

**IN THE UNITED STATES BANKRUPTCY COURT
FOR THE NORTHERN DISTRICT OF ALABAMA
SOUTHERN DIVISION**

In re:)	
)	
JEFFERSON COUNTY, ALABAMA,)	Case No. 11-05736-TBB
a political subdivision of the State of)	
Alabama,)	Chapter 9
)	
Debtor.)	

THE WATER WORKS BOARD OF THE CITY OF BIRMINGHAM'S
AND THE CITY OF BESSEMER'S
OBJECTION TO DISCLOSURE STATEMENT REGARDING CHAPTER 9
PLAN OF ADJUSTMENT FOR JEFFERSON COUNTY, ALABAMA

COME NOW The Water Works Board of the City of Birmingham (the “Board”), located at 3600 1st Avenue North, Birmingham, Alabama 35222, and the City of Bessemer, Alabama, located at 1800 3rd Avenue North, Bessemer, Alabama 35020 (the “City”) and object in pertinent part as hereinafter set out to the Disclosure Statement filed by the Debtor, Jefferson County, Alabama (the “County”), and in support thereof state as follows:

INTRODUCTION

On or about July 15, 2013, the Board and the City received the Notice of Hearing to Consider Approval of Disclosure Statement Regarding Chapter 9 Plan of Adjustment for Jefferson County Alabama (dated June 30, 2013). The Board is an Alabama public corporation incorporated and existing pursuant to Ala. Code §11-50-230 *et seq.* It provides potable water to the Birmingham/Jefferson County



metro area as well as several surrounding counties. The Board has approximately 194,000 water customer accounts, and approximately 113,000 of those water customer accounts are also County Sewer Customers. The Board's customer accounts represent approximately 750,000 citizens who rely upon the Board for their potable water needs. Pursuant to the provisions of Act 619 of the 1949 Acts of the Legislature, Act 616 of the 1953 Acts of the Legislature and Act 886 of the 1961 Acts of the Legislature, the Board collects sewer fees as an agent of the County. The Board sends out a combined water and sewer bill to its water customers that are also County sewer customers. Also, pursuant to Sections 11 and 12 of Act No. 619, the County, acting through its County Commission, may request the Board to disconnect water service for sewer customers for non-payment of their bills, or the County itself may disconnect such customers. Disconnections for sewer service delinquencies impact the Board since the customer is also disconnected from water service, thereby negatively affecting the Board's revenues. As such, the Board has a vested interest in the long term viability and maintenance of the County's sewer system in order to ensure that it operates sufficiently so as not to negatively impact the Board's business operations.

The City of Bessemer, Alabama (the "City") is a municipal corporation incorporated and existing pursuant to Ala. Code §11-40-1 et seq. The City's public utilities provides potable water to the citizens of Bessemer, Brighton, Dolomite,

Hueytown, Hoover, Lipscomb, Midfield, & portions of the Bessemer Division of unincorporated Jefferson County as well as to the municipal corporations of Helena (Jefferson & Shelby Counties) and Alabaster (Shelby County). The City has approximately 30,263 water customer accounts, and approximately 19,258 of those water customer accounts are also County Sewer Customers. The City's customer accounts represent approximately 75,000 citizens who rely upon the City for their potable water needs. Pursuant to the provisions of Act 619 of the 1949 Acts of the Legislature and Act 886 of the 1961 Acts of the Legislature, the City collects sewer fees as an agent of the County. The City sends out a combined electric, water and sewer bills to its Bessemer water customers that are also County sewer customers. The City sends out a combined water, garbage and sewer bills to its Hueytown, Midfield and Brighton customers that are also County sewer customers. The City sends out a combined water and sewer bill to its water customers that are also County sewer customers. Also, pursuant to Sections 11 and 12 of Act No. 619, the County, acting through its County Commission, may request the City to disconnect water service for sewer customers for non-payment of their bills, or the City itself may disconnect such customers. Disconnections for sewer service delinquencies impact the City since the customer is also disconnected from water service, thereby negatively affecting the City's revenues. As such, the City has a vested interest in the long term viability and maintenance

of the City's sewer system in order to ensure that it operates sufficiently so as not to negatively impact the City's business operations.

The Board's and the City's interests in the County's Disclosure Statement and Plan are likewise sufficient for them to be parties in interest pursuant to 11 U.S.C. §1109(b), which is incorporated into Chapter 9 cases via 11 U.S.C. § 901(a), in that they have a pecuniary and practical interest in the long term viability of the Plan to ensure that adequate provisions are made to provide for needed capital improvements, maintenance, operations and rates in order to ensure that the Plan offers a reasonable assurance of success and will not negatively impact the Board's and the City's operations. *See In re Jefferson County*, 474 B. R. 228, 245, n. 4 (Bkr. N.D. Ala. 2012) ("determining factor is whether a person or entity has sufficient interest in the proceeding to merit representation, and the interest may be pecuniary or practical.") (citations omitted); *Seraphin v. Morris Publishing Group, L.L.C.*, 2010 Bankr. LEXIS 488 (N.D. Ga. 2010) (entity that has pecuniary interest that is directly or adversely affected by outcome of proceedings is party in interest); *In re Lewis*, 273 B.R. 739, 743 (Bkr. N.D. Ga. 2001) (citing *Nintendo Co., Ltd. v. Patten (In re AlpexComputer Corp.)*, 71 F.3d 353, 356 (10th Cir. 1995)); *Yadkin Valley Bank & Trust Co. v. McGee (In re Hutchinson)*, 5 F.3d750, 756 (4th Cir. 1993) (party in interest is generally understood to include all persons whose pecuniary interests are directly affected by the bankruptcy proceedings).

The most important feature of the proposed Reorganization Plan is the issuance of approximately \$1.9 billion of sewer revenue warrants. As a practical matter, the issuance of these warrants will require robust financial and other disclosures concerning the System. Thus, our objections with regard to portions of the Disclosure Statement include objections directed to whether or not the Disclosure Statement contains information necessary to support the issuance of the Proposed Warrants which are the *sine qua non* of the proposed Reorganization Plan. For illustrative purposes of a model of the type of disclosure appropriate in connection with a major debt issue for a sewer system, the Board and the City submit a copy of the Official Statement of Louisville and Jefferson County Metropolitan Sewer District Sewer and Drainage System Revenue Bonds, Series 2013 (“The Louisville Official Statement” attached hereto as Attachment “A”), while proffering that the County’s proposed \$1.9 billion warrant issue will be far riskier than the Louisville issue and thus will require even more extensive financial disclosure. (See The Official Statement of Louisville and Jefferson County Metropolitan Sewer District, Series 2013A and Series 2013B, dated April 23, 2013 available at www.emma.msrb.org/EA522367-E).

OBJECTIONS

The County has filed its Disclosure Statement pursuant to Section 1125 of the Bankruptcy Code which requires a finding that such Statement contains “adequate information.” Adequate information is defined as:

information of a kind, and in sufficient detail, as far as is reasonably practicable in light of the nature and history of the debtor and the condition of the debtor’s books and records, that would enable a hypothetical reasonable investor typical of the holders of claims or interests of the relevant class to make an informed judgment about the plan.

11 U.S.C. § 1125(a)(1).

Additionally, case law under this section of the Bankruptcy Code has produced a list of factors that are relevant in evaluating the adequacy of a disclosure statement. *In re Metrocraft Publication Services Inc.*, 39 B.R. 567 (Bankr. N. D. Ga. 1984). Disclosure of all factors is not necessary in every case, and there may be cases in which disclosure of all of the factors is still not sufficient to provide adequate information for the proper evaluation of the plan. *Metrocraft*, 39 B.R. at 567-68. The factors include: (1) the events which led to the filing of a bankruptcy petition; (2) a description of the available assets and their value; (3) the anticipated future of the company; (4) the source of information stated in the disclosure statement; (5) a disclaimer; (6) the present condition of the debtor while in bankruptcy; (7) the scheduled claims; (8) the estimated return to creditors under a liquidation; (9) the accounting method utilized to produce financial information

and the name of the accountants responsible for such information; (10) the future management of the debtor; (11) the plan or a summary thereof; (12) the estimated administrative expenses, including attorneys' and accountants' fees; (13) the collectability of accounts receivable; (14) financial information, data, valuations or projections relevant to the creditors' decision to accept or reject the proposed plan; (15) information relevant to the risks posed to creditors under the plan; (16) the actual or projected realizable value from recovery of preferential or otherwise voidable transfers; (17) litigation likely to arise in a non-bankruptcy context; (18) tax attributes of the debtor; and (19) the relationship of the debtor with affiliates.

Id.

Due to the complex nature of the County's financial status as well as the complex approach the County is proposing to end this bankruptcy case, the Board and the City believe that the Court should not approve the Disclosure Statement for the following reasons:

I. FAILURE TO ADEQUATELY ADDRESS FINANCIAL INFORMATION, DATA, VALUATIONS OR PROJECTIONS RELEVANT TO THE DECISION TO ACCEPT OR REJECT THE PROPOSED PLAN:

A. The Disclosure Statement is devoid of underlying assumptions and any discussion or background material on why these assumptions are appropriate to use in the projections for the Financing Plan found in Exhibit No. 9. All references hereinafter made to the "Financing Plan" are to Exhibit No. 9 of the

County's Disclosure Statement. Full, complete and detailed disclosure of assumptions supporting the Financing Plan is missing.

B. The Disclosure Statement fails to provide in the Financing Plan information on assumed changes in water consumption for its customers that result from the plan or from exogenous factors.

C. The Disclosure Statement fails to contain in the Financing Plan sufficient detail on the assumed loss or growth of customers.

D. The Disclosure Statement fails to contain in the Financing Plan information on changes in assumed water consumption per customer that may result from factors such as:

- i. Price elasticity of demand to higher rates instituted by the new rate structure;
- ii. Impact of water saving fixtures and the water conservation program to be developed by the County;
- iii. Variation in consumption due to weather;
- iv. National trends in water consumption;
- v. Local trends in water consumption that may be evident by an analysis of historical data.

E. The Disclosure Statement fails to contain in the Financing Plan detail on the components of sewer revenue or the assumptions supporting their growth over the forecast period.

F. The Disclosure Statement fails to contain in the Financing Plan detail on the sources of Miscellaneous Revenue or support for the growth in the category of revenue.

G. The Disclosure Statement fails to contain in the Financing Plan detail on customers by rate class, either historically, currently, or prospectively, and fails to discuss on how the mix of customers may change and the impact this will have on the projections.

H. The Disclosure Statement fails to contain in the Financing Plan detail or discussion of the Operating Expense assumptions.

I. The Disclosure Statement fails to identify in the Financing Plan sources of funds to pay for \$1.2 billion in unfinanced capital spending requirements labeled as “CAPEX Shortfall” on page two of the exhibit, or to discuss the operational or regulatory impact, e.g., Alabama Department of Environmental Management (ADEM), the Environmental Protection Agency (EPA), etc., of deferring this identified sewer system requirement.

J. The Disclosure Statement fails to contain in the Financing Plan detail on the categories of future capital spending – repair and replacement, regulatory-driven or growth related.

K. Section 3.B.5. of the Disclosure Statement states that portions of the major plant improvements made in the 1990’s and early 2000’s under the Consent

Decree are now reaching the end of their useful life. Furthermore, given the burdensome requirements of the Consent Decree, the Disclosure Statement does little to speak to the specific topic of Affordability and how it was given consideration in the proposed settlement. The Disclosure Statement fails to contain in the Financing Plan discussion on the adequacy of assumed future capital spending to repair or replace these substantial assets.

L. In light of the tremendous capital spending requirements placed on Jefferson County in the past by regulatory requirements, and the fact that four of nine basins still have not been released from the Consent Decree as recorded in Section 3.B.5. of the Disclosure Statement, the Disclosure Statement fails to provide in the Financing Plan assumptions on the amount of future capital spending dedicated to meeting regulatory requirements or justification for the adequacy of this assumption.

M. The Disclosure Statement fails to contain in the Financing Plan information on the source of the interest rate assumptions or analysis of the appropriateness of these assumptions by comparison to other similar non-investment grade financings.

N. The Disclosure Statement fails to present in the Financing Plan alternate scenarios or a “downside case” that will enable interested parties to judge risks involved in inaccurate assumptions. In fact the Jefferson County

Commission, in a meeting held on July 23, 2013, is reported to have modified the Finance Plan less than four weeks after the filing of the original plan. According to *The Birmingham News*, one reason for the modification is that the Finance Plan's assumptions on water consumption have already proven to be too modest and thus revenue collections are lower than projected (www.al.com, July 23, 2013, [posted 5:00 PM], "Jefferson County Commission agrees to \$5 base charge for all sewer customers; a 13% increase to the average residential sewer bill"). There is significant uncertainty involved in a forty year projection. The Disclosure Statement fails to identify in the Financing Plan key assumptions and test various outcomes under adverse conditions.

O. The Disclosure Statement fails to present in the Financing Plan information on historical or current nonpayment of sewer bills and the impact such nonpayment has on cash flow.

P. The Disclosure Statement fails to discuss whether an audit of the County, or of the sewer system, will be available at the time of issuance of the proposed warrants for the fiscal years ending September 30, 2012, and September 30, 2013.

Q. The Disclosure Statement fails to discuss whether the County has the capability of producing reliable financial information in a timely manner on an annual and interim basis.

R. The Disclosure Statement fails to describe the County's financial management system and its reliability.

S. The Disclosure Statement fails to describe the proposed bond indenture, official statement and other offering documents.

T. The Rate Resolution of the Jefferson County Commission dated November 6, 2013, (Paragraph IX., page 34), authorizing the March 1, 2013, rate increase referenced its rate consultant to find that the new rates were "appropriate and proper...." There is no discussion in the Financing Plan or a reference to a consultant's report addressing the affordability of the rate structure contained in the Plan. There is no stated assumption on the growth in Median Household Income in the service area over the term of the Financing Plan. The cost of sewer service as a percentage of Median Household Income is a common measure of affordability (and indirectly, the reasonableness) of sewer service.

II. FAILURE TO ADEQUATELY ADDRESS INFORMATION RELEVANT TO RISKS:

A. In the rate resolution passed by the Jefferson County Commission on November 6, 2012, (paragraph FFF.(i.), page 19), the County's rate consultant, Eric Rothstein, is quoted as testifying that the long term indebtedness of the sewer system per customer is \$21,000, a level he described as "extraordinary" given typical long term indebtedness per customer for most utilities ranges between \$1,100 and \$2,000. Under the proposed Plan, the debt obligations of the Sewer

System initially decrease to approximately \$1.9 billion post issuance of the New Sewer Warrants. However, as a result of accrual of interest in the Capital Appreciation and Convertible Capital Appreciation Bonds, indebtedness steadily increases, peaking at \$2.55 billion in year 2031 (See Exhibit 1 to the Affidavit of James H. White, III, attached hereto as Attachment “B”). This represents an increase in debt per customer from approximately \$13,000 (\$1.9 billion indebtedness divided by 145,000 customers) to \$17,000 (\$2.55 billion indebtedness divided by 145,000 customers). The Disclosure Statement fails to discuss the risks involved in exiting bankruptcy and operating a sewer system with such an increasing debt burden, a burden which, to use Mr. Rothstein’s standards, still appears “extraordinary.”

B. The Disclosure Statement fails to discuss the implications of the financial risk remaining in the sewer system after implementation of the Financing Plan and sale of the New Sewer Warrants. The Financing Plan assumes the New Sewer Warrants will have very high interest rates with yields ranging from 3.50% to 6.75%. The extremely high yields required to sell the New Sewer Warrants indicates a high residual financial risk in the sewer system post Plan implementation. The Disclosure Statement fails to discuss whether this financial condition will limit the system’s ability to meet its regulatory obligations and will

pose a risk of re-entry into bankruptcy and whether a sewer system operating in such a condition will discourage economic development in its service area.

C. Paragraph XI.C.3.d. of the Disclosure Statement entitled Additional Regulatory Requirements, appears to give only cursory treatment to regulatory risk. The Disclosure Statement fails to discuss the rules under development or consideration by regulatory agencies, trends in regulation, or potential regulatory requirements discussed in the environmental community that may ultimately migrate into the rulemaking arena.

D. The Disclosure Statement fails to discuss the sewer system's ability to access capital markets to finance anticipated (the \$1.2 billion CAPEX shortfall shown in the Financing Plan for the years 2032 to 2053) or unanticipated contingencies. Therefore, while issuance of parity warrants may be authorized, they may be practically impossible with unknown restrictions in the indenture and the poor financial condition of the sewer system.

E. The proposed Financing Plan requires increasing debt service payments throughout the 40-year life of the indebtedness (See "Total Gross Debt Service" in Exhibit 9 to the Disclosure Statement. (See Exhibit 2 to the Affidavit of James H. White, III attached hereto as Attachment "B"). The Disclosure Statement fails to discuss prior precedent among governmental water and sewer utilities of a constantly ascending debt service schedule, and the risks associated

with such a debt service schedule. Jefferson County should provide more detail regarding its Financing Plan and include discussion about the potential limitations for accessing financial markets for future bond issues due to this debt service structure.

F. At the July 24, 2012, Jefferson County Sewer Hearings, the County's rate consultant, Mr. Eric Rothstein, presented material stating that selected assets were not "used and useful" and that the County should "Determine debt levels associated with reasonable, prudently incurred costs." Moreover, the Resolution of the Jefferson County Commission dated November 6, 2012, stated that the book value of the sewer system's assets exceeded the value of facilities required to deliver sewer services by \$1.6 billion to \$1.8 billion due to the overvaluation of the *Kipp* assets and excessive costs incurred in construction of wastewater treatment plants. This excluded excess costs incurred as a result of admitted waste, fraud or abuse associated with the Consent Decree work. Adjusting the stated book value of \$2.8 billion by the higher and lower estimate of excess cost yields an adjusted book value of the System in the range of \$1.0 billion \$2.8 billion book value less \$1.8 billion overvaluation/excess costs) to \$1.2 billion (\$2.8 billion book value less \$1.6 billion overvaluation/excess costs). The Disclosure Statement contains no discussion of the risks associated with debt substantially in excess of the "used and useful" value of sewer system assets.

G. The Financing Plan to the Disclosure Statement defers 48% of assumed capital spending requirements for the years 2032-2053, to an indeterminate date such deferral apparently for the purpose of freeing up cash flow to make debt service payments. The Disclosure Statement fails to discuss the risk of such a deferral.

CONCLUSION

WHEREFORE, the Board and the City object to the Debtor's Disclosure Statement, and request that the Disclosure Statement, as submitted, not be approved.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on July 29th, 2013, a copy of the foregoing motion and the exhibit to the motion were served upon the parties identified on the attached service list by the means specified therein.

/s/ Charlie D. Waldrep
Of Counsel

MASTER SERVICE LIST

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<p>U.S. Securities and Exchange Commission Office of Reorganization Atlanta Regional Office 950 East Paces Ferry Road, N.E., Suite 900 Atlanta, Georgia 30326-1382 Telephone: 404-842-7600 Facsimile: 404-842-7633 E-mail: atlreorg@sec.gov</p>	<p>National Public Finance Guarantee Corp. c/o Amy Edgy Ferber Jones Day 1420 Peachtree Street, N.E. Suite 800 Atlanta, GA 30309-3053 aeferber@jonesday.com</p>
<p>Lloyds TSB Bank PLC c/o Laura E. Appleby Chapman and Cutler LLP 330 Madison Ave. 34th Floor New York, NY 10017 appleby@chapman.com</p>	<p>National Public Finance Guarantee Corp. c/o Corinne Ball Jones Day 222 East 41st Street New York, NY 10017-6702 cball@jonesday.com</p>
<p>Lloyds TSB Bank PLC c/o Ann E. Acker c/o James E. Spiotto Chapman and Cutler, LLP 111 W. Monroe St. Chicago, IL 60603 acker@chapman.com spiotto@chapman.com</p>	<p>The Securities and Exchange Commission SEC Headquarters 100 F Street, NE Washington, DC 20549-9040 Attention: Morgan Bradylyons, Senior Counsel bradylyonsm@sec.gov</p>

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VIA FEDEX:

Shoe Station, Inc. Attn: Michael T. Cronin, Esq. Johnson Pope Bokor Ruppel & Burns, LLP 911 Chestnut Street Clearwater, FL 33576	Teklinks Inc. 201 Summit Parkway Homewood, AL 35209
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AMT Medical Staffing, Inc. 2 20th Street North Suite 1360 Birmingham, AL 35203	Brice Building Co., LLC 201 Sunbelt Parkway Birmingham, AL 35211
John Plott Company Inc. 2804 Rice Mine Road NE Tuscaloosa, AL 35406	Laboratory Corporation of America 430 South Spring Street Burlington, NC 27215 Attention: Legal Department

Attachment A
OFFICIAL STATEMENT

NEW ISSUE: Book-Entry Only

**Ratings: Moody's: Aa3
Standard & Poor's: AA
Fitch: AA-
(See "Ratings" herein)**

In the opinion of Bond Counsel, under existing law and as of the date of issuance of the Current Bonds, (i) interest on the Current Bonds is excluded from gross income for federal income tax purposes and is not an item of tax preference in determining federal alternative minimum taxable income, although such interest is included in adjusted current earnings for purposes of determining the alternative minimum taxable income of a corporation, and (ii) under the Constitution and laws of the Commonwealth of Kentucky, the Current Bonds are exempt from ad valorem taxation, and the interest thereon is exempt from income taxation, by said Commonwealth and all of its political subdivisions and taxing authorities. See "Tax Treatment" herein.



\$115,790,000
LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
SEWER AND DRAINAGE SYSTEM REVENUE BONDS, SERIES 2013A

and

\$119,515,000
LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
SEWER AND DRAINAGE SYSTEM REVENUE BONDS, SERIES 2013B

Dated: Date of Delivery

Due: As shown on the inside cover

The above captioned bonds (individually, the "Series 2013A Bonds" and the "Series 2013B Bonds" and collectively, the "Current Bonds") will be issued in fully registered form and, when issued, will be registered in the name of Cede & Co., as registered owner and nominee for The Depository Trust Company ("DTC"), New York, New York. Purchases of beneficial interests in the Current Bonds will be made in book-entry only form in denominations of \$5,000 or integral multiples thereof. Purchasers of beneficial interests will not receive certificates representing their interests in the Current Bonds. Except as otherwise provided herein, so long as Cede & Co., as nominee of DTC, is the registered owner of the Current Bonds, any references herein to the registered owners or owners shall mean Cede & Co., and shall not mean the actual purchasers (the "Beneficial Owners") of the Current Bonds. Payments of principal, redemption price and interest with respect to the Current Bonds will be made directly to DTC or its nominee, Cede & Co., by The Bank of New York Mellon Trust Company, N.A., Louisville, Kentucky (the "Paying Agent"), as Bond Registrar and Paying Agent for the Current Bonds, so long as DTC or Cede & Co. is the registered owner of the Current Bonds. Disbursement of such payments to the DTC Participants is the responsibility of DTC and disbursement of such payments to the Beneficial Owners is the responsibility of the DTC Participants and the Indirect Participants, as more fully described herein. See "Description of the Current Bonds — Book-Entry Only System" herein.

The Current Bonds are subject to optional and sinking fund redemption prior to maturity as described herein.

The Current Bonds are a special limited revenue obligation of the District. The Current Bonds do not constitute an obligation or indebtedness of the District, the Louisville/Jefferson County Metro Government, or of the County of Jefferson, Kentucky within the meaning of Constitutional and statutory limitations on indebtedness.

The Current Bonds are offered when, as and if issued by the District and received by the Underwriters, subject to withdrawal or modification of the offer without notice and subject to the approval of legality by Wyatt, Tarrant & Combs, LLP, Louisville, Kentucky, Bond Counsel to the District. Certain legal matters will be passed upon for the District by its General Counsel, Paula M. Purifoy, Esq. It is expected that the Current Bonds in definitive form will be ready for delivery to the Underwriters in New York, New York on or about May 23, 2013.

Citigroup

BofA Merrill Lynch

Dated: April 23, 2013

\$115,790,000
LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
SEWER AND DRAINAGE SYSTEM REVENUE BONDS, SERIES 2013A

<u>Due May 15</u>	<u>Principal Amount</u>	<u>Interest Rate</u>	<u>Price</u>	<u>Yield</u>	<u>CUSIP*</u> <u>546589</u>
2035	\$63,330,000	4.000%	104.522 ^C	3.460%	SR4
2036	52,460,000	4.000	104.094 ^C	3.510	SS2

^C Priced to the call date of May 15, 2023.

\$119,515,000
LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
SEWER AND DRAINAGE SYSTEM REVENUE BONDS, SERIES 2013B

<u>Due May 15</u>	<u>Principal Amount</u>	<u>Interest Rate</u>	<u>Price</u>	<u>Yield</u>	<u>CUSIP*</u> <u>546589</u>
2016	\$1,260,000	5.000%	113.379	0.470%	SC7
2017	1,315,000	5.000	117.097	0.640	SD5
2018	1,390,000	5.000	119.968	0.890	SE3
2019	1,450,000	5.000	122.568	1.090	SF0
2020	1,525,000	5.000	124.378	1.330	SG8
2021	1,605,000	5.000	125.624	1.570	SH6
2022	1,690,000	5.000	126.702	1.770	SJ2
2023	1,765,000	5.000	127.532	1.950	SK9
2024	1,855,000	5.000	125.674 ^C	2.130	SL7
2025	1,940,000	5.000	123.848 ^C	2.310	SM5
2026	14,420,000	5.000	121.955 ^C	2.500	SN3
2037	43,850,000	4.000	102.904 ^C	3.650	SP8
2038	45,450,000	4.000	102.651 ^C	3.680	SQ6

^C Priced to the call date of May 15, 2023.

* 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 number.

REGARDING USE OF THIS OFFICIAL STATEMENT

No dealer, salesman or any other person has been authorized to give any information or to make any representations with respect to the Current Bonds, other than the information and representations contained in this Official Statement, and, if given or made, such other information or representations must not be relied upon. This Official Statement does not constitute an offer to sell or a solicitation of an offer to buy any of the Current Bonds by any person in any jurisdiction in which such offer or solicitation is not authorized or in which the person making such offer or solicitation is not qualified to do so or to any person to whom it is unlawful to make such offer or solicitation. The information set forth herein has been obtained from the Louisville and Jefferson County Metropolitan Sewer District and other sources which are believed to be reliable, but the accuracy or completeness of such information is not guaranteed by, and should not be construed as a representation of, the Underwriters. This Official Statement is submitted in connection with the sale of the Current Bonds and may not be reproduced or be used, in whole or in part, for any other purpose. The information and expressions of opinion stated 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 the information contained herein is correct as of any time subsequent to the date hereof.

IN CONNECTION WITH THIS OFFERING THE UNDERWRITERS MAY OVERALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKET PRICE OF THE CURRENT BONDS OFFERED HEREBY AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.

LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT

BOARD MEMBERS

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Tom Austin, Vice-Chair
Daniel Arbough
Lonnie Calvert
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J.J.B. Hilliard, W.L. Lyons LLC
Louisville, Kentucky

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**OFFICIAL STATEMENT
Relating to**

\$115,790,000

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
SEWER AND DRAINAGE SYSTEM REVENUE BONDS, SERIES 2013A**

and

\$119,515,000

**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
SEWER AND DRAINAGE SYSTEM REVENUE BONDS, SERIES 2013B**

The purpose of this Official Statement, which includes the cover page and the appendices hereto, is to set forth information concerning the Louisville and Jefferson County Metropolitan Sewer District (the "District" or the "Issuer"), and its sewer and drainage system (the "System"), in connection with the sale by the District of its Sewer and Drainage System Revenue Bonds, Series 2013A Bonds (the "Series 2013A Bonds") and its Sewer and Drainage System Revenue Bonds, Series 2013B Bonds (the "Series 2013B Bonds" and, together with the Series 2013A Bonds, the "Current Bonds"). The Current Bonds are being issued pursuant to the provisions of Chapter 76 of the Kentucky Revised Statutes, as amended (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 an Eighteenth Supplemental Sewer and Drainage System Revenue Bond Resolution adopted by the District on March 25, 2013 (collectively, the "Resolution"), to refund certain of the District's outstanding Sewer and Drainage System Revenue Bonds, Series 2001A, Series 2004A and 2005A. The Current Bonds will rank on a parity as to source of payment with Bonds previously issued and any Additional Bonds and Refunding Bonds (as such terms are defined in "Appendix A - Summary of Provisions of the Resolution") which may be issued from time to time pursuant to the Resolution.

INTRODUCTION

The District was created pursuant to the Act in 1946 to provide adequate sewer and drainage facilities and service 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, and portions of the unincorporated areas of the County (collectively hereinafter referred to as 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 an independent legal entity.

Descriptions of the Current Bonds, the System, the District, the Act and the Resolution are included in this Official Statement.

Any capitalized terms not otherwise defined in this Official Statement shall have the meaning ascribed to them in "Appendix A - Summary of Provisions of the Resolution."

PURPOSE

The Series 2013A Bonds are being issued to currently refund the District's outstanding Sewer and Drainage System Revenue Bonds, Series 2001A (the "Series 2001A Bonds"). The Series 2013B Bonds are being issued to advance refund the District's outstanding Sewer and Drainage System

Revenue Bonds, Series 2004A (the “Series 2004A Bonds”) and certain of the District’s outstanding Sewer and Drainage System Revenue Bonds, Series 2005A Bonds (the “Series 2005A Bonds” and, together with the Series 2001A Bonds and Series 2004A Bonds, the “Prior Bonds”).

The Series 2001A Bonds and Series 2004A Bonds were issued to finance various improvements to the District's sewer and drainage system. The Series 2005A Bonds were issued to currently refund certain of the District’s outstanding Sewer and Drainage System Revenue Bonds, Series 1996A and to advance refund certain of the District’s outstanding Sewer and Drainage System Revenue Bonds, Series 1997A.

For additional information with regard to the application of the proceeds of the Current Bonds, see “Plan of Financing” herein.

DESCRIPTION OF THE CURRENT BONDS

General

The Depository Trust Company (“DTC”), New York, New York, will act as securities depository for the Current Bonds. The Current Bonds will be initially issued in book-entry only form and the ownership of the Current Bonds will be registered in the name of Cede & Co., as nominee for DTC. Except as otherwise provided herein, so long as Cede & Co., as nominee of DTC, is the registered owner of the Current Bonds, any references herein to the registered owners or owners of the Current Bonds shall mean Cede & Co., and shall not mean the Beneficial Owners (as defined herein) of the Current Bonds. Upon the discontinuance of the book-entry only system described herein under “Description of the Current Bonds — Book-Entry Only System,” the provisions of the Resolution described in the following paragraph, among others, will be applicable to Beneficial Owners who become registered owners. Information regarding DTC and the book-entry only system described herein has been obtained from DTC.

The Current Bonds will be dated on original issuance as their dated date, and will bear interest at the rates and mature in the amounts and on the dates set forth on the inside cover page of this Official Statement. The Current Bonds are issuable as fully registered bonds (initially in book-entry only form as described below in “Book Entry Only System”) in denominations of \$5,000 or integral multiples thereof. Interest will be payable on November 15, 2013, 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 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 next succeeding business date). Principal and premium, if any, on the Current Bonds are payable to the registered owner thereof upon presentation and surrender at the corporate trust office in Louisville, Kentucky of The Bank of New York Mellon Trust Company, N.A., as Paying Agent for the Current Bonds.

Optional Redemption

The Series 2013A Bonds maturing on or after May 15, 2024, are subject to redemption prior to maturity at the option of the District, from time to time in whole or in part on any date, on or after May 15, 2023, and, if less than all Series 2013A Bonds of a maturity are called, the selection of such bonds 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 thereof plus accrued interest to the redemption date.

The Series 2013B Bonds maturing on or after May 15, 2024, are subject to redemption prior to maturity at the option of the District, from time to time in whole or in part on any date, on or after May 15, 2023, and, if less than all Series 2013B Bonds of a maturity are called, the selection of such bonds 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 thereof plus accrued interest to the redemption date.

In determining the amount of any sinking fund installment due on any date specified above, there shall be deducted the principal amount of any Current Bonds to which such sinking fund installment applies, where such Current 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 Current Bonds) in the Debt Service Account. In addition, upon the redemption or purchase of the Current 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 Current 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 Current 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 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 Current Bonds (or portion thereof) or any defect therein shall not affect the validity of any proceedings for the redemption of the Current Bonds (or portions thereof). All Current 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.

Exchange and Transfer

The registration of any Current Bond may be transferred only upon the books of the District kept by the Bond Registrar, by the owner thereof, in person or by his or her attorney duly authorized in writing, upon surrender of such Current Bond at the corporate trust 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 his or her duly authorized attorney. Any Bond may be exchanged at the corporate trust office of the Bond Registrar for new Current Bonds of any authorized denomination and of the same aggregate principal amount and Series and maturity as the surrendered Current 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 Current Bonds to be redeemed and ending on the day after the mailing of the notice of redemption, or (b) to transfer or exchange any Current 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 Current Bonds or Current Bonds of a particular maturity or particular Current 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 Current 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 Current Bonds will thereupon cease, terminate and become void and be discharged and satisfied.

Subject to the provisions of the Resolution, any outstanding Current 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 Current 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 Current 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 Current Bonds on or prior to the redemption date or maturity date thereof, as the case may be, and (c) in the event such Current 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 Current Bonds that the deposit required by (b) above has been made with the escrow agent and that such Current 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 Current 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 -Summary of Provisions of the Resolution - Defeasance."

Book-Entry Only System

Unless otherwise noted, the following description of the procedures and recordkeeping with respect to beneficial ownership interests in the Current Bonds, payment of interest and other payments on the Current Bonds to DTC Participants or Beneficial Owners (as defined herein) of the Current Bonds, confirmation and transfer of beneficial ownership interests in the Current Bonds and other bond-related transactions by and between DTC, the DTC Participants and Beneficial Owners of the Current Bonds is based solely on information furnished by DTC to the District for inclusion herein. Accordingly, the District, the Paying Agent and the Underwriters do not and cannot make any representations concerning these matters.

When the Current Bonds are issued, ownership interests will be available to purchasers only through a book-entry only system maintained by DTC. Beneficial ownership in the Current Bonds may be acquired or transferred only through book entries made on the records of DTC and DTC Participants. If the Current Bonds are taken out of the book-entry only system and delivered to Bondowners in physical form, as described below, the following discussion will not apply.

DTC will act as securities depository for the Current Bonds. DTC is a limited-purpose trust company organized under the laws of the State of New York, 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 to hold securities of its participants (the “DTC Participants”) and to facilitate the clearance and settlement of securities transactions among DTC Participants in such securities through electronic book-entry changes in accounts of the DTC Participants, thereby eliminating the need of physical movement of securities certificates. DTC Participants include securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations, some of whom (and/or their representatives) own DTC. Access to the DTC system is also available to others, including without limitation, banks, brokers, dealers and trust companies that clear through or maintain a custodial relationship with a DTC Participant, either directly or indirectly (the “Indirect Participants”).

SO LONG AS CEDE & CO. IS THE REGISTERED OWNER OF THE CURRENT BONDS, AS NOMINEE OF DTC, REFERENCES HEREIN TO THE OWNERS, THE BONDHOLDERS, OR THE REGISTERED OWNERS OF THE CURRENT BONDS SHALL MEAN CEDE & CO. AND SHALL NOT MEAN THE BENEFICIAL OWNERS OF THE CURRENT BONDS. When reference is made to any action which is required or permitted to be taken by a Beneficial Owner, such reference shall only relate to action by such Beneficial Owner or those permitted to act (by statute, regulation, or otherwise) on behalf of such Beneficial Owner for such purposes. When notices are given, they shall be sent by the Paying Agent to DTC only.

The ownership of each fully registered Current Bond will be registered in the name of Cede & Co., as nominee for DTC. The DTC Participants shall receive a credit balance in the records of DTC of their ownership interests. The ownership interest of each actual purchaser of each Current Bond (the “Beneficial Owner”) will be recorded through the records of the DTC Participant. Beneficial Owners will receive a written confirmation of their purchases providing details of the Current Bonds acquired. Beneficial Owners will not receive certificates representing their ownership interest in the Current Bonds other than upon the occurrence of certain events, as hereinafter described.

Principal and redemption price of, and interest payments on the Current Bonds will be paid by the Paying Agent to DTC or its nominee, Cede & Co., as registered owner of the Current Bonds, and then paid by DTC to the DTC Participants and thereafter paid by the DTC Participants and Indirect Participants to the Beneficial Owners when due. Upon receipt of moneys, DTC’s current practice is to credit immediately the account of the DTC Participants in accordance with their respective holdings shown on the records of DTC. Payments by DTC Participants and Indirect Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is now the case with municipal securities held for the accounts of customers in bearer form or registered in “street name,” and will be the responsibility of such DTC Participant or Indirect Participant and not of DTC, the District, or the Paying Agent, subject to any statutory or regulatory requirements as may be in effect from time to time.

THE DISTRICT AND THE PAYING AGENT WILL NOT HAVE ANY RESPONSIBILITY OR OBLIGATION TO DTC PARTICIPANTS, TO INDIRECT PARTICIPANTS OR TO ANY BENEFICIAL OWNER WITH RESPECT TO (I) THE ACCURACY OF ANY RECORDS MAINTAINED BY DTC, ANY DTC PARTICIPANT, OR ANY INDIRECT PARTICIPANT; (II) THE PAYMENT BY DTC OR ANY DTC PARTICIPANT OR INDIRECT PARTICIPANT OF ANY AMOUNT WITH RESPECT TO THE CURRENT BONDS; (III) ANY NOTICE WHICH IS PERMITTED OR REQUIRED TO BE GIVEN TO BONDHOLDERS UNDER THE RESOLUTION; OR (IV) ANY CONSENT GIVEN OR OTHER ACTION TAKEN BY DTC AS BONDOWNER.

DTC may determine to discontinue providing its services with respect to the Current Bonds at any time by giving notice to the District and discharging its responsibilities with respect thereto under applicable law. In addition, the District may determine that continuation of the system of book-entry transfers through DTC (or a successor securities depository) is not in the best interests of the Beneficial Owners. If for either reason the book-entry only system as described herein is discontinued, Current Bond certificates will be delivered as described in the Resolution and the Beneficial Owner, upon

registration of certificates held in the Beneficial Owner's name, will become the registered owner of the Current Bonds. Thereafter, Current Bonds may be exchanged for an equal aggregate principal amount of Bonds in authorized denominations upon surrender thereof at the principal office of the Paying Agent. For every such exchange of Current Bonds, the District and the Paying Agent may make a charge sufficient to reimburse them for any tax, fee or other governmental charge required to be paid with respect to such exchange, but no other charge may be made to the Owner for any exchange of the Current Bonds.

SECURITY AND SOURCE OF PAYMENT FOR THE CURRENT BONDS

The Current 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 Louisville/Jefferson County Metro Government or the County.

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 source of payment with the Current Bonds.

<u>Series</u>	<u>Dated Date</u>	<u>Original Principal Amount</u>	<u>Amount Outstanding*</u>
Series 2001A**	October 15, 2001	\$300,000,000	\$131,670,000
Series 2004A***	January 15, 2004	\$100,000,000	\$100,000,000
Series 2005A***	May 1, 2005	\$64,740,000	\$55,020,000
Series 2006A	May 1, 2006	\$100,000,000	\$93,160,000
Series 2007A	November 15, 2007	\$61,125,000	\$52,305,000
Series 2008A	May 1, 2008	\$105,000,000	\$102,690,000
Series 2009A	May 15, 2009	\$76,275,000	\$62,870,000
Series 2009B	August 15, 2009	\$225,770,000	\$190,165,000
Series 2009C	November 24, 2009	\$180,000,000	\$180,000,000
Series 2010A	November 30, 2010	\$330,000,000	\$330,000,000
Series 2011A	August 24, 2011	<u>\$263,360,000</u>	<u>\$261,880,000</u>
Total		<u>\$1,806,270,000</u>	<u>\$1,559,760,000</u>

* As of April 1, 2013.

** Expected to be called in full on May 24, 2013 from proceeds of the Series 2013A Bonds.

*** The Series 2004A Bonds are expected to be called in full on May 15, 2014 from the proceeds of the Series 2013B Bonds. That portion of the Series 2005A Bonds eligible for advanced refunding is expected to be called on May 15, 2015 from the proceeds of the Series 2013B Bonds.

Subordinated Revenue Bond Anticipation Notes

On December 4, 2012 the District issued its Subordinated Revenue Bond Anticipation Notes, Series 2012A (the "Series 2012A Notes") for the purpose of currently refunding the District's outstanding Subordinated Revenue Bond Anticipation Notes, Series 2011B. The Series 2012A 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 2012A Notes are payable at maturity on December 4, 2013. The Series 2012A 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 Subordinate Debt Resolution adopted by the District on April 26, 2010, as amended by a Subordinate Debt Sale Resolution adopted on October 22, 2012 (the “Subordinated Debt Resolution”).

The Series 2012A Notes (to the extent not paid from other sources) shall be paid from the proceeds Additional Bonds issued in accordance with the terms of the Resolution to the extent other funds are not available. The Series 2012A Notes are payable upon such terms as are described in the Subordinated Debt Resolution; provided, however, that the pledge created by the Series 2012A Notes, insofar as it relates to the revenues pledged under the Bond Resolution, is subject and subordinate in all respects to the priorities, liens and rights created by and existing under the Resolution for the security and source of payment and protection of all Bonds previously issued, the Current Bonds and any Additional Bonds and Refunding Bonds (as such terms are defined in “Appendix A - Summary of Provisions of the Resolution”) which may be issued from time to time pursuant to the Resolution.

Pledged Property

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 by, the Pledged Property which is defined by the Resolution to be the proceeds of the sale of Bonds, all Revenues, all amounts on deposit in the Funds or 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.

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:

[1] an amount equal to 110% of the Aggregate Net Debt Service for such Fiscal Year; and

[2] 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

[3] all Operating Expenses for such Fiscal Year as estimated in the Annual Budget; and

[4] 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

[5] 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 - Summary of Provisions of the Resolution" 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 results, using these terms as defined in the Resolution, see Table 5-3 of "Appendix E - Consulting Engineer's Report".

Additional Bonds

Additional Bonds may be issued on a parity with the Current 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 (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. For additional information relating to Additional Bonds see "Appendix A - 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: (1) Construction and Acquisition

Fund; (2) Revenue Fund; (3) Bond Fund, consisting of a Debt Service Account and a Reserve Account; (4) Senior Subordinated Debt Fund; and (5) Renewal and Replacement Account.

Construction and Acquisition Fund

Proceeds of the Current Bonds will be deposited in the 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 - 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.

[1] 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

[2] 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; and

[3] Each month the District shall pay from the Revenue Fund such amounts as are necessary to meet Operating Expenses for such month; and

[4] 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 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 - Summary of Provisions of the Resolution - Bond Fund — Reserve Account" for further information regarding the Reserve Account.

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 base and additional rentals when due on the 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 - 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 - 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 - 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 - 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 several 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 for automatic termination 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 Bond Resolution. Certain provisions of the District's outstanding swap agreements are summarized below.

The Bond 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 Bond 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 previously issued Senior Subordinated Debt to provide interim financing for capital projects. Each series of Senior Subordinated Debt previously issued has been retired from the proceeds of Bonds issued under the Bond Resolution.

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 Bond 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 Bond Resolution and Note Resolution".

Floating-to-Fixed Swap

In 2001, the District entered into a forward-starting interest rate swap (the "1999 Swap") pursuant to which beginning in November 2009 the District would pay a fixed rate of 4.4215% and receive 67% of the 30-day 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 Swap 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 the fixed-rate Series 2010A Notes which were currently refunded by the Series 2011A Notes. The Series 2011A Notes were currently refunded by the Series 2011B Notes which have since been currently refunded by the Series 2012A Notes. In August 2009, the District reversed that portion of the 1999 Swap which corresponds 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 Swap was subsequently terminated in April 2013. The only portion of the 1999 Swap that remains in effect is the non-reversed portion of the 1999 Swap, which amortizes in amounts that correspond with the expected maturity structure of a future hypothetical bond issue the District may issue to permanently refinance the Series 2011B Notes. The District's expectation is that variable payments received under the non-reversed portion of the 1999 Swap will hedge future interest rate movements for any fixed-rate Bonds hereafter issued under the Bond Resolution (or any other fixed rate renewal notes hereafter issued under the Subordinated Debt Resolution) to refinance the Series 2012A Notes. As of April 1, 2013 the estimated mark-to-market value of the non-reversed portion of the 1999 Swap was approximately *negative* \$89 million.

