,082)           | -3.25%         |
| Assessment Warrants Receivable  | 130,775              | 168,668              | (37,893)            | -22.47%        |
| Miscellaneous Receivables   | 4,254,838            | 2,033,652            | 2,221,186           | 109.22%        |
| Inventories   | 5,801,106            | 5,301,663            | 499,443             | 9.42%          |
| Prepaid Expenses  | 6,520,973            | 8,315,285            | (1,794,312)         | -21.58%        |
| Restricted Funds  | 127,947,000          | 146,107,800          | (18,160,800)        | -12.43%        |
| Accrued Interest Receivable   | 587,953              | 340,553              | 247,399             | 72.65%         |
| <b>Total Current Assets</b>   | <b>294,160,110</b>   | <b>313,572,181</b>   | <b>(19,412,071)</b> | <b>-6.19%</b>  |
| <b>Non-Current Assets</b>   |                      |                      |                     |                |
| Utility Plant in Service  | 5,081,826,444        | 4,730,865,796        | 350,960,648         | 7.42%          |
| Accumulated Depreciation  | (1,691,367,536)      | (1,586,341,518)      | (105,026,018)       | 6.62%          |
| Construction in Progress  | 338,320,849          | 433,379,307          | (95,058,459)        | -21.93%        |
| <b>Net Fixed Assets</b>   | <b>3,728,779,757</b> | <b>3,577,903,586</b> | <b>150,876,171</b>  | <b>4.22%</b>   |
| <b>Non-Current Receivables</b>  | <b>19,893,603</b>    | <b>22,173,008</b>    | <b>(2,279,405)</b>  | <b>-10.28%</b> |
| <b>Total Assets</b>   | <b>4,042,833,470</b> | <b>3,913,648,774</b> | <b>129,184,695</b>  | <b>3.30%</b>   |
| <b>Total Deferred Outflow of Resources</b>                              | <b>59,175,779</b>    | <b>71,475,120</b>    | <b>(12,299,342)</b> | <b>-17.21%</b> |
| <b>Total Assets &amp; Deferred Outflow of Resources</b>                 | <b>4,102,009,248</b> | <b>3,985,123,895</b> | <b>116,885,354</b>  | <b>2.93%</b>   |
| <b>Current Liabilities</b>  |                      |                      |                     |                |
| Miscellaneous Accounts Payable  | 3,145,170            | 5,850,540            | (2,705,370)         | -46.24%        |
| Accounts Payable - Construction   | 9,203,899            | 11,323,695           | (2,119,796)         | -18.72%        |
| Contract Retainage  | 7,626,655            | 5,174,009            | 2,452,646           | 47.40%         |
| Accrued Interest Payable  | 34,674,530           | 33,313,362           | 1,361,168           | 4.09%          |
| Current Maturities of Bonds Payable                                     | 52,375,000           | 52,880,000           | (505,000)           | -0.95%         |
| Current Maturities of Subordinate Debt                                  | 10,240,340           | 2,547,532            | 7,692,808           | 301.97%        |
| Deposits Payable  | 1,928,825            | 1,957,872            | (29,047)            | -1.48%         |
| Accrued Salaries & Wages  | 4,658,726            | 4,657,778            | 948                 | 0.02%          |
| Accrued Workers' Comp Insurance   | 1,902,088            | 1,796,748            | 105,340             | 5.86%          |
| Employee Comp Absences Payable  | 4,489,818            | 4,235,031            | 254,787             | 6.02%          |
| <b>Total Current Liabilities</b>  | <b>130,245,053</b>   | <b>123,736,567</b>   | <b>6,508,485</b>    | <b>5.26%</b>   |
| <b>Non-Current Liabilities</b>  |                      |                      |                     |                |
| Long-Term Senior Debt Payable   | 2,151,935,000        | 2,228,405,000        | (76,470,000)        | -3.43%         |
| Long-Term Subordinate Debt Payable                                      | 457,491,280          | 356,434,318          | 101,056,962         | 28.35%         |
| Other Long-Term Liability   | 295,296,440          | 292,343,730          | 2,952,709           | 1.01%          |
| <b>Total Non-Current Liabilities</b>                                    | <b>2,904,722,720</b> | <b>2,877,183,048</b> | <b>27,539,672</b>   | <b>0.96%</b>   |
| <b>Total Liabilities</b>  | <b>3,034,967,772</b> | <b>3,000,919,615</b> | <b>34,048,157</b>   | <b>1.13%</b>   |
| <b>Total Deferred Inflow of Resources</b>                               | <b>29,712,901</b>    | <b>44,606,691</b>    | <b>(14,893,789)</b> | <b>-33.39%</b> |
| <b>Total Liabilities &amp; Deferred Inflow of Resources</b>             | <b>3,064,680,674</b> | <b>3,045,526,306</b> | <b>19,154,368</b>   | <b>0.63%</b>   |
| <b>Net Position</b>   | <b>1,037,328,575</b> | <b>939,597,589</b>   | <b>97,730,986</b>   | <b>10.40%</b>  |
| <b>Total Liabilities, Deferred Inflow of Resources and Net Position</b> | <b>4,102,009,248</b> | <b>3,985,123,895</b> | <b>116,885,354</b>  | <b>2.93%</b>   |