Reversed Swaps

In August 2009, the District entered into offsetting transactions with respect to several of its existing swaps. For its existing floating-to-fixed swaps, pursuant to which the District agreed to pay a fixed rate and receive a floating index rate, the reversal swap requires the District to pay a floating rate index and receive a fixed rate. The net result of the reversals is that the District pays the difference between the fixed rates over the original term of the contract (plus or minus any differential due to the different floating rate indices.) The estimated net payments on the reversed swaps are included under the heading "Subordinated Debt Service" in the table under "PLAN OF FINANCING - Debt Service Requirements", below. The District's strategy on entering into the reversals was to fix the cost of terminating the swaps, to avoid the need for immediate payment of the termination value of the swaps but to extend the payments of such termination value over the original term of the swaps, and to retain the

flexibility to manage the District's outstanding debt through modification of its outstanding swap agreements.

Basis Swaps

The District has entered into two basis swaps pursuant to which the District pays or will pay the Securities and Financial Markets Association Municipal Swap Index under each swap and receives or will receive under one of the swaps (the "2003 Basis Swap") 78.78% of the Three-Month LIBOR Index and under the other swap (the "2008 Basis Swap") 100.30% of the Three-Month LIBOR Index. Payments under the 2003 Basis Swap began in November 2003. Payments under the 2008 Basis Swap began in November 2011. As of April 1, 2013, the estimated mark-to-market value of the 2003 Basis Swap was approximately *negative* \$102,000 and the estimated mark-to-market value of the 2008 Basis Swap was approximately *positive* \$12.0 million.

PLAN OF FINANCING

The Current Bonds are being issued to provide funds which, together with interest earned thereon, will be applied to [i] refund certain of the Prior Bonds as described herein and [ii] pay the costs of issuance of the Current Bonds. The amount on deposit in the Reserve Account upon the issuance of the Current Bonds exceeds the Debt Service Reserve Requirement and the amount of such excess will be applied to the refunding of the Prior Bonds as described below. None of the proceeds of the Current Bonds are required to be or will be deposited in the Reserve Account upon the issuance of the Current Bonds.

The Refunding Plan

Proceeds of the Series 2013A Bonds will be deposited with the Paying Agent and applied on May 24, 2013, together with a portion of the amount released from the Reserve Account, to the redemption of the Series 2001A Bonds maturing May 15, 2036.

Proceeds of the Series 2013B Bonds and the remainder of the amount released from the Reserve Account will be deposited into an Escrow Fund established pursuant to a Refunding Escrow Agreement dated as of the date of original issuance of the Series 2013B Bonds (the "2013B Escrow Agreement") with the Paying Agent. Pursuant to the 2013B Escrow Agreement, the amount on deposit in the Escrow Fund, including any additional amount the District may deposit therein, and increased or reduced by any investment earnings or losses on the amount to the credit of the Escrow Fund, will be applied by the Paying Agent on (i) May 15, 2014 to the redemption of all of the outstanding Series 2004A Bonds and (ii) May 15, 2015 to the redemption of that portion of the Series 2005A Bonds eligible for advance refunding.

Estimated Sources and Uses of Funds

The estimated sources and uses of the proceeds of the Series 2013A Bonds are summarized below:

Sources⁽¹⁾:

Par Amount of Series 2013A Bonds	\$115,790,000.00
Original Issue Premium	\$5,011,495.00
Amount released from Reserve Account	<u>\$13,354,832.28</u>
Total Sources	<u>\$134,156,327.28</u>

Uses⁽¹⁾:

Refunding of Series 2001A Bonds	\$132,492,937.50
Costs of Issuance ⁽²⁾	\$215,766.55
Underwriter's Discount.....	<u>\$1,447,623.23</u>
Total Uses	<u>\$134,156,327.28</u>

(1) Estimated, subject to change.

(2) Includes legal fees and expenses, printing costs, rating agency fees, fees and expenses of the Paying Agent, Escrow Agent and Financial Advisor, and miscellaneous costs.

The estimated sources and uses of the proceeds of the Series 2013B Bonds are summarized below:

Sources⁽¹⁾:

Par Amount of Series 2013B Bonds	\$119,515,000.00
Original Issue Premium	\$9,301,523.85
Amount released from Reserve Account	<u>\$13,784,461.35</u>
Total Sources	<u>\$142,600,985.20</u>

Uses⁽¹⁾:

Deposit to Escrow Fund.....	\$141,460,997.15
Costs of Issuance ⁽²⁾	\$222,133.29
Underwriter's Discount.....	<u>\$917,854.76</u>
Total Uses	<u>\$142,600,985.20</u>

(1) Estimated, subject to change.

(2) Includes legal fees and expenses, printing costs, rating agency fees, fees and expenses of the Paying Agent, Escrow Agent and Financial Advisor, and miscellaneous costs.

Debt Service Requirements

The following table indicates the estimated annual debt service requirements on the Current Bonds and the outstanding Bonds.

Bond Year Ending	2013A Bond Principal	2013A Bond Interest	2013A Bond Total Debt Service	2013B Bond Principal	2013B Bond Interest	2013B Bond Total Debt Service	Existing Senior Lien Bond Debt Service ⁽¹⁾	Total Senior Lien Bond Debt Service	Direct Payments ⁽²⁾	Net Senior Lien Bond Debt Service	Subordinated Debt Service ⁽³⁾	Total Net Debt Service
2014		\$4,528,676	\$4,528,676		\$4,969,800	\$4,969,800	\$95,612,031	\$105,110,507	(\$10,986,150)	\$94,124,357	\$14,771,338	\$108,895,695
2015		4,631,600	4,631,600		5,082,750	5,082,750	95,795,681	105,510,031	(10,986,150)	94,523,881	14,648,520	109,172,401
2016		4,631,600	4,631,600	1,260,000	5,082,750	6,342,750	94,574,694	105,549,044	(10,986,150)	94,562,894	14,453,959	109,016,852
2017		4,631,600	4,631,600	1,315,000	5,019,750	6,334,750	94,780,144	105,746,494	(10,986,150)	94,760,344	14,250,718	109,011,061
2018		4,631,600	4,631,600	1,390,000	4,954,000	6,344,000	94,982,731	105,958,331	(10,986,150)	94,972,181	14,038,452	109,010,634
2019		4,631,600	4,631,600	1,450,000	4,884,500	6,334,500	95,210,981	106,177,081	(10,986,150)	95,190,931	13,816,465	109,007,396
2020		4,631,600	4,631,600	1,525,000	4,812,000	6,337,000	95,437,731	106,406,331	(10,986,150)	95,420,181	13,584,561	109,004,742
2021		4,631,600	4,631,600	1,605,000	4,735,750	6,340,750	95,685,194	106,657,544	(10,986,150)	95,671,394	13,336,170	109,007,564
2022		4,631,600	4,631,600	1,690,000	4,655,500	6,345,500	95,946,456	106,923,556	(10,986,150)	95,937,406	13,076,472	109,013,879
2023		4,631,600	4,631,600	1,765,000	4,571,000	6,336,000	96,223,456	107,191,056	(10,986,150)	96,204,906	12,804,695	109,009,601
2024		4,631,600	4,631,600	1,855,000	4,482,750	6,337,750	86,164,119	97,133,469	(10,986,150)	86,147,319	19,185,957	105,333,276
2025		4,631,600	4,631,600	1,940,000	4,390,000	6,330,000	86,192,894	97,154,494	(10,986,150)	86,168,344	19,158,140	105,326,483
2026		4,631,600	4,631,600	14,420,000	4,293,000	18,713,000	73,832,144	97,176,744	(10,986,150)	86,190,594	19,141,390	105,331,983
2027		4,631,600	4,631,600		3,572,000	3,572,000	99,434,394	107,637,994	(10,986,150)	96,651,844	11,284,227	107,936,071
2028		4,631,600	4,631,600		3,572,000	3,572,000	88,408,394	96,611,994	(10,220,525)	86,391,469	18,764,181	105,155,649
2029		4,631,600	4,631,600		3,572,000	3,572,000	88,585,319	96,788,919	(10,220,525)	86,568,394	18,590,500	105,158,894
2030		4,631,600	4,631,600		3,572,000	3,572,000	69,034,419	77,238,019	(10,220,525)	67,017,494	38,137,300	105,154,794
2031		4,631,600	4,631,600		3,572,000	3,572,000	47,310,419	55,514,019	(10,220,525)	45,293,494	59,863,691	105,157,185
2032		4,631,600	4,631,600		3,572,000	3,572,000	47,267,419	55,471,019	(10,220,525)	45,250,494	59,906,165	105,156,658
2033		4,631,600	4,631,600		3,572,000	3,572,000	47,066,613	55,270,213	(10,220,525)	45,049,688	60,105,353	105,155,040
2034		4,631,600	4,631,600		3,572,000	3,572,000	108,923,375	117,126,975	(10,220,525)	106,906,450		106,906,450
2035	63,330,000	4,631,600	67,961,600		3,572,000	3,572,000	39,924,625	111,458,225	(10,220,525)	101,237,700		101,237,700
2036	52,460,000	2,098,400	54,558,400		3,572,000	3,572,000	39,815,375	97,945,775	(10,220,525)	87,725,250		87,725,250
2037				43,850,000	3,572,000	47,422,000	69,139,625	116,561,625	(10,220,525)	106,341,100		106,341,100
2038				45,450,000	1,818,000	47,268,000	69,543,288	116,811,288	(10,220,525)	106,590,763		106,590,763
2039							116,476,500	116,476,500	(10,220,525)	106,255,975		106,255,975
2040							116,707,455	116,707,455	(8,393,859)	108,313,596		108,313,596
2041							113,032,500	113,032,500	(6,453,125)	106,579,375		106,579,375
2042							110,810,313	110,810,313	(4,383,859)	106,426,453		106,426,453
2043							108,502,500	108,502,500	(2,233,875)	106,268,625		106,268,625
	\$115,790,000	\$103,890,676	\$219,680,676	\$119,515,000	\$103,043,550	\$222,558,550	\$2,580,420,786	\$3,022,660,012	(\$297,917,119)	\$2,724,742,893	\$462,918,252	\$3,187,661,146

(1) Existing Senior Lien Bond Debt Service excludes Series 2001A Bonds, Series 2004A Bonds and refunded portion of Series 2005A Bonds.

(2) Direct payments consist of scheduled federal subsidy payments for Build America Bonds.

(3) Includes estimated net swap payments and interest on and projected amortization following future refinancing of the Series 2012A Notes. Does not include the principal of the Series 2012A Notes payable at maturity.

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 with the power and authority, to operate, maintain, reconstruct, and improve said sewer and drainage system and construct any 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. All appointments to the Board are made for three-year terms. The present members of the Board and the expiration dates of their respective terms are as follows:

<u>Board Members</u>	<u>Term Expires</u>
James Craig (Chair)	July 31, 2014
Tom Austin (Vice-Chair)	July 31, 2015
Daniel Arbough	June 30, 2015
Lonnie Calvert	July 31, 2015
Cyndi Caudill	August 31, 2014
Joyce Horton Mott	August 31, 2014
John Phelps	July 31, 2013
Yvonne Wells-Hatfield	June 30, 2013

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. The District's executive staff currently consists of the following individuals:

Greg Heitzman Interim Executive Director
Chad Collier Director of Finance and Secretary-Treasurer
Brian Bingham Director of Regulatory Management Services
Steve Emly Director of Engineering and Chief Engineer
Paula Purifoy General Counsel
Bruce R. Seigle Chief Information Officer
James J. Hunt Physical Assets Director

Saeed AssefDirector, Infrastructure and Flood Protection

On January 28, 2013, the Board unanimously approved an employment agreement with Mr. Greg Heitzman to serve as Executive Director of the District effective May 1, 2013 through July 31, 2015.

The Corradino Group, Inc., Louisville, Kentucky (the “Consulting Engineers”) has been retained by the District as its consulting engineering firm. The most recent report of the Consulting Engineers is appended to this Official Statement as Appendix E.

On August 1, 2011 the Auditor of Public Accounts of the Commonwealth of Kentucky (the “State Auditor”), an elected state official, informed the District that her office was undertaking a review and evaluation of the oversight and operation of the District, focusing on the District’s policies, internal controls, financial activity, and other aspects of the District’s operations, including specifically review of the District’s board and committee structure, policies governing the District’s internal audit process and reporting to the District’s Board by its staff, and the District’s policies regarding business conduct, conflicts of interest, ethics, and procurement. The State Auditor offered to make recommendations to strengthen and improve the District’s internal controls, oversight, and operations and to ensure the transparent and efficient use of the District’s financial resources. On December 16, 2011 the State Auditor issued a report of her examination containing recommendations for the improvement of various areas of the District’s governance and operations, including more detailed oversight by the Board of the District’s investment policies, practices, and procedures, investment portfolio, and use of interest rate swap agreements and other financial derivatives. The District provided monthly reports to the State Auditor regarding the District’s progress in the implementation of the State Auditor’s recommendations. The State Auditor’s report and the District’s progress reports are available at: <http://www.msdlouky.org/aboutmsd/audit2012.html>. As of December 10, 2012, the District had fully implemented all of the State Auditor’s recommendations.

In January, 2012 Mayor Greg Fischer of the Louisville/Jefferson County Metro Government formed the Louisville Utilities and Public Works Advisory Group (the “Advisory Group”) to examine the operations of the Louisville Water Company (“Louisville Water Company”, see “LOUISVILLE WATER COMPANY” below), the District, and Metro Government's Department of Public Works & Assets (“DPW”) to determine whether synergies exist between the entities that would allow for improved service or reduced costs. The Advisory Group engaged Black & Veatch Corporation, an experienced consultant to the utility industry, to assist the Advisory Group’s evaluation of potential business restructuring scenarios ranging from the *status quo* to a full consolidation of Louisville Water Company, the District, and DPW. On August 1, 2012 the consultant presented a final report to the Advisory Group, available at <http://www.msdlouky.org/pdfs/TaskForce/LouisvilleAdvisoryGroupFinalReport20120801.pdf>, concluding that operational efficiencies and savings could be achieved by gradually consolidating the operations and governance of Louisville Water Company, the District, and DPW within the next five years. Although the outcome of the Advisory Group’s report is not presently determinable, the District believes that any actions taken as a result of the Advisory Group’s findings and recommendations will not adversely affect the operations, properties, or financial condition of the District or the payment of the Current Bonds and the District’s other outstanding obligations in accordance with their terms. In March of 2013, the District approved a letter of intent with the Louisville Water Company setting forth the due diligence efforts to be conducted by the parties in order to evaluate the governance, financial and environmental implications of a potential consolidation.

Customer History

Five Year Wastewater Customer History. The District’s wastewater sewer system customer history for the past five fiscal years is as follows:

	Number of Customers	Volume (million gallons)	Revenue (in thousands)
<u>Residential</u>			
FY 2008.....	207,243	14,235	\$64,978
FY 2009.....	207,660	13,669	71,159
FY 2010.....	209,403	12,746	73,228
FY 2011.....	210,131	12,892	78,552
FY 2012.....	214,158	11,772	80,779
<u>Commercial</u>			
FY 2008.....	18,798	10,967	38,935
FY 2009.....	18,668	10,655	42,312
FY 2010.....	18,794	10,059	42,741
FY 2011.....	19,724	10,289	46,598
FY 2012.....	20,507	11,002	53,116
<u>Industrial</u>			
FY 2008.....	389	4,801	21,324
FY 2009.....	383	3,523	18,216
FY 2010.....	383	3,439	18,948
FY 2011.....	385	3,697	21,141
FY 2012.....	471	3,260	18,063

Source: Metropolitan Sewer District

The Drainage System

Under interlocal government 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 sewers, rivers, streams, and creeks, which eventually drain 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.

In fiscal year 2012, the District had approximately 225,550 drainage service accounts and billed 527,025 equivalent service units (ESUs) at \$6.46 per month which provided total annual drainage charge revenues of approximately \$40.9 million.

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 District's consultants have developed a Storm Water Drainage Master Plan which, after public participation and approvals by local governments, will be used by the District for implementing improvements and extensions to the existing drainage facilities.

IRS Examination

The IRS has notified the District by letter dated February 27, 2013 that it has selected the District's Sewer and Drainage System Revenue Bonds, Series 2007A ("Series 2007A Bonds") for examination. In its letter to the District, the IRS stated that it routinely examines municipal debt issuances to determine compliance with Federal tax requirements. The District is cooperating with the

IRS in its examination and has no reason to believe the Series 2007A Bonds fail to comply with applicable Federal tax requirements.

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 center 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 city to the balance of Louisville Metro, and from Louisville Metro to the adjacent counties in Kentucky and Indiana.

Annual Population Estimates

	<u>Louisville Metro⁽¹⁾</u>	<u>Louisville MSA⁽²⁾</u>
1970	695,000	991,801
1980	684,300	1,054,368
1990	665,200	1,058,425
2000	693,604	1,161,975
2010	741,096	1,267,691
2011	746,906	1,310,945

⁽¹⁾ Source: Population Division, U.S. Census Bureau website: www.census.gov (Jefferson County, KY)

⁽²⁾ Source: Population Division, U.S. Census Bureau website: www.census.gov (Louisville/Jefferson County, KY-IN)

Louisville Metro possesses a diverse economic base which has exhibited the national pattern of a shift away from manufacturing towards services. In 2009 the average per capita income in Louisville Metro as reported by the Bureau of Economic Analysis was \$37,688.

Louisville Metro, Kentucky Largest Private Employers, 2012

Company	Employment
United Parcel Service Inc.	15,517
Humana, Inc.	11,000
Norton Healthcare, Inc.	9,658
Ford Motor Company – Kentucky Truck Plant	8,696
KentuckyOne Health Inc.	5,898
GE Appliances	5,000
Baptist Healthcare Systems Inc.	4,219

Catholic Archdiocese of Louisville	2,352
University of Louisville Hospital	2,331
Kindred Healthcare Inc.	2,252
Source: <i>Louisville Business First</i> , August 3, 2012 edition	

Approximately 64.8% of housing units in the County were owner occupied in 2008. The median market value of housing units in Kentucky is approximately \$116,800. 55.7% of housing units in Kentucky were built prior to 1980. Over 90% of adult workers in Kentucky drive to work with an average commuting time of 22.4 minutes. (Source: U.S. Census Bureau, 2007-2009 American Community Survey – 3 Year Estimate).

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. The District has no power to levy ad valorem taxes upon any property for any purpose whatsoever. Wastewater Service Rates, based on water consumed, are billed and collected by Louisville Water Company ("Louisville Water Company"), (a Kentucky corporation wholly owned as a public enterprise by the Louisville/Jefferson County Metro Government) for the District under terms of an agreement dated July 13, 1976. These rates are billed simultaneously with the water bill on a single statement payable in total for both wastewater and water service rendered, and are subject to a late penalty of 5%. 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. See "LOUISVILLE WATER COMPANY."

Louisville Water Company bills and collects the District's wastewater service charges. The bills are rendered bimonthly except for larger industrial/commercial accounts which are billed monthly. Louisville Water Company also bills and collects all of the District's drainage charges as additions to the water/sewer billings.

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).

Out of a total of 235,136 wastewater customer accounts, approximately 20 accounts have no public water meter because they are residential accounts served by well water. Such accounts are charged a fixed charge.

Rate Making Process

To amend rates, the District follows the following procedures:

1. The Board of the District adopts and publishes a Preliminary Rate Resolution.

2. From date of publication, there is a 30-day period to receive comments.
3. Within 60 days of the publication, the Board of the District must adopt a Final Rate Resolution.
4. Before the new rate schedule becomes effective, the rates must be approved by the Council of the Louisville/Jefferson County Metro Government.

By the following provision within the District's approved rate ordinances, step 4 above is not required under the conditions described below as follows:

"Whenever MSD's net revenues are less than 1.10 times the debt service on MSD's outstanding revenue bonds for any consecutive six-month period, by order of the Board of MSD, a schedule of wastewater service charges and storm water service charges shall be amended in order to maintain a 1.10 debt service coverage required by MSD's 1971 Bond Authorizing Resolution which was approved by the City of Louisville Ordinance Number 86, Series 1971, by City of Louisville Ordinance Number 25, Series 1979, as amended by City of Louisville Ordinance Number 32, Series 1986, and City of Louisville Ordinance Number 152, Series 1979, as amended by City of Louisville Ordinance Number 388, Series 1986; provided the aggregate of such adjustments for any twelve-month period shall not generate additional revenue from wastewater service charges in excess of 7%. An explanation of proposed rate increases in excess of 4% shall be delivered to the Metro Council at least 60 days prior to MSD Board approval. The term "net revenues" is defined as gross revenue from wastewater service charges less operating expenses and debt payments other than debt service payments on MSD's outstanding revenue bonds."

An explanation of proposed rate increases in excess of 4% shall be delivered to the Council of the Louisville/Jefferson County Metro Government at least 60 days prior to MSD Board approval.

This provision includes, by reference to "outstanding revenue bonds," all District debt service including the debt service on the Current Bonds and any future revenue bonds which the District may issue.

Rate History

The following table summarizes the District's revenue and rate adjustments since 1987. Additional revenues from the rate increases are approximate and assume constant water usage.

	Wastewater				Stormwater			
<u>Date of Rate Increase</u>	<u>% Rate Increase</u>		<u>Annual Additional Revenue from Rate Increase</u>		<u>% Rate Increase</u>		<u>Annual Additional Revenue from Rate Increase</u>	<u>Estimated Revenue EPA Consent Decree Surcharge</u>
1/1/87*					N/A	0	\$8,165,000	
7/1/88	4.3%	(A)	\$1,496,000					
1/1/91	6.5%	(A)	\$2,731,000					
1/1/92	4.5%	(A)	\$1,973,000					
12/1/92					57.1%	(A)	\$4,879,000	
8/1/94	5.0%	(B)	\$2,337,000					
8/1/95	7.0%	(B)	\$3,516,000					
8/1/96	5.0%	(B)	\$2,703,000		4.4%	(A)	\$ 604,000	
8/1/97	5.0%	(B)	\$2,772,000		4.5%	(A)	\$ 663,000	
8/1/98	5.0%	(B)	\$2,900,000		5.0%	(A)	\$ 800,000	
8/1/99	5.0%	(B)	\$3,150,000		5.0%	(A)	\$ 850,000	
8/1/00	5.0%	(B)	\$3,100,000		5.0%	(A)	\$ 860,000	
8/1/01	5.0%	(B)	\$3,313,000		5.0%	(A)	\$ 921,000	
8/1/02	6.5%	(B)	\$4,540,000		6.5%	(A)	\$1,326,000	
8/1/03	6.5%	(B)	\$5,012,659		6.5%	(A)	\$1,407,505	
8/1/04	6.5%	(B)	\$5,184,032		6.5%	(A)	\$1,526,281	
8/1/05	6.5%	(B)	\$5,655,634		6.5%	(A)	\$1,671,724	
8/1/06	6.9%	(B)	\$6,414,405		6.9%	(A)	\$1,957,887	
8/15/07	0.0%		\$0		0.0%		\$0	\$28,875,000 (C)
8/1/08	6.5%	(B)	\$8,017,688		6.5%	(A)	\$2,015,401	
8/1/09	6.5%	(B)	\$8,466,545		6.5%	(A)	\$2,095,583	
8/1/10	6.5%	(B)	\$8,683,175		6.5%	(A)	\$2,246,123	
8/1/11	6.5%	(B)	\$9,395,795		6.5%	(A)	\$2,417,718	
8/1/12	6.5%	(B)	\$9,705,399		6.5%	(A)	\$2,417,697	

* Initial stormwater rate: \$1.75 per equivalent service unit.

(A) Across-the-board adjustment of all rates.

(B) Composite yield of a variety of rate adjustments.

(C) Special surcharge of \$6.95 per account per month (plus additional volume charges for some commercial and industrial customers). This surcharge produces revenues equal to approximately 33% of total wastewater charges in the year it was instituted.

Source: The District

HISTORIC AND PROJECTED REVENUES AND EXPENSES AND CAPITAL IMPROVEMENT PROGRAM

Certain historic revenues and expenses of the District for prior fiscal years and projected revenues and expenses of the District for the current and future fiscal years, with accompanying notes, are set forth in "Appendix E - Consulting Engineer's Report" attached hereto. The information on projected revenues and expenses may constitute a "forward looking statement" under federal securities laws. 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 Council of the Louisville/Jefferson County Metro Government will approve one or more new rate schedules as described above, or that the Council may not from time to time consider amending the District's approved rate ordinances. 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, efficiency of operations and the capital construction and expenditure plans and results of the District.

The projections shown in "Appendix E – Consulting Engineer's Report" are based, among other things, on the District's Capital Improvement Plan in effect as of the date of such report. Except as specifically described herein, there can be no assurance that the District will not amend or revoke the Capital Improvement Program described in "Appendix E - Consulting Engineer's Report" or that the District will issue or support bonds or other funding for the Capital Improvement Program in its current form or as amended or any substitute therefor.

LOUISVILLE WATER COMPANY

Louisville Water Company was chartered by special act of the General Assembly of Kentucky, approved March 6, 1854. The City was given authority to purchase the property at any time and also to subscribe for stock of Louisville Water Company.

The City began purchasing stock in Louisville Water Company in 1857 and had acquired substantially all the 12,571 outstanding shares by 1870, leaving only 51 shares in the hands of individual stockholders, this stock having been originally issued as directors' qualifying shares. By April 1907, all of this stock had been acquired by the City.

The affairs of Louisville Water Company were conducted by directors elected by the stockholders until passage of an act, approved March 6, 1906, creating the Board of Water Works of the City, which since that time (initially as the City, and thereafter through its successor, the Louisville/Jefferson County Metro Government) has had the responsibility for management and control of Louisville Water Company.

Since substantially all customers of the District are also customers of Louisville Water Company and Louisville Water Company already has the facilities, meters, equipment, and administrative organization for the billing and collection of charges for water service, it has proven both expedient and economical that the billing and collection of wastewater and stormwater service charges be accomplished simultaneously with and added as designated items on the bill rendered the water consumer for charges covering water service. Those sewer users who are not consumers of the public water supply are billed directly by the District.

By an agreement dated June 17, 1947, Louisville Water Company initiated billing and collection procedures for the District and has continued to perform such services to the present under subsequent agreement, the last agreement being effective as of July 13, 1976 and amended November 24, 1986, to include drainage service charges.

The original Agreement for Billing and Collection of Sewer Service Charges was dated July 13, 1976, between the District and Louisville Water Company, and was amended November 24, 1986, to include drainage service charges. A new agreement with an effective date of January 1, 2013 is currently in place. This agreement increases the priority of drainage fees equivalent to water and sewer fees and includes the requirement that Louisville Water Company discontinue water service to those consumers whose wastewater or drainage service accounts remain unpaid thirty (30) days after the due date and to not re-establish such service until such time as all such service charges have been paid. This agreement is for a period of fifteen years and can be terminated by either party upon two years written notice.

TAX TREATMENT

Federal Income Tax Treatment

In the opinion of Wyatt, Tarrant & Combs, LLP, Bond Counsel, under existing law and as of the date of issuance of the Current Bonds, interest on the Current Bonds is excluded from gross income for federal income tax purposes.

Interest on the Current Bonds is not an item of tax preference in determining "alternative minimum taxable income" under the Internal Revenue Code (the "Code") but is includable in computing "adjusted current earnings" for purposes of determining the alternative minimum taxable income of a corporation.

For the purpose of rendering its opinion described above with respect to the Current Bonds, Bond Counsel will assume compliance by the Issuer with the requirements of the Code that must be met subsequent to the issuance of the Current Bonds in order that interest thereon be and remain excluded from gross income for federal income tax purposes. Failure to comply with such requirements could cause the interest on the Current Bonds to be included in gross income for federal income tax purposes retroactive to the date of issuance of the Current Bonds. The Issuer has covenanted in the Resolution and in other documents and certificates delivered in connection with the Current Bonds to comply with such requirements.

For purposes of determining their taxable income under the Code, property and casualty insurance companies must reduce their losses incurred in any taxable year by an amount equal to 15% of the tax-exempt interest they receive or accrue during such taxable year, including interest on the Current Bonds.

Interest on the Current Bonds, as well as all other tax-exempt interest, may be included in determining a foreign corporation's effectively connected earnings and profits from a trade or business in the United States and thus subject to the branch profits tax imposed on foreign corporations under the Code.

Recipients of Social Security benefits must include tax-exempt interest income, including interest on the Current Bonds, in computing their "modified adjusted gross income" for purposes of determining to what extent, if any, such benefits are includable in their gross income under the Code.

Tax-exempt interest income, including interest on the Current Bonds, is taken into account in determining whether a taxpayer otherwise eligible for the earned income credit under the Code is denied such credit by reason of having excessive investment income.

The Code requires gain on the sale or other disposition of tax-exempt obligations acquired after April 30, 1993, including the Current Bonds, to be included in gross income as ordinary income, and not as capital gain, to the extent of accrued market discount. Accrued market discount in the

case of tax-exempt obligations, such as the Current Bonds, originally issued at a price equal to their principal amount is generally equal to the difference, if any, between such principal amount and the price at which the taxpayer purchased such obligations in the secondary market.

The Code generally disallows as a deduction 100% of the interest expense incurred by a bank (as defined in the Code) to the extent such interest expense is allocable to tax-exempt obligations acquired after August 7, 1986, including the Current Bonds. The Current Bonds do not qualify for any exception provided under the Code from this 100% disallowance rule.

The Current Bonds will be offered and sold to the public at prices in excess of the respective stated redemption prices thereof at maturity. For Federal income tax purposes, the excess of the cost to the holder of a Current Bond over the amount payable at maturity constitutes amortizable bond premium. The holder of a Current Bond will realize gain or loss upon the sale or other disposition of the Current Bond equal to the difference between the amount realized and the adjusted basis of the Current Bond determined by accounting for reductions due to the amortization of the bond premium during the holder's period of ownership. No deduction is allowable in respect of any amount of amortizable bond premium on the Current Bonds.

Kentucky Tax Treatment

In the opinion of Bond Counsel, under the laws of the Commonwealth of Kentucky as presently enacted and construed, the Current Bonds are exempt from ad valorem taxation, and the interest thereon is exempt from income taxation, by said Commonwealth and all of its political subdivisions and taxing authorities.

LITIGATION

The District has advised that 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 Current Bonds or the implementation of the plan of financing described herein, or in any way contesting or affecting the validity of the Current Bonds or the plan of financing described herein or any proceedings of the District taken with respect to the issuance or sale of the Current Bonds, the pledge or application of any moneys or securities provided for the payment of the Current Bonds or the existence or powers of the District insofar as they relate to the authorization, sale and issuance of the Bonds or such pledge or application of moneys and securities or the implementation of the plan of financing described herein.

The District has further advised that 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 its sewer and drainage 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.

On April 10, 2009 the United States District Court for the Western District of Kentucky, Louisville Division (the "Court"), entered an Amended Consent Decree, in Civil Action No.: 3:08-CV-00608-CRS (the "Amended Consent Decree"). The Amended Consent Decree amended, superseded and replaced the original Consent Decree entered by the Court on August 12, 2005 between the Commonwealth of Kentucky, the United States of America and the District. The Amended Consent Decree resolved all pending claims of violations of the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977, and the Water Quality Act of 1987 (hereinafter "Clean Water Act" or "the Act") pursuant to 33 U.S.C. 1251 *et seq.* and the regulations promulgated thereunder.

By entering into the Amended Consent Decree the District neither admitted nor denied the alleged violations described therein but did acknowledge that sanitary sewer overflows and

unauthorized discharges have occurred and the District accepted the obligations imposed under the Amended Consent Decree. To date, the District has complied with all submittals and reporting requirements contained in the Amended Consent Decree. A copy of the Amended Consent Decree is available at the offices of the District. The District intends to perform all Capital Improvement Programs and other requirements contained in the Amended Consent Decree. The cost of the capital improvements required to be completed under the Amended Consent Decree is currently estimated to be approximately \$850 million of which approximately \$303 million has been spent using proceeds of the District's Sewer and Drainage System Revenue Bonds, Series 2008, Series 2009C and Series 2010A. The Amended Consent Decree contains stipulated penalties for the District's failure to comply with provisions contained in the Amended Consent Decree. The District has agreed to make total expenditure under the original Consent Decree and the Amended Consent Decree for Supplemental Environmental Projects in an amount not less than \$2,250,000.

The Final Sanitary Sewer Discharge Plan and the CSO Long Term Control Plan were submitted concurrently and certified on December 19, 2008, under the title of the Integrated Overflow Abatement Plan (IOAP). The IOAP was accepted by the Federal Court and incorporated by reference into the Amended Consent Decree by an Order signed February 12, 2010, that was entered into public record February 15, 2010.

On May 17, 2010, two individuals filed, pro se, in Jefferson Circuit Court, Louisville, Kentucky, a Complaint alleging that the District violated KRS 76.090 by implementing a revised rate schedule effective August 1, 2009 without required approvals. The District filed a Motion seeking to have the Circuit Court enter Judgment in the District's favor. On September 16, 2010, the Jefferson Circuit Court granted the District's Motion for Summary Judgment. The Judgment held that the District complied with all statutory notice and public disclosure requirements for its rate increase and dismissed with prejudice the Plaintiffs' Complaint. On October 15, 2010, Plaintiffs filed a Notice of Appeal, however failed to perfect the appeal as required by the Kentucky Rules of Civil Procedure. On June 9, 2011, the District filed a Motion to Dismiss for failure to perfect and on December 9, 2011, the Kentucky Court of Appeals granted the District's Motion dismissing the Plaintiffs' appeal.

The District is a defendant 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.

The District has further advised that there is no litigation or other legal proceeding (other than that relating to the Amended Consent Decree) pending or, to the knowledge of the District, threatened against or affecting the District or its Board wherein an unfavorable decision, ruling or finding would have a materially adverse effect on the operations, properties or financial condition of the District.

APPROVAL OF LEGAL PROCEEDINGS

Certain legal matters incident to the authorization of the Current Bonds are subject to the approval of Wyatt, Tarrant & Combs, LLP, Louisville, Kentucky, Bond Counsel. Signed copies of the approving legal opinion of Bond Counsel, dated and speaking only as of the date of original delivery of the Current Bonds, will be delivered to the Underwriters at the time of original delivery of the Current Bonds. Certain legal matters will be passed upon for the District by Paula M. Purifoy, General Counsel.

The references herein to the Act, the Resolution, and other statutes and documents and certain provisions thereof do not purport to be complete and reference is made to the Act, the Resolution and such other statutes and documents, which are on file at the offices of the District, for full and complete statements of such provisions.

FINANCIAL STATEMENTS

The financial statements as of June 30, 2012 and for the year then ended, included in this Official Statement, have been audited by Crowe Horwath LLP, independent auditors, as stated in their report, and are included in Appendix B, which is an integral part of this Official Statement.

The interim unaudited financial statements of the District as of March 31, 2013 are included in Appendix C, which is an integral part of this Official Statement.

UNDERWRITING

Citigroup Global Markets, Inc., as managers of a group of underwriters, submitted the successful bid at the public sale of the Series 2013A Bonds on April 23, 2013, and have thereby agreed to purchase the Series 2013A Bonds at an aggregate price of \$119,353,871.77 (which represents the face amount of the Series 2013A Bonds, plus net original issue premium of \$5,011,495.00, less underwriter's discount of \$1,447,623.23) and to make a bona fide offering of the Series 2013A Bonds to the public (excluding brokers, bond houses and other intermediaries) at the prices or yields set forth on the inside cover page of this Official Statement.

Bank of America Merrill Lynch, as managers of a group of underwriters, submitted the successful bid at the public sale of the Series 2013B Bonds on April 23, 2013, and have thereby agreed to purchase the Series 2013B Bonds at an aggregate price of \$127,898,669.09 (which represents the face amount of the Series 2013B Bonds, plus net original issue premium of \$9,301,523.85, less underwriter's discount of \$917,854.76) and to make a bona fide offering of the Series 2013B Bonds to the public (excluding brokers, bond houses and other intermediaries) at the prices or yields set forth on the inside cover page of this Official Statement.

FINANCIAL ADVISOR

J.J.B Hilliard, W.L. Lyons, LLC, Louisville, Kentucky, has been engaged as Financial Advisor to the District.

RATINGS

Moody's Investors Service, Inc., Standard & Poor's Ratings Services and Fitch Ratings have assigned the ratings of "Aa3", "AA" and "AA-", respectively, to the Current Bonds. Certain information may have been submitted to the rating agencies which is not included in this Official Statement. Such ratings reflect only the respective views of such rating agencies and any desired explanation of the significance of such ratings should be obtained from Moody's Investors Service, Inc. and Standard & Poor's Ratings Services, respectively. 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 either or both of such rating agencies if, in the judgment of either or both, circumstances so warrant. Any downward revision or withdrawal of any such ratings could have an adverse effect on the market price of the Current Bonds.

CONTINUING DISCLOSURE UNDERTAKING

The District is delivering a Continuing Disclosure Certificate, dated as of the date of original issuance of the Current Bonds, to the underwriters of the Current Bonds, in order to assist the underwriters in complying with the requirements of subsection (5) of section (b) of Rule 15c2-12 (the “Rule”) promulgated by the Securities and Exchange Commission (the “Commission”). The Continuing Disclosure Certificate is also delivered for the benefit of the registered owners from time to time of the Current Bonds.

Except to the extent otherwise permitted pursuant to the Rule as it may be amended from time to time, the District undertakes in the Continuing Disclosure Certificate to provide:

A. To each Repository (as defined below) annual financial information for the District with respect to the fiscal year of the District ending June 30, 2013, and each fiscal year thereafter;

B. If not submitted as part of the annual financial information, then when and if available, to each Repository, audited financial statements for the District with respect to the fiscal year of the District ending June 30, 2013, and each fiscal year thereafter;

C. In a timely manner not in excess of ten business days after the occurrence of the event, to each Repository, notice of any of the following events with respect to the Current Bonds. The “Events” are:

1. Principal and interest payment delinquencies
2. Non-payment related defaults, if material
3. Unscheduled draws on debt service reserves reflecting financial difficulties
4. Unscheduled draws on credit enhancements reflecting financial difficulties
5. Substitution of credit or liquidity providers, or their failure to perform
6. Adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the Current Bonds, or other material events affecting the tax status of the Current Bonds
7. Modifications to the rights of security holders, if material
8. Note calls, if material, and tender offers
9. Defeasances
10. Release, substitution or sale of property securing repayment of the Current Bonds, if material
11. Rating changes
12. Bankruptcy, insolvency, receivership or similar event of the obligated person

NOTE: This 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.

13. The consummation of a merger, consolidation, or acquisition involving an obligated person or the sale of all or substantially all of the assets of the obligated person, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material
14. Appointment of a successor or additional trustee or the change of name of a trustee, if material.

D. In a timely manner, to each Repository, notice of a failure of the District to provide required annual financial information, on or before any applicable date specified in the Continuing Disclosure Certificate.

“National Repository” means the Municipal Securities Rulemaking Board (<http://emma.msrb.org>).

“Repository” means National Repository and each State Repository.

“State Repository” shall mean any public or private repository or entity designated by the Commonwealth of Kentucky as a state repository for the purpose of the Rule and recognized as such by the Commission. As of the date hereof, there is no State Repository.

The Continuing Disclosure Certificate provides that annual financial information and notices of material events will be provided pursuant to the Continuing Disclosure Certificate with respect to the District. The Continuing Disclosure Certificate describes the following types of financial information and operating data to be provided as part of the annual financial information. Any references to headings and appendices below are to the Official Statement for the Current Bonds, except where otherwise noted:

A. The information and data described under the heading, “THE DISTRICT,” including the subheading “The Drainage System.”

B. The information and data described under the heading, “RATES AND CHARGES.”

C. The information and data described under the heading, “SECURITY AND SOURCE OF PAYMENT FOR THE CURRENT BONDS.”

D. The information and data described under the heading, “HISTORIC AND PROJECTED REVENUES AND EXPENSES AND CAPITAL IMPROVEMENT PROGRAM.”

E. The information and data described under the heading, “THE SERVICE AREA.”

The Continuing Disclosure Certificate describes the accounting principles pursuant to which financial statements of the District will be prepared, and provides that the financial statements will be audited.

The Continuing Disclosure Certificate provides that the date by which the annual financial information for the preceding fiscal year of the District will be provided is each January 1. The annual financial information will be provided to each Repository, to the extent, if any, described above.

Notwithstanding the foregoing provisions, the Continuing Disclosure Certificate provides that the obligations of the District will be terminated, effective immediately if and when the District no longer remains an obligated person with respect to the Current Bonds.

The Continuing Disclosure Certificate provides that any right to enforce it shall be limited to obtaining specific enforcement of the District's obligations thereunder. The Continuing Disclosure Certificate provides that failure by the District to comply with the Continuing Disclosure Certificate shall not be an event of default under the Current Bonds or under the Resolution.

The Continuing Disclosure Certificate provides that the District from time to time may elect (but is not contractually bound) to provide other periodic reports or financial information, or notice of the occurrence of other events, in addition to those described in the Continuing Disclosure Certificate.

The Continuing Disclosure Certificate further provides that there have been no instances since the effective date of the continuing disclosure requirements under the Rule in which the District has failed to comply, in all material respects, with any undertakings to provide continuing disclosure as contemplated by the Rule.

MISCELLANEOUS

The Chairperson of the Board of the District and its Executive Director and Director of Finance will deliver a certificate on behalf of the District, simultaneously with the issuance of the Current Bonds, to the effect that as of the date of issuance of the Current Bonds, and after due inquiry of responsible officers, employees, agents and contractors of the District, the Official Statement did not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements contained therein, in the light of the circumstances under which there were made, not misleading; and there has been no material adverse change in the financial condition of the District from the date of the sale of the Current Bonds to and including the date of issuance of the Current Bonds.

The references to, and excerpts of, all documents referred to herein do not purport to be complete statements of the provisions of such documents, and reference is directed to all such documents for full and complete statements of all matters of fact relating to the Current Bonds, the security and source of payment for the Current Bonds, and the rights and obligations of holders thereof.

Any statements made in this Official Statement involving matters of opinion or of estimates, whether or not so expressly stated, are set forth as such and not as representations of fact, and no representation is made that any of the estimates will be realized. Neither this Official Statement nor any statement which may have been made orally or in writing is to be construed as a contract with the holders of the Current Bonds.

THE BOND REGISTRAR AND ITS COUNSEL HAVE NOT PARTICIPATED IN THE PREPARATION OF THIS OFFICIAL STATEMENT EXCEPT FOR CONFIRMING THE ACCURACY OF THE REFERENCES TO THE BOND REGISTRAR CONTAINED HEREIN AND HEREBY DISCLAIM ANY RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION SET FORTH IN THIS OFFICIAL STATEMENT.

The execution and delivery of the Official Statement by the Chairperson of the Board of the District and its Executive Director and Secretary-Treasurer have been duly authorized by the Board of

the District. This Official Statement, insofar as it contains information about the District, is deemed “final” by the District as of the date hereof for purposes of SEC Rule 15c2-12(b)(1), except for information permitted by the Rule to be excluded.

LOUISVILLE AND JEFFERSON COUNTY
METROPOLITAN SEWER DISTRICT

/s/ James Craig
Chairperson of the Board

/s/ Chad Collier
Director of Finance and Secretary-Treasurer

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APPENDIX A

**SUMMARY OF PROVISIONS OF
THE RESOLUTION**

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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 on original issuance pursuant to 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 any one 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. 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 of 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.

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, including 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.

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APPENDIX B

FINANCIAL STATEMENTS AS OF JUNE 30, 2012 AND FOR THE YEAR THEN ENDED

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**LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
COMPREHENSIVE ANNUAL FINANCIAL REPORT
FOR THE FISCAL YEAR ENDED JUNE 30, 2012**

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INTRODUCTORY SECTION



Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org

November 6, 2012

Customers, Investors and MSD Board
Louisville and Jefferson County Metropolitan Sewer District

Ladies and Gentlemen:

The Comprehensive Annual Financial Report ("CAFR") of the Louisville and Jefferson County, Kentucky, Metropolitan Sewer District ("MSD") for the fiscal year ended June 30, 2012 ("2012") is submitted herewith. Responsibility for both the accuracy of the data, and the completeness and fairness of the presentation, 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 Generally Accepted Accounting Principles ("GAAP").

Because the cost of internal controls should not outweigh their benefits, MSD's comprehensive framework of internal controls has been designed to provide reasonable rather than absolute assurance that the financial statements will be free from material misstatement. To the best of MSD's knowledge and belief, the accompanying data are accurate in all material respects and are reported in a manner designed to present fairly the financial position and results of operations of MSD. All disclosures necessary to enable the reader to understand MSD's financial activities have been included. We encourage readers to review the narrative introduction, overview, and analysis found in Management's Discussion and Analysis ("MD&A") along with the footnotes that accompany the financial statements.

Profile of MSD

MSD was created in 1946 as a public body corporate and subdivision of the Commonwealth of Kentucky ("the Commonwealth"). MSD has complete control, possession and supervision of the sewer and drainage systems within the majority of Louisville Metro, which now comprises all of Jefferson 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 considered a component unit of the Louisville-Jefferson County Metro government ("Louisville Metro government"). The Louisville Metro Mayor appoints, with the approval of the Louisville Metro Council, the members to MSD's governing Board. 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 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 sewer and drainage services to the Metro government. The value of these services in 2012 was \$5.2 million.

Economic Condition and Outlook

MSD's sanitary sewer and drainage service areas lie within Jefferson County, which, with a 2010 population of approximately 741,096, is Kentucky's largest and the center of the seven Kentucky and Indiana counties which comprise the Louisville metropolitan area ("Greater Louisville"). The employment count (not seasonally adjusted) for the Louisville Metropolitan Statistical Area ("Louisville MSA") increased in June 2012 to 597,381; an increase of 2,422 from the June 2011 level of 594,959. The June 2012 unemployment rate for the Louisville MSA was 8.3% compared to a national average of 8.2% and a state average of 8.2% for this same time period.

The Metro Mayor is Greg Fischer, who began his term as Mayor in January 2011. Mayor Fischer replaced former Mayor Jerry E. Abramson, who served as Mayor of the city of Louisville for 13 years, from January 1986 through 1998 and as Mayor of Louisville Metro from January 2003 through 2010.

Despite the economic downturn in recent years, there have still been a number of positive developments in Metro Louisville during this past fiscal year. Ford Motor Company announced its plan to invest \$1.2 billion in its two assembly plants in Louisville. That project, in fact, was voted the top deal in the United States in 2011 by Business Facilities magazine. The now-completed makeover of Louisville Assembly Plant into what Ford terms the most advanced and flexible vehicle manufacturing site in the world already has brought two new work shifts and 3,000-plus jobs.

In addition to Ford's investment, Louisville expects the multibillion-dollar Ohio River Bridges Project to begin construction during 2012. This is a \$2.6 billion project that will broaden the regional economy and create thousands of construction jobs in the coming years. The long-sought Ohio River Bridges Project also will include a second structure known as the East End Bridge several miles north of downtown Louisville linking I-265 (Gene Snyder Expressway) with connecting highways in Utica, Ind.

Louisville International Airport expects continued restructuring in the passenger service industry and that the nearby UPS Worldport hub will keep it one of the busiest cargo airports in the world. General Electric, one of Louisville's largest employers, is adding a second shift at Appliance Park to manufacture a new line of refrigerators.

Also in development is the "City of Parks", a project to create a continuous paved pedestrian and biking trail around Louisville Metro while also adding a large amount of park land. Current plans call for making basically the entire 1,600-acre (6 km²) Floyds Fork flood plain in eastern Jefferson County into park space,

During 2012, MSD continued to benefit from a diversified customer base. Fifty-one percent (51%) of its service charge revenue came from residential customers with the remaining forty-nine percent (49%) coming from commercial and industrial customers. During 2012, the sewer accounts increased by 4,896 or 2.1% to 235,136.

Major Initiatives

Project WIN – Waterway Improvements Now

Project WIN is a comprehensive sewer improvement plan designed to meet the requirements of the consent decree that MSD signed with the Commonwealth of Kentucky's Environmental and Public Protection Cabinet ("KEPPC") and the U.S. Environmental Protection Agency ("EPA") in 2005. It includes the implementation of sewer improvement projects to minimize the impact of combined sewer overflows, eliminate sanitary sewer overflows, and rehabilitate the community's aging sewer system. In addition, it also involves keeping the public informed of potential health risks, financial impacts, and construction project activity. Project WIN is estimated to cost approximately \$850 million over a twenty-year period.

In April 2009, MSD entered into an amended consent decree to address sanitary sewer overflows and unauthorized discharges from MSD's sanitary sewer system, combined sewer system, water quality treatment centers, and discharges from MSD's combined sewer overflow locations identified in the Kentucky Pollutant Discharge Elimination System permit for the Morris Forman Water Quality Treatment Center ("WQTC"). Our sewer system rehabilitation program is improving local water quality and protecting the health of our citizens and future generations. The Integrated Overflow Abatement Plan (IOAP), which has been developed under Project WIN, is a long-term plan to control combined sewer overflows and to eliminate sanitary sewer overflows and other unauthorized discharges from MSD's sewer system. Sixteen projects are currently under construction. These initiatives vary—from the massive Derek R. Guthrie Water Quality Treatment Center (WQTC) to flood pumping stations and sanitary sewer improvements; green demonstration projects; and large interceptor projects. MSD will continue design and construction of the various IOAP projects in the coming years.

"Green" Infrastructure Projects

As part of the Integrated Overflow Abatement Plan (IOAP) that the Environmental Protection Agency and Kentucky Division of Water have approved, MSD initiated a plan for controlling combined sewer overflows that affect the water quality of rivers, streams and creeks. MSD's commitment to utilizing innovative green infrastructure—whenever feasible within the combined sewer area—will cut the size and cost of traditional gray sewer infrastructure for handling stormwater, like large overflow basins. By its broadest definition, green infrastructure focuses on preservation and restoration of natural landscape features. MSD focuses on the storage and infiltration of stormwater, using green practices that mimic predevelopment construction.

Factors Affecting Financial Condition

Investment Policy and Performance

Cash temporarily idle during the year was invested in insured certificates of deposit, repurchase agreements and obligations of the U.S. Treasury. MSD's investment policy is to minimize credit and market risks, while maintaining a competitive yield on its portfolio. Accordingly, deposits either were insured by federal depository insurance or collateralized.

Gross investment income in 2012 was \$40.7 million compared to gross earnings of \$33.7 million in 2011.

Other Information

Independent Audit

MSD is required by law and its Revenue Bond Resolution to undergo an annual audit by independent certified public accountants. A joint venture of Crowe Horwath, LLP and Janice Porter, CPA, was selected by the MSD Board to conduct the 2012 audit. The goal of the independent audit was to provide reasonable assurance that the financial statements of MSD for the fiscal year ended June 30, 2012 are free of material misstatement. The independent audit involved examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements; assessing the accounting principles used and significant estimates made by management; and evaluating the overall financial statement presentation. The independent auditors concluded, based upon the audit, that there was a reasonable basis for rendering an unqualified opinion that MSD's financial statements for the fiscal year ended June 30, 2012 are fairly presented in conformity with GAAP. The auditors' opinion and report on the basic financial statements is included in the Financial Section of this report.

Awards and Acknowledgements

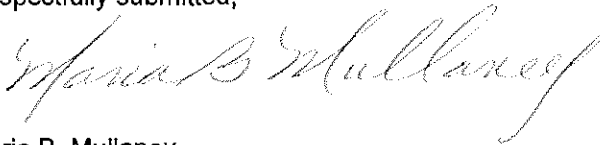
The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to MSD for its comprehensive annual financial report for the fiscal year ended June 30, 2011. This was the 22nd consecutive year that MSD has achieved this prestigious award. In order to be awarded a Certificate of Achievement, MSD must publish an easily readable and efficiently organized CAFR. The report satisfied both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for one year only. MSD believes that its current CAFR continues to meet the Certificate of Achievement Program's requirements and will submit the current report to GFOA to determine its eligibility for another Certificate.

I wish to take this opportunity to thank the MSD Board and Interim Executive Director Greg Heitzman, for their continued support and fiscally responsible management of MSD's financial resources.

I also express my deepest appreciation to the staff of MSD's Budget and Finance Division. This report could not have been completed in a timely manner without your commitment and dedication.

Respectfully submitted,



Maria B. Mullaney
Controller

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Louisville and Jefferson County
Metropolitan Sewer District
Kentucky

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended
June 30, 2011

A Certificate of Achievement for Excellence in Financial Reporting is presented by the Government Finance Officers Association of the United States and Canada to government units and public employee retirement systems whose comprehensive annual financial reports (CAFRs) achieve the highest standards in government accounting and financial reporting.



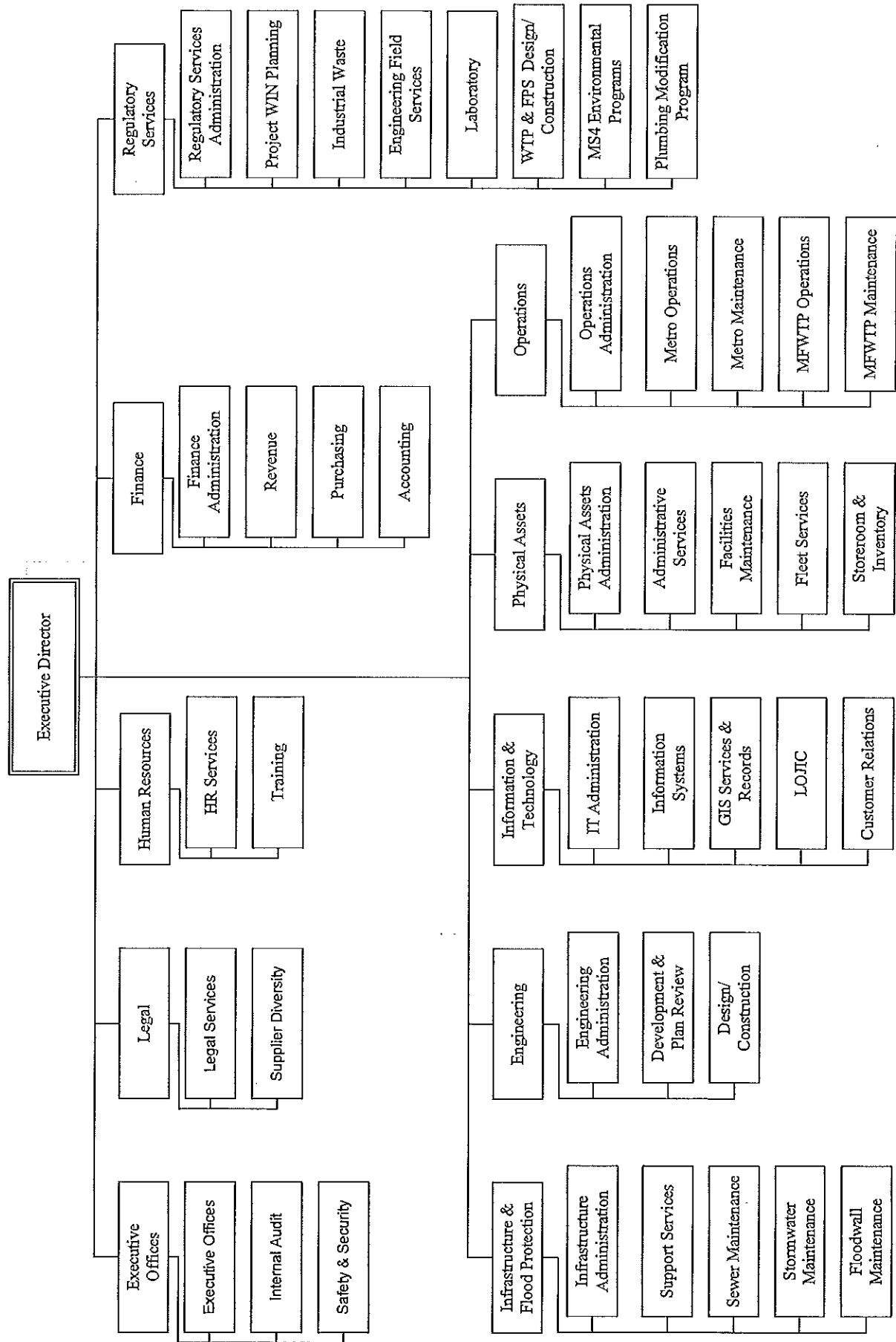
Linda C. Davidson

President

Jeffrey R. Enser

Executive Director

Louisville and Jefferson County
Metropolitan Sewer District
Organization Chart



MSD BOARD:

James Craig, Chairperson

Tom Austin, Vice Chairperson

Daniel Arbough
Lonnie Calvert
Cyndi Caudill

Joyce Horton Mott
John Phelps
Yvonne Wells-Hatfield

PRINCIPAL OFFICERS:

Greg Heitzman, Interim Executive Director
Steve Emly, Chief Engineer
Chad Collier, Secretary/Treasurer

James Hunt, Director
Physical Assets

Paula Purifoy
Legal Counsel

Bruce Seigle, Director
Information Technology

Alex Novak, Director
Operations

W. Brian Bingham, Director
Regulatory Management Services

Saeed Assef, Director
Infrastructure & Flood Protection

Dennis Thomasson, Director
Metro Operations

Lynne Fleming, Director
Human Resources

FINANCIAL OFFICERS:

Chad Collier, Finance Director

Maria B. Mullaney
Controller

Renee Thomas
Purchasing Manager

Sharon Dawson
Revenue Manager

Kim Decker
Budget Administrator

Patrick Meader
Budget Administrator

FINANCIAL SECTION

REPORT OF INDEPENDENT AUDITORS

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

We have audited the accompanying financial statements of the Louisville and Jefferson County Metropolitan Sewer District, a component unit of the Louisville-Jefferson County Metro Government, as of June 30, 2012 and 2011 and for the years then ended, as listed in the table of contents. These financial statements are the responsibility of the Louisville and Jefferson County Metropolitan Sewer District's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the City's internal control over financial reporting. Accordingly, we express no such opinion. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the 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, 2012 and 2011, and the changes in its net assets and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 10 through 16 be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the 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 financial statements, and other knowledge we obtained during our audit of the 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.

Our audits were conducted for the purpose of forming an opinion on the financial statements as a whole. The introductory and statistical sections are presented for purposes of additional analysis and are not a required part of the 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 financial statements. The information has not been subjected to the auditing procedures applied in the audits of the financial statements and accordingly, we do not express an opinion or provide any assurance on it.

Crowe Horwath LLP

Crowe Horwath LLP

Louisville, Kentucky
November 5, 2012



Louisville and Jefferson County Metropolitan Sewer District
700 West Liberty Street
Louisville Kentucky 40203-1911
502-540-6000
www.msdlouky.org

Management's Discussion and Analysis

As management of the Louisville and Jefferson County Metropolitan Sewer District (MSD), we offer readers of MSD's financial statements this narrative overview and analysis of the financial activities for the fiscal year ended June 30, 2012. We encourage readers to consider the information presented here in conjunction with additional information that we have furnished in our letter of transmittal, which can be found on pages 1-4 of this report.

FINANCIAL HIGHLIGHTS

- MSD's net assets decreased by \$27.2 million (5.1%) as a result of this year's operations
- Operating revenues increased by \$6.6 million (3.5%) to \$192.2 million.
- Operating expenses excluding depreciation decreased by \$1.9 million (2.4%)
- Non-operating revenues (investment income) increased by \$7.0 million (21.0%) and non-operating expenses (before the change in fair value of swaps), increased by \$6.5 million (14.6%).
- The Fair Value of Swaps decreased by \$75.5 million, increasing non-operating expense by this same amount.

OVERVIEW OF THE FINANCIAL STATEMENTS

This annual report consists of three parts: Introductory Section, Financial Section, and Statistical Section. The Financial Section includes notes that provide additional information relating to MSD's financial condition. Readers are encouraged to read the notes to better understand the financial statements.

REQUIRED FINANCIAL STATEMENTS

- **Statement of Net Assets** - This financial statement includes all of MSD's assets and liabilities and provides information about the nature and amounts of investments in resources (assets) and the obligations to creditors (liabilities). It also 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 Assets** - This financial statement identifies the revenues generated and expenses incurred during the fiscal year. This statement helps the user to assess the profitability of MSD during the time period for which the statement relates.
- **Statement of Cash Flows** - This financial statement provides information relating to MSD's cash receipts and cash expenditures during the fiscal year. The statement reports cash receipts, cash payments, and net changes in cash resulting from operations, investing, and financing activities and provides answers to such questions as where did cash come from, what was cash used for, and what was the change in the cash balance during the reporting period.

**Louisville and Jefferson County Metropolitan Sewer District
Management's Discussion and Analysis
June 30, 2012 and 2011**

FINANCIAL INFORMATION

Statement of Net Assets: MSD's net assets decreased by \$27.2 million in FY 2012 to \$508.6 million. MSD's total assets decreased by approximately \$8 million in 2012. This overall decrease can be attributed primarily to funds used to retire debt and a reduction in receivables. Total liabilities increased by \$19.3 million in 2012. This increase was due to a decrease in the fair value of swap agreements of \$52.9 million, which was largely offset by the retirement of debt as well as and an increase in unamortized debt premium of \$20 million.

TABLE 1 Condensed Statement of Net Assets (000's)				
	FY 2012	FY 2011	Prior Year Variance	%
Unrestricted Current Assets	\$ 66,465	\$ 57,201	\$ 9,284	16.2%
Restricted Current Assets	289,653	408,899	(119,246)	-29.2%
Noncurrent Assets	2,141,424	2,039,393	102,031	5.0%
Total Assets	2,497,542	2,505,493	(7,951)	-0.3%
Current Liabilities	17,483	17,073	410	2.4%
Current Liab. from Restr. Assets	278,695	278,645	50	0.0%
Noncurrent Liabilities	1,692,778	1,673,983	18,795	1.1%
Total Liabilities	1,988,956	1,969,701	19,255	1.0%
Invested in Capital Assets, net	434,451	432,689	1,762	0.4%
Restricted Assets, net	290,775	411,841	(121,066)	-29.4%
Unrestricted	(216,640)	(308,738)	92,098	-29.8%
Total Net Assets	508,586	535,792	(27,206)	-5.1%
Total Liabilities and Net Assets	\$ 2,497,542	\$ 2,505,493	\$ (7,951)	-0.3%

Results of Operations

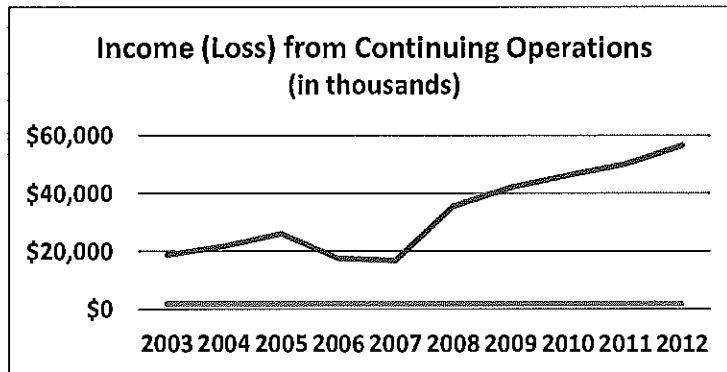
Revenues:

- **Total Operating Revenues** as of June 30, 2012 were \$192.2 million compared to \$185.7 million for the same period last year, an increase of \$6.6 million or 3.5%. This increase in operating revenues was primarily driven by a Board-approved rate increase of 6.5% on wastewater and stormwater fees that were enacted on August 1, 2011.
- **Wastewater Service Charges** totaled \$150.0 million as of June 30, 2012. This represents an increase of \$3.7 million or 2.6% from a year ago. The majority of MSD's wastewater customers are billed based on the amount of water used. Because substantially all of MSD's customers are also customers of the Louisville Water Company, this charge is billed and collected by the Louisville Water Company on behalf of MSD.
- **Stormwater Service Charges** were \$40.9 million as of June 30, 2012. This represents an increase of \$3.4 million or 9.2% from the same period one year ago.
- **Other Operating Income** was \$1.76 million, which is \$.6 million less than FY 2011.

**Louisville and Jefferson County Metropolitan Sewer District
Management's Discussion and Analysis
June 30, 2012 and 2011**

In FY 2007, MSD began offering free wastewater and stormwater service to the Louisville Metro Government. This free service amounted to \$5.2 million in FY 2012 and \$3.2 million in FY 2011. Free wastewater services provided to the Louisville Metro Government amounted to \$4.6 million during FY 2012 and \$2.6 million during FY 2011.

Net Operating Income - MSD recorded a net operating income of \$56.6 million in FY 2012 compared to \$50.0 million in FY 2011, an increase of \$6.6 million or 13.3%. Increases in service charges of \$7.2 million from FY 2011 levels resulted in this change. Net cash provided by operating activities increased from \$110.4 million in FY 2011 to \$117.4 million in FY 2012.



**TABLE 2
Condensed Statements of Revenues,
Expenses, and Changes in Net Assets
(000's)**

	FY 2012	FY 2011	Prior Year Variance	%
Service Charges	\$ 190,482	\$ 183,297	\$ 7,185	3.9%
Other Operating Income	1,756	2,379	(623)	-26.2%
Total Operating Revenues	192,238	185,676	6,562	3.6%
 Investment Income	 40,687	 33,700	 6,987	 20.7%
Total Revenues	232,925	219,376	13,549	6.2%
 Depreciation & Amortization Expense	60,527	58,741	1,786	3.0%
Other Operating Expenses	75,126	78,999	(1,873)	-2.4%
Nonoperating Expenses	73,676	67,025	6,651	9.9%
Decrease upon Hedge Termination	-	-	-	-
Change in Fair Value - Swaps	52,897	(22,638)	75,535	-333.7%
Total Expenses	262,226	180,127	82,099	45.6%
 Net Income (Loss) before Contributions	 (29,301)	 39,249	 (68,550)	 -174.7%
Contributions	2,095	3,747	(1,652)	-44.1%
Change in Net Assets	(27,206)	42,996	(70,202)	-163.3%
Beginning Net Assets	535,792	492,796	42,996	8.7%
 Ending Net Assets	 \$ 508,586	 \$ 535,792	 (27,206)	 -5.1%

**Louisville and Jefferson County Metropolitan Sewer District
Management's Discussion and Analysis
June 30, 2012 and 2011**

Expenses:

Table 3 shows the composition of gross service and administrative costs by major classification of expense for the past two fiscal years. Gross service and administrative costs increased by \$1.0 million in FY 2012 from FY 2011 levels. Labor cost decreased by \$1.3 million of which the majority of this change was due to decreases in overtime wages (\$.7 million), medical insurance (\$.4 million), and worker's compensation insurance (\$.5 million). An increase in utility expenses of \$.7 million was due to electricity increasing by \$1.4 million and decreases in natural gas and water of \$.5 million. Maintenance and repairs increased by \$1 million and other operating expenses increased by \$1.2 million, primarily due to an increase in insurance premiums and claims. These costs are reported net of capitalized overhead and reimbursed expenses of \$33.6 million in FY 2012 and \$30.7 million in FY 2011 in the Statement of Revenues, Expenses, and Changes in Net Assets.

MSD's employee count, including vacant positions, increased to 666 in 2012 compared to 655 full-time equivalent positions in 2011. Labor cost was 51% of gross service and administrative costs in 2012 and 52% in 2011.

TABLE 3						
Gross Service and Administrative Costs (000's)						
	2012		2011		Prior year Variance	%
Service and administrative costs:						
Labor	\$ 55,010	51%	\$ 56,358	52%	\$ (1,348)	-2.4%
Utilities	14,555	13%	13,853	13%	702	5.1%
Materials and supplies	8,972	8%	9,043	8%	(71)	-0.8%
Professional services	2,416	2%	2,624	2%	(208)	-7.9%
Maintenance and repairs	11,090	10%	10,054	9%	1,036	10.3%
Billing and collections	4,309	4%	4,318	4%	(9)	-0.2%
Chemicals	3,894	4%	4,059	4%	(165)	-4.1%
Fuel	1,820	2%	1,643	2%	177	10.8%
Biosolids disposal	1,759	2%	2,035	2%	(276)	-13.6%
All other	4,901	5%	3,694	3%	1,207	32.7%
Gross service and admin. costs	\$ 108,726	100%	\$ 107,681	100%	\$ 1,045	1.0%

Note: the gross service and administrative costs in the above table do not include mapping recoveries.

Capital Assets:

MSD's total gross capital assets (additions) increased by \$62 million in FY 2012. Major additions include the completion of \$20.2 million of sewer line installations, \$11.3 million in sewer, drain & pump facilities and \$24.5 million in capitalized interest expense. Readers are encouraged to review the Comparative Schedules of Plant, Lines, and Other Facilities that are contained in the Statistical Section of the CAFR for additional information regarding changes to capital assets. Depreciation and amortization expense was \$60.5 million, or \$1.8 million more than FY 2011. These expenses are expected to increase in future years as MSD adds additional capital assets to its wastewater and stormwater systems.

Readers can review Note 5 to the financial statements which provide additional information relating to MSD's capital assets.

**Louisville and Jefferson County Metropolitan Sewer District
Management's Discussion and Analysis
June 30, 2012 and 2011**

Short-term and Long-term Debt:

Significant debt transactions included the following:

- In August 2011, MSD issued \$263.4 million in Revenue Bonds, Series 2011A. These funds were used to refund all of the Series 1998A Bonds of \$139.5 million and \$145.2 million of the Series 2001A Bonds.
- In December 2011, MSD issued \$226.3 million of Sewer and Drainage System Subordinated Bond Anticipation Notes, Series 2011B. The proceeds of the notes were used to refinance the 2011A Notes. The 2011A Notes were paid off on March 1, 2012.
- In November 2010, MSD issued \$330 million in Build America Bonds to finance its capital program. Build America Bonds allow the issuer to receive a subsidy equal to 35% of future interest payments from the federal government. As of June 30, 2012, approximately \$133.8 million of these bond proceeds remained. The remaining funds are expected to be used for additional expansions to the wastewater and drainage systems, plant expansions, flood protection systems, and other wastewater and stormwater projects. Note 7 to the financial statements provide readers with a comparative schedule of long-term debt outstanding at June 30, 2012 and June 30, 2011.

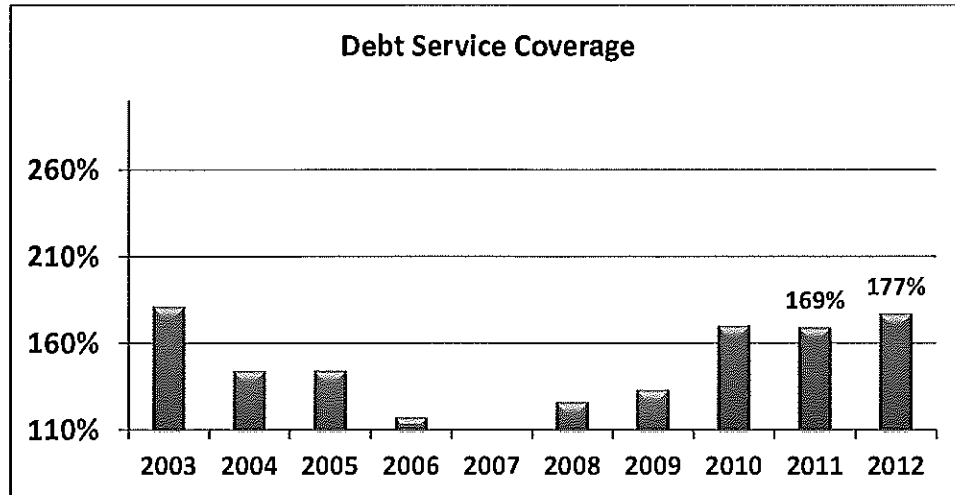
Net interest expense totaled \$73.7 million in FY 2012 and \$67.2 million in FY 2011, an increase of \$6.4 million. This increase is primarily due to the issuance of Series 2011A Revenue Bonds.

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 also are included in "available revenues" and "net revenues" for purposes of demonstrating MSD's compliance with debt service ratio tests of the 1993 Sewer and Drainage System Revenue Bond Resolution (the Resolution). MSD's debt service coverage, calculated on the foregoing basis, was 177% in 2012 and 169% in 2011. Key aspects include:

- The 1993 Resolution and its supplements require MSD to provide "available revenues," sufficient to pay 110% of each 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 exclude any interest income which is capitalized in accordance with generally accepted accounting principles.
- "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 aggregate debt service 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 be available in the ordinary course of business for payment of debt service.

**Louisville and Jefferson County Metropolitan Sewer District
Management's Discussion and Analysis
June 30, 2012 and 2011**



The formula authorized by the Louisville Metro Government to calculate allowable rate increases does not allow for the inclusion of depreciation expense. The applicable rate ordinances allow MSD to increase rates to maintain the 100% revenue coverage of service and administrative costs and 110% coverage of aggregate net principal and interest requirements on Revenue Bonds that MSD covenants in the Revenue Bond Resolution.

Other Significant Matters:

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"). The agreement calls for MSD to design and implement projects within specified deadlines that will eliminate sewer overflows in its service area. The cost of the projects has yet to be determined but the preliminary estimate is \$850 million over the next two decades. MSD has submitted plans to finance the projects through additional bonds and future rate increases. To date, MSD has complied with all submittals and reports requirements contained in the Amended Consent Decree (see Note 13 to the financial statements.)

In December 2011, Kentucky's Auditor of Public Accounts completed a management audit of MSD at the request of Mayor Greg Fischer. The audit had 27 findings along with recommendations to address the findings. Many of the recommendations regarded updating company and Board policies, improving Board over-site, and the strengthening of internal controls. There were no findings regarding MSD's financial statements, nor were there any findings regarding illegal or unethical practices by MSD's Board or staff. As a result of the audit, Mayor Fischer asked Greg Heitzman, CEO of Louisville Water Company, to serve as Interim Executive Director for MSD. MSD Board and staff have addressed the majority of audit findings and 100% of the recommendations are expected to be in place and completed during fiscal year 2013.

**Louisville and Jefferson County Metropolitan Sewer District
Management's Discussion and Analysis
June 30, 2012 and 2011**

In January 2012, Mayor Greg Fischer created The Louisville Utility and Public Works Advisory Group. The Advisory Group was composed of 7 citizens who were tasked by Mayor Greg Fischer to examine the operations of Louisville Water Company (LWC), Louisville Metropolitan Sewer District (MSD), and Louisville Metro Department of Public Works & Assets (DPW) to determine whether synergies existed between the entities that would allow for improved service or reduced costs. The evaluation was to consider a range of potential business scenarios from current state to a full consolidation of LWC and MSD. Upon completion of their evaluation, in May 2012, the Advisory Group found that there were potential cost savings for three strategic options, including Limited Inter-local Agreements between the three agencies, Expanded Inter-local Agreements between the three agencies, and a Phased Consolidation of LWC and MSD. In July 2012, Mayor Fischer made his recommendation to the Boards of LWC and MSD that they pursue and begin implementation of the Inter-local Agreements and that a financial, statutory, operational, regulatory and environmental due diligence exercise begin to determine the feasibility of consolidation or merger between LWC and MSD.

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

LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
COMPARATIVE STATEMENT OF NET ASSETS
June 30, 2012 and 2011
(Dollars in thousands)

	<u>2012</u>	<u>2011</u>
Current Assets:		
Unrestricted cash and cash equivalents	\$ 45,545	\$ 34,508
Unrestricted investments	100	100
Restricted cash and cash equivalents	193,822	112,559
Restricted investments	94,639	294,868
Accounts receivable, less allowance for doubtful accounts of \$654 (2012), \$408 (2011)	16,666	17,789
Inventories	3,484	3,435
Accrued interest receivable	1,192	1,472
Prepaid expenses and other current assets	670	1,369
Total current assets	<u>356,118</u>	<u>466,100</u>
Noncurrent Assets:		
Long-term assessment receivables	18,917	21,260
Plant, lines and other facilities, net	2,105,548	2,002,782
Unamortized bond closing costs	16,959	15,351
Total noncurrent assets	<u>2,141,424</u>	<u>2,039,393</u>
Total assets	<u>\$ 2,497,542</u>	<u>\$ 2,505,493</u>
Current Liabilities:		
Current liabilities (payable from unrestricted assets):		
Accounts payable and accrued expenses	\$ 16,470	\$ 15,732
Current liabilities (payable from restricted assets):		
Accounts payable and accrued expenses, includes contractor retainage of \$5,538 (2012), \$5,946 (2011)	12,656	15,105
Accrued interest payable	13,959	12,360
Refundable deposits	1,013	1,341
Bond anticipation notes	226,340	226,340
Current maturities of bonds payable	25,740	24,840
Total current liabilities	<u>296,178</u>	<u>295,718</u>
Non-current Liabilities:		
Bonds payable, net of loss on refunding	1,521,594	1,574,828
Arbitrage rebate liability accrued	4,467	4,153
Unamortized debt premium / discount	45,841	25,647
Interest rate swaps	108,704	55,808
Other long term liabilities	12,172	13,547
Total non-current liabilities	<u>1,692,778</u>	<u>1,673,983</u>
Total liabilities	<u>1,988,956</u>	<u>1,969,701</u>
Net Assets:		
Invested in plant, lines and other facilities, net of related debt	\$ 434,451	\$ 432,689
Restricted for payment of bond principal and interest	290,775	411,841
Unrestricted	(216,640)	(308,738)
Total net assets	<u>508,586</u>	<u>535,792</u>
Total liabilities and net assets	<u>\$ 2,497,542</u>	<u>\$ 2,505,493</u>

LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
COMPARATIVE STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET ASSETS
Years Ended June 30, 2012 and 2011
(Dollars in thousands)

	<u>2012</u>	<u>2011</u>
Operating Revenues		
Service charges	\$ 190,482	\$ 183,297
Other operating income	1,756	2,379
Total operating revenues	<u>192,238</u>	<u>185,676</u>
Operating Expenses		
Service and administrative costs	75,126	76,999
Depreciation and amortization	60,527	58,741
Total operating expenses	<u>135,653</u>	<u>135,740</u>
Income from Operations	<u>56,585</u>	<u>49,936</u>
Non-operating Revenue (Expenses)		
Gain / loss on disposal of assets	(19)	194
Investment income	29,701	25,722
Build America Bond refund	10,986	7,978
Interest expense - bonds	(89,243)	(78,954)
Interest expense - swaps	(11,235)	(11,627)
Interest expense - other	(6,595)	(4,896)
Amortization of debt discount / premium	7,032	3,063
Capitalized interest	26,384	25,195
Change in fair value - swaps	(52,897)	22,638
Total non-operating revenue (expenses) - net	<u>(85,886)</u>	<u>(10,687)</u>
Income (loss) before Contributions	(29,301)	39,249
Contributions:		
Property owner assessments	-	334
All other	2,095	3,413
Increase (decrease) in net assets	(27,206)	42,996
Net assets, beginning of year	535,792	492,796
Net assets, end of year	<u>\$ 508,586</u>	<u>\$ 535,792</u>

LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
COMPARATIVE STATEMENT OF CASH FLOWS
Years Ended June 30, 2012 and 2011
(Dollars in thousands)

	<u>2012</u>	<u>2011</u>
Cash Flows from Operating Activities:		
Cash received from customers	\$ 193,446	\$ 182,976
Cash paid to suppliers	(36,242)	(32,960)
Cash paid to employees	(39,835)	(39,606)
Net cash provided by operating activities	<u>117,369</u>	<u>110,410</u>
Cash Flows from Capital and Related Financing Activities:		
Proceeds from issuance of revenue bonds	263,360	330,000
Proceeds from bond anticipation notes	226,340	226,340
Build America Bond refund	10,986	7,978
Assessments receivable	1,930	1,676
Interest income - assessments	.852	994
Unamortized loss on refundings	1,665	1,665
Amortization of loss on refunding	(1,665)	(1,665)
Principal paid on revenue bonds	(317,360)	(39,275)
Interest paid on revenue bonds	(94,240)	(86,191)
Bond anticipation notes principal payments	(226,340)	(452,680)
Acquisition and construction of capital assets	(117,486)	(168,708)
Retainage payable	(407)	4,639
Acquisition of non-operating property	(213)	(221)
Net cash, provided by / (used in), capital and related financing activities	<u>(252,578)</u>	<u>(175,448)</u>
Cash Flows from Investing Activities:		
Restricted investments	200,229	100,012
Income on investments	38,705	40,287
Interest expense - swap agreements	(11,235)	(11,627)
Unamortized premium on forward delivery agreement	(190)	(190)
Net cash (used in) provided by investing activities	<u>227,509</u>	<u>128,482</u>
Net Increase (Decrease) in Cash and Cash Equivalents	92,300	63,444
Cash and cash equivalents, beginning of year	147,067	83,623
Cash and cash equivalents, end of year	<u>\$ 239,367</u>	<u>\$ 147,067</u>

LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
COMPARATIVE STATEMENT OF CASH FLOWS
Years Ended June 30, 2012 and 2011
(Dollars in thousands)

	<u>2012</u>	<u>2011</u>
Reconciliation of Operating Income to Net Cash provided by Operating Activities:		
Income from operations	\$ 56,585	\$ 49,936
Adjustments to reconcile income (loss) from operations to net cash provided by (used in) operating activities:		
Depreciation and amortization	60,527	58,741
Capital expense over/under applied	(2,340)	164
Accounts receivable	1,536	(2,419)
Inventories	(50)	(325)
Deferred charges (prepaids)	700	4
Accounts payable	8,539	130
Customer deposits	(328)	(281)
Accrued liabilities	(7,800)	4,460
Net cash provided by operating activities	<u>\$ 117,369</u>	<u>\$ 110,410</u>
Non-cash capital financing and investing activities:		
Contribution of plant, lines and other facilities by developers and property owners	<u>\$ 2,095</u>	<u>\$ 3,747</u>
Increase in accounts payable incurred for construction	<u>\$ (1,727)</u>	<u>\$ 927</u>
Change in fair value of investments	<u>\$ 8,598</u>	<u>\$ (1,896)</u>
Decrease in interest rate swap deferred revenue	<u>\$ 972</u>	<u>\$ 972</u>
Change in fair value - swap agreements	<u>\$ (52,897)</u>	<u>\$ 22,638</u>

LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2012 AND 2011
(Dollars in thousands)

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The financial statements of the Louisville and Jefferson County Metropolitan Sewer District ("MSD") 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. With respect to proprietary activities, MSD has adopted GASB Statement No. 20, "Accounting and Financial Reporting for Proprietary Funds and Other Governmental Entities that use Proprietary Fund Accounting." MSD has elected to apply all applicable GASB pronouncements as well as Financial Accounting Standards Board ("FASB") pronouncements and Accounting Principles Board ("APB") Opinions, issued on or before November 30, 1989, unless those pronouncements conflict with or contradict GASB pronouncements.

These financial statements follow the provisions of GASB Statement No. 34, "Basic Financial Statements, Management's Discussion and Analysis, for State and Local Governments" and related standards. These standards provided for changes in terminology; recognition of contributions in the Statement of Revenues, Expenses and Changes in Net Assets, including a management discussion and analysis as required supplementary information; and other changes.

Beginning after period ending June 30, 2012, MSD will adopt GASB Statement No. 63, "Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources and Net Position." Some items previously reported as assets or liabilities on the Statement of Net Assets will be reclassified as deferred inflows or deferred outflows of resources on the Statement of Net Position. Statement No. 63 will supersede GASB Statement No. 34.

The significant MSD accounting policies are described hereinafter.

A. 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 the Louisville Metro government, subject to approval of the 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 the 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 there from 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 the Louisville Metro government and MSD, nor is the Louisville Metro government empowered by law or custom to approve MSD 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 the 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.

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NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

A. Reporting Entity – (continued)

The enterprise business and activities of MSD 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 sewer 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. Sewer 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, but no change in the service charge schedule is final within the Louisville Metro area until approval by the Louisville Metro Council. However, the statute provides that such approval may not be arbitrarily withheld and that the schedule shall be sufficient to provide revenues for the operation and maintenance of the system and for debt service. By ordinance, the 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.

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 revenues given by MSD for the security of its revenue bond holders. MSD indebtedness does not constitute indebtedness of the Louisville Metro government or the Commonwealth, but the Louisville Metro government must authorize by ordinance the issuance by MSD of revenue bonds to finance projects within the Metropolitan area.

B. 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 assets are segregated into amounts invested in plant, lines and other facilities, net of related debt, 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.

C. 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.

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NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

D. 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 assets are available, it is MSD's practice is to use revenue from operations to finance construction, then to reimburse from net assets restricted for construction as it is needed.

E. Investment Securities

Investments are stated at fair value. Investment income consists of interest income and the change in fair value of investments. Investment income is reduced by estimated federal arbitrage liability.

F. Operating/Non-Operating Revenues, Expenses & Receivables

Operating revenues are those revenues that are generated directly from the primary activity of MSD. These revenues are wastewater and stormwater service charges. The Louisville Water Company is responsible for billing 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 balances. Balances are considered past due 30 days from the invoice date. Management provides an allowance for probable uncollectible amounts based on its assessment of the current status of individual accounts. Balances that are still outstanding after management has used reasonable collection efforts are written off through a charge to the allowance and a credit to accounts receivable.

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. Management considers all amounts collectible on the basis that liens are placed on properties at the time of assessment.

G. Inventories

Inventories are stated at the lower of cost (principally weighted average cost) or market. They consist 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.

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NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

H. Contributed Capital and Construction Grants

Construction and acquisition of sewer and drainage plant, lines and other facilities are financed in part by governmental grants and contributions in aid of construction 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. The revenues from contributions are part of the change in net assets.

I. Plant, Lines and Other Facilities

Plant, lines and other facilities are recorded at historical cost or, if contributed, at fair value as determined by engineering estimates on the date the contribution is received. Capital assets are defined by MSD as assets with an initial, individual cost of more than \$20 or renewal and replacement cost of a component of existing assets with a cost of more than \$20, which extends the life of an asset beyond its original useful life. It is MSD's policy to depreciate the costs of these assets over their estimated useful lives on a straight line basis.

Estimated useful lives on depreciable assets are as follows:

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

J. Capitalized Interest

Interest capitalized on projects funded from bond proceeds is recorded as the difference between the interest costs of the borrowing less interest earned on undisbursed invested proceeds during the construction period. Interest is not capitalized on project costs that are reimbursed by contributions of capital from government, property owners and developers.

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NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

K. 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 the years ended June 30, 2012 and 2011.

L. Bonds Payable

Bonds payable are recorded at the principal amount outstanding, net of any applicable premium or discount.

Refunding: Bonds outstanding, which have been refunded and economically defeased, are not included in long-term debt. The related assets are not included in investments. The loss on refunding, which is the difference between the reacquisition price and the net carrying amount of the old debt, is deferred and amortized as a component of interest expense over the average remaining life of the old debt. The unamortized loss on refunding is reported as a deduction from the new debt liability.

Derivatives: 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. Derivative instruments are reported at fair value. Changes in fair value of derivative instruments are reported in non-operating revenue (expenses) on the Statement of Revenues, Expenses and Changes in Net Position.

Issuance Cost: Bond issue costs are deferred and amortized over the life of the respective bond issue using the straight-line method, which approximates the effective interest method.

Original Issue Discount/Premium: 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.

M. Compensated Absences

Vacation and personal pay benefits are accrued as vested by MSD employees.

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NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

N. Allocation of Overhead

MSD allocates overhead costs to its core business processes which are: operations and maintenance (service and administrative costs); design, construction and acquisition of plant lines and other facilities; and subsidiary business enterprises.

O. 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.

P. Income Tax Status

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

Q. Reclassifications

Certain reclassifications have been made to the 2011 financial statements to conform to those used in 2012. These reclassifications had no impact on total net position (net assets) or the change in net position (net assets).

LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
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NOTE 2 DEPOSITS AND INVESTMENTS

A comparative statement of cash, cash equivalents and investments held in MSD's portfolio follows:

June 30, 2012

Investment Type	Fair Value	Weighted Average Maturity in Years	Credit Rating
Fed Nat'l MTGE Assn Pool	\$ 26,942	0.09	Aaa
Municipal Bonds	94,639	26.21	Aa
Money Market Funds	200,384	0.13	Aaa
Repurchase Agreement/Cash	12,041		
Certificate of Deposit	100		
Total	334,106	7.79	
Accrued interest	1,192		
Total cash, cash equivalents and investments	<u>\$ 335,298</u>		

June 30, 2011

Investment Type	Fair Value	Weighted Average Maturity in Years	Credit Rating
U.S. Agency Discount Notes	\$ 27,826	0.38	Aaa
U.S. Treasury Obligations	180,000	11.40	Aaa
Municipal Bonds	87,042	27.20	Aa
Money Market Funds	141,508	0.12	Aaa
Repurchase Agreement/Cash	5,559		
Certificate of Deposit	100		
Total	442,035	10.19	
Accrued interest	1,472		
Total cash, cash equivalents and investments	<u>\$ 443,507</u>		

Section 66.480 of the Kentucky Revised Statutes and the District's bond resolutions authorize the District 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. MSD bond resolutions and covenants contain similar restrictions.