**Louisville & Jefferson County Metropolitan Sewer District**  
**Monthly Statement of Revenues, Expenses, and Changes in Net Position**  
**Month Ended, August 31, 2023**

|   | YTD<br>Actual        | YTD<br>Budget        | YTD<br>Variance        | % YTD<br>Variance | YTD<br>Prior Year    | YTD<br>Variance        | % YTD<br>Variance |
|---|----------------------|----------------------|------------------------|-------------------|----------------------|------------------------|-------------------|
| <b>Wastewater Charges</b>                     |                      |                      |                        |                   |                      |                        |                   |
| Residential                                   | \$ 29,447,642        | \$ 30,826,130        | \$ (1,378,488)         | -4.5%             | \$ 28,592,523        | \$ 855,119             | 3.0%              |
| Commercial                                    | 17,001,832           | 16,692,816           | 309,016                | 1.9%              | 16,147,655           | 854,177                | 5.3%              |
| Industrial                                    | 4,776,927            | 4,580,578            | 196,350                | 4.3%              | 4,462,329            | 314,598                | 7.1%              |
| Other Wastewater                              | 2,016,194            | 2,068,555            | (52,361)               | -2.5%             | 2,281,616            | (265,422)              | -11.6%            |
| Free Wastewater Charges                       | (1,416,477)          | (1,390,993)          | (25,485)               | 1.8%              | (1,522,799)          | 106,322                | -7.0%             |
| <b>Total Wastewater Charges</b>               | <b>51,826,118</b>    | <b>52,777,086</b>    | <b>(950,968)</b>       | <b>-1.8%</b>      | <b>49,961,324</b>    | <b>1,864,793</b>       | <b>3.7%</b>       |
| <b>Drainage</b>                               |                      |                      |                        |                   |                      |                        |                   |
| Residential                                   | 6,058,418            | 5,857,724            | 200,694                | 3.4%              | 5,677,993            | 380,425                | 6.7%              |
| Commercial                                    | 8,835,006            | 9,037,522            | (202,516)              | -2.2%             | 8,677,566            | 157,440                | 1.8%              |
| Industrial                                    | 1,110,106            | 1,054,937            | 55,169                 | 5.2%              | 1,018,272            | 91,834                 | 9.0%              |
| Other Stormwater                              | 767,137              | 706,807              | 60,330                 | 8.5%              | 722,111              | 45,026                 | 6.2%              |
| Free Stormwater Charges                       | (510,661)            | (507,321)            | (3,340)                | 0.7%              | (488,294)            | (22,367)               | 4.6%              |
| <b>Total Drainage Charges</b>                 | <b>16,260,007</b>    | <b>16,149,669</b>    | <b>110,337</b>         | <b>0.7%</b>       | <b>15,607,649</b>    | <b>652,358</b>         | <b>4.2%</b>       |
| <b>Total Service Charges</b>                  | <b>68,086,124</b>    | <b>68,926,756</b>    | <b>(840,631)</b>       | <b>-1.2%</b>      | <b>65,568,973</b>    | <b>2,517,152</b>       | <b>3.8%</b>       |
| <b>Other Operating Income</b>                 | <b>1,713,210</b>     | <b>750,841</b>       | <b>962,369</b>         | <b>128.2%</b>     | <b>1,093,645</b>     | <b>619,565</b>         | <b>56.7%</b>      |
| <b>Total Operating Revenue</b>                | <b>69,799,334</b>    | <b>69,677,596</b>    | <b>121,738</b>         | <b>0.2%</b>       | <b>66,662,618</b>    | <b>3,136,716</b>       | <b>4.7%</b>       |
| <b>Operating Expenses</b>                     |                      |                      |                        |                   |                      |                        |                   |
| Salaries & Wages                              | 9,942,746            | 10,732,347           | (789,601)              | -7.4%             | 9,149,065            | 793,681                | 8.7%              |
| Labor Related Overhead                        | 4,690,005            | 4,503,830            | 186,175                | 4.1%              | 4,732,963            | (42,957)               | -0.9%             |
| Utilities                                     | 2,303,565            | 2,899,082            | (595,517)              | -20.5%            | 2,943,498            | (639,933)              | -21.7%            |
| Materials & Supplies                          | (605,985)            | 1,593,483            | (2,199,468)            | -138.0%           | 1,363,686            | (1,969,672)            | -144.4%           |