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.

LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
NOTES TO THE FINANCIAL STATEMENTS
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NOTE 2 DEPOSITS AND INVESTMENTS (Continued)

Concentration of Credit Risk:

MSD's Investment Policy ("The Policy") requires that investments be divided 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 2.0 of The Policy outlines the permitted investments and identifies the limitations placed on the types of investments to minimize the risk.

Interest Rate Risk:

The Policy also requires that all investments have the highest category of ratings by the nationally recognized rating agencies. The credit ratings are shown in the preceding table. Where applicable, all of the above investments have such ratings. 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, 2012 and 2011.

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

	<u>June 30, 2012</u>	<u>June 30, 2011</u>
Cash and cash equivalents - unrestricted	\$ 45,545	\$ 34,508
Investments - unrestricted	100	100
Cash and cash equivalents - restricted	193,822	112,559
Investments - restricted (with accrued interest)	95,831	296,340
	<u>\$ 335,298</u>	<u>\$ 443,507</u>

LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
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NOTE 3 RESTRICTED CASH, CASH EQUIVALENTS AND INVESTMENTS

MSD's revenue bond resolution provides that MSD shall maintain in a Debt Service Reserve Account a balance equal to the maximum annual aggregate gross principal and interest due on all outstanding revenue bonds; or, in lieu of cash and investments in that amount, a letter of credit or policy of bond insurance payable in that amount. Cash, cash equivalents and investments segregated as accounts restricted for authorized construction include proceeds from issuance of MSD bonds.

	<u>June 30, 2012</u>	<u>June 30, 2011</u>
Payment of bond / BAN principal and interest and reserves	\$ 154,689	\$ 136,802
Authorized construction	<u>133,772</u>	<u>270,625</u>
Total restricted cash, cash equivalents and investments	<u>\$ 288,461</u>	<u>\$ 407,427</u>

NOTE 4 SCHEDULE OF NET ASSETS

A comparative schedule of net assets follows:

	<u>2012</u>	<u>2011</u>
Net assets invested in plant, lines and other facilities:		
Plant, lines and other facilities net of depreciation	\$ 2,105,548	\$ 2,002,782
Outstanding debt that applies to plant, lines and other facilities	(1,788,850)	(1,842,850)
Unamortized discount / (premium)	(16,019)	2,132
Unspent bond proceeds	<u>133,772</u>	<u>270,625</u>
Invested in plant, lines and other facilities, net	<u>434,451</u>	<u>432,689</u>
Restricted net assets:		
Funds held in bank	322,856	434,435
Reimbursements due from construction	(34,394)	(27,008)
Unamortized discount / (premium)	<u>2,313</u>	<u>4,414</u>
Net assets, restricted	<u>290,775</u>	<u>411,841</u>
Unrestricted net assets	<u>(216,640)</u>	<u>(308,738)</u>
Total net assets	<u>\$ 508,586</u>	<u>\$ 535,792</u>

LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
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NOTE 5 PLANT, LINES AND OTHER FACILITIES

A comparative schedule of plant, lines and other facilities for the years 2012 and 2011 follows:

Year ended June 30, 2012

	<u>Beginning Balance</u>	<u>Additions</u>	<u>Retirements / Reclassifications</u>	<u>Ending Balance</u>
Capital assets:				
Sewer lines	\$ 1,159,437	\$ 20,248	\$ -	\$ 1,179,685
Wastewater treatment facilities	472,072	7,176	(22)	479,226
Stormwater drainage facilities	434,943	2,196	-	437,139
Pumping and lift stations	71,121	1,972	(70)	73,023
Administrative facilities	46,078	-	(10)	46,068
Maintenance facilities	8,037	-	-	8,037
Machinery and equipment	56,648	770	(2,028)	55,390
Miscellaneous	14,392	7,286	-	21,678
Capitalized interest	235,625	24,532	-	260,157
Total capital assets	2,498,353	64,180	(2,130)	2,560,403
Less accumulated depreciation:				
Sewer lines	(226,787)	(14,374)	-	(241,161)
Wastewater treatment facilities	(266,307)	(19,972)	22	(286,257)
Stormwater drainage facilities	(104,433)	(5,066)	-	(109,499)
Pumping and lift stations	(35,186)	(3,249)	51	(38,384)
Administrative facilities	(28,184)	(1,118)	10	(29,292)
Maintenance facilities	(4,926)	(284)	-	(5,210)
Machinery and equipment	(39,820)	(6,093)	2,028	(43,885)
Miscellaneous	(7,363)	(2,798)	-	(10,161)
Capitalized interest	(55,416)	(5,941)	1	(61,356)
Total accumulated depreciation	(768,422)	(58,895)	2,112	(825,205)
Construction in progress	<u>272,851</u>	<u>130,512</u>	<u>(33,013)</u>	<u>370,350</u>
	<u>\$ 2,002,782</u>	<u>\$ 135,797</u>	<u>\$ (33,031)</u>	<u>\$ 2,105,548</u>

LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
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NOTE 5 PLANT, LINES AND OTHER FACILITIES (Continued)

Year ended June 30, 2011

	<u>Beginning Balance</u>	<u>Additions</u>	<u>Retirements / Reclassifications</u>	<u>Ending Balance</u>
Capital assets:				
Sewer lines	\$ 1,134,637	\$ 24,800	\$ -	\$ 1,159,437
Wastewater treatment facilities	470,527	1,738	(193)	472,072
Stormwater drainage facilities	427,431	7,512	-	434,943
Pumping and lift stations	70,643	478	-	71,121
Administrative facilities	45,561	517	-	46,078
Maintenance facilities	7,827	210	-	8,037
Machinery and equipment	93,240	7,021	(43,613)	56,648
Miscellaneous	-	54	14,338	14,392
Capitalized interest	222,564	13,061	-	235,625
Total capital assets	<u>2,472,430</u>	<u>55,391</u>	<u>(29,468)</u>	<u>2,498,353</u>
Less accumulated depreciation:				
Sewer lines	(210,949)	(15,839)	1	(226,787)
Wastewater treatment facilities	(246,470)	(19,985)	148	(266,307)
Stormwater drainage facilities	(99,311)	(5,122)	-	(104,433)
Pumping and lift stations	(32,002)	(3,184)	-	(35,186)
Administrative facilities	(27,082)	(1,102)	-	(28,184)
Maintenance facilities	(4,633)	(293)	-	(4,926)
Machinery and equipment	(64,280)	(8,925)	33,385	(39,820)
Miscellaneous	-	-	(7,363)	(7,363)
Capitalized interest	(49,825)	(5,591)	-	(55,416)
Total accumulated depreciation	<u>(734,552)</u>	<u>(60,041)</u>	<u>26,171</u>	<u>(768,422)</u>
Construction in progress	<u>140,134</u>	<u>224,055</u>	<u>(91,338)</u>	<u>272,851</u>
	<u>\$ 1,878,012</u>	<u>\$ 219,405</u>	<u>\$ (94,635)</u>	<u>\$ 2,002,782</u>

LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
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NOTE 6 CAPITALIZED INTEREST

A comparative schedule of net interest cost capitalized and net interest expense reported in non-operating revenues in 2012 and 2011 follows:

<u>Year ended June 30, 2012</u>	<u>Capitalized</u>	<u>Included in Non- Operating</u>	<u>Total</u>
Investment earnings	\$ 1,851	\$ 40,687	\$ 42,538
Interest cost	(26,384)	(73,657)	(100,041)
Net interest	<u>\$ (24,533)</u>	<u>\$ (32,970)</u>	<u>\$ (57,503)</u>

<u>Year ended June 30, 2011</u>	<u>Capitalized</u>	<u>Included in Non- Operating</u>	<u>Total</u>
Investment earnings	\$ 12,134	\$ 33,700	\$ 45,834
Interest cost	(25,195)	(67,219)	(92,414)
Net interest	<u>\$ (13,061)</u>	<u>\$ (33,519)</u>	<u>\$ (46,580)</u>

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NOTE 7 LONG-TERM DEBT

A comparative schedule of long-term debt outstanding at June 30, 2012 and 2011 follows:

<u>Revenue Bonds</u>	<u>Original Issue Amount</u>	<u>Interest Rates</u>	<u>Final Payment In</u>	<u>Outstanding as of:</u>	
				<u>2012</u>	<u>2011</u>
1998 Sewer and Drainage System Revenue Bonds Series 1998A	\$ 260,000	4.25% - 9.00%	2030	\$ -	\$ 139,495
2001 Sewer and Drainage System Revenue Bonds Series 2001A	300,000	5.00% - 5.50%	2036	134,420	288,015
2004 Sewer and Drainage System Revenue Bonds Series 2004A	100,000	5.00% - 5.25%	2038	100,000	100,000
2005 Sewer and Drainage System Revenue Bonds Series 2005A	64,740	3.00% - 5.00%	2026	55,020	56,790
2006 Sewer and Drainage System Revenue Bonds Series 2006A	100,000	4.00% - 5.00%	2038	93,160	94,965
2007 Sewer and Drainage System Revenue Bonds Series 2007A	61,125	4.00% - 5.00%	2025	52,305	54,305
2008 Sewer and Drainage System Revenue Bonds Series 2008A	105,000	4.00% - 5.00%	2038	102,690	103,485
2009A Sewer and Drainage System Revenue Bonds Series 2009A	76,275	5.00%	2022	62,870	67,555
2009B Sewer and Drainage System Revenue Bonds Series 2009B	225,770	2.00% - 5.00%	2023	190,165	201,900
2009C Sewer and Drainage System Revenue Bonds Series 2009C	180,000	5.98%	2040	180,000	180,000
2010A Sewer and Drainage System Revenue Bonds Series 2010A	330,000	6.25%	2043	330,000	330,000
2011A Sewer and Drainage System Revenue Bonds Series 2011A	263,360	3.00% - 5.00%	2034	261,880	-
Total Long-Term Debt				1,562,510	1,616,510
Less: Current Maturities				(25,740)	(24,840)
Add : Unamortized Premium/Discount				45,841	25,647
Less: Unamortized Loss on Refunding				(15,176)	(16,842)
Total Long-Term Debt, net				<u>\$ 1,567,435</u>	<u>\$ 1,600,475</u>

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NOTE 7 LONG-TERM DEBT (Continued)

A schedule of future debt service requirements after June 30, 2012 follows:

Year Ending June 30,	Revenue Bonds		
	Principal	Interest	Total
2013	\$ 25,740	\$ 83,133	\$ 108,873
2014	27,035	82,013	109,048
2015	28,525	80,707	109,232
2016	30,135	79,296	109,431
2017	31,825	77,810	109,635
2018-2022	188,090	363,472	551,562
2023-2027	211,170	314,308	525,478
2028-2032	139,375	260,446	399,821
2033-2037	315,745	221,305	537,050
2038-2042	462,750	117,575	580,325
2043-2043	102,120	6,383	108,503
	<u>\$ 1,562,510</u>	<u>\$ 1,686,448</u>	<u>\$ 3,248,958</u>

A comparative summary of current and long-term revenue bond activity for the years ended June 30, 2012 and 2011 follows:

	2012	2011
Revenue Bonds - beginning of year, net	\$ 1,600,475	\$ 1,310,168
Bonds issued	263,360	330,000
Principal paid on bonds,		
net of amortization and premium	(3,310)	(24,203)
Bonds refunded	(293,090)	(15,490)
Revenue Bonds - end of year, net	<u>\$ 1,567,435</u>	<u>\$ 1,600,475</u>

MSD long-term debt is issued to provide sufficient funding for sewer and drainage projects approved for construction. MSD has arbitrage calculations performed as needed by an independent third party to comply with federal regulations. A summary of significant debt transactions follows.

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NOTE 7 LONG-TERM DEBT (Continued)

New Debt Transactions:

On August 24, 2011, MSD issued \$263,360 of Sewer and Drainage System Revenue Bonds, Series 2011A. The proceeds of the bonds, net of issuance cost, were used to currently refund MSD's outstanding Sewer and Drainage System Revenue Bonds, Series 1998A, and to refund a portion of the outstanding Revenue Bonds, Series 2001A. The net proceeds of the refunding issue were placed in an irrevocable escrow account and used to purchase U.S. Government securities. The U. S. Government securities, together with investment income earned thereon and the beginning cash deposit provided amounts sufficient for future payment of interest and principal on the refundable issues. The refunding was completed to reduce debt service payments over the next 24 years and it resulted in a present value savings of \$37,607.

Debt Service Covenant:

A debt ratio covenant has been established under the 1993 Sewer and Drainage System Revenue Bond Resolution. MSD was in compliance with the ratio covenant as of June 30, 2012 and 2011.

Swap Terminations:

MSD enters 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 that hedge embedded interest rate and tax regulation risk that exists on its statement of net assets.

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 three swap agreement terminations with outstanding balances accreting to non-operating revenue as follows:

- On January 24, 2001, MSD terminated a nineteen-year interest rate swap agreement for \$100,000 of its fixed-rate 1999 Series Sewer and Drainage Revenue Bonds. The termination of this swap agreement resulted in the receipt of a payment in the amount of \$7,935. This payment will be amortized annually into income until 2019, the original termination date on the agreement.
- In April 2006, MSD entered into a swap agreement with Deutsche Bank AG for an initial notional amount of \$171,405 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 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. 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. This payment will be amortized annually into income until 2033, the original termination date of the agreement.

LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2012 AND 2011
(Dollars In thousands)

NOTE 7 LONG-TERM DEBT (Continued)

Derivatives:

At June 30, 2012, MSD had the following investment derivative instruments outstanding:

Item	Counter-Party	Initial Notional Amount	Current Notional Amount	Payment Start Date	Termination Date	MSD Payment Terms	MSD Receipt Terms	6/30/2012 Fair Value	6/30/2011 Fair Value	Change In Fair Value
A	Wells Fargo	\$ 225,732	\$ 222,236	11/15/2009	5/15/2033	4.4215%	67% of 30-day LIBOR	\$ (90,144)	\$ (55,112)	\$ (35,032)
B	Bank of America	56,433	55,559	11/15/2009	5/15/2033	4.4215%	67% of 30-day LIBOR	(22,536)	(13,775)	(8,761)
C	Deutsche Bank	103,673	62,256	5/15/2003	5/15/2023	4.075%	SIFMA	(14,490)	(10,128)	(4,362)
D	Bank of America	64,869	42,374	5/15/2003	5/15/2023	4.075%	SIFMA	(7,465)	(5,219)	(2,246)
E	Deutsche Bank	149,465	124,630	8/15/2009	5/15/2023	SIFMA	2.78%	12,099	4,428	7,671
F	Wells Fargo	60,376	46,860	11/15/2009	5/15/2023	SIFMA	2.9235%	4,974	2,118	2,856
G	Deutsche Bank	12,594	11,720	11/15/2009	5/15/2023	SIFMA	2.924%	1,244	530	714
H	Morgan Stanley	190,790	124,630	6/15/2003	5/15/2023	SIFMA	78.78% of 3-month LIBOR	(352)	(215)	(137)
I	Deutsche Bank	281,745	277,795	11/15/2011	5/15/2033	SIFMA	100.30% of 3-month LIBOR	7,966	21,565	(13,599)
Total		<u>\$ 1,135,677</u>	<u>\$ 988,080</u>					<u>\$ (108,704)</u>	<u>\$ (55,808)</u>	<u>\$ (52,896)</u>

LIBOR = London Interbank Offering Rate

SIFMA = Securities Industry and Financial Markets Association

A comparative summary of the change in fair value of swaps for the years ended June 30, 2012 and 2011 follows:

	2012	2011
Fair value - beginning of year	\$ (55,808)	\$ (78,446)
Change in fair value	<u>(52,896)</u>	<u>22,638</u>
Fair value - end of year	<u>\$ (108,704)</u>	<u>\$ (55,808)</u>

LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2012 AND 2011
(Dollars in thousands)

NOTE 7 LONG-TERM DEBT (Continued)

Derivatives - (Continued)

MSD originally entered into interest rate swaps as a hedging derivative instrument. The interest rate swaps were found to be ineffective as of June 30, 2010, based on evaluation and consideration of consistent critical terms and quantitative methods. The total of investment derivatives are reported as interest rate swaps on the Statement of Net Assets. All changes in fair value of the derivatives are recorded as a separate component of non-operating revenue (expense).

MSD's outstanding swaps consist of three types: Floating-to-Fixed swaps (A, B, C, and D), Swap Reversals (E, F, and G) and Basis Swaps (H and I) described as follows:

Floating-to-Fixed Swaps are structured so that the notional amount of the swap decreases over time corresponding to the maturity and sinking fund schedule of the actual or expected bond issue being hedged. The Floating-to-Fixed swaps have been done on a forward basis with the swap payments starting at a future date when MSD anticipates refunding outstanding debt, which can be issued as variable rate bonds or short-term notes. In 2001, MSD entered into two swaps (A and B) for a synthetic advance refunding of its Series 1999A Bonds. In 2002, MSD entered into two swaps (C and D) for a synthetic advance refunding of its Series 1993 Bonds, and subsequently issued variable-rate Series 2003 Bonds to complete the refunding.

Swap Reversals: In August 2009, MSD issued Bond Anticipation Notes to refund the portion of its Series 1999 Bonds maturing from 2024 to 2033 and issued fixed-rate Series 2009B Bonds to refund its variable-rate Series 2003 Bonds and that portion of its Series 1999 Bonds maturing in 2023 and earlier years. In conjunction with these refundings, MSD entered into three reversal swaps (E, F, and G) to eliminate the hedge for the portion of the refunded bonds retired with proceeds of long-term, fixed-rate bonds.

- One reversal swap (E) has offsetting payment/receipt terms with those on two outstanding swaps (C and D) so that MSD is required to make a net payment of 1.295% (4.075% minus 2.78%) on the same declining notional amounts.
- The other two reversal swaps (F and G) offset the portion corresponding to the declining notional amounts in 2009 through and including 2023 of outstanding swaps (A and B), so that MSD is required to make a net payment of 1.4975% (4.4215% minus 2.924%), plus or minus the difference between 67% of 30-day LIBOR and SIFMA, on those declining notional amounts of that portion of those two swaps.

The non-reversed portions of the floating-to-fixed swaps (A and B) provide a hedge against future higher rates on any long-term debt or renewal bond anticipation notes used to refinance MSD's Bond Anticipation Notes.

Basis Swaps: A basis swap (H and I) is an interest rate swap which involves the exchange of two floating rate financial instruments. A basis swap functions as a floating-floating interest rate swap under which the floating rate payments are referenced to different bases. This is done to limit interest-rate risk that MSD may face as a result of having differing lending and borrowing rates. 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.

LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2012 AND 2011
(Dollars in thousands)

NOTE 7 LONG-TERM DEBT (Continued)

Derivatives - (Continued)

Credit Risk:

MSD has implemented steps to safeguard it against the risks associated with the aforementioned swap transactions. If the counter-party does not maintain A1/A+ ratings from Moody's and Standard and Poor's, 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 April 2001 (E and F) and October 2002 (A and B) swaps were awarded to multiple firms to further mitigate the credit risk associated with the transactions. The credit ratings as of 6/30/2012 for the counter-parties are as follows:

	Credit Ratings	
	Moody's	Standard & Poor's
Bank of America	A3	A
Deutsche Bank	A2	A+
Morgan Stanley	Baa1	A -
Wells Fargo	Aa2	AA -

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.

Basis Risk:

The aforementioned swap transactions also expose MSD to basis risk, the risk that arises when variable interest rates on a derivative and an associated bond are based on different indices. The payment terms of the October 2002 (E and F) and March 2003 (D) swaps coincide with the 2003 variable-rate bond issue that was executed to refinance the Sewer and Drainage System Revenue Bonds, Series 1993, 1993A, and 1993B. The positive and negative fair values of the swap agreements were provided by a third-party financial advisor. The net swap payments made in FY 2012 and FY 2011 were \$11,235 and \$11,627 respectively.

Arbitrage Rebate Liability:

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. As of June 30, 2012 and 2011, MSD's accrued liability for arbitrage rebate was \$4,467 and \$4,153 respectively.

LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2012 AND 2011
(Dollars in thousands)

NOTE 8 OTHER NON-CURRENT LIABILITIES

Amortization schedules as of June 30, 2012, for various deferred inflows and outflows of resources related to long-term debt follow:

Unamortized Premium/Discount on Forward Delivery Agreements

Year Ending June 30,	Amortization of Premium	Amortization of Discount	Unamortized Balance
2013	\$ 215	\$ (25)	\$ 149
2014	215	(25)	339
2015	196	(25)	510
2016	-	(25)	485
2017	-	(25)	460
2018-2022	-	(125)	335
2023-2027	-	(125)	210
2028-2032	-	(125)	85
2033-2037	-	(85)	-

Deferred Inflow on Swap Agreements

Year Ending June 30,	Amortization of Premium	Unamortized Balance
2013	\$ 972	\$ (9,964)
2014	972	(8,992)
2015	932	(8,060)
2016	918	(7,142)
2017	918	(6,224)
2018-2022	3,504	(2,720)
2023-2027	1,380	(1,340)
2028-2032	1,132	(208)
2033-2037	208	-

Unamortized Premium on Sale of Bonds

Year Ending June 30,	Amortization of Premium	Unamortized Balance
2013	\$ 5,035	\$ (48,819)
2014	3,434	(45,385)
2015	3,434	(41,951)
2016	3,434	(38,517)
2017	3,434	(35,083)
2018-2022	17,121	(17,962)
2023-2027	8,410	(9,552)
2028-2032	7,212	(2,340)
2033-2037	2,090	(250)
2038-2042	250	-

LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2012 AND 2011
(Dollars in thousands)

NOTE 9 SHORT TERM DEBT

A summary of short term debt activity is provided below:

- On August 19, 2009, MSD issued \$226,340 of Sewer and Drainage System Subordinated Bond Anticipation Notes, Series 2009A Notes. The proceeds of the notes were used to refund and refinance on a short-term basis certain of MSD's outstanding Sewer and Drainage System Revenue Bonds, Series 1999A and a portion of its 1997A and 1998A Revenue Bonds until MSD's issues long-term debt to provide permanent financing for such refunding. The 2009A Notes were paid off on August 19, 2010.
- On May 26, 2010, MSD issued \$226,340 of Sewer and Drainage System Subordinated Bond Anticipation Notes, Series 2010A Notes. The proceeds of the notes were used to refinance the 2009A Notes at a lower interest cost to MSD. The 2010A Notes matured on May 26, 2011.
- On March 2, 2011, MSD issued \$226,340 of Sewer and Drainage System Subordinated Bond Anticipation Notes, Series 2011A Notes. The proceeds of the notes were used to refinance the 2010A Notes. The 2011A Notes mature on March 1, 2012.
- On December 7, 2011, MSD issued \$226,340 of Sewer and Drainage System Subordinated Bond Anticipation Notes, Series 2011B Notes. The proceeds of the notes were used to refinance the 2011A Notes. The 2012A Notes mature on December 12, 2012.

A comparative summary of short term debt for the years ended June 30, 2012 and 2011 follows:

	<u>June 30, 2012</u>	<u>June 30, 2011</u>
Short-term debt - beginning of year	\$ 226,340	\$ 452,680
Debt issued	226,340	226,340
Principal paid on debt	(226,340)	(452,680)
Short-term debt - end of year	<u>\$ 226,340</u>	<u>\$ 226,340</u>

NOTE 10 RETIREMENT PLAN AND POSTRETIREMENT BENEFITS

Plan Description: MSD contributes to the County Employees Retirement System (CERS) which is a cost-sharing multiple-employer defined benefit pension plan administered by the Kentucky Retirement System, an agency of the Commonwealth of Kentucky. The CERS provides for retirement, disability and death benefits to plan members and beneficiaries. The Kentucky Retirement System issues a publicly available financial report that includes financial statements and required supplemental information for the CERS. That report may be obtained by writing to the Kentucky Retirement System, 1260 Louisville Road, Frankfort, Kentucky 40601-6124.

Funding Policy: Plan members hired before September 1, 2008 are required to contribute 5% of their creditable compensation. MSD is required to contribute at an actuarially determined rate. Plan members hired after September 1, 2008 contribute 6%. The employer contribution rates for the years ending June 30, 2012, 2011, and 2010 were 18.96%, 16.93%, and 16.16% respectively, of participating employees' compensation.

LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2012 AND 2011
(Dollars in thousands)

NOTE 10 RETIREMENT PLAN AND POSTRETIREMENT BENEFITS (Continued)

The contribution requirements of plan members and MSD are established and may be amended by the CERS Board of Trustees. MSD's contributions to the CERS for the years ending June 30, 2012 and 2011 were \$7,156 and \$6,394, respectively, equal to the required contributions for each year.

Healthcare Plan: The Kentucky Retirement Systems Insurance Fund ("Fund") was established to provide hospital and medical insurance for members receiving benefits from CERS, the Kentucky Employees Retirement System and the State Police Retirement System. The Fund pays a prescribed contribution for whole or partial payment of required premiums to purchase hospital and medical insurance. For the fiscal year ended June 30, 2011, insurance premiums withheld from benefit payments for members of CERS were \$29,350.

NOTE 11 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 for through various programs.

MSD participates in the Louisville Area Governmental Self-Insurance Trust ("The Trust"). The Trust, which is certified by the Kentucky Department of Insurance to practice as a "group liability self-insurance trust," was created on January 1, 1987. Trust members currently include the Louisville Metro Government, six smaller cities, and six government agencies. The Trust 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 the Trust are reflected on the financial statements as an expense. The Trust provides, after a \$300 deductible various liability coverage up to \$5,000 per occurrence. Excess insurance may provide an additional \$2,000 of coverage, above the Trust \$5 million, to MSD. The amount of coverage available to MSD could be limited by the total assets of the Trust. For fiscal year 2012, MSD paid claims of \$460 from the Trust's assets.

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 coverage in excess of \$300 for catastrophic injury claims by an employee or several employees as a result of a single occurrence. A roll forward of for worker's compensation claims follows:

	<u>June 30, 2012</u>	<u>June 30, 2011</u>
Liability - beginning of year	\$ 1,723	\$ 1,340
Claims and changes in estimates	977	1,502
Payments	<u>(943)</u>	<u>(1,119)</u>
Liability - end of year	<u>\$ 1,757</u>	<u>\$ 1,723</u>

LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2012 AND 2011
(Dollars in thousands)

NOTE 11 RISK MANAGEMENT (Continued)

MSD joined the Louisville Area Governmental General Insurance Trust ("Property Self-Insurance Trust") in September 2002. The Property Self-Insurance Trust was created to provide lower cost to participants and broader coverage for property risks.

MSD is responsible for covered property damage up to \$100, except for flood and vehicle collision coverage, which have separate deductibles. The Property Self-Insurance Trust provides coverage for the next \$900. An excess insurance policy with a third-party carrier covers claims in excess of \$1,000.

MSD has had two settled liability claims and one property claim that exceeded the liability coverage in the past three fiscal years. There have been no changes in MSD's self-insurance coverage from the prior year.

NOTE 12 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. 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 13 COMMITMENTS AND CONTINGENCIES

Forward Purchase Agreements:

MSD previously entered into forward purchase agreements to invest the debt service account of its bond fund at specified times in the future at fixed interest rates. MSD entered into these agreements in order to receive a guaranteed interest rate and lock in current long-term investment rates for the investment of its debt service payments. In December 2007 and January 2008, MSD terminated these agreements and received a net payment of \$1,466 that will be amortized over the original life of the agreements.

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 of outstanding assessments and for MSD to receive 104% of the face value of the assessments. The subsequent agreement allows an additional \$5,000 of assessments to be sold to the bank at face value. These agreements give the bank the option to place the assessments back to MSD if the payments of the property owner are ninety days in arrears or the property owner does not respond to the bank's demand for payment within a ninety 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, 2012 and 2011 was \$3,755 and \$4,573, respectively.

LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2012 AND 2011
(Dollars in thousands)

NOTE 13 COMMITMENTS AND CONTINGENCIES (Continued)

EPA Consent Decree:

In April 2005, MSD agreed to enter into a Consent Decree with the Commonwealth of Kentucky's Environmental and Public Protection Cabinet ("The Cabinet") and the U.S. Environmental Protection Agency ("EPA").

The Consent Decree calls for MSD to submit a final Long-Term Control Plan ("LTCP") to The Cabinet/EPA for review and joint approval by December 31, 2008, which was completed. The final LTCP includes schedules, deadlines, and timetables for projects to be completed by December 31, 2020. In addition, a Sanitary Sewer Discharge Plan ("SSDP") was due by December 31, 2008, which was completed. The SSDP includes schedules and deadlines for capital projects to be completed by the end of 2024. The cost of the projects is estimated to be \$850,000.

Also, MSD agreed to pay a civil penalty to the Commonwealth of Kentucky in the amount of one million dollars (\$1,000) to resolve the violations alleged in the Cabinet's and EPA's complaints up through the date of entry of the Consent Decree. The agreement also calls for MSD to perform supplemental environmental projects (SEPS) at an amount of not less than \$2,250. MSD neither admitted nor denied the alleged violations but acknowledged that discharges occurred and accepted the obligations imposed in the Consent Decree. The Consent Decree, as negotiated, was entered by the U.S. District Court Judge on August 12, 2005. In April 2009, MSD agreed to enter into an Amended Consent Decree with the Commonwealth of Kentucky's Environmental and Public Protection Cabinet and the EPA. The agreement calls for MSD to design and implement projects within specified deadlines that will eliminate sewer overflows in its service area. To date, MSD has complied with all submittals and reports requirements contained in the Amended Consent Decree. The enforcement actions initiated by the EPA are not unique in the wastewater treatment industry. Several wastewater utilities have signed, or are in the process of signing, Consent Decrees. In the opinion of MSD, the resolution of any violations will not result in material adverse affect on the operation, property or finances of MSD.

Kentucky State Audit:

In December 2011, Kentucky's Auditor of Public Accounts completed a management audit of MSD at the request of Mayor Greg Fischer. The audit had 27 findings along with recommendations to address the findings. Many of the recommendations regarded updating company and Board policies, improving Board over-site, and the strengthening of internal controls. There were no findings regarding MSD's financial statements, nor were there any findings regarding illegal or unethical practices by MSD's Board or staff. As a result of the audit, Mayor Fischer asked Greg Heitzman, CEO of Louisville Water Company, to serve as Interim Executive Director for MSD. The full audit report is available at the following link:

http://apps.auditor.ky.gov/Public/Audit_Reports/Archive/2011MetropolitanSewerDistrictexamination.pdf

LOUISVILLE AND JEFFERSON COUNTY METROPOLITAN SEWER DISTRICT
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEARS ENDED JUNE 30, 2012 AND 2011
(Dollars in thousands)

NOTE 13 COMMITMENTS AND CONTINGENCIES (Continued)

Other Matters:

MSD is a defendant in various 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.

The value of construction contracts signed, where work has not yet been performed at June 30, 2012, amounted to \$55,580, and was \$64,902 at June 30, 2011.

NOTE 14 SUBSEQUENT EVENTS

On August 1, 2012, MSD's rates for wastewater and stormwater charges increased by 6.5%.

STATISTICAL SECTION

This section of the Louisville & Jefferson County Metropolitan Sewer District's (MSD) Comprehensive Annual 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.

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<i>Debt Service Coverage</i>	45
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This schedule presents information to help readers assess MSD's debt burden and MSD's ability to issue additional debt in the future.

<i>Financial Trends</i>	46
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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, an analysis of revenues and expenses and a comparative statement of cash flows

<i>Revenue Capacity</i>	50
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This schedule contains information to help readers assess MSD's most significant revenue sources.

<i>Operating Information</i>	51
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These schedules contain service and infrastructure data to help the reader understand how the information in MSD's financial report relates to the services that it provides.

<i>Demographic and Economic Information</i>	54
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These schedules offer demographic and economic indicators to help readers understand the environment within which MSD operates.

LOUISVILLE AND JEFFERSON COUNTY, KENTUCKY
METROPOLITAN SEWER DISTRICT
COMPARATIVE SCHEDULES OF DEBT SERVICE COVERAGE
YEARS ENDED JUNE 30
(\$ in thousands)

	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
Revenues:										
Service charges	\$ 190,482	\$ 183,297	\$ 168,610	\$ 163,004	\$ 156,889	\$ 126,490	\$ 122,643	\$ 113,561	\$ 103,571	\$ 99,546
Other operating income	1,756	2,379	2,980	4,552	4,394	5,966	7,122	9,288	7,216	6,896
Assessments	2,405	2,740	7,093	4,387	2,251	8,237	6,796	10,731	12,064	27,290
Investment income	40,687	33,700	86,045	25,568	6,085	8,417	5,558	14,503	23,916	9,377
Less: capitalized investment income	(1,851)	(12,134)	(5,990)	-	(1,190)	(3,747)	(1,594)	(6,245)	(18,201)	(5,087)
Total revenues	233,479	209,982	208,738	197,511	168,429	145,363	140,525	141,838	128,566	137,822
Operating expenses:										
Service and administrative costs	108,325	107,307	101,068	93,935	96,845	89,194	86,433	78,835	74,972	77,829
Less: capitalized project costs	(30,860)	(30,472)	(28,129)	(24,401)	(26,510)	(25,715)	(25,387)	(25,286)	(23,671)	(25,784)
Total operating expenses	77,465	76,835	72,939	69,534	70,335	63,479	61,046	53,549	51,301	52,045
Net revenues	156,014	133,147	135,799	127,977	98,094	81,884	79,479	88,289	77,265	85,777
Aggregate debt service:										
Current maturities of long-term debt	25,740	24,840	23,785	23,105	21,255	18,190	17,250	15,685	15,303	13,092
Interest expense	89,243	78,954	59,949	72,776	66,918	70,548	66,162	72,395	65,370	64,797
Less: capitalized interest expense	(26,384)	(25,195)	(13,910)	-	(10,530)	(14,140)	(15,758)	(26,603)	(26,940)	(30,490)
Aggregate net debt service	\$ 88,599	\$ 78,599	\$ 79,824	\$ 95,881	\$ 77,643	\$ 74,598	\$ 67,654	\$ 61,477	\$ 53,733	\$ 47,399
Debt service coverage ratio	176%	169%	170%	133%	126%	110%	117%	144%	144%	181%

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, KENTUCKY
METROPOLITAN SEWER DISTRICT
COMPARATIVE STATEMENT OF NET ASSETS -- ASSETS
JUNE 30
(in thousands)

	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
Assets										
Current Assets:										
Unrestricted cash and cash equivalents	\$ 45,545	\$ 34,508	\$ 24,700	\$ 22,552	\$ 10,524	\$ 1,912	\$ 17,198	\$ 28,732	\$ 20,572	\$ 15,072
Unrestricted investments	100	100	100	7,733	14,379	24,935	18,645	7,163	56	9,176
Restricted cash and cash equivalents	193,822	112,559	58,923	35,988	105,299	3,133	24	65,423	110,942	117,226
Restricted investments	94,639	294,868	394,880	61,303	27,202	73,801	134,850	33,934	74,112	51,220
Accounts receivable	16,666	17,789	15,779	18,065	16,732	15,398	17,401	13,716	14,136	12,904
Recovery of insured loss receivable	-	-	-	-	-	-	-	-	-	-
Inventories	3,484	3,435	3,110	3,027	3,020	3,091	2,874	3,090	2,685	2,676
Prepaid expenses and other current assets	1,862	2,841	2,513	1,965	2,020	1,181	1,359	803	796	667
Total current assets	356,118	466,100	500,005	150,633	179,176	123,451	192,351	152,861	223,299	208,941
Long-term receivables	18,917	21,260	22,527	25,146	26,334	28,749	27,778	29,712	27,964	30,327
Deferred debits	16,359	15,351	13,418	74,477	32,705	-	-	-	-	-
Plant, Lines and Other facilities:										
Completed projects	2,560,403	2,498,355	2,472,430	2,314,406	2,281,413	2,149,779	2,049,762	1,874,875	1,632,338	1,526,610
Less: Accumulated depreciation	(825,205)	(768,423)	(734,552)	(680,380)	(628,296)	(578,643)	(527,799)	(477,624)	(436,162)	(398,727)
	1,735,198	1,729,932	1,737,878	1,634,026	1,653,117	1,571,136	1,521,963	1,397,251	1,196,176	1,127,883
Construction in progress	370,350	272,850	140,134	182,711	136,695	193,420	211,761	297,705	423,823	405,035
Net plant, lines and other facilities	2,105,548	2,002,782	1,878,012	1,816,737	1,789,812	1,764,556	1,733,724	1,694,956	1,619,999	1,532,918
Total assets	\$ 2,497,542	\$ 2,505,493	\$ 2,413,962	\$ 2,066,993	\$ 2,028,027	\$ 1,916,756	\$ 1,953,853	\$ 1,877,529	\$ 1,871,262	\$ 1,772,186

LOUISVILLE AND JEFFERSON COUNTY, KENTUCKY
METROPOLITAN SEWER DISTRICT
COMPARATIVE STATEMENT OF NET ASSETS - LIABILITIES AND NET ASSETS
JUNE 30
(in thousands)

	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
Liabilities and net assets										
Liabilities:										
Current liabilities (payable from current assets):										
Accounts payable and accrued expenses	\$ 16,470	\$ 15,732	\$ 11,141	\$ 11,035	\$ 10,548	\$ 16,639	\$ 22,619	\$ 17,781	\$ 9,671	\$ 9,492
Total current liabilities (payable from current assets)	16,470	15,732	11,141	11,035	10,548	16,639	22,619	17,781	9,671	9,492
Current liabilities (payable from restricted assets):										
Accounts payable and accrued expenses	12,656	15,105	13,692	7,735	5,250	4,239	1,072	5,863	11,846	17,588
Accrued interest	43,959	12,360	14,701	8,143	8,597	10,824	10,456	9,768	9,916	9,454
Bond Anticipation Notes	226,340	226,340	452,680							
Current maturities of bonds payable	25,740	24,840	23,765	23,105	21,255	18,190	17,250	15,685	15,303	13,092
Refundable Deposits	1,013	1,341	1,622	3,478	4,209					
Total Current liabilities (payable from restricted assets)	279,706	279,986	506,480	42,461	39,311	33,253	28,778	31,316	37,065	40,134
Non-current liabilities:										
Bonds payable	1,521,594	1,574,828	1,283,493	1,370,442	1,405,805	1,307,236	1,324,006	1,240,966	1,256,228	1,170,141
Unamortized debt premium / discount	45,841	25,647	26,675							
Other long-term liabilities	125,343	73,508	93,377	85,968	21,844	8,254	8,987	9,191	6,495	6,917
Total long-term debt	1,692,778	1,673,983	1,403,545	1,456,410	1,427,649	1,315,490	1,332,993	1,250,157	1,262,723	1,177,058
Total liabilities	1,988,956	1,969,701	1,921,166	1,509,906	1,477,508	1,365,382	1,384,390	1,299,254	1,309,459	1,226,684
Net assets:										
Invested in plant, lines, & other facilities, net of related debt	434,451	432,689	450,754	470,445	478,833	479,305	489,973	497,314	490,458	476,849
Restricted for payment of bond principal & interest	290,775	411,841	455,899	100,225	135,537	7,034	8,927	14,133	17,850	18,864
Unrestricted	(216,640)	(308,738)	(413,857)	(13,583)	(63,851)	65,035	70,563	66,828	53,495	49,769
Total net assets	508,586	535,792	492,796	557,087	550,519	551,374	569,463	578,273	561,803	545,502
Total liabilities and net assets	\$ 2,497,542	\$ 2,505,493	\$ 2,413,962	\$ 2,066,993	\$ 2,028,027	\$ 1,916,756	\$ 1,953,853	\$ 1,877,529	\$ 1,871,262	\$ 1,772,186

LOUISVILLE AND JEFFERSON COUNTY, KENTUCKY
METROPOLITAN SEWER DISTRICT
COMPARATIVE STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET ASSETS
YEARS ENDED JUNE 30
(in thousands)

	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
Operating revenue:										
Wastewater service charges	\$ 149,626	\$ 145,860	\$ 133,853	\$ 130,661	\$ 125,782	\$ 96,594	\$ 93,907	\$ 87,653	\$ 79,933	\$ 77,778
Stormwater service charges	40,856	37,417	34,757	32,343	31,107	29,896	28,736	25,908	23,638	21,768
Other operating income	1,756	2,379	2,980	4,552	4,394	5,956	7,122	9,288	7,216	6,696
Total operating revenue	192,238	185,676	171,590	167,556	161,283	132,446	129,765	122,849	110,787	106,242
Operating expenses:										
Service and administrative costs	108,326	107,307	101,068	93,935	96,845	90,157	86,433	78,835	74,972	77,829
Capitalization/recovery of cost	(30,860)	(30,472)	(28,129)	(24,401)	(26,510)	(26,678)	(25,387)	(25,286)	(23,671)	(25,794)
Capitalized overhead (over) under applied	(2,340)	184	(2,988)	(856)	-	-	-	-	-	-
Depreciation and amortization	60,527	58,741	58,513	56,727	55,363	52,177	51,174	43,161	37,718	35,401
Total operating expenses	135,653	135,740	128,464	125,405	125,698	115,656	112,220	96,710	89,019	87,446
Income (loss) from operations	56,585	49,936	43,126	42,151	35,585	16,790	17,545	26,139	21,768	18,796
Non-operating revenue (expense):										
Loss on disposal of assets	(19)	194	-	(84)	(122)	-	-	-	-	-
Investment income	40,687	33,700	36,045	25,568	4,895	4,670	3,964	8,259	5,715	4,290
Interest expense - bonds	(89,243)	(78,954)	(69,949)	(69,893)	(56,388)	(56,408)	(50,404)	(45,792)	(38,495)	(34,307)
Interest expense - swaps	(11,235)	(11,627)	(8,815)	(2,883)	-	-	-	-	-	-
Interest expense - other	437	(1,833)	(3,723)	-	-	-	-	-	-	-
Capitalized Interest	26,384	25,195	13,910	-	-	-	-	-	-	-
Decrease upon hedge termination	-	-	(58,556)	-	-	-	-	-	-	-
Change in fair values - swaps	(52,897)	22,638	(19,889)	-	-	-	-	-	-	-
Total non-operating revenue (expenses), net	(85,886)	(10,687)	(110,977)	(47,272)	(51,615)	(51,738)	(46,440)	(37,533)	(32,780)	(30,017)
Net income / (loss) before contributions	(29,301)	39,249	(67,851)	(5,121)	(16,030)	(34,948)	(28,895)	(11,394)	(11,012)	(11,221)
Contributions										
Property owner assessments	-	334	(545)	2,239	164	7,634	4,862	12,478	9,701	20,079
All other	2,095	3,413	4,105	9,450	15,011	9,225	15,221	15,388	17,612	4,062
Increase (decrease) in net assets	(27,206)	42,996	(64,291)	6,568	(855)	(18,089)	(8,812)	16,472	16,301	12,920
Net assets, beginning of year	535,792	492,796	557,087	550,519	551,374	569,463	578,275	561,803	545,502	532,582
Net assets, end of year	\$ 508,586	\$ 535,792	\$ 492,796	\$ 557,087	\$ 550,519	\$ 551,374	\$ 569,463	\$ 578,275	\$ 561,803	\$ 545,502

LOUISVILLE AND JEFFERSON COUNTY, KENTUCKY
METROPOLITAN SEWER DISTRICT
COMPARATIVE STATEMENTS OF CASH FLOWS
YEARS ENDED JUNE 30
(In thousands)