| Contractual Services                          | 3,643,516            | 7,000,152            | (3,356,636)            | -48.0%            | 4,191,126            | (547,610)              | -13.1%            |
| Chemicals                                     | 1,113,566            | 1,855,757            | (742,191)              | -40.0%            | 993,160              | 120,406                | 12.1%             |
| Fuel  | 164,823              | 360,720              | (195,897)              | -54.3%            | 319,464              | (154,641)              | -48.4%            |
| Insurance Premiums & Claims                   | 1,275,664            | 1,222,470            | 53,194                 | 4.4%              | 1,259,046            | 16,619                 | 1.3%              |
| Bad Debt                                      | 555,030              | 587,740              | (32,710)               | -5.6%             | 669,608              | (114,578)              | -17.1%            |
| Other Operating Expense                       | 313,581              | 545,995              | (232,414)              | -42.6%            | 186,063              | 127,517                | 68.5%             |
| Mapping/Insurance Recovery                    | -                    | -                    | -                      | 0.0%              | -                    | 0                      | 0.0%              |
| Capitalized Overhead                          | (5,558,023)          | (7,130,607)          | 1,572,584              | -22.1%            | (6,181,531)          | 623,508                | -10.1%            |
| Capital Expenses (over)/under applied         |                      |                      |                        |                   |                      |                        |                   |
| <b>Net Service and Administrative Costs</b>   | <b>17,838,488</b>    | <b>24,170,970</b>    | <b>(6,332,482)</b>     | <b>-26.2%</b>     | <b>19,626,149</b>    | <b>(1,787,661)</b>     | <b>-9.1%</b>      |
| Depreciation                                  | 19,934,415           | 16,167               | 19,918,248             | 123205.7%         | 18,066,595           | 1,867,820              | 10.3%             |
| Amortization                                  | 744,765              | 0                    | 744,765                | 0.0%              | 261,555              | 483,209                | 184.7%            |
| <b>Total Depreciation/Amortization</b>        | <b>20,679,180</b>    | <b>16,167</b>        | <b>20,663,013</b>      | <b>127812.5%</b>  | <b>18,328,150</b>    | <b>2,351,030</b>       | <b>12.8%</b>      |
| <b>Total Operating Expenses</b>               | <b>38,517,667</b>    | <b>24,187,136</b>    | <b>14,330,531</b>      | <b>59.2%</b>      | <b>37,954,299</b>    | <b>563,368</b>         | <b>1.5%</b>       |
| <b>Net Operating Income</b>                   | <b>31,281,667</b>    | <b>45,490,460</b>    | <b>(14,208,793)</b>    | <b>-31.2%</b>     | <b>28,708,319</b>    | <b>2,573,348</b>       | <b>9.0%</b>       |
| <b>Non-Operating Revenue (Expenses)</b>       |                      |                      |                        |                   |                      |                        |                   |
| Gain/Loss Disposal of Assets                  | 40,769               | 200                  | 40,569                 | 20284.4%          | -                    | 40,769                 | 0.0%              |
| Investment Income                             | 3,654,437            | 1,920,800            | 1,733,637              | 90.3%             | 2,292,282            | 1,362,155              | 59.4%             |
| Interest Expense                              | (15,478,992)         | 0                    | (15,478,992)           | 0.0%              | (14,654,392)         | (824,600)              | 5.6%              |
| <b>Total Non-Operating Revenue (Expenses)</b> | <b>(11,783,786)</b>  | <b>1,921,000</b>     | <b>(13,704,786)</b>    | <b>-713.4%</b>    | <b>(12,362,110)</b>  | <b>578,324</b>         | <b>-4.7%</b>      |
| Contributions                                 | 1,017,357.63         | -                    | 1,017,358              | 0.0%              | 464,796              | (552,562)              | 118.9%            |
| <b>Change in Net Position Before Swaps</b>    | <b>20,515,239</b>    | <b>47,411,460</b>    | <b>(26,896,221)</b>    | <b>-56.7%</b>     | <b>16,811,005</b>    | <b>(3,704,234)</b>     | <b>22.0%</b>      |
| <b>Change in Fair Value of Swaps</b>          | <b>12,534,539</b>    | <b>-</b>             | <b>12,534,539</b>      | <b>0.0%</b>       | <b>(245,242)</b>     | <b>(12,779,781)</b>    | <b>-5211.1%</b>   |
| <b>Change in Net Position After Swaps</b>     | <b>\$ 33,049,778</b> | <b>\$ 47,411,460</b> | <b>\$ (14,361,682)</b> | <b>-30.3%</b>     | <b>\$ 16,565,763</b> | <b>\$ (16,484,015)</b> | <b>99.5%</b>      |