	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
Cash flows from operating activities:										
Cash received from customers	\$ 193,446	\$ 182,976	\$ 171,841	\$ 166,123	\$ 159,539	\$ 134,160	\$ 125,918	\$ 123,269	\$ 109,938	\$ 105,571
Cash paid to suppliers and employees	(76,077)	(72,566)	(72,426)	(66,297)	(72,227)	(69,536)	(56,548)	(45,851)	(51,643)	(51,005)
Net cash provided by operating activities	117,369	110,410	99,215	99,826	87,312	64,624	69,370	77,418	58,295	54,566
Cash flows from capital and related financing activities:										
Proceeds from issuance of revenue bonds	263,360	330,000	405,770	76,275	166,125	-	100,000	64,740	100,000	191,000
Proceeds from bond anticipation notes	226,340	226,340	452,680	-	-	-	-	-	-	-
Capital contributed by governments, property owners & developers	2,095	3,747	3,560	11,689	15,174	16,861	1,480	2,838	4,031	948
Build America Bond Interest Income	10,986	7,972	2,260	-	-	-	-	-	-	-
Assessments receivable	1,930	1,676	2,398	557	2,703	(945)	-	-	-	-
Interest Income - assessments	852	994	1,588	1,471	1,405	1,870	-	-	-	-
Amortization of loss on refundings	1,665	1,665	(3,764)	1,277	2,504	-	-	-	-	-
Unamortized loss on refundings	(1,665)	(1,665)	(1,341)	(1,277)	-	-	-	-	-	-
Principal paid on revenue bonds	(317,360)	(39,275)	(488,275)	(95,045)	(84,350)	(17,250)	(16,815)	(79,620)	(11,702)	(204,436)
Interest paid on revenue bonds	(94,240)	(86,191)	(70,192)	(69,063)	(69,145)	(70,180)	(65,474)	(26,751)	(31,558)	(31,558)
Acquisition and construction of capital assets	(119,581)	(172,455)	(32,440)	(75,504)	(83,548)	(65,669)	(67,035)	(109,200)	(126,365)	(127,057)
Retainage payable	(407)	4,639	955	(466)	430	(33)	-	-	-	-
Acquisition of non-operating property	(213)	(221)	(484)	(261)	(257)	(258)	-	-	-	-
Principal paid on bond anticipation notes	(226,340)	(452,680)	-	-	-	-	-	-	-	-
Net cash (used in) provided from capital and related financing activities	(252,578)	(175,448)	223,315	(150,347)	(48,959)	(135,504)	(47,864)	(147,993)	(80,514)	(171,503)
Cash flows from investing activities:										
Restricted investments	200,229	100,012	(333,577)	(34,101)	45,656	-	-	-	-	-
Unrestricted investments	-	-	7,633	6,646	10,555	-	-	-	-	-
Assessment principal payments	-	-	-	-	-	-	8,621	10,301	12,792	27,495
Interest received on termination of swap agreement	-	-	-	-	-	-	-	(421)	(422)	(421)
Purchase of investment securities	-	-	-	-	-	(72,800)	(303,998)	(100,839)	(370,182)	(79,864)
Proceeds from sale and maturities of investment securities	-	-	-	-	-	137,908	177,341	110,070	329,655	63,592
Income received on investments	38,705	40,287	37,519	24,936	4,889	7,942	5,551	14,155	29,592	9,623
Interest expense - swap agreements	(11,235)	(11,627)	(9,332)	(4,166)	-	-	-	-	-	-
Unamortized premium on forward delivery agreement	(190)	(190)	(190)	(77)	1,399	-	-	-	-	-
Unamortized gain on termination of swap agreements	-	-	-	-	9,926	-	-	-	-	-
Net cash (used in) provided from investing activities	227,508	128,482	(297,447)	(6,762)	72,425	72,750	(112,485)	33,216	1,435	20,425
Net increase (decrease) in cash and cash equivalents	92,300	63,444	25,083	(57,283)	110,778	1,870	(90,979)	(37,359)	(784)	(96,512)
Cash and cash equivalents, beginning of year	147,067	83,623	58,540	115,823	5,045	3,176	94,155	131,514	132,298	228,810
Cash and cash equivalents, end of year	\$ 239,367	\$ 147,067	\$ 83,623	\$ 58,540	\$ 115,823	\$ 5,045	\$ 3,176	\$ 94,155	\$ 131,514	\$ 132,298

LOUISVILLE AND JEFFERSON COUNTY, KENTUCKY
METROPOLITAN SEWER DISTRICT
COMPARATIVE SUMMARIES OF OPERATING REVENUE
YEARS ENDED JUNE 30
(in thousands)

	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
Service charges:										
Wastewater service charges:										
Residential	\$ 80,779	\$ 78,552	\$ 73,228	\$ 71,159	\$ 64,978	\$ 48,338	\$ 47,555	\$ 43,320	\$ 39,394	\$ 37,730
Commercial	53,116	46,598	42,741	42,312	38,935	28,892	27,619	25,274	23,761	23,071
Industrial	18,063	21,498	18,948	18,216	21,324	18,431	17,279	17,142	15,182	15,380
Other - net	2,219	1,847	1,756	1,601	2,382	1,993	1,454	1,917	1,597	1,597
Free sewer to Metro Government	(4,551)	(2,615)	(2,820)	(2,627)	(1,837)	(1,060)				
Total wastewater service charges	149,626	145,880	133,853	130,661	125,782	96,594	93,907	87,653	79,934	77,778
Stormwater service charges:										
Residential	15,907	14,776	13,613	12,709	12,198	11,617	11,205	10,304	9,223	8,657
Commercial	23,017	20,862	19,433	18,012	17,276	16,741	15,683	13,854	12,735	11,533
Industrial	2,575	2,351	2,189	2,064	1,988	1,930	1,848	1,750	1,679	1,578
Free drainage to Metro Government	(643)	(572)	(478)	(442)	(355)	(392)				
Total stormwater service charges	40,856	37,417	34,757	32,343	31,107	29,896	28,736	25,908	23,637	21,768
Total service charges	190,482	183,297	168,610	163,004	156,889	126,490	122,643	113,561	103,571	99,546
Other operating income:										
Capacity charges	335	446	564	820	2,521	2,538	4,772	6,925	5,176	4,272
Connection fees	64	71	68	47	172	146	220	411	601	675
Regional facilities fees	-	-	-	-	-	(11)	357	513	301	374
Reserve capacity charges	-	-	11	28	37	5	22	40	18	1
Wastewater miscellaneous	1,299	1,804	2,279	3,599	1,606	3,220	1,693	1,342	1,062	1,344
Stormwater miscellaneous	58	58	58	58	58	58	58	57	58	30
Total other operating income	1,756	2,379	2,980	4,552	4,394	5,956	7,122	9,288	7,216	6,696
Total operating revenue	\$ 192,238	\$ 185,676	\$ 171,590	\$ 167,556	\$ 161,283	\$ 132,446	\$ 129,765	\$ 122,849	\$ 110,787	\$ 106,242

LOUISVILLE AND JEFFERSON COUNTY, KENTUCKY
METROPOLITAN SEWER DISTRICT
COMPARATIVE SUMMARIES OF SERVICE AND ADMINISTRATIVE COSTS
YEARS ENDED JUNE 30
(in thousands)

	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
Service and administrative costs:										
Labor	\$ 55,010	\$ 57,543	\$ 52,945	\$ 49,354	\$ 49,431	\$ 47,079	\$ 42,287	\$ 40,948	\$ 40,206	\$ 40,947
Utilities	14,555	13,853	11,879	10,818	12,989	10,976	12,518	10,119	8,870	7,967
Materials and supplies	8,972	9,043	9,031	8,742	8,707	8,197	7,745	6,625	7,237	7,479
Professional services	2,416	2,624	2,363	2,730	3,126	2,797	2,543	2,698	2,530	3,821
Maintenance and repairs	11,091	10,054	8,847	9,675	8,926	8,035	7,762	5,874	4,976	5,672
Billing and collections	4,309	4,318	4,461	3,623	5,319	2,889	3,869	3,371	3,209	2,812
Chemicals and fuel	3,894	4,059	6,099	5,687	5,148	4,825	5,088	4,099	3,828	3,701
Biosolids disposal	1,759	2,035	2,186	2,063	1,661	1,412	1,554	1,451	1,359	1,442
All other	4,380	4,316	3,638	2,817	2,800	3,947	3,067	3,650	2,757	3,988
Gross service and administrative costs	106,386	107,845	101,449	95,509	98,107	90,157	86,433	78,835	74,972	77,829
Less: Recovery of cost										
Capitalized project cost	(30,860)	(30,472)	(28,129)	(24,401)	(26,510)	(25,715)	(24,450)	(24,419)	(23,158)	(25,302)
Revenue recoveries	(400)	(374)	(381)	(1,574)	(1,262)	(963)	(937)	(867)	(513)	(482)
Recovery of cost	(31,260)	(30,846)	(28,510)	(25,975)	(27,772)	(26,678)	(25,387)	(25,286)	(23,671)	(25,784)
Net service and administrative costs	\$ 75,126	\$ 76,999	\$ 72,939	\$ 69,534	\$ 70,335	\$ 63,479	\$ 61,046	\$ 53,549	\$ 51,301	\$ 52,045

LOUISVILLE AND JEFFERSON COUNTY, KENTUCKY
METROPOLITAN SEWER DISTRICT
COMPARATIVE SCHEDULES OF PLANT, LINES AND OTHER FACILITIES
YEARS ENDED JUNE 30
(in thousands)

	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
Completed projects										
Sewer lines	\$ 1,179,685	\$ 1,159,437	\$ 1,134,637	\$ 1,042,742	\$ 1,022,859	\$ 963,798	\$ 915,527	\$ 819,349	\$ 762,241	\$ 694,851
Wastewater treatment facilities	478,344	471,190	470,527	459,238	456,955	422,483	418,997	389,747	273,187	262,073
Stormwater drainage facilities	437,139	434,943	427,431	400,118	390,899	366,745	337,039	308,282	288,277	278,739
Pumping and lift stations	79,023	71,122	70,543	69,301	66,990	60,877	55,407	51,389	46,752	42,620
Administrative facilities	46,069	46,078	45,561	45,561	45,561	45,347	45,347	45,239	30,724	22,859
Maintenance facilities	8,037	8,037	7,827	7,827	7,833	7,313	7,470	7,395	4,785	4,048
Machinery, equipment and other	77,949	71,923	93,240	74,975	75,872	62,526	58,613	56,749	47,815	47,703
Capitalized interest and issuance cost	260,157	235,624	222,564	214,644	214,644	220,690	211,362	196,725	178,557	173,717
Total completed projects	2,560,403	2,498,354	2,472,430	2,314,406	2,281,413	2,149,779	2,049,762	1,874,875	1,632,338	1,526,610
Less accumulated depreciation	(825,205)	(768,423)	(734,552)	(680,380)	(628,296)	(576,543)	(527,799)	(477,624)	(436,162)	(398,727)
Total completed projects - net	1,735,198	1,729,931	1,737,878	1,634,026	1,653,117	1,571,136	1,521,963	1,397,251	1,196,176	1,127,883
Total construction in progress	370,350	272,850	140,134	182,711	136,595	193,420	211,761	297,705	423,823	405,035
Total net plant, lines and other facilities	\$ 2,105,548	\$ 2,002,781	\$ 1,878,012	\$ 1,816,737	\$ 1,789,812	\$ 1,764,556	\$ 1,733,724	\$ 1,694,956	\$ 1,619,999	\$ 1,532,918

LOUISVILLE AND JEFFERSON COUNTY, KENTUCKY
METROPOLITAN SEWER DISTRICT
WASTEWATER TREATMENT PLANT CAPACITY
2012

Plant	Design Capacity	Avg Daily Flow	Eventual Capacity	Customer Base		Total	Year Built	Treatment Process
	MGD	MGD	MGD	Residential	Commercial	Industrial		
Morris Forman	120.0	99.5	120.0	120,984	14,699	428	1958	Secondary added in 1972.
Derek R. Guthrie*	30.0	29.8	45.0	59,103	3,820	23	1986	Secondary
Jeffersontown	4.0	3.7	4.0	6,611	887	14	1956	Secondary
Hite Creek	6.0	3.3	8.0	7,052	502	5	1970	Tertiary: sand filter
Cedar Creek	7.5	3.6	7.5	8,883	214	-	1995	Tertiary: sand filter
Floyd's Fork	3.3	3.6	9.8	5,495	245	1	2001	Tertiary: sand filter
14 Small Treatment Plants**	2.6	1.7	-	6,030	140		Most 1970s	Various: developer-built package plants
Total treatment system	173.4	145.2	194.3	214,158	20,507	471		235,136

* - Formerly known as the West County WTP

**--Yorktown WQTC was eliminated and flow diverted to Derek R. Guthrie WQTC in December 2010. Flow for this facility reported in DRGWQTC averages.
Source: MSD Engineering Department

GREATER LOUISVILLE, KENTUCKY/INDIANA
EMPLOYERS OF 1,000 EMPLOYEES OR MORE

2012 Rank	2011 Rank	2010 Rank	2009 Rank	2008 Rank	2007 Rank	2006 Rank	2005 Rank	2004 Rank	2003 Rank	Type of business
1	15,517	20,388	1	20,513	1	20,874	1	17,543	1	17,206 P Air cargo transport and distribution
2	14,366	13,840	2	13,964	2	13,593	2	13,285	2	13,420 G Primary and secondary education
3	11,000	10,017	3	9,400	3	8,775	5	8,850	11	4,889 P Group health insurance/HMOs
4	9,658	9,421	4	8,698	4	8,142	4	7,850	4	7,850 P Hospital and health care facilities
5	8,696	8,847	9	5,397	5	5,824	6	5,872	3	9,303 P Vehicle manufacturing
6	6,273	5,746	5	6,352	6	6,135	7	5,866	10	4,943 G Higher education
7	5,898	5,819	6	5,782	7	5,811	8	5,629	6	5,450 N Hospital and health care facilities
8	5,689	5,706	7	5,782	8	5,698	6	5,405	5	5,744 G City/County Government
9	5,000	3,988	11	4,000	9	5,000	10	5,000	7	5,200 P Appliance manufacturing
10	4,232	4,488	10	4,361	11	4,498	11	4,952	9	4,952 G General purpose government
11	4,219	3,752	12	3,889	12	3,305	12	3,179	15	2,308 N Hospital and health care facilities
12	2,676	2,855	13	3,575	13	2,895	13	2,826	13	2,806 G General purpose government
13	2,352	2,416	17	2,142	17	2,343	15	2,468	14	2,488 N Religious, educational, social services
14	2,351	2,307	15	2,645	15	2,573	16	2,417	18	2,115 N Nonprofit healthcare
15	2,252	2,297	16	2,224	18	2,153	19	2,342	20	1,957 P Long-term health care, facilities
16	2,066	1,975	19	1,976	20	1,902				P Gas & Electric Utility
17	2,053								31	1,213 G Primary and secondary education
18	1,728	22	1,596							N Hospital and health care facilities
19	1,690	21	1,589	25	1,519	28	1,407	31	30	1,250 G Primary and secondary education
20	1,612	24	1,546	32	1,316	30	1,337	27	37	1,113 P Hospital and health services provider
21	1,598	33	1,191	35	1,150					P Security Services
22	1,558	23	1,640	21	2,243	18	2,123	18	16	2,194 P Food service provider
23	1,488	20	1,862	16	2,248	22	1,810	22	16	1,595 P General purpose government
24	1,450	27	1,367	27	1,860	21	1,702	23	23	1,595 P Trade, professional, special printing
25	1,437	31	1,244	25	1,858	19	1,942	19	19	1,968 P Gaming and entertainment resort
26	1,420	30	1,300	20	1,830					P Food service provider
27	1,346	28	1,364	30	1,491	23	1,598	24	24	1,459 G Primary and secondary education
28	1,265	14	2,653	18	2,651	15	2,653	14	12	2,872 G Mail distribution
29	1,216	37	1,133	39	1,175	40	1,058	28	26	1,358 N Hospital and health services provider
30	1,215	32	1,202	40	1,110	39	1,137	36	35	1,132 N Health care provider
31	1,196	34	1,184	37	1,081	35	1,264	39	34	1,145 P Distilled spirits manufacturing
32	1,168	25	1,457	34	1,256	34				P Telecommunications
33	1,128									G Primary and secondary education
34	1,122	35	1,150		1,381	29	1,575	21	21	1,744 P Health insurance sales and services
35	1,092			31		23				P Financial services, investments
36	1,070	26	1,378	31	1,314					P Health & human services
37	1,004									P Manufacturing
	<u>131,061</u>	<u>123,894</u>	<u>126,815</u>	<u>121,757</u>	<u>118,238</u>	<u>119,165</u>	<u>115,593</u>	<u>113,618</u>	<u>108,441</u>	<u>108,654</u>

P=for-profit organization N=not-for-profit organization G=governmental organization

Source: Business First of Louisville, KY

*The City of Louisville & Jefferson County Governments merged in January 2003.

Louisville/Jefferson County Government
Principal Employers
Current Year and Nine Years Ago

Employer	Employees	2012 Rank	Percentage of Total Employment	Employer	Employees	2003 Rank	Percentage of Total Employment
United Parcel Service, Inc.	15,517	1	2.60%	United Parcel Service, Inc.	17,206	1	2.97%
Jefferson County, KY Public Schools	14,366	2	2.40%	Jefferson County, KY Public Schools	13,420	2	2.32%
Humana, Inc.	11,000	3	1.84%	Ford Motor Company	9,303	3	1.61%
Norton Healthcare (formerly Alliant Health)	9,658	4	1.62%	Norton Healthcare (formerly Alliant Health)	7,850	4	1.36%
Ford Motor Company	8,696	5	1.46%	Louisville-Jefferson County Metro Government	5,744	5	0.99%
University of Louisville	6,273	6	1.05%	Jewish Hospital & St. Mary's Healthcare Inc.	5,450	6	0.94%
Kentucky One Health Inc (formerly Jewish Hosp)	5,898	7	0.99%	General Electric Company	5,200	7	0.90%
Louisville-Jefferson County Metro Government*	5,689	8	0.95%	Kroger Company	4,960	8	0.86%
General Electric Company	5,000	9	0.84%	Commonwealth of Kentucky	4,952	9	0.85%
Commonwealth of Kentucky	4,232	10	0.71%	University of Louisville	4,943	10	0.85%
Total	86,329		14.45%		79,028		13.64%

Total Employment

597,381

Source: Business First of Louisville
Workforce Kentucky

Ratio of Outstanding Debt and Misc. Demographic Information (dollar amounts in thousands)

Fiscal Year	Revenue Bond	Bond Anticipation Notes	Total Debt	Population	Personal Income	Percentage of Personal Income	Unemployment Rate	# of MSD Employees	# of MSD Service Connections	Miles of Sewer Line
2003	\$ 1,183,233	\$ -	\$ 1,183,233	699,810	\$24,095,257	4.91%	6.20%	634	211,589	2,950
2004	1,271,531	-	1,271,531	703,970	\$24,369,994	5.22%	5.60%	607	216,551	2,959
2005	1,256,651	-	1,256,651	706,828	25,471,303	4.93%	6.00%	607	220,599	3,035
2006	1,341,256	-	1,341,256	710,018	26,310,353	5.10%	5.70%	612	222,698	3,099
2007	1,325,426	-	1,325,426	715,149	28,352,508	4.67%	5.10%	614	224,654	3,133
2008	1,427,060	-	1,427,060	723,040	29,372,937	4.86%	6.40%	625	226,430	3,200
2009	1,393,547	-	1,393,547	730,194	30,194,724	4.62%	10.40%	633	226,711	3,197
2010	1,307,278	452,680	1,759,958	736,705	28,993,060	6.07%	9.80%	651	228,580	3,207
2011	1,599,668	226,340	1,826,008	742,176	29,244,583	6.24%	9.9%	655	230,240	3,200
2012	1,547,334	226,340	1,773,674	N/A	N/A	N/A	8.3%	666	235,136	3,332

* - Estimate

Source: U.S. Census Bureau (census.gov)

Source: Workforce Kentucky Website (www.workforcekentucky.ky.gov)

Source: Bureau of Economic Analysis website (www.bea.gov)

Note: Data is presented since the merger of the Louisville and Jefferson County governments in 2003

unemployment - MSA Louisville, KY_IN

LOUISVILLE AND JEFFERSON COUNTY, KENTUCKY
TOP 10 WASTEWATER AND STORMWATER CUSTOMERS

Rank	Customer Name	FY '12 Wastewater Billed	Percent Total Wastewater Revenue	Customer Name	FY '03 Wastewater Billed	Percent Total Wastewater Revenue
1	Lubrizol Advanced Material****	\$ 1,913,955	1.28%	Protein Technologies	\$ 2,436,413	3.13%
2	Jefferson Co. Bd. of Educ	\$ 1,780,469	1.19%	E.I. Dupont	\$ 1,776,448	2.28%
3	Swift & Company	\$ 1,612,220	1.08%	Opta Food	\$ 1,243,276	1.60%
4	Lou. Metro Housing Auth.	\$ 1,367,863	0.91%	OXY Vinyl	\$ 1,164,057	1.50%
5	Brown Forman Corp.	\$ 1,234,437	0.83%	Ford Motor Co.	\$ 836,047	1.07%
6	Solaee LLC*	\$ 1,168,748	0.78%	Lou. Metro Housing Auth.	\$ 769,247	0.99%
7	Ford Motor Co.	\$ 966,823	0.65%	Jefferson Co. Bd. of Educ.	\$ 683,725	0.88%
8	Heaven Hill Distilleries	\$ 794,146	0.53%	Swift & Company	\$ 628,306	0.81%
9	UPS Air District	\$ 745,145	0.50%	Brown Forman Corp.	\$ 563,285	0.72%
10	General Electric	\$ 700,081	0.47%	Rohm & Haas	\$ 545,424	0.70%
	Total	\$ 12,283,887	8.21%	Total	\$ 10,646,228	13.69%
	Total FY '12 Wastewater Revenue:	\$ 149,626,000		Total FY '03 Wastewater Revenue:	\$ 77,778,000	

Rank	Customer Name	FY '12 Stormwater Billed	Percent Total Stormwater Revenue	Customer Name	FY '03 Stormwater Billed	Percent Total Stormwater Revenue
1	Regional Airport Authority	\$ 1,027,071	2.51%	Regional Airport Authority	\$ 409,429	1.88%
2	United Parcel Service	\$ 760,000	1.86%	United Parcel Service	\$ 284,012	1.30%
3	Ford Motor Company	\$ 350,184	0.86%	Ford Motor Company	\$ 200,080	0.92%
4	KY State Fair Board	\$ 231,768	0.57%	Jefferson Co. Bd. of Educ.	\$ 209,298	0.96%
5	Churchill Downs	\$ 201,019	0.49%	University of Louisville	\$ 153,727	0.71%
6	Louisville Gas & Electric	\$ 178,176	0.44%	Churchill Downs	\$ 118,909	0.55%
7	Norfolk Southern Corp.	\$ 172,528	0.42%	Trammell Crow Co.	\$ 103,753	0.48%
8	LIT Industrial Limited Partnership**	\$ 168,621	0.41%	KY State Fair Board	\$ 101,551	0.47%
9	U of L Belknap Campus	\$ 159,540	0.39%	Norfolk Southern Corp.	\$ 91,782	0.42%
10	Louisville Metro Housing Authority	\$ 140,567	0.34%	Louisville Gas & Electric	\$ 89,946	0.41%
	Total	\$ 3,389,454	8.30%	Total	\$ 1,762,487	8.10%
	Total FY '12 Stormwater Revenue:	\$ 40,855,000		Total FY '03 Stormwater Revenue:	\$ 21,768,000	

* Solaee LLC was formerly known as Protein Technologies

** LIT Industrial Limited was formerly known as Trammell Crow Co.

****Lubrizol Advanced Material was formerly known as Oxy Vinyls

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APPENDIX C

INTERIM FINANCIAL STATEMENTS AS OF MARCH 31, 2013

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As of March 31, 2013 and 2012
(Dollars in thousands)

	<u>2013</u>	<u>2012</u>
Revenue:		
Wastewater Fees	\$ 123,024	\$ 113,944
Stormwater Fees	\$ 33,766	\$ 30,523
Other	\$ 3,945	\$ 1,366
Total Operating Revenue	<u>\$ 160,735</u>	<u>\$ 145,833</u>
Operating Expenses:		
Service and Adm. Costs	\$ (52,816)	\$ (55,489)
Depreciation and Amortization	\$ (45,120)	\$ (45,345)
Total Operating Expenses	<u>\$ (97,936)</u>	<u>\$ (100,834)</u>
Net Operating Income	\$ 62,799	\$ 44,999
Investment Income	\$ 15,505	\$ 30,570
Interest Expense	\$ (49,428)	\$ (61,701)
Other	\$ 4,723	\$ 1,074
Change in Fair Value of Swaps	\$ 21,668	\$ (31,324)
Total Net Income	<u>\$ 55,267</u>	<u>\$ (16,382)</u>

As of March 31, 2013 and 2012

(Dollars in thousands)

	<u>2013</u>	<u>2012</u>
Current Assets:		
Unrestricted cash and cash equivalents	\$ 71,617	\$ 44,726
Sewer & Drainage Receivable	\$ 15,345	\$ 13,442
Assessment Warrants Receivable	\$ 2,036	\$ 2,063
Miscellaneous Receivables	\$ 1,322	\$ 1,826
Inventories	\$ 3,682	\$ 3,554
Prepaid Expenses	\$ 1,318	\$ 1,292
Restricted Funds	\$ 241,377	\$ 352,175
Accrued Interest Receivable	\$ 1,192	\$ 1,192
Total Current Assets	<u>\$ 337,889</u>	<u>\$ 420,270</u>
Non-Current Assets:		
Utility Plant in Service	\$ 2,585,035	\$ 2,521,950
Accumulated Depreciation	\$ (869,347)	\$ (812,511)
Construction in Progress	\$ 446,876	\$ 353,810
Net Fixed Assets	<u>\$ 2,162,564</u>	<u>\$ 2,063,249</u>
Non-Current Receivables	<u>\$ 18,124</u>	<u>\$ 19,838</u>
Total Assets	<u>\$ 2,518,577</u>	<u>\$ 2,503,357</u>
Total Deferred Outflow of Resources	\$ 16,159	\$ (2,999)
Total Assets & Deferred Outflow of Resources	<u>\$ 2,534,736</u>	<u>\$ 2,500,358</u>

Current Liabilities:

Miscellaneous Accounts Payable	\$	9,475	\$	5,784
Accounts Payable - Construction	\$	625	\$	1,781
Contract Retainage	\$	5,159	\$	7,179
Accrued Interest Payable	\$	32,689	\$	35,170
Current Maturities of Bonds Payable	\$	25,740	\$	24,270
Bond Anticipation Notes	\$	228,735	\$	226,340
Deposits Payable	\$	1,248	\$	1,498
Accrued Salaries & Wages	\$	1,031	\$	952
Accrued Workers' Comp Insurance	\$	1,499	\$	1,722
Employee Comp Absences Payable	\$	2,396	\$	2,414
Total Current Liabilities	\$	<u>308,597</u>	\$	<u>307,110</u>

Non-Current Liabilities:

Long-Term Debt Payable	\$	<u>1,521,110</u>	\$	<u>1,548,149</u>
Total Liabilities	\$	<u>1,829,707</u>	\$	<u>1,855,259</u>
Unamortized Debt Premium	\$	44,035	\$	47,546
Other Deferred Debits	\$	<u>97,141</u>	\$	<u>98,399</u>
Total Liabilities & Deferred Outflow of Resources	\$	<u>1,970,883</u>	\$	<u>2,001,204</u>
Net Position	\$	<u>563,853</u>	\$	<u>499,154</u>

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APPENDIX D

FORM OF LEGAL OPINION OF BOND COUNSEL

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May 23, 2013

Louisville and Jefferson County
Metropolitan Sewer District
700 West Liberty Street
Louisville, Kentucky

Re: \$115,790,000 Louisville and Jefferson County Metropolitan Sewer District
(Commonwealth of Kentucky) Sewer and Drainage System Revenue Bonds, Series
2013A

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 2013A Bonds in the aggregate principal amount of \$115,790,000 (the "Current Bonds").

The Current 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 amended and supplemented (the "Bond Resolution") and [iii] an Eighteenth Supplemental Sewer and Drainage System Bond Resolution adopted by the District on March 25, 2013, (the "Eighteenth Supplemental Resolution") in order to currently refund certain of the District's outstanding Sewer and Drainage System Revenue Bonds, Series 2001A.

The Current Bonds are dated on their original issuance as of May 23, 2013, mature or are subject to redemption through sinking fund installments on May 15 in each of the years and in the amounts, are subject on certain dates to redemption at the option of the District prior to maturity, and bear interest payable on May 15 and November 15 of each year commencing November 15, 2013, at the respective rates per annum, as have been established by the District pursuant to the Eighteenth Supplemental Resolution.

The Current Bonds and the interest thereon do not constitute a general obligation or indebtedness of the District, the Louisville/Jefferson County Metro Government (the "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 any taxing power of the District, the 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.

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 Paula M. Purifoy, 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 and the Eighteenth Supplemental 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 or the Eighteenth Supplemental 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 and the Fourteenth Supplemental Resolution.

2. The Bond Resolution and the Eighteenth Supplemental Resolution have been duly and lawfully adopted by the Board of the District.

3. The Bond Resolution and the Eighteenth Supplemental Resolution are the valid and binding special limited obligations of the District enforceable in accordance with their respective terms.

4. The Current 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, the Eighteenth Supplemental Resolution and the Act as amended to the date hereof.

5. Under the laws of the Commonwealth as presently enacted and construed, the Current 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. Based on existing laws, regulations and judicial decisions, and assuming the correctness and accuracy of certain representations and warranties of the District made in connection with the original issuance of the Current Bonds, interest on the Current 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.

The opinion set forth in Paragraph 6 above is subject to the condition that the District comply with all requirements of the Internal Revenue Code of 1986, as amended, that must be satisfied subsequent to the original issuance of the Current Bonds in order that interest thereon be and remain excluded from gross income for federal income tax purposes. Failure to comply with certain of such requirements could cause the interest on the Current Bonds to be included in gross income retroactive to the date of original issuance of the Current Bonds. The District has covenanted in the Bond Resolution to comply with such requirements.

The foregoing opinions are qualified to the extent that the enforceability of the Current Bonds, the Bond Resolution and the Eighteenth Supplemental 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 Current 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.

Yours truly,

WYATT, TARRANT & COMBS, LLP

May 23, 2013

Louisville and Jefferson County
Metropolitan Sewer District
700 West Liberty Street
Louisville, Kentucky

Re: \$119,515,000 Louisville and Jefferson County Metropolitan Sewer District
(Commonwealth of Kentucky) Sewer and Drainage System Revenue Bonds, Series
2013B

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 2013B Bonds in the aggregate principal amount of \$119,515,000 (the "Current Bonds").

The Current 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 amended and supplemented (the "Bond Resolution") and [iii] an Eighteenth Supplemental Sewer and Drainage System Bond Resolution adopted by the District on March 25, 2013, (the "Eighteenth Supplemental Resolution") in order to advance refund certain of the District's outstanding Sewer and Drainage System Revenue Bonds, Series 2004A and Series 2005A.

The Current Bonds are dated on their original issuance as of May 23, 2013, mature or are subject to redemption through sinking fund installments on May 15 in each of the years and in the amounts, are subject on certain dates to redemption at the option of the District prior to maturity, and bear interest payable on May 15 and November 15 of each year commencing November 15, 2013, at the respective rates per annum, as have been established by the District pursuant to the Eighteenth Supplemental Resolution.

The Current Bonds and the interest thereon do not constitute a general obligation or indebtedness of the District, the Louisville/Jefferson County Metro Government (the "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 any taxing power of the District, the 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.

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 Paula M. Purifoy, 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 and the Eighteenth Supplemental 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 or the Eighteenth Supplemental 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 and the Fourteenth Supplemental Resolution.

2. The Bond Resolution and the Eighteenth Supplemental Resolution have been duly and lawfully adopted by the Board of the District.

3. The Bond Resolution and the Eighteenth Supplemental Resolution are the valid and binding special limited obligations of the District enforceable in accordance with their respective terms.

4. The Current 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, the Eighteenth Supplemental Resolution and the Act as amended to the date hereof.

5. Under the laws of the Commonwealth as presently enacted and construed, the Current 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. Based on existing laws, regulations and judicial decisions, and assuming the correctness and accuracy of certain representations and warranties of the District made in connection with the original issuance of the Current Bonds, interest on the Current 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.

The opinion set forth in Paragraph 6 above is subject to the condition that the District comply with all requirements of the Internal Revenue Code of 1986, as amended, that must be satisfied subsequent to the original issuance of the Current Bonds in order that interest thereon be and remain excluded from gross income for federal income tax purposes. Failure to comply with certain of such requirements could cause the interest on the Current Bonds to be included in gross income retroactive to the date of original issuance of the Current Bonds. The District has covenanted in the Bond Resolution to comply with such requirements.

The foregoing opinions are qualified to the extent that the enforceability of the Current Bonds, the Bond Resolution and the Eighteenth Supplemental 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 Current 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.

Yours truly,

WYATT, TARRANT & COMBS, LLP

APPENDIX E

CONSULTING ENGINEER'S REPORT

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**LOUISVILLE & JEFFERSON COUNTY
METROPOLITAN SEWER DISTRICT**

**SEWER AND DRAINAGE SYSTEM SUBORDINATED
BOND ANTICIPATION NOTES, SERIES 2012A**

ENGINEER'S REPORT

PREPARED FOR:

LOUISVILLE AND JEFFERSON COUNTY
METROPOLITAN SEWER DISTRICT



PREPARED BY:

THE CORRADINO GROUP
200 SOUTH FIFTH STREET, SUITE 300 NORTH
LOUISVILLE, KENTUCKY 40202



NOVEMBER 7, 2012

THE PROGRAM

Since 1992, The Corradino Group (Corradino) (the Engineering Consultant) has closely and continuously monitored the Capital Improvement Program (CIP), operations, and financial structure of the Louisville/Jefferson County Metropolitan Sewer District (MSD). Corradino has prepared all of the Engineer's Reports for MSD Sewer and Drainage System Revenue Bond and Subordinated Bond Anticipation Note issues since 1993. This report presents the findings and conclusions of Corradino pertaining to the proposed issuance by MSD of its Sewer and Drainage System Subordinated Bond Anticipation Notes, Series 2012A ("Series 2012A Notes"). Corradino has reviewed, studied, evaluated, and presented findings and conclusions relative to the following aspects of MSD: (1) historical perspective; (2) Capital Improvement Program; (3) financial structure; (4) the financial capability of MSD to implement the CIP; and (5) the purpose and need for the Series 2012A Notes. Corradino concludes that the issuance of the Series 2012A Notes is financially feasible and desirable, and sound from an engineering and operations perspective.

THE ENGINEERING CONSULTANT

Corradino, founded in 1970, is a national engineering and planning professional services practice with offices in Louisville and Owensboro (KY), Indianapolis (IN), Nashville (TN), Detroit (MI), and Miami, Ft. Lauderdale, Ft. Pierce and West Palm Beach (FL). Corradino is the Engineering Consultant for the MSD Sewer and Drainage System Subordinated Bond Anticipation Notes, Series 2012A. Corradino was the Engineering Consultant for MSD's \$54 million 1993-97 Drainage Improvement Program and the Engineering Consultant for schedule and cost control for MSD's \$450 million Wastewater and Operations Capital Improvement Program. In Louisville, Corradino also serves as program manager for the \$800+ million Louisville Airport Improvement Program (LAIP) since its inception in 1988. Corradino has served as engineering consultant in the planning, development, and construction of billions of dollars worth of infrastructure projects built throughout the United States.

November 7, 2012

Members of the Board
Louisville and Jefferson County
Metropolitan Sewer District
700 W. Liberty St.
Louisville, KY 40203

**Re: Engineer's Report Summary
Sewer and Drainage System Subordinated Bond Anticipation Notes, Series 2012A**

Dear Members of the Board:

This letter summarizes our findings and conclusions pertaining to the proposed Sewer and Drainage System Subordinated Bond Anticipation Notes, Series 2012A ("Series 2012A Notes") for the Louisville and Jefferson County Metropolitan Sewer District (MSD).

FINANCING OBJECTIVES

MSD has from its inception in 1946 promulgated a schedule of rates and charges in order to finance the maintenance, repair, renewal, replacement, and expansion of its wastewater and storm water conveyance and treatment facilities. From time to time, it has been necessary for MSD to issue revenue bonds and other long-term debt for additions, betterments, improvements, and expansions of the existing wastewater and storm water facilities to comply with state and federal water quality standards and for the protection of the public's general health, safety, and welfare. The purpose of the Series 2012A Notes being issued is to refund MSD's outstanding Sewer and Drainage System Subordinated Bond Anticipation Notes, Series 2011B.

BASED ON REASONABLE ASSUMPTIONS

Certain assumptions and projections were made relative to the financial and engineering issues that were reviewed and evaluated in the preparation of this report. The assumptions and projections were necessary in order to review, evaluate, and estimate the engineering merits of the proposed Capital Improvement Program (CIP) projects and the financial implications of their implementation over the next five years. These assumptions and projections have also been reviewed and evaluated. The assumptions and projections made with regard to reviewing and evaluating the financial and engineering issues associated with the Series 2012A Notes and the CIP were determined to be reasonable and in accordance with accepted engineering practices.

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NEW MSD LEADERSHIP

The Louisville Metro Mayor is Greg Fischer, who began his term in January 2011. As the new mayor of Louisville, Mayor Fischer has carefully selected and appointed new members to MSD's Board of Directors to add diversity. The individual board members bring backgrounds in financial, legal, labor relations, and engineering professions. This diversity, aligned with MSD's purpose and objectives, provides for a stronger governing board.

The Board has delegated and placed the conduct of the day-to-day business affairs of MSD under the direction of an interim Executive Director supported by administrative, engineering, legal and business staffs.

Greg Heitzman, P.E., serves as Interim Executive Director, at the request of Mayor Fischer. He was appointed to that role on December 16, 2011. Mr. Heitzman is the President and Chief Executive Officer of the Louisville Water Company (LWC). He has effectively led LWC for many years. Mr. Heitzman is tasked with helping MSD with improvements related to the December 16, 2011 "Examination of Certain Policies, Procedures, Controls, and Financial Activity of Metropolitan Sewer District" issued by Crit Luallen, Auditor of Public Accounts of the Commonwealth of Kentucky. A summary of current actions pertaining to the Auditor of Public Accounts (APA) December 2011 Examination of MSD follows.

Mr. Heitzman is supported by an MSD executive team and staff who contribute to MSD's industry leading service delivery. Evidence of MSD's industry performance is their receipt of 2012 awards presented by professional associations.

OVERVIEW AND CURRENT ACTIONS PERTAINING TO AUDITOR OF PUBLIC ACCOUNTS 2011 EXAMINATION OF MSD

On July 28, 2011, the APA informed the MSD Executive Director and Board Chair that it would perform a review of certain issues at MSD as requested by Mayor Fischer as a result of observations and concerns expressed to the Mayor's office regarding certain financial and other activities. Specifically, the examination included a review of MSD's policies, internal controls, and certain other financial transactions. The scope of the review primarily included records, activities, and information for the period July 1, 2008, through June 30, 2011. From the APA's work, a report titled "Examination of Certain Policies, Procedures, Controls, and Financial Activity of Metropolitan Sewer District" (the "Examination") was delivered to MSD's Chairperson on December 16, 2011. The report presented a total of 27 findings and offered approximately 150 recommendations to strengthen MSD's controls and management oversight procedures.

Corradino observed through discussions with MSD leadership and review of MSD activities that MSD is planning for and acting on the Examination Recommendations. The actions to be taken will strengthen MSD's operations.

OVERVIEW AND CURRENT ACTIONS PERTAINING TO UTILITIES OPERATION REVIEW

On January 12, 2012, The Louisville Utility and Public Works Advisory Group (Advisory Group) was formed by Mayor Greg Fischer and tasked with examining the operations of the Louisville Water Company, the Louisville Metropolitan Sewer District, and Louisville Metro Department of Public Works & Assets (DPW) to determine whether synergies exist among the entities that would allow for improved service or reduced costs. The evaluation was to consider a range of potential business scenarios from the current state to a full consolidation of LWC and MSD.

The Advisory Group recommendations developed from the Utilities Operation Review included the following:

1. Synergies and improvements to be accomplished within a five-year phased approach
 - a. Phase I – Interlocal Agreements (2013-2014)
 - b. Phase II – Expanded Interlocal Agreements (2013-2016)
 - c. Phase III – Combine LWC and MSD (2013-2017)
 - i. Due Diligence and Risk Assessment
 - ii. Review Legislative Changes
2. Phase I & II – Pursue partnerships between LWC, MSD, and DPW with a focus on high priority areas
3. Phase III – Develop a plan to combine MSD and LWC within five years
 - a. Conduct comprehensive risk assessment and due diligence assessment
 - b. Develop business plans and management models of a combined “One Water” utility
 - c. Pursue enabling legislation
4. Continue to benchmark and integrate industry best practices
5. Adopt common Quality Management Systems for both LWC and MSD

Corradino observed through discussions with MSD leadership and review of MSD activities that MSD is planning for and acting on the Advisory Group recommendations. The actions to be taken will strengthen MSD’s operations.

CONSENT DECREE

In August 2005, MSD entered into a Consent Decree (CD) with the Kentucky Department for Environmental Protection, the U.S. Department of Justice, and the U.S. Environmental Protection Agency. The CD is a 19-year program that requires MSD to minimize combined sewer overflows and eliminate sanitary sewer overflows, while rehabilitating MSD’s aging sewer system.

As a means of proactively meeting the requirements of the CD, MSD launched a new initiative called Project WIN or Waterway Improvements Now. Project WIN presents planned upgrades which will allow MSD to comply with Clean Water Act regulations and also address problems with combined and sanitary sewer overflows. Included in Project WIN is a revised public outreach program aimed at updating the public on MSD's primary business functions with emphasis on wastewater, storm water, and flood protection. This public outreach has been presented to more than 230 community groups. A portion of the presentation includes information related to the CD, including potential program direction and anticipated costs.

MSD has also developed and provided internal and external training related to the CD to its employees and consultants. Associated with the CD are compliance programs and schedules for achieving specific objectives. MSD is meeting all of the reporting requirements of the CD in a timely manner.

MSD adopted a financial surcharge to help fund the CD projects in August 2007. The acceptance of this surcharge by Louisville Metro and by MSD's customer base reflects the success of MSD's public outreach program. The community has accepted the need for the projects and the need to fund those projects.

AMENDED CONSENT DECREE

The Consent Decree as amended (the "Amended Consent Decree"), entered by the court in April 2009, incorporates, amends, supersedes and replaces the original Consent Decree, and requires MSD to undertake action necessary to achieve compliance with its Kentucky Pollution Discharge Elimination System (KPDES) permits, eliminate prohibited bypasses, conduct comprehensive monitoring and reporting with respect to its sewer operations, and pay an additional civil penalty in the amount of \$230,000. Over a third of the Consent Decree projects are currently in design or construction.

AUGUST 2009 AND MAY 2010 FLOODING

Flood events that occurred on August 4, 2009, and on May 1, 2010, overwhelmed parts of MSD's drainage system capacity and caused unpermitted discharges previously addressed by the CD. EPA determined that penalties totaling as much as \$431,000 could have been levied against MSD. However, EPA acknowledged in a June 23, 2010, letter to MSD that "[d]ocumentation shows that MSD demonstrated a commendable response to addressing unpermitted discharges during these events," and that "MSD has shown significant progress toward achieving compliance with the Consent Decree...." As a result of MSD's positive response to the flooding events, EPA levied a lesser penalty in the amount of \$329,000.

OPERATIONS AND MAINTENANCE EXPENSES AND REVENUE GROWTH

Total operating expenses, net of capitalized overhead, are projected to increase by 2.8 percent in 2013 and by 2.4 to 2.5 percent annually in FYs 2014 through 2017. Increased labor and utility costs are anticipated to be the largest components of the increase in operating expenses.

Revenues from wastewater service charges are projected to increase by 4.5 percent in FY 2013 through FY 2017. Revenues for the current planning period are also affected by changes in the customer base. An annual increase of approximately 1,200 customers is projected for FY 2013 through FY 2017.

Storm water revenues are projected to increase by 6.9 percent annually in FY 2013 through 2017. This increase is projected from estimated increases in storm water rates.

Total available revenues are projected to decrease by 5.0 percent in FY 2013, and then increase by 5.0 percent in FYs 2014 through 2017. The decrease in 2013 is due primarily to a decrease in investment income.

MSD is implementing revenue enhancement strategies to compensate for declining revenue associated with decreased investment income and reductions in wastewater generation. These revenue enhancement strategies include non-rate-affecting methods to adjust revenue. An example is MSD's review of customer accounts where wastewater flows have increased significantly. In some cases those customers may have converted a single-family home to a multi-family dwelling, which should have changed its billing classification and increased the revenue from that property.

MSD'S CAPITAL IMPROVEMENT PROGRAM

The MSD CIP is a result of MSD's careful planning, characterized by watershed-based action plans to upgrade, improve, and allow for the controlled expansion of the wastewater and storm water drainage systems to serve existing and future developing areas.

Corradino has reviewed the implementation of the action plans that form the conceptual basis of the current and future CIP. The action plans and their implementation are consistent with standard engineering practice for CIP planning and implementation. The goal of MSD to create a comprehensive capital facilities development strategy is supported by these plans. MSD has demonstrated its commitment to implement the proposed CIP in a timely manner in accordance with schedules that it has developed.

Specific strategies for extending wastewater services to developing portions of the service area have been identified. Strategies for implementing storm water action plans to alleviate storm drainage problems within the service area have been identified. MSD has also identified operational plans to deal with its Morris Forman water quality treatment center; regional water

quality treatment centers; pump station operations and maintenance; old combined sewers and combined sewer overflows; sanitary sewer overflows; and the administrative functions of MSD, such as building renovations and energy conservation.

Project WIN – Waterway Improvements Now

As discussed, in order to meet the requirements of the Amended Consent Decree to address sanitary and combined sewer overflows, Project WIN was created. Project WIN is a comprehensive sewer improvement plan, and it will include the implementation of sewer improvement projects to minimize the impact of combined sewer overflows, eliminate sanitary sewer overflows, and rehabilitate the community's aging sewer system. Project WIN is estimated to cost approximately \$850 million over a 20-year period.

“Green” Infrastructure Projects

As part of the initiatives undertaken by MSD to reduce the discharge of untreated sewage to the Ohio River and local streams, MSD has initiated a green infrastructure program. The program includes projects designed to collect and divert storm water runoff from building roofs, parking lots, sidewalks, and the like into the ground and out of the sewers. For example, MSD plans to implement a \$1.5 million green infrastructure program on the University of Louisville's Belknap Campus. This will be achieved using infiltration tanks, rain gardens, porous pavement, and similar measures. If successful, the need for traditional, more costly storm water “gray” infrastructure will decrease.

Wastewater Projects

Other wastewater projects not related to the Amended Consent Decree that are part of the CIP will eliminate several small water quality treatment centers (WQTCs), many pump stations, and thousands of individual on-site disposal systems. MSD provides sanitary sewer, storm water drainage and flood protection services to over 200,000 customer accounts. Each year, MSD will add approximately 1,100 wastewater service customers.

MSD's CIP includes, among others, the following capital projects:

- Sanitary trunk sewers;
- Neighborhood collector sewer systems;
- Combined and sanitary sewer overflow abatement;
- Treatment plant upgrades;
- Surface drainage improvements; and,
- Flood protection facilities.

Storm Water Drainage Projects

The storm water drainage projects that are part of the CIP are the continuing results of the 1988 Storm Water Drainage Improvement Master Plan at MSD, the implementation of the 1993-1997 Drainage Improvement Program, the implementation of the Drainage Request Action Plan (DRAP), the Neighborhood Drainage Programs, and Project DRI (Drainage Response Initiative). Projects for the five-year CIP (FY 2012 – FY 2016) are to be generated from Project DRI and Neighborhood Drainage Programs that are part of the Infrastructure and Flood Protection Division's responsibility. Project DRI was developed from customer service requests and MSD's historical knowledge base.

Flood Pumping Stations

In 1987, MSD assumed the responsibility of providing drainage and flood protection to most areas of Jefferson County, including the operation and maintenance of the Ohio River Flood Protection System. The system consists of 29 miles of concrete wall and earthen levees, almost 200 floodgates and 52 street closures. Located along the system are 16 flood pumping stations, which move inland water to the river when the levees and floodwalls are sealed.

Ten of the flood pumping stations are more than 50 years old, and they continue to operate with original equipment. In order to maintain the integrity of the flood pumping stations along the Ohio River, MSD has been upgrading the western flood wall, improving the electrical system and replacing flood gates. Additionally, MSD is in the process of upgrading and/or replacing some of the major pumping stations along the Ohio River. MSD is rebuilding the Western Flood Pumping Station aided by federal stimulus funds.

MSD MASTER PLAN

MSD has budgeted in FY13 for the initiation of a comprehensive master plan. Master planning will be initiated and subsequently completed to provide MSD with a long-range plan (20 years is typical) and refined CIP aligned with the long-range plan. The master plan, once completed, will enhance MSD's operations.

CONCLUSION

The issuance of the Series 2012A Notes is financially feasible and desirable, sound from an engineering and operations perspective, and necessary to allow the system to properly serve the existing and growing service areas in an efficient and proper manner.

On the basis of previous studies, investigations, and our analysis, it can be concluded that the financial capability of MSD remains strong. The authorizing legislation, pursuant to which the Series 2012A Notes are being issued permits better utilization of existing capital funds and supports more efficient timing and utilization of financing for CIP projects than the previous

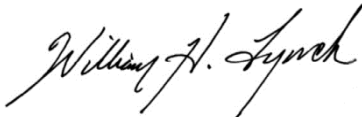
Members of the Board
Louisville and Jefferson County
Metropolitan Sewer District
November 7, 2012
Page 8

authorizing legislation. It is our opinion that the financial restructuring accomplished through prior debt issuances has enhanced MSD's ability to implement its wastewater infrastructure projects, neighborhood assessment and collector sewer projects, storm water drainage projects, water quality treatment centers projects, equipment replacement/enhancement programs, and the combined sewer rehabilitation and CSO abatement programs.

As a result of MSD's financial restructuring and ongoing financial strategies, MSD projects an average debt service coverage ratio of 151 percent from FY 2013 through FY 2017, excluding certain defined Subordinated Debt, and 131 percent when such Subordinated Debt is included. For comparative purposes, the minimum debt service coverage is 110 percent under the applicable bond resolution.

MSD has an established customer base that is supporting current wastewater and storm water utility rates and charges, which are still comparatively low, with the average monthly residential wastewater bill ranking just slightly below the national average. As MSD continues to grow, it should continue to benefit from economies of scale, tending to reduce unit operating costs.

Sincerely yours,



William H. Lynch, P.E.
Principal Engineer



Joel Morrill, P.E.
Project Manager

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1. INTRODUCTION

The Louisville and Jefferson County Metropolitan Sewer District (MSD) retained The Corradino Group (Corradino) to monitor, review, study, evaluate, and report on engineering and related financial issues concerning the wastewater and storm water drainage systems (collectively, the "System") operated by MSD in Jefferson County, Kentucky (Louisville Metro). This report is prepared in conjunction with MSD's proposed Sewer and Drainage System Subordinated Bond Anticipation Notes, Series 2012A ("Series 2012A Notes"). This report is intended for inclusion in the Official Statement for the Series 2012A Notes as Appendix D – Consulting Engineer's Report.

The Series 2012A Notes are being issued pursuant to the provisions of Chapters 65, 58 and 76 and Section 56.513 of the Kentucky Revised Statutes (collectively, the "Act") and a Subordinate Debt Resolution adopted by MSD on April 26, 2010, as amended by a Subordinate Debt Sale Resolution adopted on October 22, 2012 (collectively, the "Note Resolution") to currently refund MSD's outstanding Sewer and Drainage System Subordinated Bond Anticipation Notes, Series 2011B.

In the next four sections, this report reviews the following subjects:

- Historical, current and funding background;
- MSD service areas;
- Capital Improvement Program (CIP); and,
- Financial structure.

In the final section, the report presents Corradino's findings and conclusions regarding the financial capability of MSD to implement its CIP and the engineering soundness of that program.

2. HISTORICAL, CURRENT, AND FUNDING BACKGROUND

2.1 AUTHORIZING LEGISLATION

The earliest sewers in the Louisville area were constructed around 1850, with the initial combined storm and sanitary sewers being constructed around 1860. In 1946, MSD was formed (1) to take over the operation and maintenance of the existing city of Louisville sewer and drainage system and (2) to expand the System throughout the county.

MSD is the public agency empowered to provide wastewater and storm water drainage services throughout Louisville Metro. An eight-member board, appointed by the Metro Mayor subject to the approval of the Metro Council, governs MSD. MSD was established in 1946 to provide wastewater and storm water drainage services for the city of Louisville and Jefferson County in accordance with state enabling legislation. Kentucky Revised Statutes (KRS) Section 76.010, allowing the creation of MSD, states:

"In the interest of public health and for the purpose of providing adequate sewer and drainage facilities in and around each city of the first and second class and in each county containing such city, there may be created and established a joint metropolitan sewer district under the provisions of KRS 76.010 to 76.210 as herein described, to be known by and under the name of (name of city of the first or second class) and (name of county) Metropolitan Sewer District, which district under that name shall be a public body corporate and political subdivision, with power to adopt, use and alter at its pleasure a corporate seal, sue and be sued, contract and be contracted with, and in other ways to act as a natural person within the purview of KRS 76.010 to 76.210 (ENACT ACTS 1946, Ch. 104 Section 1; 1968, Ch. 152 Section 50)."

In addition, in 1986, an Agreement of Interlocal Cooperation ("Agreement") between MSD, the city of Louisville, and Jefferson County was signed to improve and enhance flood control and storm water drainage services in the city of Louisville and Jefferson County. The Agreement transferred all drainage and flood control facilities and property to the custodianship of MSD and clearly mandated MSD to be the responsible agency for providing flood and storm water drainage services. The Agreement supplemented, where needed, the powers MSD already possessed pursuant to the provisions of KRS Chapter 76. MSD also has entered into separate, similar agreements with the third-class and some of the fourth-class cities in Jefferson County to provide drainage services and charge the same rates being charged to the owners of real property within MSD's Drainage Service Area. These agreements were necessary because KRS 76.172 does not allow MSD to unilaterally annex into MSD's Drainage Service Area cities of the fourth class or higher.

2.2 MSD ORGANIZATION AND LEADERSHIP

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 Metro Government. All appointments to the Board are made for three-year terms. The present members of the Board and the expiration dates of their respective terms are as follows:

Board Members	Term Expires
James Craig (Chairperson)	July 31, 2014
Tom Austin (Vice-Chairperson)	July 31, 2015
Daniel Arbough	June 30, 2015
Lonnie Calvert	July 31, 2015
Cyndi Caudill	August 31, 2014
Joyce Horton Mott	August 31, 2014
John Phelps	July 31, 2013
Yvonne Wells-Hatfield	June 30, 2013

The Board members are all relatively new, with the longest serving member Ms. Wells-Hatfield having been seated in July 2010. Mayor Fischer carefully selected and appointed new members to add diversity to the Board. The individual board members bring backgrounds in financial, legal, labor relations, and engineering professions. This diversity, aligned with MSD's purpose and objectives, provides for a strong governing board.

The Board has delegated and placed the conduct of the day-to-day business affairs of the MSD under the direction of an Executive Director supported by administrative, engineering, legal and business staffs. The executive staff currently consists of the following individuals:

Greg Heitzman Interim Executive Director
Chad Collier Director of Finance and Secretary-Treasurer
Brian Bingham Director of Regulatory Management Services
Steve Emly Director of Engineering and Chief Engineer
Paula Purifoy General Counsel
Bruce R. Seigle Chief Information Officer
James J. Hunt Physical Assets Director
Saeed Assef Director, Infrastructure and Flood Protection

Greg Heitzman, P.E., serves as Interim Executive Director, at the request of Mayor Fischer. He was appointed to that role on December 16, 2011. Mr. Heitzman is the President and Chief Executive Officer of the Louisville Water Company (LWC). He has effectively led LWC for

many years. Mr. Heitzman is tasked with helping MSD with improvements related to the December 16, 2011 "Examination of Certain Policies, Procedures, Controls, and Financial Activity of Metropolitan Sewer District" issued by Crit Luallen, Auditor of Public Accounts of the Commonwealth of Kentucky. A summary of current actions pertaining to the Auditor of Public Accounts (APA) December 2011 Examination of MSD follows.

Mr. Heitzman is supported by an MSD executive team and staff who contribute to MSD's industry leading service delivery. Evidence of MSD's industry performance is their receipt of 2012 awards presented by professional associations.

- Kentucky-Tennessee section of the American Water Works Association presented **17 Operational Excellence Awards** to MSD for its Wastewater Treatment Plants in July 2012. The awards were received in recognition for outstanding performance in compliance with public health standards, plant maintenance, development of new ideas, training, outstanding achievement beyond normal operating responsibilities, and consistent operation of facilities. The MSD Water Quality Treatment Centers receiving Operational Excellence Awards included Morris Forman, Derek R. Guthrie, Floyds Fork, Cedar Creek, Berrytown, McNeely, Silver Heights, Ken Carla, Bancroft, Glenview Bluff, Chenoweth Hills, Chenoweth Run, Starview, Lake of the Woods, Hunting Creek South, North Hunting Creek and Jeffersontown.
- The Kentucky Chapter of the American Planning Association presented its **Special Merit Award for Outstanding Use of Technology** to the Louisville/Jefferson County Information Consortium for the LOJIC Online Map at its annual 2012 spring conference. MSD serves as LOJIC's lead agency. The LOJIC team is especially pleased and honored to have received recognition from a professional association of land planners and developers.

2.3 OVERVIEW AND CURRENT ACTIONS PERTAINING TO AUDITOR OF PUBLIC ACCOUNTS 2011 EXAMINATION OF MSD AND UTILITIES OPERATION REVIEW

2.3.1 Overview of the Examination

On July 28, 2011, the APA informed the MSD Executive Director and Board Chair that it would perform a review of certain issues at MSD as requested by Mayor Fischer as a result of observations and concerns expressed to the Mayor's office regarding certain financial and other activities. Specifically, the examination included a review of MSD's policies, internal controls, and certain other financial transactions. The scope of the review included records, activities, and information primarily for the period July 1, 2008, through June 30, 2011.

The purpose of the examination was not to provide an opinion on financial statements, duplicate work of annual financial audits, or evaluate the amount of rate increases, but to address the following objectives:

- Determine whether policies governing contract procurement are adequate, consistently followed, and provide for a transparent process;
- Determine whether policies governing the internal audit process are adequate, consistently followed, and provide for timely reporting;
- Determine compliance with policies and other requirements associated with increasing MSD customer rates;
- Review and evaluate MSD Board policies using the APA's thirty-two recommendations developed for public and non-profit boards;
- Review certain financial transactions and determine compliance with MSD policies and reasonableness of the expenses; and,
- Determine if conflicts of interest exist.

From the APA's work, a report titled "Examination of Certain Policies, Procedures, Controls, and Financial Activity of Metropolitan Sewer District" (the "Examination") was delivered to MSD's Chairperson on December 16, 2011. The report presented a total of 27 findings and offered approximately 150 recommendations to strengthen MSD's controls and management oversight procedures.

2.3.2 Current Actions Pertaining to the Examination

MSD's management team and staff are working to completely address the APA's findings and recommendations. It is part of MSD's charge to strengthen controls and management oversight by implementing the corrective actions recommended by the State Auditor's Office. In keeping with MSD's transparency commitment, MSD management has committed to providing a status report to the Board on a monthly basis.

The October 15, 2012, Corrective Action Update presented to the Board advised that as of October 15, 2012, 112 of the 150 State audit recommendations (75%) were 100% complete. Progress toward overall implementation was 93% complete. The difference is attributable to the actions that require a significant amount of work to complete. In those cases, it may take several months to achieve 100% completion, but MSD is tracking progress throughout the process.

There have been many notable corrective actions. Of particular note for this report, was the Board's qualifications-based selection of new legal and financial advisors. MSD added a "library" of legal firms with focused practice areas vetted for conflicts of interest and aligned with MSD's needs. This approach results in MSD having the ability to choose pre-qualified attorneys for specific services regarding specific legal matters. Regarding financial advisors, MSD chose financial firms with strong capabilities and favorable pricing structures. This approach will strengthen MSD's ability to meet the interest of the bond holders and improve service levels.

Corradino observed through discussions with MSD leadership and review of MSD activities that they are planning for and acting on the Examination Recommendations. The actions to be taken will strengthen MSD's operations.

2.3.3 Overview of Utilities Operation Review

On January 12, 2012, The Louisville Utility and Public Works Advisory Group (Advisory Group) was formed by Mayor Greg Fischer and tasked with examining the operations of the Louisville Water Company, MSD, and the Louisville Metro Department of Public Works & Assets (DPW) to determine whether synergies exist between the entities that would allow for improved service or reduced costs. The evaluation was to consider a range of potential business scenarios from the current state to a full consolidation of LWC and MSD. The major tasks assessed by the consultant team and presented in the August 1, 2012, "Final Report –Utility Operations Review" included the following:

- Assessment and evaluation of operations and business practices of LWC, MSD, and DPW to identify synergies and potential cost savings;
- Review of existing and potential governance models that LWC, MSD, and DPW could utilize to improve overall cooperation; and,
- Development of a financial analysis to understand the benefits of up to three strategic options.

The Advisory Group Recommendations developed from the Utilities Operation Review included the following:

1. Synergies and improvements should be accomplished within a five-year, phased approach
 - a. Phase I – Interlocal Agreements (2013-2014)
 - b. Phase II – Expanded Interlocal Agreements (2013-2016)
 - c. Phase III – Combine LWC and MSD (2013-2017)
 - i. Due Diligence and Risk Assessment
 - ii. Review Legislative Changes
2. Phase I & II – Pursue partnerships between LWC, MSD, and DPW. High priority areas include:
 - a. Purchasing
 - b. Safety
 - c. Energy Cost
 - d. Paving Restoration
 - e. Fleet Operations
 - f. Customer Education and Communications
 - g. Centralized Plan Review and Inspection
3. Phase III – Develop a plan to combine MSD and LWC within five years
 - a. Conduct comprehensive risk assessment and due diligence assessment
 - b. Develop business plans and management models of a combined "One Water" utility
 - c. Pursue enabling legislation
4. Continue to benchmark and integrate industry best practices
5. Adopt common Quality Management Systems for both LWC and MSD

2.3.4 Current Actions Pertaining to Utilities Operation Review

Corradino observed through discussions with MSD leadership and review of MSD activities that they are planning for and acting on the Advisory Group recommendations. The actions to be taken will strengthen MSD's operations.

2.4 PRIOR BOND AND BOND ANTICIPATION NOTE ISSUES

From its inception, MSD has maintained a schedule of rates, rentals, and charges in order to produce revenue sufficient to finance the operation, maintenance, repair, and expansion of the System. Revenue bonds were issued in 1949, 1952, 1954, 1956, 1960, and 1965 pursuant to a resolution adopted on July 7, 1949, (the "1949 Bond Resolution") in order to provide capital for system expansion. Under a resolution adopted on June 7, 1971, (the "1971 Board Resolution"), bonds were issued in order to finance water quality treatment plant improvements. Two series of bonds were issued in 1989 under the 1971 Bond Resolution ("Bond Resolution") to refund issues outstanding under the 1949 and 1971 Resolutions and to finance both sewer system expansion and drainage improvements.

MSD has heretofore issued under the Bond Resolution its Sewer and Drainage System Revenue Bonds outstanding in the amounts shown below. The Series 2012A Notes will be subordinate in security and source of payment to these Bonds.

<u>Series</u>	<u>Dated Date</u>	<u>Original Principal Amount</u>	<u>Amount Outstanding as of November 1, 2012</u>
Series 2001A	October 15, 2001	\$300,000,000	\$134,420,000
Series 2004A	January 15, 2004	100,000,000	100,000,000
Series 2005A	May 1, 2005	64,740,000	55,020,000
Series 2006A	May 1, 2006	100,000,000	93,160,000
Series 2007A	November 15, 2007	61,125,000	52,305,000
Series 2008A	May 1, 2008	105,000,000	102,690,000
Series 2009A	May 15, 2009	76,275,000	62,870,000
Series 2009B	August 15, 2009	225,770,000	190,165,000
Series 2009C	November 24, 2009	180,000,000	180,000,000
Series 2010A	November 30, 2010	330,000,000	330,000,000
Series 2011A	August 24, 2011	263,000,000	261,880,000
Total			\$1,562,510,000

The purpose of the Bond Resolution was to create one new revenue bond resolution which would provide MSD needed flexibility for funding capital projects associated with wastewater and storm water drainage services. The Series 1993 Bonds were structured to achieve level debt service over the remaining 26 years of MSD's outstanding debt. MSD had approximately \$158.3 million in bonds and other long-term debt outstanding at the time of issuance of the Series 1993 Bonds. MSD was intent on creating a unified planning, financing, development, and management framework to promote more efficient and effective use of its capital and operating

funds. Consolidating all existing non-operating funds created one "Construction and Acquisition Fund". One "Revenue Fund" was created to receive all MSD revenue and income.

The purpose of the 2001A Revenue Bonds was to provide funds which, together with interest earned thereon, were to be applied to fund sewer and drainage projects of MSD approved for construction, fund a portion of the debt reserve requirement and the costs of issuing the bonds.

The purpose of the 2004A Revenue Bonds was to provide funds which, together with interest earned thereon, were to be applied to fund MSD's Sewer and Drainage Capital Improvement Program.

The purpose of the 2005A Revenue Bonds was to refund all outstanding Sewer and Drainage System Revenue Bonds, Series 1996A and to advance refund certain of the Sewer and Drainage System Revenue Bonds, Series 1997A.

The purpose of the 2006A Revenue Bonds was to finance the acquisition and construction of capital improvement projects.

The purpose of the 2007A Revenue Bonds was to refund certain of MSD's outstanding Sewer and Drainage System Revenue Bonds, Series 1997B.

The purpose of the 2008A Revenue Bonds was to finance MSD's Capital Improvement Program.

The purpose of the 2009A Revenue Bonds was to refund a portion of MSD's outstanding Sewer and Drainage System Revenue Bonds, Series 1998A.

The purpose of the 2009B Revenue Bonds was to refund certain of MSD's outstanding Sewer and Drainage System Revenue Bonds, Series 1999A, Series 2003A, and Series 2003B.

The Series 2009C Revenue Bonds were issued to provide sufficient funds for sewer and drainage projects of MSD approved for construction.

The Series 2010A Revenue Bonds were issued to fund obligations contained in MSD's Amended Consent Decree in addition to other initiatives including Project DRI, the Western Flood Pumping Station rehabilitation, water quality treatment center modifications, sewer assessments, and capital equipment purchases, and to fund a debt service reserve account in an amount not to exceed \$30 million.

The 2011B Notes, and three earlier series of MSD's Sewer and Drainage System Subordinated Bond Anticipation Notes (Series 2009A, Series 2010A, and Series 2011A) were issued consecutively to finance and subsequently refinance the redemption of certain of MSD's Series 1999A Bonds.

2.5 PURPOSE OF SERIES 2012A NOTES

The Series 2012A Notes are being issued for the purpose of currently refunding MSD's outstanding Sewer and Drainage System Subordinated Bond Anticipation Notes, Series 2011B.

3. MSD SERVICE AREA

3.1 GENERAL AREA WIDE DESCRIPTION

On January 6, 2003, the governmental and corporate functions vested in the former city of Louisville and in Jefferson County were consolidated. The result is a consolidated local government, Louisville/Jefferson County Metro Government. Louisville Metro Government is the 16th largest U.S. city. Louisville Metro Government's jurisdiction encompasses the former city of Louisville, the 83 suburban cities in Jefferson County, and the former unincorporated portion of Jefferson County.

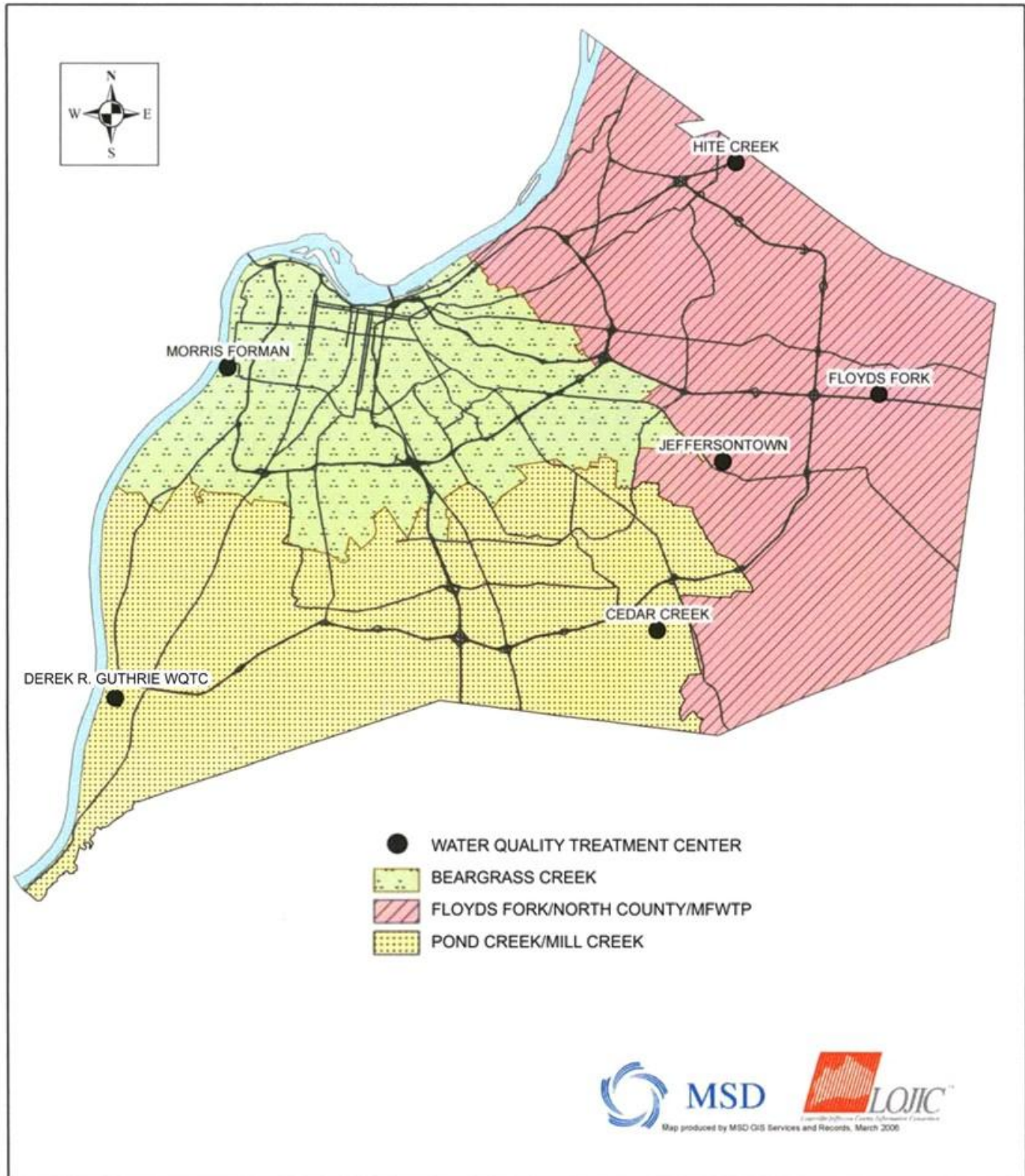
Louisville Metro is located in the north-central portion of the Commonwealth of Kentucky. It is bordered on the north and west by the Ohio River, to the east by Oldham, Shelby, and Spencer counties, to the south by Bullitt County, and to the most southwesterly corner by Hardin County.

For purposes of organization and authorization of governmental powers, the Commonwealth of Kentucky classifies cities according to population. Jefferson County includes 83 smaller cities classified as third-, fourth-, fifth-, and sixth-class cities. The third- and fourth-class cities receive MSD storm water drainage services by Agreements of Interlocal Cooperation with MSD. All cities in Jefferson County can receive wastewater services and can be served by MSD according to state statute. The city of Jeffersontown (reclassified from a third-class city in 2000) is the only second-class city, and the cities of Shively and Prospect are the only third-class cities in the county. There are eight fourth-class cities in the county: Anchorage, Douglass Hills, Graymoor-Devondale, Hurstbourne, Lyndon, Middletown, St. Matthews, and St. Regis Park.

Louisville Metro encompasses a total area of approximately 375 square miles. It is topographically divided into 11 major watersheds which convey storm water runoff and natural surface water via manmade facilities, natural channels, or a combination of both, that eventually drain into the Ohio River. The area that formerly was the city of Louisville forms the single largest component of MSD's Service Area. MSD has formerly divided Louisville Metro into geographical service areas: Morris Forman, Beargrass/City, Mill Creek/Pond Creek, and North County/Floyds Fork. Each service area contains multiple watersheds. Two large regional water quality treatment centers, four medium-size regional water quality treatment centers, and several scattered small-to-intermediate water quality treatment facilities serve Louisville Metro. Figure 3-1 shows the locations of MSD's six principal water quality treatment plants. Other privately owned water quality treatment centers and individual systems exist in Louisville Metro and are not included in MSD's Service Area.

Most of Oldham County drains into the Harrods Creek and Floyds Fork watersheds in Jefferson County and is therefore of interest to MSD. The Oldham County Action Plan Update (1997) allows for partnership in providing sewer services to that county. MSD and Oldham County have executed an interlocal agreement that allows MSD to partner with Oldham County in providing sanitary sewer service to a portion of Oldham County. The city of Crestwood, in Oldham County, has an interlocal agreement with MSD whereby MSD operates and maintains and plans for the expansion of the city of Crestwood sewer system. MSD continues to study regional opportunities in Shelby, Bullitt, and Hardin counties in Kentucky and in Southern Indiana.

Figure 3-1
Location Map
MSD Sewershed Boundaries
and Major Water Quality Treatment Centers



The floodways and floodplains of the Ohio River and several major streams have affected development of Louisville Metro. Development also has been influenced by the topography of outlying areas surrounding the former city of Louisville. These areas have slopes with ranges from 12 percent to 20 percent and greater that restrict various types of development. A northwest to southeast ridge generally bisects the county geologically. Areas west of the ridge exhibit predominantly poorly draining alluvial type soils. Areas to the east are shallow layers of well-draining soils on limestone and dolomite rock layers. These conditions increase the cost of local development related to additional structural, sanitary systems (pump stations), and drainage considerations, but do not preclude development from occurring.

The other local aspect impacting growth and development of Louisville Metro is related to the major transportation corridors. The major regional development corridors are associated with the prevalent interstate highway system. The Gene Snyder Freeway has increased access to vacant lands in the northeastern, eastern and southern portions of Louisville Metro. The Gene Snyder Freeway corridor offers the greatest potential for development within Louisville Metro – a process that is ongoing.

3.1.1 The Economy

The Louisville area experienced significant economic prosperity during the 1990s. Louisville's growth was driven primarily by the manufacturing and service sectors. In the 1990s, Louisville saw major investments at the two Ford Motor plants and at General Electric's Appliance Park. Other notable developments in the 1990s included an expanded airport, several new industrial parks, an expanded convention center, a new football stadium, a large riverboat casino in nearby Harrison County, Indiana, a new minor league baseball stadium, a revived downtown, a redeveloped riverfront, and a thriving real estate market.

While the national trend of economic expansion has stalled, local economic investment continues, but at a slower pace than in previous years. Investment in the service sector is still ongoing. The service sector includes healthcare, insurance, restaurants, and the like, and the distribution industry, which may be the single most important economic growth industry in Louisville Metro today and for the foreseeable future. The most notable local example is United Parcel Service (UPS). UPS completed a \$1.1 billion, automated sorting facility, UPS Worldport, at Louisville International Airport in September 2002. Worldport is UPS's all points, worldwide sorting facility for express mail packages. Continued UPS expansion of Worldport for an additional \$1+ billion was completed in May 2010. This expansion included the addition of two aircraft load/unload "wings" to the hub, followed by the installation of a high-speed conveyor and computer control system and increased Worldport by 1.2 million square feet to 5.2 million square feet.

Louisville International Airport is currently ranked ninth worldwide and third in North America in airfreight volume. The local transportation infrastructure and distribution network continues to attract other businesses to the area. The airport handled 2.2 metric tons of cargo, freight and mail in 2011.

Louisville Metro continues to preserve a considerable amount of the area's manufacturing sector while continually making advances in expanding the region's service sector. Ford Motor Company committed to retooling its Louisville Assembly Plant to build the Ford Escape, a small sport utility vehicle. Ford invested \$600 million in the Louisville Assembly Plant that reopened in November 2011 and increased its workforce from 1,100 to 4,300 employees. An additional crew of 1,300 workers will be added in the fourth quarter of 2012, allowing the plant to operate seven days per week, two 10-hour shifts daily. Ford also kept the Kentucky Truck Plant open by shifting the assembly of the Ford Expedition and Lincoln Navigator to that facility. According to U.S. Census Bureau data, Louisville has a greater share of professional and technical jobs than other competing cities in the region such as Indianapolis and Memphis. These jobs are better paying knowledge-based jobs and typically help replace manufacturing jobs that are on the decline nationally. Since 2000, Louisville has added more professional positions and at a faster rate than nine peer cities in the Southeast and Midwest. These peer cities include Nashville, Indianapolis, Cincinnati and Columbus.

Regardless of the recent economic downturn, there has still been development and a number of notable accomplishments in Louisville Metro. The following are examples of recent and continuing local development activities and accomplishments:

General Electric (GE) announced that the company would invest \$194 million and create 300 new jobs at Appliance Park in Louisville as part of a program to establish four U.S.-based centers of design and manufacturing excellence and as part of an effort to create "green" jobs by 2014. This came after two previous GE announcements in 2010 regarding additional investment and job creation at Appliance Park. The most recent announcement includes investing \$600 million in its Appliance Park facility in Louisville to produce energy-efficient washers and dryers. It is anticipated that this investment will create 430 new manufacturing and engineering jobs in Louisville.

As noted previously, UPS is a major asset to the Louisville economy. In recent years, 156 companies have moved to Louisville because of proximity to UPS's Worldport and Supply Chain Solutions facility attracting 12,282 jobs with an annual payroll of nearly \$349 million. UPS itself is Louisville's largest private employer with nearly 21,000 employees. UPS is also expanding its healthcare focus in Louisville by focusing on handling healthcare goods at its Supply Chain Solutions campus. In 2012, UPS's Supply Chain Solutions purchased an additional 116 acres next to its existing campus for future growth.

The KY General Assembly also recently appropriated \$17 million to complete the Crittenden Drive relocation to the west of Louisville International Airport. The first phase of this project was completed in August 2012 to give direct access from the Airport Industrial Center (formerly the Naval Ordnance Plant) to UPS Worldport.

The first office building, 600 North Hurstbourne, a 130,000-square-foot premier office building, in the ShelbyHurst Research and Office Park, formerly the University of Louisville (U of L) Shelby Campus, was completed in February 2012. The building was built by NTS Development Co. in a joint venture with the University of Louisville Development Co. LLC, a University of Louisville Foundation affiliate set up to oversee development of U of L Foundation property. Plans for ShelbyHurst include 1.45 million square feet of office space in multiple buildings.

NTS and the Foundation are already starting site work for the next building, 700 North Hurstbourne, 120,000 square feet, and have interest from tenants in a third building at 500 North Hurstbourne. Proceeds from ShelbyHurst development projects will go toward funding U of L academic and other programs.

The University of Louisville Foundation is also completing construction of a 180,000-square-foot, eight-story life sciences office building, Nucleus Innovation Center, in downtown Louisville adjacent to the downtown medical center. It is anticipated that it will be 60 to 80 percent occupied when the facility opens in spring 2013.

The University of Louisville Foundation secured a grant of \$24.8 million from the State of Kentucky in 2012 for a new roadway through its 39-acre Belknap Applied Science and Research Park adjacent to its Speed Engineering School. This grant will be matched by \$6.2 million from the University of Louisville Foundation. Construction will start in early 2013.

The first phase of Cardinal Towne, a mixed-use development near the U of L Belknap Campus on the former site of Masterson's Restaurant, opened in mid-August 2011. The development includes ground-level retail and student apartments above. The 30,000 square feet of retail space has been leased to 12 restaurant establishments, including a national franchise and local restaurants. The first phase included 379 beds leased to students. Cardinal Towne is a privately built development with a reported cost of more than \$50 million. Phase two was a four-story student apartment building with 166 student beds that opened for the fall 2012 semester.

According to the U.S. Census Bureau's 2006-2008 American Community Survey, Louisville had the ninth-shortest average commute time among metropolitan areas with greater than one million residents. The average commute time was 22.9 minutes. This compared with Cincinnati which had the twelfth shortest commute at 23.75 minutes and Indianapolis at fifteenth with 23.93 minutes.

As reported by Fortune Magazine in April 2012, Louisville was home to three Fortune 500 companies. These were healthcare insurance provider Humana which appeared at number 79 on the list, Yum!, the parent company of KFC, Pizza Hut, Taco Bell, Long John Silver's and A&W Restaurants at 213, and healthcare services provider Kindred Healthcare at 444..

Construction began in June 2011 on the first phase of the Parklands of Floyds Fork, a nearly 4,000-acre, \$113 million park system in the Floyds Fork watershed in Jefferson County. The project is being developed by 21st Century Parks and is funded by a public-private partnership of local donors and federal, state, and city governments. The park has been named a "Frontline Park" by the City Parks Alliance, a national urban park advocacy organization. The designation is in recognition of inspiring examples of urban park excellence, innovation, and stewardship.

In 2010 and 2011, the Louisville Zoo opened a new seal and sea lion habitat and a new bear habitat as part of the Town of Glacier Run exhibit. Glacier Run's Steller Sea Eagle Aviary opened in 2012 and the final phase, the snowy owl exhibit, will open in 2013. The exhibits are part of the \$29 million Glacier Run Village project. The final two phases of Glacier Run, the Glacier Run Arctic Ambassador Center and a new aviary to house the Steller's sea eagles, are

expected to open in late 2012. When Glacier Run is completed, the estimated economic impact of the Zoo on the region is expected to be \$33.6 million. Attendance at the Zoo for the 12-month period ending in April 2012 was a record-breaking 948,155 visitors.

Louisville's new \$238 million downtown arena, the KFC YUM! Center, opened in October 2010. The arena is home to the University of Louisville's men's and women's basketball teams. The multi-purpose area is also used for conventions, circus, ice shows, and concerts featuring national acts such as the Eagles, the Judds, Elton John, Rush, Taylor Swift, Lady Gaga, and others. The opening of the arena has also spurred a number of new restaurants and shops in the downtown area.

3.2 DEMOGRAPHIC DATA

There are three key demographic variables which must be used as indicators of the vitality of the Louisville Metro economy with regard to services of MSD. The first two are households and population. Of these two, households is somewhat more important since each household generates a certain amount of water and sewer usage that is to some degree independent of the number of persons in the household. This includes such uses as cooking, laundering, and dishwashing, among others. Between 1990 and 2000, there was a gain of 22,900 households (8.7 percent) in Jefferson County. Much of this gain was in the eastern and southern parts of the county. For the decade 2000 to 2010, there was a gain of an additional 22,000 households. The upcoming decade (2010 to 2020) should see a smaller increase of an additional 2,600 households, with a more substantial gain of approximately 24,000 households projected between 2020 and 2030. This household gain reflects a projected 7.8 percent increase from 2020 to 2030. This is compared with a projected increase of just 3.8 percent (24,000) in population over the same period and is the result of a projected decline in persons per household from 2.27 persons in 2020 to 2.18 persons in 2030.

As stated, the second of these growth factors, population, is projected to show an increase of about 24,000 persons between 2020 and 2030. Most of this increase will take place in the northeastern and eastern parts of the county. There is, of course, also a direct relationship between the number of persons and sewer revenues.

The third important demographic factor is the number of jobs. Jefferson County continues to have job growth. Even though much of the population growth which necessarily follows jobs will occur in counties surrounding Jefferson, a significant number of the actual job sites are anticipated to be in Jefferson County.

The key to much of this job growth is the presence of United Parcel Service at Louisville International Airport. As UPS continues its remarkable expansion in Louisville to the point where it is Kentucky's largest private employer, with nearly 21,000 jobs, the area is continuing to attract businesses which find it advantageous to locate close to the nation's largest package carrier. As the nation's economy continues to demand just-in-time delivery of products and overnight response to orders for high-value capital goods and repairs, the benefits of being able to drop off a product at the UPS hub at Louisville International Airport at 10:00 p.m. and expect

delivery virtually any place in the nation less than 12 hours later is an advantage with which only Memphis, Tennessee (the headquarters and central hub of Federal Express) can compete.

3.2.1 Population

During the 20 years from 1970 to 1990, Jefferson County was characterized by relatively flat population figures. Those flat population figures, however, masked a growth in the number of households and a strong growth in the number of jobs in the county. Population increased from 1990 to 2000 and is projected to grow moderately through 2020 and 2030.

The population projections for Jefferson County through the year 2030 are shown in Table 3-1. The Kentuckiana Regional Planning and Development Agency (KIPDA) developed the projections for the region's federal air quality conformity process and for use in the regional transportation model. These projections were performed for the years 2020 and 2030. The projections were done by Traffic Analysis Zone (TAZ) and aggregated to the market areas developed in Cornerstone 2020, the Comprehensive Plan for Louisville and Jefferson County. As shown in Table 3-1, the population of Jefferson County is expected to increase by the year 2030.

Table 3-1
Projected Population
Jefferson County

Market Areas*	Projections		Change 2020-2030	
	2020	2030	Amount	Percent
Northeast	58,174	65,972	7,798	13.4
West Louisville	58,797	61,313	2,516	4.3
Floyds Fork	41,611	67,316	25,705	61.8
Shelbyville Road	67,131	59,830	-7,301	-10.9
Highlands	85,803	77,761	-8,042	-9.4
Central Louisville	28,404	29,753	1,349	4.7
Riverport	11,530	11,356	-174	-1.5
Southeast	73,723	72,850	-873	-1.2
Iroquois	134,108	130,188	-3,920	-2.9
Airport	3,872	3,828	-44	-1.1
Okolona	81,331	76,145	-5186	-6.4
Far South	29,289	39,865	10,576	36.1
Forest	33,085	34,714	1,629	4.9
County Totals	706,858	730,891	24,033	3.4

*See Figure 3-2
Source: KIPDA

The overall population trend for Jefferson County masks the shift of population, population growth, and increase in population density in eastern Jefferson County. Figure 3-2 graphically displays the population change projected in each of Cornerstone 2020's market areas. Population in the county will continue to shift east and south. Growth is expected in the Floyds Fork market area (25,700), followed by the Northeast (7,800), Far South (10,600), and Forest (1,600) areas. West Louisville and Central Louisville are projected to experience modest growth. The Airport area is expected to lose just over one percent of its population over the 2020 to 2030 period. The Iroquois area is and will remain the most populated market area in the county with a 2030 population of 130,000 persons, although it is expected to incur a population loss of 3,900 during the period. A comparison of the 2020 population projected by KIPDA as shown in 2020 and the 2011 population estimates from the U.S. Census Bureau show that the KIPDA projections for 2020 and 2030 are low. Still, the distribution of population and magnitude of change can be considered valid.

Over the past decades, areas of large population growth are suburban, moderate to high income, and white-collar areas, and areas of decline reflect the natural life cycle (e.g., older, more densely populated, blue collar areas of the western and southwestern parts of the county). The Airport area has also experienced a decline in population due to noise-related relocation efforts. All of the population projections reflect an anticipated dispersion to surrounding counties within the metropolitan area due to the increased convenience of transportation to newly developing areas.