**Louisville and Jefferson County Metropolitan Sewer District**  
**Statement of Cash Flows**  
**For the Month Ended, August 31, 2023**

|  | <b>FY 2024<br/>YTD</b> | <b>FY 2023<br/>YTD</b> |
|--|------------------------|------------------------|
| <b>Cash Flows from Operating Activities</b>  |                        |                        |
| Cash received from customers   | \$ 67,604,786          | \$ 63,289,102          |
| Cash paid to suppliers   | (24,707,086)           | (19,839,356)           |
| Cash paid to employees   | (8,706,113)            | (9,047,555)            |
| <b>Net Cash Provided by Operating Activities</b>                                       | <b>34,191,587</b>      | <b>34,402,191</b>      |
| <b>Cash Flows from Capital and Related Financing Activities</b>                        |                        |                        |
| Proceeds from issuance of commercial paper   | 240,000,000            | 50,000,000             |
| Payments for retirement of commercial paper  | (215,000,000)          | (20,000,000)           |
| Payments for retirement of other subordinated debt                                     | 43,044                 | -                      |
| Payments for interest expense  | (960,534)              | (95,623)               |
| Payments for interest on swaps   | (320,352)              | (1,148,472)            |
| Build America bond interest subsidy  | 1,831,025              | 1,831,025              |
| Proceeds from capital grants   | 919,722                | -                      |
| Proceeds from sale of capital assets   | (40,767)               | -                      |
| Payments for capital assets  | (48,373,278)           | (28,225,630)           |
| Proceeds from assessments  | 127,295                | 139,638                |
| <b>Net Cash Provided (Used) by Capital and Related Financing</b>                       | <b>(21,773,845)</b>    | <b>2,500,938</b>       |
| <b>Cash Flows from Investing Activities</b>  |                        |                        |
| Purchase of investments  | (8,691,851)            | (15,270,155)           |
| Maturity of investments  | 11,425,000             | 14,559                 |
| Investment income  | 1,015,809              | 756,963                |
| <b>Net Cash Provided (Used) by Investing Activities</b>                                | <b>3,748,958</b>       | <b>(14,498,633)</b>    |
| Net Increase (Decrease) in Cash and Cash Equivalents                                   | 16,166,700             | 22,404,496             |
| Cash and Cash Equivalents, Beginning of Year   | 91,786,053             | 71,854,355             |
| <b>Cash and Cash Equivalents, End of Year</b>  | <b>\$ 107,952,753</b>  | <b>\$ 94,258,851</b>   |
| <b>Reconciliation of Operating Income to Net Cash provided by Operating Activities</b> |                        |                        |
| Income from operations   | \$ 31,281,667          | \$ 28,708,323          |
| Adjustments to reconcile operating income to net cash provided by operating activities |                        |                        |
| Depreciation and amortization  | 20,679,180             | 18,328,150             |
| Capitalized Overhead   | (5,558,023)            |                        |
| Accounts receivable  | (1,981,264)            | (3,411,285)            |
| Inventories  | 10,491                 | (39,382)               |
| Prepaid expense  | (6,283,123)            | (5,366,213)            |
| Accounts payable   | (4,980,689)            | (3,956,681)            |
| Customer deposits  | (213,283)              | 37,769                 |
| Accrued liabilities  | 1,236,632              | 101,510                |
| <b>Net Cash Provided by Operating Activities</b>                                       | <b>\$ 34,191,587</b>   | <b>\$ 34,402,191</b>   |
| <b>Non-Cash Capital Financing and Investing Activities</b>                             |                        |                        |
| Construction costs in accounts payable   | \$ 16,830,554          | \$ 16,497,704          |
| Change in fair value of investments  | (792,373)              | 141,409                |
| Decrease in interest rate swap deferred revenue  | (37,744)               | (82,825)               |
| Change in fair value - swap agreements   | \$ (12,534,539)        | \$ 245,242             |

**APPENDIX D**  
**FORM OF BOND COUNSEL OPINION**

October 26, 2023

Louisville and Jefferson County  
Metropolitan Sewer District  
Louisville, Kentucky 40203

The Bank of New York Mellon  
Trust Company, N.A., as Registrar and Paying Agent  
Pittsburgh, Pennsylvania 15262

Re: \$351,975,000  
Louisville and Jefferson County Metropolitan Sewer District (Commonwealth of  
Kentucky) Sewer and Drainage System Revenue Bonds, Series 2023C

Ladies and Gentlemen:

As Bond Counsel we have examined a copy of the transcript of proceedings relating to the original issuance by the Louisville and Jefferson County Metropolitan Sewer District (the "District"), a public body corporate and political subdivision of the Commonwealth of Kentucky (the "Commonwealth"), of the District's above-referenced Series 2023C Bonds in the principal amount of \$351,975,000 (herein the "Bonds").

The Bonds are being issued pursuant to the provisions of [i] Chapter 76 of the Kentucky Revised Statutes, as amended (the "Act"), [ii] a Sewer and Drainage System Revenue Bond Resolution of the District adopted on December 7, 1992, as heretofore amended and supplemented (the "Resolution") and [iii] a Thirty-Third Supplemental Sewer and Drainage System Revenue Bond Resolution adopted by the District on July 24, 2023 (the "Supplemental Resolution"), and the Resolution as amended and supplemented by the Supplemental Resolution, the "Bond Resolution") in order to: (i) redeem on January 24, 2024 the District's outstanding Sewer and Drainage System Revenue Bonds, Series 2013B, maturing on May 15 of the years 2024 through 2026; (ii) pay at maturity the District's outstanding Sewer and Drainage System Revenue Refunding Taxable Bonds, Series 2020C, maturing on May 15 of the years 2024 through 2037; (iii) pay at maturity the District's outstanding Program Notes maturing on January 24, 2024, issued as Senior Subordinated Debt under the Bond Resolution; (iv) pay or reimburse costs of construction and acquisition of capital improvements to the District's sewer and drainage system; (v) deposit in the Reserve Account of the Bond Fund established under the Bond Resolution the amount required, after giving effect to any surety bond, insurance policy, letter of credit, or other similar obligation deposited in the Reserve Account established under the Bond Resolution, such that the amount on deposit in the Reserve Account after such deposit shall be at least equal to the Debt Service Reserve Requirement as defined in the Bond Resolution; and (vi) to pay the costs of issuance of the Series 2023C Bonds.