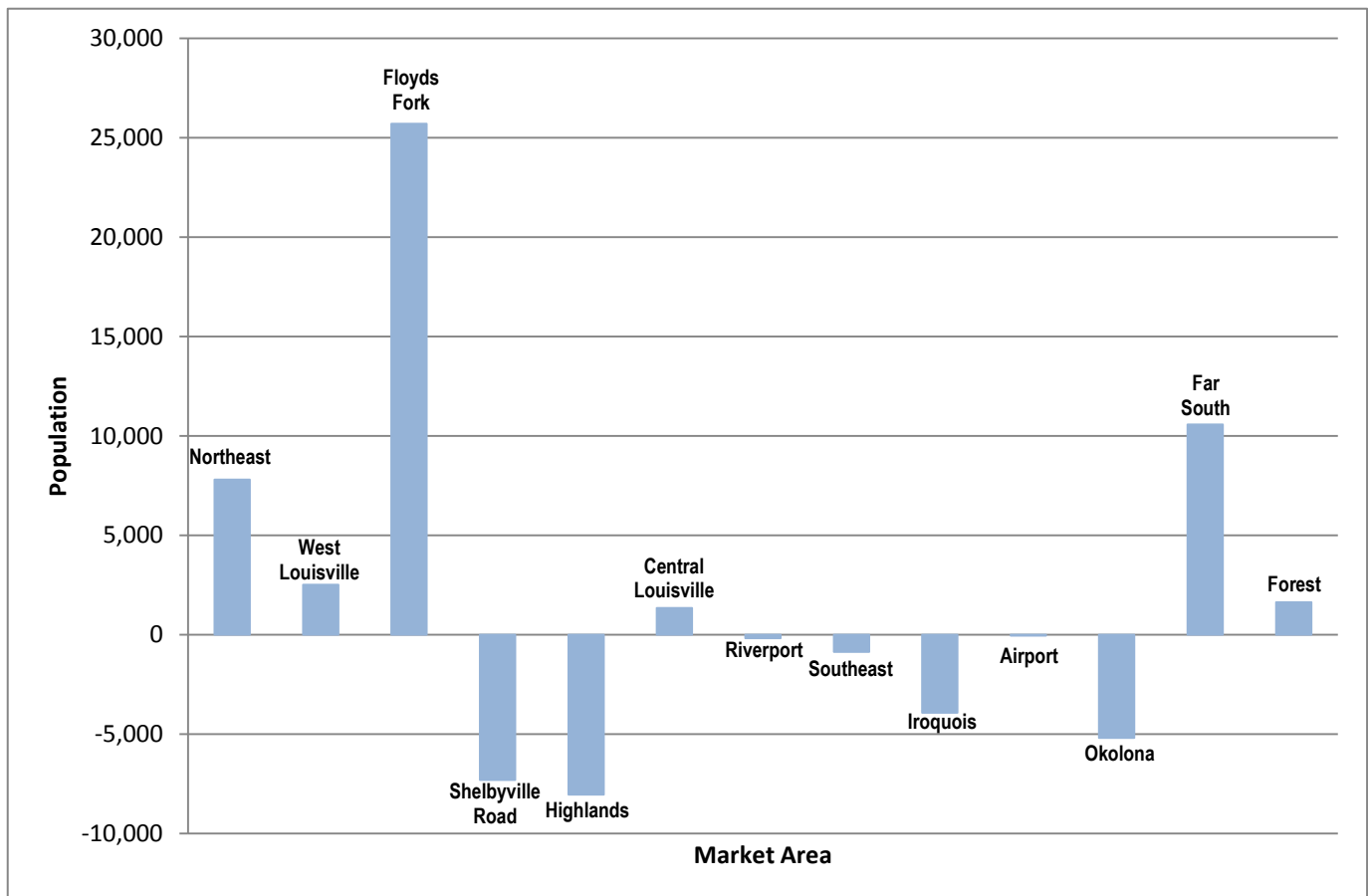
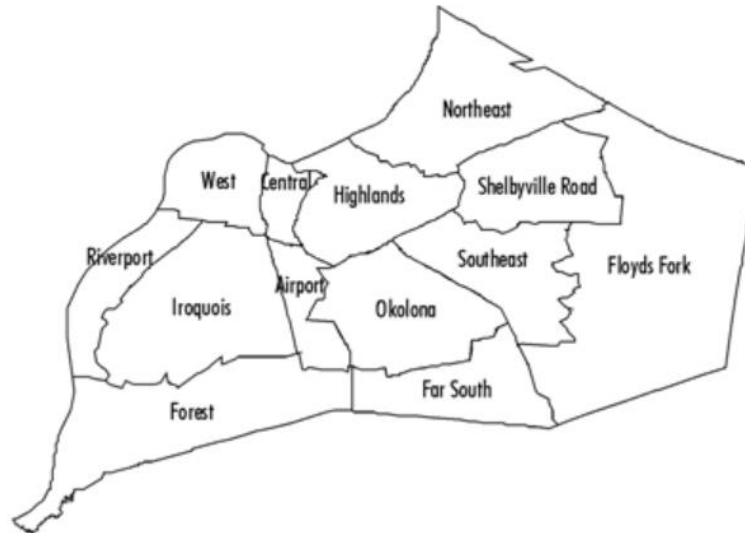
Table 3-2 details the U.S. Census population for 2000 and 2010 in Jefferson and adjacent counties. The population of Oldham County increased by 30.6 percent from 2000 to 2010. Bullitt County has experienced a large rate of population growth with an increase in population of 24.4 percent between 2000 and 2010. These population increases are compared to the modest 6.8 percent increase in Jefferson County during the same period. Also shown is the 2011 population estimate for each county. All three counties continue to experience growth in population.

Table 3-2
Population Change
Jefferson County, Oldham County, and Bullitt County

	2000	2010	Change 2000 to 2010		2011 Estimate
			Number	Percent	
Jefferson County	693,604	741,096	47,492	6.8	746,906
Oldham County	46,178	60,316	14,138	30.6	60,642
Bullitt County	61,236	74,319	13,083	24.4	75,109

Source: U.S. Census Bureau

Figure 3-2
Projected Change in Population
2020 to 2030



State law permits MSD to extend its service area to surrounding counties by interlocal agreement. MSD has entered into an interlocal agreement with the city of Crestwood in Oldham County.

Jefferson County is also home to eleven second-, third-, and fourth-class cities (Table 3-3). The population of the eleven third- and fourth-class cities was about 13.5 percent of the county total in 2000 and dropped to 13.3 percent in 2010.

Table 3-3
Population – Second-, Third-, and Fourth-Class Cities
Jefferson County
1990, 2000, and 2010

City	1990	2000	2010	Percent Change (2000-2010)
Anchorage	2,082	2,264	2,348	3.7
Douglass Hills	5,549	5,178	5,484	5.9
Graymoor-Devondale	2,911	2,925	2,870	-1.9
Hurstbourne	4,420	3,884	4,216	8.5
Jeffersontown	23,221	26,633	26,595	-0.1
Lyndon	8,037	9,369	11,002	17.4
Middletown	5,016	5,744	7,218	25.7
Prospect	2,788	4,657	4,698	0.9
St. Matthews	15,800	15,852	17,472	10.2
St. Regis Park	1,756	1,520	1,454	-4.3
Shively	15,535	15,157	15,264	0.7
Total	87,115	93,183	98,621	5.8

Source: U.S. Bureau of the Census

Except for the cities of Jeffersontown, Graymoor-Devondale, and St. Regis Park, the second-, third-, and fourth-class cities have all shown growth from 2000 to 2010. Middletown experienced the highest rate of growth at nearly 26 percent while Jeffersontown experienced the largest increase in population of 26,600 people.

3.2.2 Households

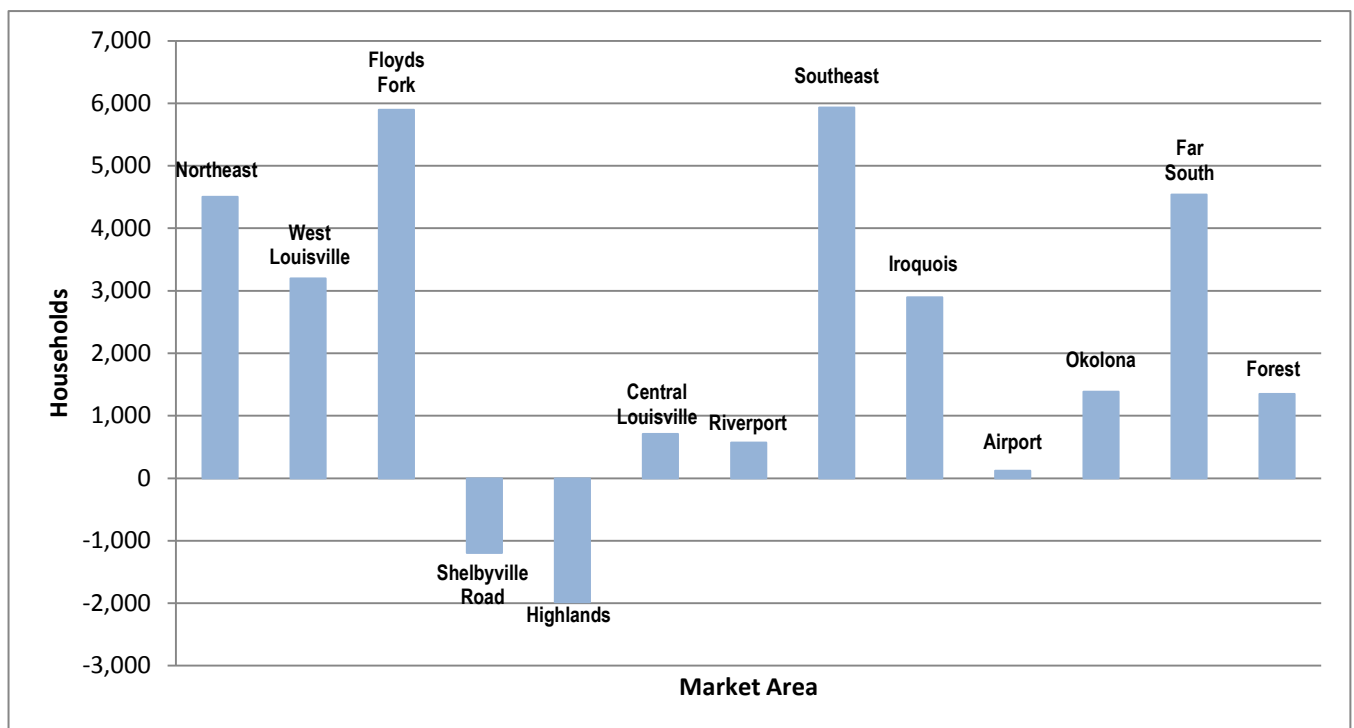
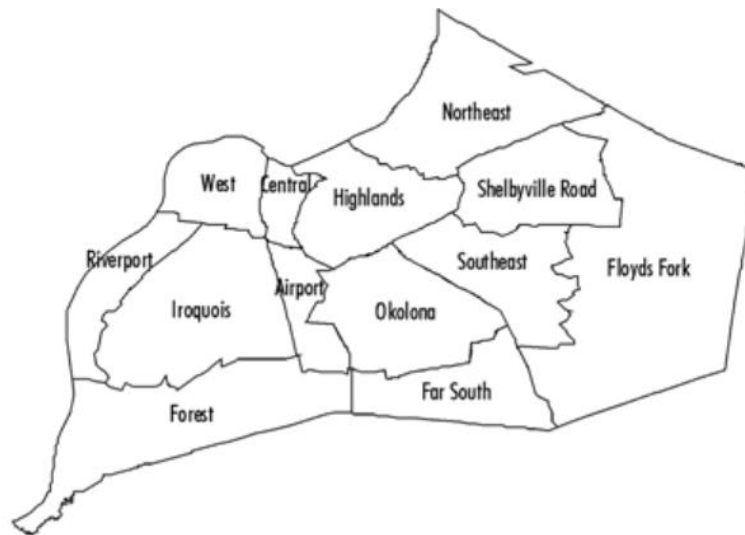
Along with increases in population comes an increase in the number of households. Although Jefferson County population is expected to increase by only approximately 1.9 percent from 2020 through 2030, the projected growth in number of households is anticipated to reach 4.4 percent. This follows national trends of a decreasing number of persons per household associated with aging of the population, changes in living arrangements and family composition, and a declining fertility rate. The average Jefferson County household size in 2020 was 2.27 persons. It is expected to drop to 2.18 persons by 2030. Table 3-4 shows the number of households in each of Cornerstone 2020's market areas. The major growth areas for households are similar to the major growth areas for population. These include the Southeast (5,900), Floyds Fork (5,900), the Northeast (4,500), and the Far South (4,500). Figure 3-3 shows the projected change in households from 2020 to 2030.

Table 3-4
Existing and Projected Households
Jefferson County

Market Areas*	Projections		Change 2020-2030	
	2020	2030	Amount	Percent
Northeast	23,854	28,360	4,506	18.9
West Louisville	23,861	27,061	3,200	13.4
Floyds Fork	12,901	18,796	5,895	45.7
Shelbyville Road	30,429	29,231	-1,198	-3.9
Highlands	44,156	42,172	-1,984	-4.5
Central Louisville	16,523	17,231	708	4.3
Riverport	4,576	5,148	572	12.5
Southeast	32,190	38,125	5,935	18.4
Iroquois	58,710	61,605	2,895	4.9
Airport	1,624	1,744	120	7.4
Okolona	34,619	36,006	1387	4.0
Far South	11,257	15,797	4,540	40.3
Forest	13,114	14,461	1,347	10.3
County Totals	307,814	335,737	27,923	9.1

* See Figure 3-3
Source: KIPDA

Figure 3-3
Projected Change in Households
2020 to 2030



On average, for the ten-year period from 2002 through 2011, building permits were issued for 2,349 residential units annually. Building permit activity (shown in Table 3-5) remained strong through 2004 and then began to slow down as did residential building activity nationally. Residential building activity increased slightly in 2007 and then decreased again in 2008 with the downturn in the local and national economy. During 2010, building permit activity increased, and remained steady through 2011.

Table 3-5
Jefferson County
Residential Building Permits
2001 to 2011

Year	Units
2011	1,006
2010	1,003
2009	877
2008	1,872
2007	2,861
2006	2,075
2005	2,400
2004	3,886
2003	3,995
2002	3,510
2001	3,016

Source: U.S. Bureau of the Census,
Manufacturing and Construction
Statistics Division.

3.2.3 Employment

Table 3-6 details existing and projected jobs by the Cornerstone 2020 market areas for the period 2020 to 2030. As shown in Table 3-6, Jefferson County employment is expected to increase by more than 50,000 jobs, 8.2 percent, from 2020 to 2030. Only two market areas in Jefferson County (shown in Figure 3-4) are expected to have a decrease in jobs from 2020 to 2030. These are Central Louisville (36,150) and Forest (846). The Far South and Floyds Fork market areas are expected to see the largest percentage increases in job growth over the ten-year period. From 2020 to 2030, the number of jobs in the Far South area is expected to increase by nearly 84 percent, an increase of 2,620 jobs, while the number of jobs in the Floyds Fork area is expected to increase by over 90 percent, an increase of 17,200 jobs. Continued commercial development of the land east of Blankenbaker Lane will generate thousands of retail, service, and distribution jobs in the Floyds Fork area. The Southeast, Riverport, and Okolona market areas are also expected to see significant increases in the number of new jobs.

Table 3-6
Jobs by Market Area
Jefferson County

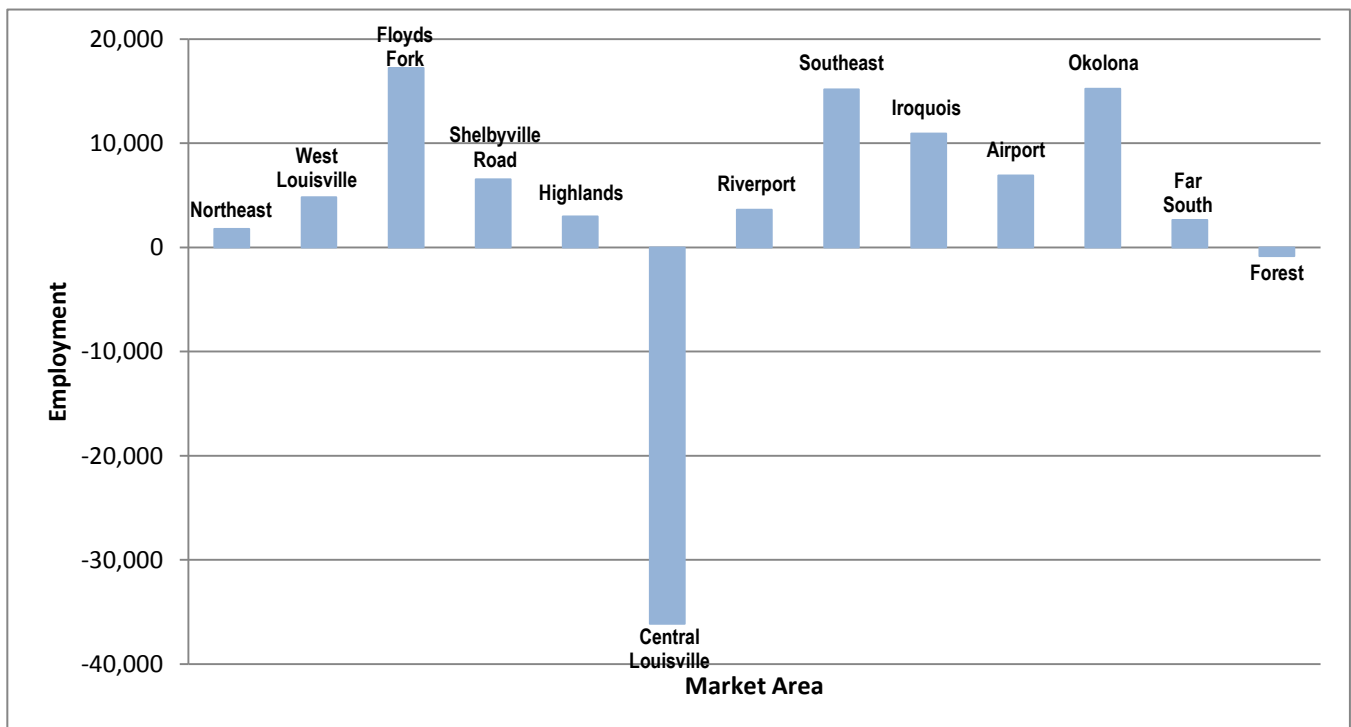
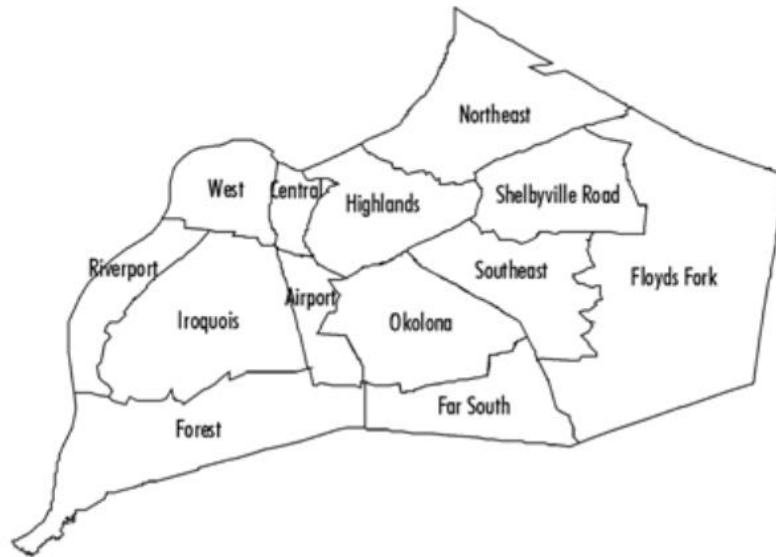
Market Areas*	Projections		Change 2020-2030	
	2020	2030	Amount	Percent
Northeast	21,055	22,829	1,774	8.4
West Louisville	35,997	40,795	4,798	13.3
Floyds Fork	19,052	36,277	17,225	90.4
Shelbyville Road	58,434	64,967	6,533	11.2
Highlands	76,560	79,514	2,954	3.9
Central Louisville	164,788	128,638	-36,150	-21.9
Riverport	13,422	17,022	3600	26.8
Southeast	38,521	53,698	15,177	39.4
Iroquois	57,712	68,625	10,913	18.9
Airport	44,430	51,317	6887	15.5
Okolona	73,487	88,699	15212	20.7
Far South	3,132	5,752	2,620	83.7
Forest	8,572	7,726	-846	-9.9
County Totals	615,162	665,859	50,697	8.2

* See Figure 3-4
Source: KIPDA

3.2.4 Conclusion

Although the population of the city of Louisville declined from 1970 to 1990, growth in population, housing, and employment occurred between 1990 and 2000 and also between 2000 and 2010 in Jefferson County and is projected to continue through 2030. By 2030, the County's population is projected to increase by 3.4 percent from 2020 with growth in population in the east, south, and northeast, of Jefferson County. There is also growth in population in neighboring Oldham and Bullitt counties. Further, the balance of Jefferson County outside of the area of the former city of Louisville has and will continue to show modest growth in households.

Figure 3-4
Projected Change in Employment
2020 to 2030



3.3 INDUSTRY AND MANUFACTURING BASE

The community employment base has successfully transitioned from a dominant manufacturing component to a balanced economy with a strong service component and a successfully diversified economic base over the past 20 years. Growth in the white collar and professional services industry continues to exceed overall employment growth, and remaining manufacturing jobs tend to be highly skilled and well paid.

The composition of industrial and manufacturing establishments in Jefferson County includes several large nationally-based companies. Table 3-7 is a list of the top ten entities using MSD's wastewater services. The list shows the revenue contribution of each entity and percentages of MSD's total wastewater services revenues for the 2012 Fiscal Year. Approximately 10.83 percent of MSD's wastewater service revenues were received from these top ten establishments.

Table 3-7
Major Wastewater Customers

	Customer Name	FY 2012 Wastewater Amount Billed	Percent Total Wastewater Revenue
1	Lubrizol Advanced Materials (formerly OxyVinyls)	\$1,913,955	2.67%
2	Jefferson County Board of Education	1,780,469	1.18%
3	Swift & Company	1,612,220	1.13%
4	Louisville Metro Housing Authority	1,367,863	1.07%
5	Brown-Forman Corporation	1,234,437	1.02%
6	Solae LLC (formerly Protein Technologies)	1,168,748	0.91%
7	Ford Motor Company	966,823	0.88%
8	Heaven Hill Distilleries	794,146	0.77%
9	UPS Air District	745,145	0.63%
10	General Electric	700,081	0.58%
	Total	\$12,283,887	10.83%

Source: MSD

Total FY 2012 Wastewater Revenue = \$149,626,000

Table 3-8 is a list ranking the top ten entities using MSD's storm water drainage service in FY 2012. The list shows the revenue contribution of each entity and percentage of MSD's total drainage service revenues for the 2012 Fiscal Year. Approximately 8.30 percent of MSD's storm water drainage revenues were received from these customers.

Table 3-8
Major Storm Water Drainage Customers

	Customer Name	FY 2012 Drainage Amount Billed	Percent Total Drainage Revenue
1	Louisville Regional Airport Authority	\$1,027,071	2.51%
2	United Parcel Service	760,000	1.86%
3	Jefferson County Board of Education	350,164	0.86%
4	Ford Motor Company	231,768	0.57%
5	Kentucky State Fair Board	201,019	0.49%
6	Churchill Downs	178,176	0.44%
7	Norfolk Southern Corporation	172,528	0.42%
8	L G & E	168,621	0.41%
9	LIT Industrial Limited Partnership	159,540	0.39%
10	U of L Belknap Campus	140,567	0.34%
	Total	\$3,389,454	8.30%

Source: MSD

Total FY 2012 Drainage Revenue = \$40,855,000

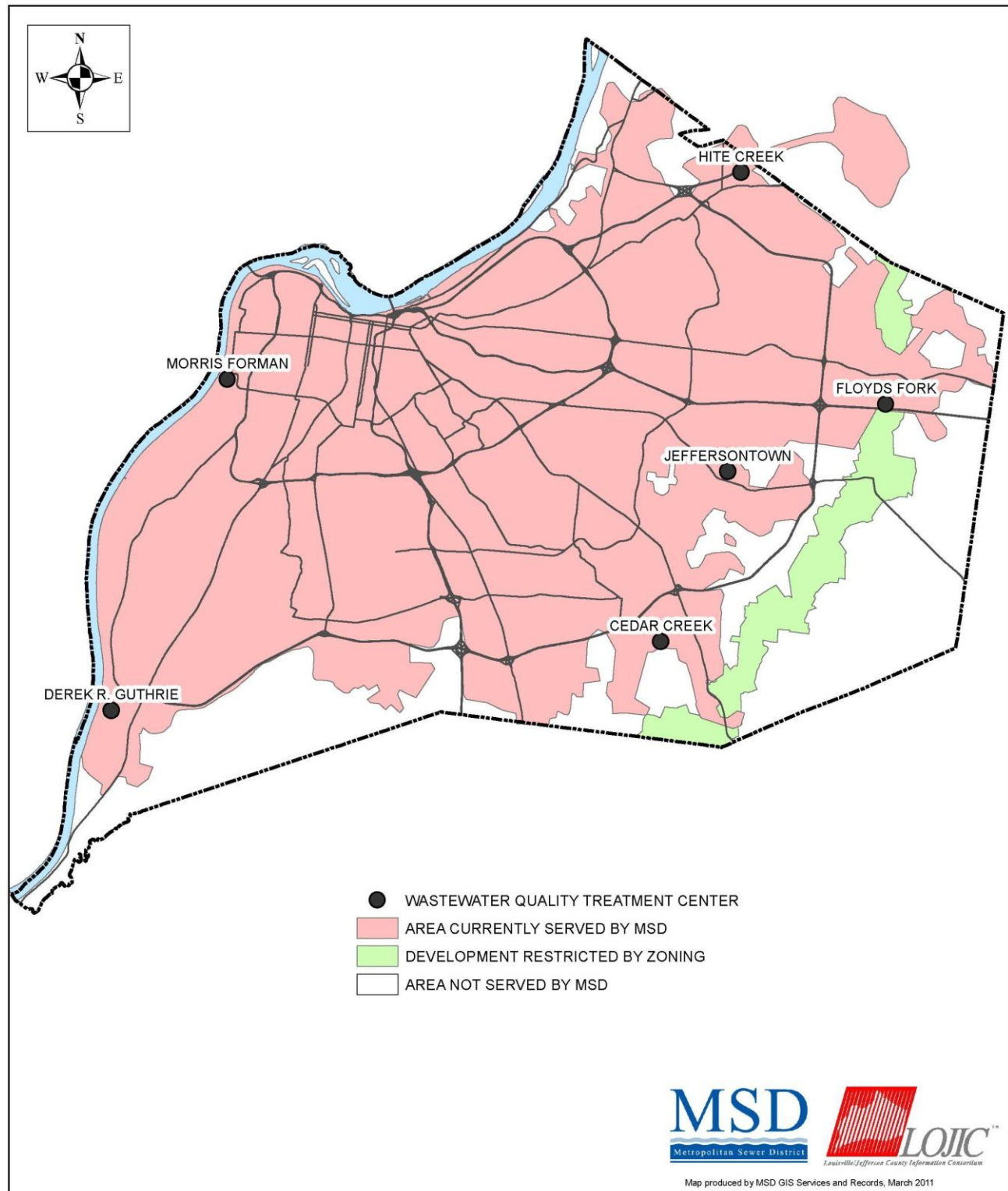
3.4 SYSTEM DESCRIPTION AND SERVICE AREA

MSD is empowered to provide wastewater and storm water drainage (including flood protection) services within Jefferson County. The Wastewater Service Area includes approximately 272 square miles of Jefferson County, and MSD serves approximately 235,136 wastewater customers. Areas receiving wastewater services are shown on Figure 3-5. Table 3-9 is a list of services currently provided to second-, third-, and fourth-class cities per separate agreements with MSD.

Table 3-9
MSD Services Rendered to Cities

City	Wastewater	Storm Water
Anchorage	Yes	No
Douglass Hills	Yes	Yes
Graymoor-Devondale	Yes	Yes
Hurstbourne	Yes	Yes
Jeffersontown	Yes	No
Lyndon	Yes	Yes
Middletown	Yes	Yes
Prospect	Yes	Yes
St. Matthews	Yes	No
St. Regis Park	Yes	Yes
Shively	Yes	No

Figure 3-5
Location Map
MSD Wastewater Service Area



3.4.1 Water Quality Treatment Centers Description

3.4.1.1 Regulatory Framework

MSD's wastewater facilities and services are regulated and monitored by the following agencies: the Commonwealth of Kentucky Energy and Environment Cabinet (the Cabinet); the United States Environmental Protection Agency (EPA); the Ohio River Valley Water Sanitation Commission (ORSANCO); and, the Louisville Metro Health Department. Requirements of the EPA and the Cabinet are issued in the form of a facility permit.

3.4.1.2 Size and Extent of Water Quality Treatment System

The MSD Wastewater System consists of six major Water Quality Treatment Centers (WQTCs), approximately 600 miles of combined sewers (sewers which transport both storm water runoff and sewage), approximately 3,200 miles of wastewater interceptor and collector sewers, 283 wastewater pumping stations, and 14 small-to-intermediate (less than 0.6 MGD capacity) WQTCs operated by MSD.

The combined sewers generally exist within the boundaries of the former city of Louisville in the downtown and Beargrass Creek areas. Many of the smaller, older combined sewers are unable to convey flow from extreme rainfall events. Others will become problematic in the future, both from exceeding their capacity and deterioration of physical condition due to old age. MSD's separate wastewater sewers have adequate dry weather capacity because a conservative approach has been used in designing these systems. Although most of these sewers are usually in better condition because of their relatively younger age, MSD has identified sanitary sewer overflows resulting from wet weather conditions in parts of its separate wastewater system. The combined sewer and the sanitary sewer overflow issues are currently being addressed as a part of the Amended Consent Decree MSD has entered into with the Kentucky Department for Environmental Protection (KDEP), the EPA, and the Department of Justice.

The WQTCs, wastewater interceptors, and the pump and lift stations have sufficient capacity to meet the immediate needs of the Wastewater Service Area. MSD has a planned Capital Improvement Program to meet the future needs of the Wastewater Service Area. This plan includes the removal of several small-to-intermediate capacity water quality treatment centers. The flows currently treated by these package plants will be routed to one of MSD's six water quality treatment facilities. Currently, the two large WQTCs are the Morris Forman WQTC and the Derek R. Guthrie WQTC. The medium-size WQTCs are the Hite Creek WQTC, the Jeffersontown WQTC, the Floyds Fork WQTC, and the Cedar Creek WQTC. A brief description of these larger and medium WQTCs follows:

Morris Forman Water Quality Treatment Center (MFWQTC)

This treatment facility is in an industrial area in the western portion of the county near the southwestern corner of the former city of Louisville. This plant began operations in May 1958 and was upgraded in the mid-1970s to a secondary level treatment process that treated organic matter and bacteria. The MFWQTC provides preliminary treatment consisting of screening and grit removal, primary treatment for the removal of solids and floatables, and is designed for bio-

roughing prior to secondary activated sludge treatment using high purity oxygen for the removal of the remaining organic and solids pollutants for the entire combined sewer area and a large portion of the separate sewer area in the eastern portion of the county. Final effluent is chlorinated then dechlorinated prior to discharge to the Ohio River. The MFWQTC provides solids treatment for all MSD treatment facilities; it includes a solids handling facility that came on line in 2002. The plant has a dry weather design capacity of 120 million gallons per day (MGD) and treats an annual average daily flow of 99.5 MGD. The plant has a wet weather maximum capacity of 350 MGD with a longer term sustained capacity of 325 MGD.

The Morris Forman service area is the largest sewershed in the MSD collection system. The collection system contains approximately 1,000 miles of separate sanitary sewer pipe. The majority of the land use in the service area is residential, with some smaller areas of commercial, industrial, and parks. There are a total of 118 pump/lift stations in the sewershed area.

This facility, in addition to reducing the need for disposal of bio-solids in the landfill, produces approximately 75 tons per day of dry pellet ("Louisville Green") fertilizer that is sold publicly for additional MSD revenue and reduced landfill costs. In 2005, MFWQTC processed approximately 27,798 dry tons of pellet bio-solids. Of those solids, 46 percent went to beneficial reuse, and the remainder was disposed of in the landfill. In 2006, approximately 87 percent of solids produced went to beneficial reuse, with that quantity increasing to more than 90 percent in 2008. In 2009, almost 26,000 dry tons of Louisville Green were produced and distributed for beneficial reuse. No marketable pellets were sent to the landfill in 2009. In 2010, 28,111 tons of Louisville Green were produced and distributed for beneficial reuse.

Derek R. Guthrie Water Quality Treatment Center (DGWQTC)

The DGWQTC (formerly known as the West County Wastewater Treatment Plant) was designed as a 15 MGD preliminary and activated sludge treatment facility. There are no primary sedimentation facilities or sludge processing facilities at the DGWQTC. In April 1999, the plant's capacity was expanded to 19.5 MGD.

The raw influent wastewater flows through three coarse bar screens to the influent pump station. Four pumps lift the raw wastewater to an aerated grit chamber. From the grit chamber, flow through the remainder of the plant is by gravity. The secondary treatment facilities have the capacity to operate in a complete mix mode, utilizing two of the aeration basins. The wastewater flows from the aeration basins to three final settling tanks. Final settling tank effluent flows to chlorine contact basins for disinfection. Following chlorination/dechlorination, final effluent flows to the Ohio River. All solids generated at the DGWQTC are pumped to the MFWQTC for processing.

This plant primarily serves single-family residential customers, commercial, and vacant or undeveloped land. The collection system contains approximately 850 miles of sewer pipe and 68 pump/lift stations.

As the service area and population has grown, treatment capacity has been added to increase the present design capacity to 30 MGD, and the plant currently treats an average daily flow of 29.8 MGD.

Hite Creek Water Quality Treatment Center (HCWQTC)

The HCWQTC plant is located in northeastern Louisville Metro along I-71. The plant, built in 1970 and rated at 2.2 MGD, was later expanded to its capacity of 4.4 MGD. The plant was primarily built to provide service to the then newly-constructed Ford Motor Company Kentucky Truck Plant and the surrounding suburbs in eastern Jefferson County. The plant effluent passes through grit removal and bar screening prior to settling in primary clarifiers. The secondary treatment is an advanced process, which is designed to perform nitrification. There are two rapid sand filters and two mixed media filters, which provide tertiary treatment. Disinfection is accomplished using ultraviolet light. The effluent travels over a reoxygenation ladder prior to discharge into Hite Creek. Hite Creek is considered to be a "no-flow" stream by the Kentucky Division of Water. It is a tributary of Harrods Creek discharging into the Ohio River.

The facility operates aerobic digesters for processing of the secondary waste sludge treatment. The digested liquid sludge of approximately two percent solids is hauled by truck to the Morris Forman WQTC where processing of the waste sludge to dry pellet fertilizer is completed.

The land use in the service area consists primarily of single-family residential areas with a small amount of multi-family residential areas, commercial lots, vacant or undeveloped land, and the Ford Motor Company Kentucky Truck Plant. The collection system contains approximately 120 miles of sewer pipe and 35 lift/pump stations

Two expansions have occurred at the treatment plant, along with various upgrades, to increase the present design capacity to 6 MGD. The average daily flow at this plant is 3.3 MGD. The Ford Motor Company Kentucky Truck Plant contributes approximately 1 MGD to the treatment facility.

Jeffersontown Water Quality Treatment Center (JTWQTC)

This treatment facility is located in eastern Louisville Metro in the city of Jeffersontown, Kentucky. The plant and system were acquired by MSD from the city of Jeffersontown in September 1990. The JTWQTC is a single stage activated sludge treatment plant with two parallel treatment trains. Influent is received through a common bar screen and grit chamber and then split among the "new" plant (2/3 of flow) and the "old" plant. Design flow for the combined facility is 4.0 MGD. Secondary clarifier effluent from the two treatment trains is mixed in a post aeration basin, disinfected using ultra-violet light, and discharged to Chenoweth Run Creek. Chenoweth Run, considered to be a "no-flow" stream by the Kentucky Division of Water, is a tributary of Floyds Fork.

Settled secondary sludge is sent to aerobic digesters. The aerobic digesters are tanks which were formerly anaerobic digesters. The waste activated sludge is hauled by truck to the Morris Forman WQTC where processing of the waste sludge to dry pellet fertilizer is completed. The WQTC currently treats an average daily flow of 3.7 MGD. This system is currently unable to accept additional flows and is scheduled for elimination by December 31, 2015.

The Jeffersontown Service Area is centrally located at Taylorsville Road and Watterson Trail in central Jefferson County. The land use consists primarily of single-family residential and

industrial with a small amount of commercial and vacant or undeveloped land. The collection system contains approximately 112 miles of sewer pipe and 27 pump/lift stations in the service area.

Cedar Creek Water Quality Treatment Center (CCWQTC)

This treatment facility is located in the southeastern part of Louisville Metro south of I-265 and west of Bardstown Road on Cedar Creek. The plant was constructed in 1995, and originally rated at 3.25 MGD, to provide sanitary sewer service to the Cedar Creek watershed and a small portion of the Floyds Fork watershed. The plant eliminated existing neighborhood package plants, which had a history of operational problems. The construction of the CCWQTC has greatly improved the water quality in the area.

CCWQTC facilities include raw sewage pumping, a manually cleaned coarse bar screen, two mechanically cleaned base screens, grit removal basin and grit separator, concentric channel oxidation ditch, two circular final clarifiers, traveling bridge sand filters, ultraviolet light disinfection, post aeration, return/waste sludge pumping, and aerobic sludge holding basin. Processing of waste sludge is completed at the MFWQTC.

The land use consists primarily of single-family residential with a small amount of multi-family, commercial, industrial, and vacant or undeveloped land. The collection system consists of approximately 125 miles of sewer pipe and 28 pump/lift stations in the service area.

The CCWQTC was expanded to 7.5 MGD in 2003. The plant currently treats an average daily flow of 3.6 MGD.

Floyds Fork Water Quality Treatment Center (FFWQTC)

The FFWQTC is located along Floyds Fork creek, north of I-64 in eastern Louisville Metro. The plant began accepting flow in early 2001. This facility will allow MSD to eliminate existing, neighborhood package plants that have a history of operational problems as infrastructure is expanded in the area east, west, and north of the plant. The initial plants eliminated with the opening of the Floyds Fork plant include Copperfield, Kirkham Trace, and Cross Creek.

The FFWQTC is designed to receive an average daily flow of 3.25 MGD that is expandable to 9.8 MGD, with a process design similar to the Cedar Creek WQTC. Construction is currently under way to expand the plant to 6.5 MGD. Plant facilities treat wastewater to a tertiary-level standard, meaning at least 95 percent of its major pollutants are typically removed before being discharged into Floyds Fork creek, a tributary of the Salt River. Processing of waste biosolids into Louisville Green pellets is completed at the MFWQTC.

The land use consists primarily of single-family residential with a small amount of multi-family residential, commercial, industrial, and vacant or undeveloped land. The collection system consists of approximately 98 miles of sewer pipe and 20 pump/lift stations in the service area. The average daily flow at this plant is 3.6 MGD.

Treatment Capacity Summary

Based on the annual average daily flows for each of the six existing WQTCs, additional wastewater flows can be accommodated at all six WQTCs (not including the 15 small treatment centers), except the Jeffersontown WQTC, without the need for additional equipment or physical plant expansion. The available capacity for additional flows at Hite Creek is 2.3 MGD, Floyds Fork is 0.1 MGD, and Cedar Creek is 2.4 MGD. The total additional available capacity for these existing water quality treatment centers is approximately 4.8 MGD. This will be sufficient average daily flow capacity to provide service to approximately 24,000 additional residential customers on the east side of Louisville Metro in the next five years, based on MSD design criteria. The expanded capacity of the Derek R. Guthrie WQTC and the proposed expansion of the Hite Creek WQTC to 8.0 MGD, and the recently permitted increase to 120.0 MGD for the Morris Forman WQTC will add daily flow capacity for service to approximately 97,000 additional residential customers throughout Louisville Metro in the next five years and beyond. Table 3-10 is a list of the large to medium treatment plants showing treatment capacity.

Table 3-10
Water Quality Treatment Centers
Treatment Capacity

Water Quality Treatment Center	Design Capacity (MGD)	Avg. Daily Flow (MGD) FY 2011	Eventual Capacity (MGD)
Morris Forman	120.0	99.5	120.0
Derek R. Guthrie ⁽¹⁾	30.0	29.8	45.0
Hite Creek ⁽²⁾	6.0	3.3	8.0
Jeffersontown	4.0	3.7	4.0
Cedar Creek	7.5	3.6	7.5
Floyds Fork ⁽³⁾	3.3	3.6	9.8
14 Small Treatment Centers	2.6	1.7	--
Total Treatment Centers	173.4	145.2	194.3

Notes:

(1) Facility expanded from 19.5 to 30.0 MGD.

(2) Facility expanded from 4.4 to 6.0 MGD.

(3) Facility Plan in progress to expand from 3.3 to 9.8 MGD.

Source: MSD

3.4.2 Storm Water Drainage System

3.4.2.1 Regulatory Framework

The Kentucky Pollutant Discharge Elimination System (KPDES) Branch of the KDEP, Division of Water (DOW), is the regulatory authority for the system-wide municipal storm water discharge permit for Louisville Metro. The DOW oversees and regulates MSD's program to comply with its system-wide permit and to manage storm water quality in Louisville Metro. Discharges from separate storm sewers into waters of the Commonwealth are permitted through the MS4 (Municipal Stormwater Discharge Permits) program. The DOW issued an MS4 permit to MSD on June 7, 2011. The permit applies not only to MSD as the permittee but also to

designated co-permittees: Louisville Metro Government, including those cities that do not participate in MSD's drainage service: Shively, Anchorage, St. Matthews, and Jeffersontown. Also, MSD must adhere to rules and regulations relating to water quality, as promulgated by EPA, which enforces the MS4 permit program in Kentucky and throughout the U.S. Plans for drainage improvements must be coordinated with the U.S. Army Corps of Engineers if they affect waters of the United States and the Federal Emergency Management Agency (FEMA) as a part of the Federal Insurance Agency (FIA). All floodplain regulations must meet FEMA requirements as administered by the FIA. Furthermore, the U.S. Army Corps of Engineers has inspection responsibilities relating to the Ohio River Flood Protection Works, which MSD is responsible for maintaining and operating.

The MS4 permit requirements for water quality management of storm water runoff demands an increase in the level of service associated with drainage. This situation affects both the existing service area and any proposed expansion area. The immediate effects of the permit requirements will be initiation or enhancement of nonstructural programs and approaches to storm water quality control, including public education, outreach programs, expansion of MSD's illicit discharge detection and elimination (IDDE) program to the entire service area, and added requirements to MSD's industrial storm water program. Eventually, though, programs involving structural changes and solutions will require implementation.

3.4.2.2 Size and Extent of Storm Water Drainage System

MSD's storm water drainage system is comprised of various types of facilities to collect, convey, retain, and discharge storm water runoff into sewers, rivers, streams, and creeks that eventually drain into the Ohio River. These facilities include approximately 1,500 miles of major and secondary drainage channels, 16 pump stations, including the Riverfront station (used in connection with the Ohio River flood protection wall), and six combined storm water/wastewater major pumping stations. Other associated drainage facilities include: ditches, culverts, conduits, ponds, detention basins, and retention basins. Essentially, all public facilities within the Drainage Service Area are operated and maintained by MSD by virtue of the consolidation of drainage services in accordance with the Agreements for Interlocal Cooperation, effective January 1, 1987, established between MSD, the former city of Louisville, Jefferson County, and several third- and fourth-class cities (identified earlier, Table 3-9).

Included in MSD's responsibility is operation and maintenance of the approximately 30-mile-long Ohio River flood protection system. Seventeen miles of the flood protection system were built between 1947 and 1956, and a 13-mile extension of the flood protection system was completed to the southwestern border of Jefferson County in the 1980s. The flood wall joints are being repaired as a part of maintenance effort, which also includes removal of a significant amount of trees. The flood protection system consists of earthen levees, concrete walls, 16 pumping stations (including the Riverfront station), 185 street closures, and drainage control gate closures that protect Louisville Metro. Prior to the Interlocal Cooperation Agreement, the responsibility for the flood protection system belonged to the city of Louisville and the Corps of Engineers. The U.S. Army Corps of Engineers provided operation and maintenance and annual inspections of the southwest Jefferson County flood protection system that was partially funded by Jefferson County. The Corps of Engineers continues to conduct periodic inspections.

With the preparation of the *Storm Water Drainage Master Plan* and the *Watershed Master Plan*, adopted in 1988, MSD started developing specific strategies for managing and improving drainage facilities in all of the designated natural watersheds in the county. This program continues today with refinement of procedures developed for GIS-based master planning. As revised master plans are produced for all watersheds, drainage and floodplain conditions can be taken into account as development plans are reviewed. MSD verified floodplain elevations throughout the county during the flood of March 1997. Well-planned drainage systems in newly developing areas will minimize the impact on drainage systems in established neighborhoods. This will keep maintenance and repair costs down, and the entire community will benefit.

MSD also publishes a *Design Manual* to provide a consistent set of standards for the design and construction of drainage facilities. Comments from MSD, engineering consultants, and other entities were reviewed and incorporated into an updated *Design Manual* completed in 1996. A companion document, *Standard Drawings*, was published in 1997. Updates are made on a regular basis to the *Standard Drawings* document. Currently, all of the updates are provided through the MSD website. MSD also issues a *Project Checklist Binder* and in 2000 implemented an Erosion Prevention and Sediment Control Ordinance. Finally, construction inspection by MSD helps ensure facilities are built as designed.