The Bonds are dated on their original issuance of even date herewith, mature or are subject to redemption through sinking fund installments on May 15 in each of the years and in the amounts, are subject to redemption prior to maturity, and bear interest payable on May 15 and November 15 of each

year, commencing May 15, 2024, at the respective rates per annum, as have been established by the District pursuant to the Supplemental Resolution.

The Bonds and the interest thereon do not constitute a general obligation or indebtedness of the District, Louisville/Jefferson County Metro Government (“Metro Government”), the County of Jefferson, Kentucky (the “County”) or the Commonwealth within the meaning of the Constitution and laws of the Commonwealth and are not a charge against the general credit or taxing power of the District, Metro Government, the County, the Commonwealth or any other political subdivision of the Commonwealth, but are a limited obligation of the District secured solely by and payable solely from the gross revenues derived from the collection of rates, rentals and charges for the services rendered by the District’s sewer and drainage system. The District has no taxing power.

In our capacity as Bond Counsel we have examined such documents and matters and conducted such research as we have deemed necessary to enable us to express the opinions set forth below. We have also relied on an opinion dated as of even date herewith of Kellie S. Watson, Esq., General Counsel to the District, with respect to the valid creation, organization and existence of the District and the due adoption by the Board of the District of the Bond Resolution. As to certain questions of fact, we have relied on statements and certifications of certain officers, employees and agents of the District and other public officials. Terms which are capitalized and not defined herein are defined in the Bond Resolution.

In rendering our opinions set forth below, we have assumed the authenticity of all documents submitted to us as originals, the legal capacity of natural persons and the conformity to the originals of all documents submitted to us as copies. We have assumed that parties other than the District had the requisite power and authority to enter into and perform all obligations of all documents to which they are parties. We have assumed the due authorization by all requisite action, and the execution and delivery by such other parties of such documents, and the validity and binding effect thereof on such other parties. We have relied for purposes of the opinions set forth below on the representations and warranties made in such documents by all parties thereto.

Based on the foregoing, and in reliance thereon, and on the basis of our examination of such other matters of fact and questions of law as we have deemed relevant in the circumstances, it is our opinion that:

1. The District is a public body corporate and political subdivision of the Commonwealth, validly existing under the provisions of the Constitution and laws of the Commonwealth, including the Act, with the right and power under the Act to adopt the Bond Resolution.
2. The Bond Resolution has been duly and lawfully adopted by the Board of the District.
3. The Bond Resolution is the valid and binding special limited obligation of the District enforceable in accordance with its respective terms.
4. The Bonds have been duly and validly authorized, executed and delivered by the District in accordance with law and the Bond Resolution and are the valid and binding special limited obligations of the District as provided in the Bond Resolution, enforceable in accordance with their terms and entitled to the benefit and security of the Bond Resolution and the Act as amended to the date hereof.
5. Under the laws of the Commonwealth as presently enacted and construed, the Bonds are exempt from ad valorem taxation, and the interest thereon is exempt from income taxation, by the Commonwealth and all of its political subdivisions and taxing authorities.



6. Under the Internal Revenue Code (the “Code”) as presently enacted and construed, interest on the Bonds is excluded from gross income for Federal income tax purposes.

7. The Bond Resolution creates the valid pledge which it purports to create of the Pledged Property, subject to the provisions of the Bond Resolution permitting the application thereof for the purposes and on the conditions set forth in the Bond Resolution.

For the purpose of rendering the opinion set forth in paragraph 6 above, we have assumed compliance by the District with the requirements of the Code that must be met subsequent to the issuance of the Bonds in order that the interest thereon be and remain excludable from gross income for federal income tax purposes. Failure to comply with such requirements could cause the interest on the Bonds to be included in gross income retroactive to their date of issuance. The District has covenanted to comply with such requirements.

The foregoing opinions are qualified to the extent that the enforceability of the Bonds and the Bond Resolution, including the rights and remedies thereunder, may be limited by equitable principles and by bankruptcy, insolvency, reorganization, moratorium or similar laws heretofore or hereafter enacted relating to or affecting the enforcement of creditors’ rights or remedies. We also express no opinion as to the availability of equitable rights or remedies.

We are not expressing an opinion on the investment quality of the Bonds. We are members of the Bar of the Commonwealth and do not purport to be experts on the laws of any jurisdiction other than the Commonwealth and the United States of America, and we express no opinion as to the laws of any jurisdiction other than those specified. Our opinion relates solely to the questions set out herein and does not consider other questions of law.

Sincerely,

WYATT, TARRANT & COMBS, LLP

**APPENDIX E**  
**BOOK-ENTRY ONLY SYSTEM**

## BOOK ENTRY SYSTEM

**THE INFORMATION PROVIDED BELOW IN THIS APPENDIX E HAS BEEN PROVIDED BY DTC. NO REPRESENTATION IS MADE BY THE BOARD OR THE CORPORATION AS TO THE ACCURACY OR ADEQUACY OF SUCH INFORMATION PROVIDED BY DTC OR AS TO THE ABSENCE OF MATERIAL ADVERSE CHANGES IN SUCH INFORMATION SUBSEQUENT TO THE DATE HEREOF.**

1. The Depository Trust Company (“DTC”), New York, NY, will act as securities depository for the securities (the “Bonds”). The Bonds will be issued as fully-registered securities registered in the name of Cede & Co. (DTC’s partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered Bond certificate will be issued in the aggregate principal amount of each maturity of Bonds and will be deposited with DTC.

2. 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](http://www.dtcc.com).

3. Purchases of Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Bonds on DTC’s records. The ownership interest of each actual purchaser of each Bond (“Beneficial Owner”) is in turn to be recorded on the Direct and Indirect Participants’ records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in Bonds, except in the event that use of the book-entry system for the Bonds is discontinued.

4. To facilitate subsequent transfers, all Bonds deposited by Direct Participants with DTC are registered in the name of DTC’s partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not affect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Bonds; DTC’s records reflect only the

identity of the Direct Participants to whose accounts such Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

5. Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of Bonds may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the Bonds, such as redemptions, tenders, defaults, and proposed amendments to the Bond documents. For example, Beneficial Owners of Bonds may wish to ascertain that the nominee holding the Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the Bond Registrar and request that copies of the notices be provided directly to them.

6. Redemption notices shall be sent to DTC. If less than all of the Bonds within an issue are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

7. Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to the Bonds unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to Issuer as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

8. Redemption proceeds, distributions, and dividend payments on the Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from Issuer or Agent, on payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC, Agent, or Issuer, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of redemption proceeds, distributions, and dividend payments to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of Issuer or 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.

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

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

11. The information in this section concerning DTC and DTC's book-entry system has been obtained from sources that Issuer believes to be reliable, but Issuer takes no responsibility for the accuracy thereof.

Neither the Issuer nor the Bond Registrar shall have any responsibility or obligation to participants or to any beneficial owner with respect to (i) the accuracy of any records maintained by DTC or any participant; (ii) the payment by DTC or any participant of any amount with respect to the principal of or interest or compound accreted value on the Bonds; (iii) the delivery or timeliness of delivery by any participant or any notice to any beneficial owner which is required or permitted under the terms of the resolution or ordinance to be given to Bondholders; or (iv) any consent given or action taken by DTC or Cede & Co., as bondholder.

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