MSD initiated the 1993-1997 Drainage Improvement Program to provide for the planning, design, and construction of more than 200 storm water drainage projects over a five-year period. A comprehensive plan for the 200 projects was developed in December 1992 by MSD's Consulting Engineer (The Corradino Group) and was presented to and approved by the MSD Board, city of Louisville Board of Aldermen, and Jefferson County Fiscal Court in early 1993. MSD then moved aggressively to implement the 1993-1997 Drainage Improvement Program to completion in 1998. MSD and Corradino aggressively monitored the program for budgets and schedules.

MSD initiated a Drainage Review Action Plan (DRAP) in 1996 to initiate action on all outstanding customer service requests relative to drainage. The DRAP program was initiated to address each customer request by initial review, field investigations, and evaluation by MSD's Customer Response Team (CRT).

MSD is also well into a comprehensive program to implement specific strategies relative to the Storm Water Drainage Master Plan. The objective of MSD's watershed pilot studies was to integrate basin-wide storm water planning, floodplain delineation, standard design criteria, water quality planning, and storm water facility maintenance. These concepts are being applied to other watersheds in a systematic manner.

MSD's management approach, utilizing the results of the Drainage Basin Pilot Studies, has provided a means for MSD to evaluate drainage issues on a regional and neighborhood basis in order to ascertain how proposed land use and system modifications will impact the drainage system without exacerbating the frequency of flooding.

In January 2003, MSD and then-Mayor Jerry Abramson outlined a plan to tackle Louisville's most pressing drainage problems. This plan initiated a 30-month program – designated Project DRI (Drainage Response Initiative) – to review customer service requests, develop solutions, and allocate resources to achieve the solutions in a streamlined manner. The first phase of Project

DRI identified 380 worst drainage problems (DRI-1 projects) in the Louisville Metro area. These DRI-1 Projects were completed in FY 2006, and DRI-2 Projects were completed during FY 2007. Since January 2003, MSD has invested over \$140 million to complete Project DRI neighborhood drainage projects. In addition, this investment allowed MSD to complete in excess of 16,000 construction work orders related to drainage issues throughout its service area. During 2008, plans for a third phase of Project DRI (DRI-3 Projects) were announced. These plans called for an additional investment of \$25 million over 30 months, beginning in January 2008. This phase is near completion. A fourth phase of Project DRI (DRI-4 Projects) is expected to begin after the completion of the DRI-3 Projects and will include \$3.5 million per year in neighborhood drainage projects over the next three years.

3.5 POTENTIAL SERVICE AREAS

3.5.1 Wastewater Services

The expansion of the MSD Wastewater Service Area and customer base is accomplished in two basic ways: (1) by constructing large regional interceptor sewers, pump stations, and force main facilities to eliminate individual on-site disposal systems and small water quality treatment centers and to provide service to developing areas; and, (2) by the acquisition and/or transfer of ownership of private water quality treatment centers which are outside the current contiguous Wastewater Service Area boundary. MSD has expanded water quality service to portions of adjacent Oldham County through interlocal agreements that resulted from the Oldham County Action Plan.

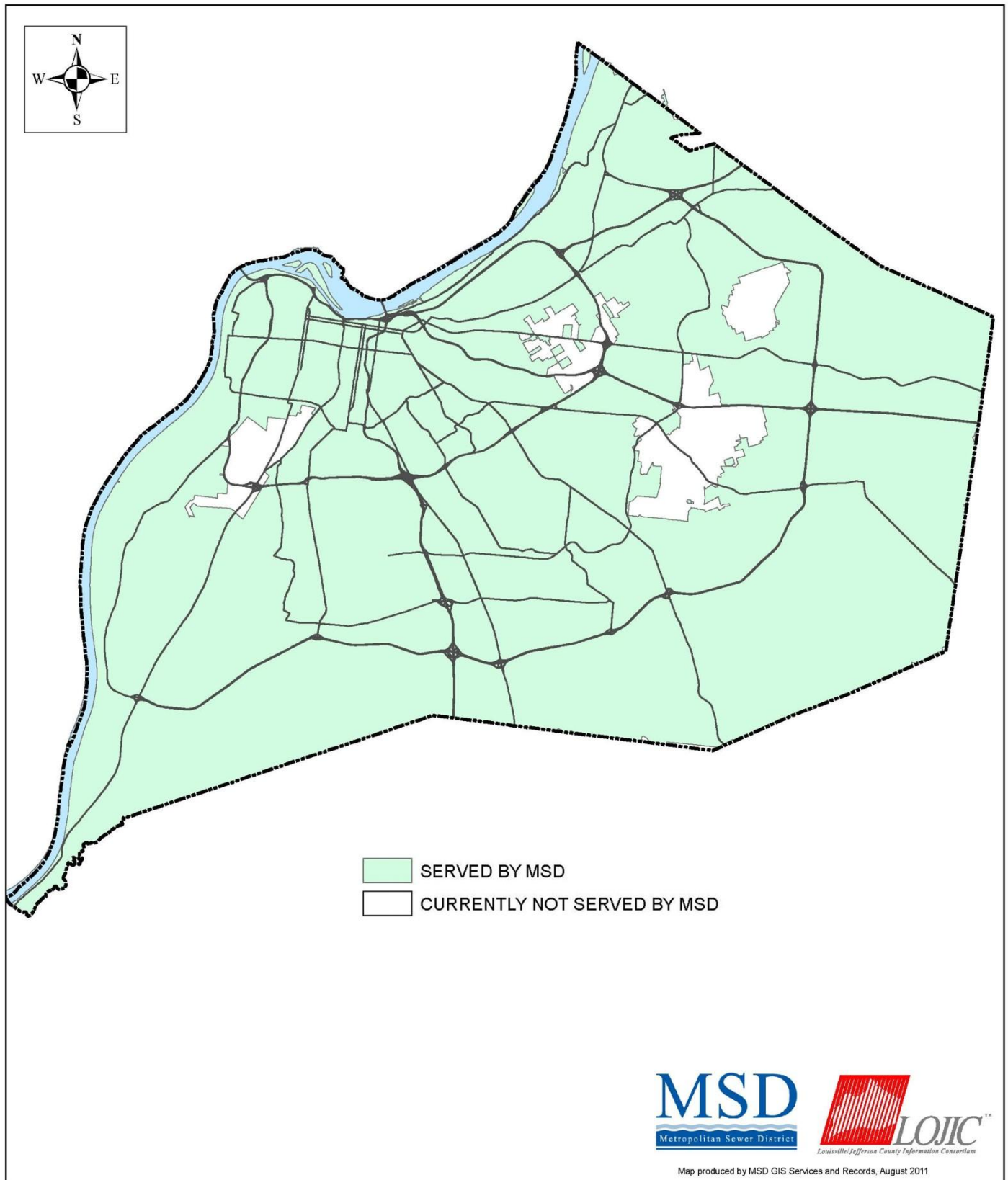
Expansion projects to extend interceptor sewers into previously unserved areas are administered by the MSD Neighborhood Collector Sewer Projects. These watershed programs support the construction of local collector sewers or direct connection of adjacent property owners to the regional interceptor sewers or pump station and force main facilities. In accordance with KRS 76.090 and 76.172, MSD recovers a significant portion of its cost of constructing neighborhood collector systems through property owner assessments, which constitute real property liens, superior to all others, and which run with the land. MSD's policy is to meet with each neighborhood group of property owners to present the planned improvements and estimated assessment costs for proposed neighborhood assessment projects in the respective areas. Each neighborhood then is allowed to vote on the proposal. To date, MSD has been very successful in obtaining neighborhood approvals.

MSD instituted a policy to negotiate and execute agreements with individuals and/or entities (developers) whereby developers may construct and pay for regional sanitary sewer facilities that serve the developer's property and other property located within a region (sewershed) determined by MSD. The developer submits and receives approval from MSD on plans for the proposed regional sanitary sewer facilities and is required to transfer rights, title, and interest in the facilities to MSD. When other properties within the sewershed are developed, MSD will collect Recapture Fees and, after retaining a reasonable administrative fee, remit the balance of the Recapture Fees to the developer in accordance with the terms of the agreement. This results in MSD's expanding its sanitary sewer facilities to areas that were previously considered cost prohibitive. The net result is an increase in customer base without initial construction costs being borne by MSD. Currently, MSD has five outstanding agreements with developers.

3.5.2 Storm Water Drainage Services

Storm water drainage services currently are provided essentially to all developed areas in Louisville Metro including some of the third- and fourth-class cities (refer to Table 3-9). MSD bills for storm water using equivalent service units (ESUs). The ESU is defined by MSD as measured impervious areas with one equivalent service unit assigned for each 2,500 square feet of impervious area (an average residential unit). The estimated number of class A ESUs is 213,230. The estimated impervious area for class B properties is 1,012,222,187 sf and represents 404,889 ESUs. The greatest potential for expansion of the Drainage Service Area is through agreements with the four non-participating cities and by the addition of newly developed areas. The storm water service area is shown on Figure 3-6.

Figure 3-6
Location Map
MSD Storm Water Service Area



4. CAPITAL IMPROVEMENT PROGRAM

4.1 CAPITAL IMPROVEMENT PROJECTS

The MSD Capital Improvement Program (CIP) responds to MSD's charge to improve and expand wastewater and storm water drainage services to the developed and future developing areas in Louisville Metro. The CIP is implemented through the Capital Planning Process that consists of the Capital Plan, the Capital Budget, and the Implementation Plan. Additional capital needs will be funded from future bond issues and from increases to the MSD rate structure and user fees. Implementation of improvement projects identified within the framework of the CIP has been accomplished through proceeds from past revenue bond issues, bond anticipation notes, loans, and other long-term debt. The Bond Resolution permits MSD significant latitude in responding to internal financial (i.e., cash flow) conditions, community needs, and external influences (i.e., regulatory guidelines and emergency situations).

MSD has identified more than 1,000 projects, including action plans, facility plans, planning studies, projects related to the Amended Consent Decree, and general services watershed programs in the CIP. The majority of these projects or programs are in the CIP for implementation over the next five years (2012-2016). The Amended Consent Decree is a 19-year program (scheduled for completion December 31, 2024) that requires Louisville to minimize combined sewer overflows and eliminate sanitary sewer overflows, while rehabilitating Louisville's aging sewer system. The capital planning process includes compliance with the Amended Consent Decree.

The general description of the projects/programs includes:

- Combined sewer overflow abatement projects, per the Amended Consent Decree;
- Sanitary sewer overflow abatement projects, per the Amended Consent Decree;
- Wastewater and drainage system expansion and improvements;
- Water quality treatment centers upgrades to improve performance, per the Amended Consent Decree;
- Small water quality treatment centers elimination, per the Amended Consent Decree;
- Improvements to flood control and drainage facilities;
- Drainage and other MSD improvements;
- Collector sewers construction;
- Detention basins construction and improvements;
- Interceptor sewers construction;
- Force mains construction and improvements;
- Pumping stations repairs and improvements;
- Regional storage facilities construction;
- Comprehensive facilities review;
- Miscellaneous improvements and acquisition of equipment and mapping hardware and software; and,
- Sewer system rehabilitations.

4.2 MSD'S FIVE-YEAR CAPITAL PLAN

MSD's capital financing and implementation horizon is a rolling five-year period. Five-year capital plan projects identified for design and construction for FY 2013 through FY 2017 have an estimated aggregate cost for that period of \$528 million. Some projects will be implemented over periods beyond the five-year planning period.

Table 4-1 presents MSD's current five-year CIP, with projected capital outlays.

Table 4-1
Projected Capital Expenses
MSD Five-year Capital Improvement Plan
(In Thousands)

Investment Category	Projected Capital Investments Budget FY 2013-FY 2017
Total Sanitary System	\$500,589,000
Total Drainage System	\$26,988,000
TOTAL FIVE-YEAR CAPITAL IMPROVEMENT PLAN	\$527,577,000

Source: MSD

4.3 CAPITAL IMPROVEMENT PLANNING

MSD has initiated and refined a comprehensive capital planning process to meet the needs of the community and constraints on its fiscal capacity. MSD's Capital Improvement Plan has consolidated initial action plans into watershed service areas that include the action plans as a planning basis. These action plans generally consist of wastewater expansion action plans, storm water action plans, and operations action plans. The capital planning process produces in essence MSD's overall master plan for the future from the physical infrastructure perspective.

A drainage study is MSD's way of thoroughly reviewing the drainage facilities and problems throughout a large area, generally one-half square mile, so that MSD can determine what can be done to improve the area's drainage service. MSD evaluates the problems and identifies the most effective way of addressing the drainage service requests.

A Watershed Master Plan is a drainage study over an entire watershed. The major watersheds in MSD's service area are Cedar Creek, Floyds Fork, Goose Creek, Harrods Creek, Mill Creek, Middle Fork Beargrass Creek, Muddy Fork Beargrass Creek, Pennsylvania Run, Pond Creek, South Fork Beargrass Creek, and the Ohio River.

Capital Construction Projects are generally large drainage improvement projects that require detailed engineering and other resources to create, install, or significantly improve drainage systems. They are currently planned five years in advance.

There are eight wastewater expansion action plans in Jefferson County: North County, Pond Creek, Mill Creek, Floyds Fork, Jeffersontown, Cedar Creek, Derek R. Guthrie WTP, and Morris Forman. In addition, there are two action plans outside Jefferson County: Oldham County and North Central Bullitt County.

The service area includes ongoing wastewater expansion action plans, wastewater projects, Amended Consent Decree projects, and drainage projects.

4.3.1 Amended Consent Decree

On April 10, 2009, the United States District Court for the Western District of Kentucky, Louisville Division (the "Court"), entered an Amended Consent Decree, in Civil Action No. 3:08-CV-00608-CRS (the "Amended Consent Decree"). The Amended Consent Decree amended, superseded, and replaced the original Consent Decree entered by the Court on August 12, 2005, between the Commonwealth of Kentucky, the United States of America, and MSD. The Amended Consent Decree resolved all pending claims of violations of the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977, and the Water Quality Act of 1987 (hereinafter "Clean Water Act" or "the Act") pursuant to 33 U.S.C. 1251 *et seq.* and the Regulations promulgated pursuant thereto. To date, MSD has complied with all submittals and reporting requirements contained in the Amended Consent Decree. MSD is planning on performing all Capital Improvement Programs and other requirements contained in the Amended Consent Decree. The cost of the projects required to be completed under the Amended Consent Decree is estimated to be approximately \$850 million.

The Amended Consent Decree addresses Sanitary Sewer Overflows (SSOs) and unauthorized discharges from MSD's sanitary sewer system (SSS), combined sewer system (CSS), water quality treatment centers, and discharges from MSD's Combined Sewer Overflow (CSO) locations identified in the Kentucky Pollutant Discharge Elimination System (KPDES) for the Morris Forman Water Quality Treatment Center. The Amended Consent Decree outlines the compliance program and schedules for achieving specific objectives. The process requires efforts that include, but are not limited to, characterizations, modeling, assessments, engineering design studies, implementation and compliance measures, and construction projects that will adequately insure MSD's compliance with permit conditions under applicable law.

For the purposes of this Engineer's Report, except where specifically noted otherwise, the term "Consent Decree" (CD) will be understood to also mean the Amended Consent Decree (ACD).

MSD has implemented measures to date to achieve compliance under its KPDES permits, including abatement of many SSOs and establishing controls on certain CSOs. The ACD includes lists of those items completed and additional projects planned for the near future.

A directorship-level position that reports directly to MSD's Executive Director and the MSD Board was created and filled as required by the CD. Additionally, the Director was required to organize a Wet Weather Team regarding CSOs, SSOs, and Unauthorized Discharges; establish communications, coordination, and control procedures for team members and other participants; and identify and schedule tasks and associated resource needs.

The Director has assembled a Wet Weather team that includes all entities that have a stake in the program outcome and is sufficiently multidisciplinary to address the myriad of engineering, economic, environmental, and institutional issues that will be raised during the implementation of the remedial measures under the CD.

To address the challenges of improving water quality and proactively meeting the requirements of the original CD, MSD has embarked on a comprehensive sewer improvement program to eliminate major sources of water pollution throughout Louisville Metro. The new initiative includes planned upgrades which allow the community to comply with Clean Water Act regulation. Project WIN (Waterways Improvements Now) was designed to address problems with combined and sanitary sewer overflows.

MSD has developed and provided internal and external training related to the original CD to its employees and consultants. A revised public outreach program aimed at updating the public on MSD's primary business functions with emphasis on wastewater, storm water, and flood protection has been presented to more than 230 community groups. A portion of the presentation includes information related to the CD, including potential program direction and anticipated costs.

Even before Project WIN was initiated, MSD had taken steps to improve its aging sewer system. A preventive maintenance program was established to identify and correct portions of the sewer system that require repetitive inspection, cleaning, and repair.

In 2006, MSD's Preventive Maintenance Department and Metro Operational Division completed thousands of work orders including television inspection of sewers, sewer flushing and lining, root cutting, grease removal, CSO inspection and cleaning, as well as pumping station and water quality treatment centers maintenance.

Over a third of the CD projects are currently in design and construction.

Some of the Compliance Program and Schedules under the original Consent Decree and the Amended Consent Decree include:

4.3.1.1 Early Action Plan

In accordance with the original CD, MSD prepared and submitted an Early Action Plan which the Kentucky Natural Resources and Environmental Protection Cabinet (Cabinet)/EPA reviewed and jointly approved. The Early Action Plan included the following components:

Nine Minimum Controls Compliance

The Early Action Plan contained documentation demonstrating the status of MSD's compliance with the Nine Minimum Controls (NMC) requirements within the combined sewer systems as set forth in the CSO Control Policy.

NMC's are technology-based activities designed to reduce CSOs and their effects on water quality, do not require significant engineering studies or major construction, and can be implemented in a relatively short period. Furthermore, minimum controls are not temporary measures and are considered part of long-term efforts to control CSOs.

Consistent with the NMC's objectives to minimize the impact of CSOs through a reduction of the frequency, duration, or pollutant loading that is associated with overflows, MSD also characterized the sewersheds to determine the location of CSO points, estimated frequency of overflows under specific rainfall and runoff conditions, and the estimated duration of such overflows. To accomplish this characterization, MSD has modeled the CSS area under a wide variety of precipitation conditions, performed many field investigations and surveys, reviewed current Louisville/Jefferson County Information Consortium (LOJIC) information and aerial photography, performed water body inspections, and reviewed previously available information. The characterization of the system provided data about the site-specific nature of CSOs in Louisville and Jefferson County which led to the development of alternatives and choices for NMCs.

MSD prepared a report to document its compliance status and proposed activities in accordance with the "Guidance for Nine Minimum Controls". The report was submitted to the KDEP and EPA in September 2006. The NMC Compliance portion of the Early Action Plan was approved by the Cabinet/EPA on February 22, 2007.

Capital Improvement Project List

The Early Action Plan includes a list that identified projects that have been completed by MSD prior to the implementation of the Sanitary Sewer Discharge Plan (SSDP) or Long Term Control Plan (LTCP). The following is a partial list of projects that have been certified as complete by MSD.

- Solid and floatable controls have been installed at 15 combined sewer overflow sites to capture trash and other debris that would otherwise reach local waterways.
- Two CSOs (CSO #209, CSO #87) have been eliminated through sewer separation projects, and potential discharges from the combined sewer system at these locations have also been eliminated.
- The elimination of a third CSO (CSO #147) was completed in August 2007. The project included disconnection of downspouts in the Swan Street area to allow closure of this overflow point.
- The Beechwood Village inflow and infiltration elimination pilot project has relined 18,000 feet of public and private sewer line to eliminate the infiltration of groundwater into the sanitary sewer system.
- The Old Cannons Lane Sanitary Sewer Relief project eliminated a sanitary sewer overflow (SSO) in the Beargrass Creek watershed.

- The Northern Ditch Pump Replacement Project modernized and upgraded capacity at a cost of \$1.3 million to help prevent system surcharging and flooding.
- The Gunpowder and Canoe Lane Pumping Stations system improvement projects have been completed and greatly reduced long-standing overflows at these locations.
- Phase 2 of the Real Time Control system reduces the frequency of CSO discharge and overflow volumes from many locations. The initial implementation phase was completed in August 2006.
- Backup power generators have been installed at the 34th Street and Buchanan Street pumping stations to ensure continuous operation during a power failure, thereby eliminating the potential for CSO discharge at these pumping stations.

Figure 4-1 shows the Consent Decree projects.

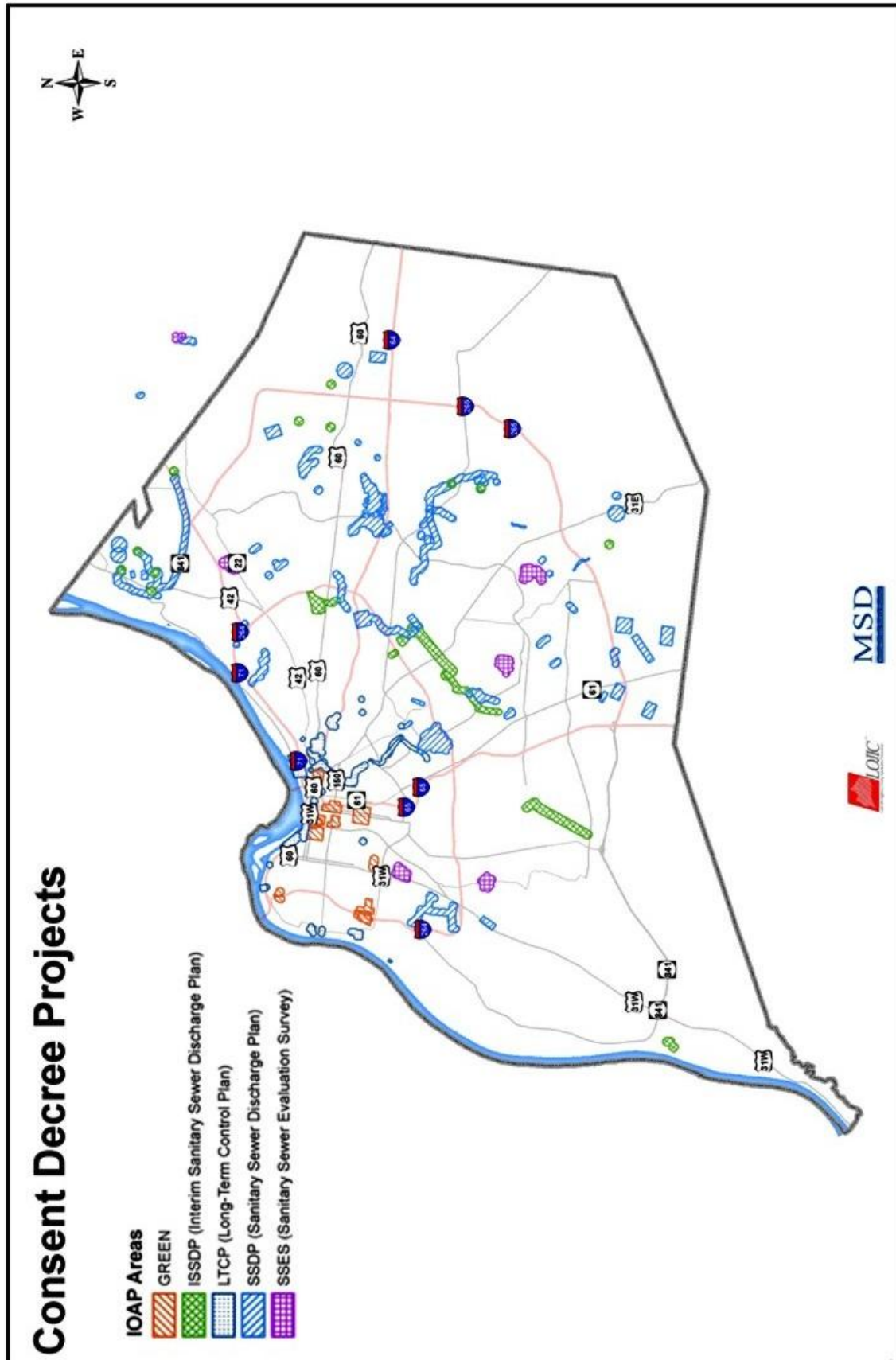
Initiatives adopted by MSD in the wake of the CD include:

Real Time Control: This allows MSD operations staff to route and store storm water runoff throughout hundreds of miles of combined sewer pipes using an automated reporting and gate control system. During intense storm events, the runoff can be diverted and stored within the combined sewer system to decrease the frequency of overflows. In 2006, the first year MSD used Real Time Control, more than 600,000,000 gallons of storm water runoff was stored and treated after the passing of the storms. Phases I & II of Real Time Control have been completed and Phase III is currently in the planning/early design phase.

Public education and outreach is a primary goal of Project WIN. Educating the public about potential health risks associated with sewer overflows and MSD's efforts to eliminate or reduce the overflow volume is the key to the program's success.

MSD has installed signs near and downstream of sewer overflow locations, produced annual mailings to inform residents within the combined sewer system, developed door hangers for homeowners at risk for sewer backups and overflows, distributed a letter and bill insert to all customers providing information on MSD's wet weather program and new initiatives, and developed overflow alert messages for television and radio broadcasts.

Figure 4-1
Consent Decree Projects



Capacity, Management, Operation and Maintenance (CMOM) Programs

The original CD required that the Early Action Plan include a CMOM Programs Self Assessment of MSD's combined and separate sewer collection system and transmissions system.

The overall goal of the CMOM Self Assessment Report is to determine if there are MSD programs or program activities that should be recommended for improvement to enhance service or compliance performance and to recommend specific actions and implementation schedules to complete the recommended improvements. A specific goal of the CMOM report is that MSD meets the requirements of the negotiated original CD.

To ensure that the CMOM Self Assessment process is dealing with the programs and activities that have the most impact on SSOs and unauthorized discharges, MSD conducted an evaluation of SSOs and unauthorized discharge causes for the time period of January 2001 through March 2006.

The MSD self assessment was conducted in an approach that exceeded the requirements of the Consent Decree. MSD's organizational programs were assessed against the EPA guidance program outlines. The staged process resulted in an overall assessment of MSD's programs and activities. The report provided MSD with a planning tool for identifying programs and activities that are performing well and those that can be improved. It served as a basis for action on a number of immediate action items and to identify further the road map for continued improvement.

The self assessment process revealed that MSD had many activities that were performed well and did not need improvement. The process also revealed program areas and activities that needed improvement. Implementation of some of these improvements was integrated with the formalization of the Sanitary Sewer Discharge Plan, the Long Term Control Plan, and the integrated Wet Weather Plan.

The CMOM report was completed and submitted to the KDEP and EPA in May 2006. This document was approved by the Cabinet/EPA on August 21, 2006.

MSD has completed the implementation of the recommendations from the CMOM Self Assessment report. The activities were performed using a combination of in-house resources and consultants.

Sewer Overflow Response Protocol (SORP)

The Early Action Plan includes a SORP in compliance with 401 KAR 5:015. The purpose of the SORP is to provide guidance to MSD personnel regarding response, mitigation, public notification, and reporting of overflows, including unauthorized discharges.

A SORP plan was developed that details how MSD will accomplish the following:

- Respond to, clean up, and/or minimize the impacts of overflows, including unauthorized discharges;
- Document and report to the Division of Water (DOW) and EPA the location, volume, cause and impact of overflows, including unauthorized discharges;
- Provide notification to potentially impacted members of the public; and,
- Train all MSD staff and maintenance crews how to react to overflow events.

Potential overflows are communicated through notification by others, system alarms, and field reconnaissance reports. MSD field personnel are trained to inspect for and report overflows during day-to-day activities. MSD also utilizes a Supervisory Control and Data Acquisition (SCADA) system to identify possible overflows in the system. Some locations are in extremely remote areas that are very difficult to access, and/or considerations of employee safety prevent regular, frequent, or continuous monitoring by personnel. MSD response personnel are provided portable laptop computers with wireless modems that allow access to SCADA to observe conditions at pump stations and other facilities virtually anywhere a cellular signal is available.

MSD Customer Relations Call Center (CRCC) personnel are trained to answer questions from the public wanting to report an overflow or request additional information about the overflow abatement programs. Calls received from customers are entered into MSD's Hansen software system as Customer Service Requests (CSR). Hansen software products are used to monitor a variety of municipal functions, one of these being the tracking of customer service information. CRCC personnel are trained to provide prompt, accurate, and current information regarding overflows and to quickly dispatch service personnel to investigate and address situations. Calls are processed and routed to the appropriate department based on the nature and severity of the problem conveyed by the customer.

Procedures describing the process used to enter CSRs into Hansen and other pertinent information is detailed in the SORP report submitted to the Cabinet and EPA in May 2006. The SORP was approved by the Cabinet/EPA on August 21, 2006, and MSD began to implement the SORP within 15 days of receiving the Cabinet/EPA approval.

The following activities were performed during the July 1, 2011, through June 30, 2012, reporting period.

- Overflow Management and Field Documentation;
- Public Notification and Communication;
- Regulatory Reporting and Data Management;
- Staff Training and Communication; and,
- Annual SORP review.

4.3.1.2 Discharge Abatement Plans

A sanitary sewer discharge plan (SSDP), designed to eliminate unauthorized discharges in the sanitary sewer systems, and an updated Long Term Control Plan (LTCP) were required to be submitted to the Cabinet and EPA under the original CD.

Interim Sanitary Sewer Discharge Plan (SSDP)

The interim SSDP was to include a plan for eliminating targeted unauthorized discharges in MSD's wastewater collection system. Specifically, the plan called for accomplishing the following objectives:

- Eliminate the use of pumps in the Beechwood Village Area;
- Eliminate the use of pumps in the Hikes Point Area;
- Eliminate the Highgate Springs Pump Station; and,
- Eliminate the constructed overflow at the Southeast Diversion Structure.

MSD has developed an integrated design concept to eliminate the targeted unauthorized discharges for these locations as outlined in the CD. The interim SSDP details the history of the problem areas and presents final solutions for eliminating the unauthorized discharges. The solution elements include the following:

- Reconstruction of the Beechwood Village sanitary sewer system;
- Elimination of a flow restriction in the Sinking Fork Interceptor;
- Decommissioning of the Highgate Springs Pump Station;
- Increased conveyance between the Southeast Diversion Structure and the Northern Ditch Interceptor;
- Diversion of wet weather flows from the Northern Ditch Interceptor to the Pond Creek Interceptor; and,
- Flow equalization and high-rate secondary treatment facilities at the Derek R. Guthrie Water Quality Treatment Center.

The report also includes preliminary capital costs and an implementation schedule. The capital cost to implement the interim SSDP is approximately \$200 million. MSD must implement the corrective measures necessary for remediating the unauthorized discharges in the Beechwood Village area and at the Southeast Diversion Structure by December 31, 2011, which were completed on schedule. Similarly, the unauthorized discharges at Hikes Point and Highgate Springs Pump Station must be eliminated by December 31, 2013. The proposed implementation schedule included in the report conforms with these schedules.

The interim SSDP described above was submitted to the KDEP and EPA on September 30, 2007. Comments were received on January 8, 2008. MSD resubmitted the revised interim SSDP on March 7, 2008, and received an approval letter for the interim SSDP on July 24, 2008.

The following activities were performed during the July 1, 2011, through June 30, 2012, reporting period and will continue into the next reporting period.

- Hikes Point Relief Sewer;
- Southeast Interceptor Relief Sewer;
- Hikes Lane Interceptor and Highgate Springs Pump Station Elimination;
- Derek R. Guthrie WQTC Wet Weather Equalization and Treatment Project; and,
- Performance improvements for ISSDP Elements.

Interim Long Term Control Plan (LTCP)

The interim LTCP includes the past history of MSD's CSO control efforts and demonstrates MSD's efforts to date to achieve compliance with the following goals:

- Ensure that if CSOs occur, they are only as a result of wet weather (including activities to address those discharges resulting from compliance with the requirements of the United States Army Corps of Engineers (USACE) Ohio River Flood Protection System Pumping Operations Manual dated 1954 and revised 1988);
- Bring all wet weather CSO discharge points into compliance with the technology-based and water quality-based requirements of the Clean Water Act;
- Minimize the impacts of CSOs on water quality, aquatic life, and human health; and,
- Bring stakeholders into the planning, prioritization, and project selection process.

The interim LTCP, as required by the CD, was initially submitted to the KDEP and EPA on February 10, 2006. MSD received an approval letter dated February 22, 2007, for the interim LTCP.

The proposed improvements identified in the interim LTCP were to be accomplished by December 31, 2008. All activities required under the interim CSO Long Term Control Plan have been completed.

Integrated Overflow Abatement Plan (IOAP)

The Final Sanitary Sewer Discharge Plan and the CSO Long Term Control Plan were submitted and certified on December 19, 2008, concurrently, under the title of the Integrated Overflow Abatement Plan (IOAP). In response to questions from EPA and KDEP, MSD revised and clarified portions of the IOAP and resubmitted all three volumes with a revision date of June 19, 2009. The Final IOAP was submitted with a date of September 30, 2009. Approval was received on October 23, 2009.

The IOAP is a major part of MSD's response to the Consent Decree and is the federally enforceable action plan for sewer overflow abatement. The scope of the IOAP is limited to commitments that directly relate to MSD programs and activities to address CSO and SSO issues. The IOAP is a long term plan to control CSOs and eliminate sanitary sewer overflows (SSOs) and other unauthorized discharges from the MSD's sewer system. The IOAP is expected to improve water quality in both Beargrass Creek and the Ohio River through and

downstream of Jefferson County. The expected water quality benefits of the IOAP include: (1) reductions in the peak levels of bacteria in the Ohio River and Beargrass Creek; and (2) a substantial (greater than 95 percent) reduction in the amount of time that CSOs may cause bacteria levels to exceed water quality standards.

The IOAP specifically addresses the following:

- CSO Benefits: A 96 percent capture and treatment of wet weather CSOs during an average year, which equates to an 85 percent reduction in CSO volume compared to the conditions in 2008.
- SSO Benefits: Elimination of an average of 145 SSO events per year. In terms of water quality, this equates to elimination of 100 tons of 5-day biochemical oxygen demand (BOD5) and approximately 200 tons of suspended solids annually.
- Integration with Other Water Quality Programs: Coordinating IOAP implementation with water quality improvement initiatives of Louisville Metro Government and other public and private entities.

Values-Based Performance Evaluation Framework: In accordance with the Consent Decree, MSD established a Wet Weather Team (WWT) comprised of a broad range of community stake holders, MSD staff, and consultants. Through a series of meetings over two years, the WWT developed a values-based performance evaluation framework to use in evaluating, selecting, and prioritizing alternative approaches to overflow abatement. Using the structured decision-making process as framed by the WWT, MSD developed and evaluated overflow abatement control options for the IOAP centered on managing risks to these community values. Projects were analyzed by technical teams in terms of benefits (quantified using the anticipated reduction in risks to the community values) and costs (quantified as total capital and operational costs).

Components of the IOAP include the following:

- Green Infrastructure Program;
- Source Control and Gray Solutions;
- Control of Private Sources of Infiltration/Inflow (I/I);
- Public Information, Education, and Involvement Program;
- Post-Construction Compliance Monitoring;
- Future Development Considerations; and,
- IOAP Funding Plan.

MSD has developed the IOAP in conformance with the Consent Decree, the CSO Control Policy, and other applicable regulations.

Final CSO Long-Term Control Plan (LTCP)

Volume 2 of the IOAP is the Final CSO LTCP. Volume 2 presents the proposed plan for compliance in reducing wet weather CSO frequency and volume to levels required by the 1972 Clean Water Act (CWA) and the 1994 CSO control policy. The Final CSO LTCP, when implemented, will accomplish the following objectives:

- Provide that if CSOs occur, they are only the result of wet weather events;
- Perform modifications to the Ohio River Flood Protection System Infrastructure to provide that discharges only occur during wet weather events;
- Bring wet weather CSO discharge points into compliance with the technology-based and water-quality based requirements of the CWA; and,
- Minimize the impacts of wet weather CSOs on water quality, aquatic biota, and human health.

The Final CSO LTCP details the history of problem areas and presents solutions to bring the combined sewer system into compliance. The Final LTCP is organized to present a comprehensive overview of MSD, its history of CSS operations, characteristics of CSS, development of control alternatives, and final recommended programs and projects.

The following activities were performed during the July 1, 2011, through June 30, 2012, reporting period and will continue into the next reporting period.

Green Demonstration Projects:

As part of the CD, MSD is to construct at least \$46 million on green infrastructure projects around Jefferson County. These projects help reduce flooding and unpermitted discharge events by absorbing rainfall and slowly discharging it into the ground rather than allowing it to enter MSD's collection system. It is anticipated that the implementation of these green projects will save MSD tens of millions of dollars by reducing the need to construct gray infrastructure such as pipes, storage tanks, and detention basins. These projects also have environmental benefits, such as improving air quality and saving energy. According to the EPA, MSD is at the forefront, nationally, of implementing green solutions to reducing storm runoff and has constructed several pilot green projects throughout Louisville to reduce runoff. If MSD can demonstrate the benefits it anticipates on these projects, it could spend as much as \$90 million on green projects as part of the CD. One major green project that MSD is undertaking is at the University of Louisville, where it is constructing rooftop gardens and parking lots that drain into gravel pits, rain gardens, and porous bricks. A copy of an article that appeared in the July 5, 2011 Courier-Journal on this project can be found in Figure 4-2. Additional green projects include:

- MSD Main Office Parking Lot Bioswales;
- Seventh and Cedar Green Parking Lot;
- Second and Broadway Green Parking Lot;
- Third and Ormsby Biofiltration Swales;
- Sixth and Martin Luther King (MLK) (formerly Sixth and Muhammad Ali) Parking Lot;

Figure 4-2
July 5, 2011, Courier-Journal Article U of L Rooftop Gardens



I:Projects/4084/Graphics/CJ-7-5-11.cdr

- Housing Authority Green Roof at 801 Vine Street (formerly Sixth and Broadway Rain Garden);
- W. Gaulbert and W. Hill (formerly Seventeenth and W. Hill) Permeable Alley;
- 2300 Block of Congress Street (formerly Seventh and Market) Permeable Alley;
- Billy Goat Strut (formerly Campbell and Main) Permeable Alley;
- Fourth Street (formerly Twelfth and Jefferson) Green Street;
- I-264 Off-ramp Dry Well;
- I-264 On-ramp Dry Well;
- I-264 and Gibson Dry Well;
- Russell Lee Drive Dry Well;
- JFK Montessori Area Dry Well; and,
- Remaining Two Additional Rain Garden Projects.

Gray Infrastructure Projects:

- Logan Street Basin;
- CSO #108 Dam Modification;
- CSO #206 Downspout Disconnections;
- I-64 and Grinstead Drive Storage Basin;
- Paddy's Run Wet Weather Treatment Facility;
- Adams Street Storage Basin;
- Story Avenue and Main Street Storage Basin;
- CSO #123 Downspout Disconnection;
- CSO #058 Sewer Separation; and,
- CSO #140 Sewer Separation.

Flood Pump Station Projects:

- 34th Street Flood Pump Station DWO Elimination;
- 4th Street Flood Pump Station DWO Elimination;
- 27th Street Flood Pump Station DWO Elimination; and,
- Shawnee Flood Pump Station DWO Elimination.

Final Sanitary Sewer Discharge Plan (SSDP)

Volume 3 of the IOAP is the Final Sanitary Sewer Discharge Plan (SSDP). Volume 3 contains the long-term projects, including schedules, milestones, and deadlines as required by the Consent Decree. The Final SSDP also includes the results of an evaluation of WWTP peak flow treatment capacity.

The following plans and programs are used in developing the Final SSDP:

- Updated Sanitary Sewer Overflow Program;
- Capacity, Management, Operations and Maintenance Programs;
- Sewer Overflow Response Protocol; and,
- Interim Sanitary Sewer Discharge Plan.

Also included in the plan is an extensive analysis of MSD's SSO areas, flow monitoring, WQTCs, and modeling process. This is followed by the approach for developing alternative solutions to SSOs, and the process to evaluate both the costs and benefits of each alternative. The MSD Benefit-Cost Value, as described earlier under IOAP, was used to consistently calculate benefits for all solution alternatives. The final projects selected to address SSOs include a mixture of source control (including I/I reduction efforts), wet weather storage, system diversion, and conveyance/transport. The Final SSDP project alternatives are designed to be built around MSD's existing infrastructure and draw on synergistic benefits from other MSD projects.

Finally, the success of the Final SSDP in meeting the CD compliance requirements are proposed to be measured incrementally as the plan is implemented and also at plan completion in December 2024. The four performance goals to be tracked under the Final SSDP include:

- No wet weather capacity-related SSOs from the system within the selected level of protection;
- No wet weather capacity-related system surcharges causing basement back-ups within the selected level of protection and within the pre-remediation zone of influence;
- Secondary treatment of all flow within the selected level of protection; and,
- Project flow monitoring performed and documented.

The following activities were performed during the July 1, 2011, through June 30, 2012, reporting period and will continue into the next reporting period:

Cedar Creek Area

- Running Fox Pump Station Elimination; and,
- Little Cedar Creek Interceptor Improvements.

Hite Creek Area

- Meadow Stream Pump Station In-line Storage Project;
- Floydsburg Road Pump Station I&I Investigation and Rehabilitation; and,
- Kavanaugh Road Pump Station Improvements Project.

Floyds Fork Area

- Ashburton Pump Station Improvements and Diversion;
- Eden Care Pump Station SSO Investigations; and,
- Woodland Hills Pump Station Diversion.

Jeffersontown Area

- Raintree and Marian Court Phase 1 – Pump Station Eliminations; and,
- Jeffersontown WQTC Elimination.

Beargrass Creek Middle Fork Area

- Upper Middle Fork #1 – Buechel Basin; and,
- Hurstbourne I&I Investigation and Rehabilitation.

Southeastern Diversion Area

- Beargrass Interceptor Rehabilitation Phase 2; and,
- Parkview Estates I&I Investigation and Rehabilitation.

Pond Creek Area

- Charleswood Interceptor #23 Project/Cooper Chapel Road Widening;
- Avanti Pump Station Elimination;
- Government Center Pump Station Elimination;
- Lantana Pump Station Investigation and Rehabilitation;
- Edsel Pump Station I&I Investigation and Rehabilitation; and,
- Lea Ann Way System Improvements.

Ohio River Force Main Area

- Mellwood System 1 – Mellwood Pump Station and Force Main;
- Prospect #1 – WQTC Elimination;
- Derington Court Pump Station I&I Investigation and Rehabilitation; and,
- Leland Road SSO Investigation.

Mill Creek Area

- East Rockford Lane Pump Station Relocation; and,
- Shively Interceptor.

Combined Sewer System Area

- Camp Taylor #1 System Improvements;
- Camp Taylor #2 Sewer Replacement;
- Sonne Pump Station I&I Investigation and Rehabilitation; and,
- Hazelwood Pump Station I&I Investigation and Rehabilitation.

Small WQTCs

- Lake Forest Pump Station SSO Investigation;
- Riding Ridge PS Improvements;
- Gunpowder Pump Station In-line Storage Project;
- Fox Harbor In-line Storage Project; and,
- Fairway View Pump Station Improvements Project.

Jeffersontown Water Quality Treatment Center

MSD will be required to eliminate prohibited bypasses at the Jeffersontown WQTC using the following protocols:

- Process Controls Program: MSD is required to implement a Process Controls Program to minimize the frequency, duration, and volume of any bypass at the Jeffersontown WQTC through proper management, operation, and maintenance control. The Consent Decree identifies the measures required to successfully implement the program and submit to Cabinet/EPA for review and approval by October 31, 2008. This submittal was made by the MSD within the required time frame.

- Comprehensive Performance Evaluation (CPE): A Comprehensive Performance Evaluation for the Jeffersontown WQTC was required to be submitted to the Cabinet/EPA as a part of the Final SSDP by December 31, 2008. The purpose of the CPE is to identify any flow and/or loading rate restricted treatment process unit(s) at the Jeffersontown WQTC which limits the plant's ability to comply with the KPDES permit requirements, including those necessary to provide the required application of Secondary Treatment to all flows into the WQTC. The CPE also evaluated the cause of any effluent limit violation occurring at the WQTC within the last three years. The CPE was submitted by MSD within the required time frame.
- Composite Correction Plan (CCP): A Composite Correction Plan for the Jeffersontown WQTC was required to be submitted to the Cabinet/EPA as a part of the Final SSDP by December 31, 2008. The CCP identifies appropriate alternatives for both the complete elimination of the Jeffersontown WQTC and long term upgrades to the Jeffersontown WQTC should elimination not be practical or achievable. The CCP also included expeditious implementation and completion schedules not extending past December 31, 2015, for either of the above-suggested alternatives. The CCP was submitted by MSD within the required time frame.
- Service Connections: As a part of the CD, no new service connections were to be allowed within the Jeffersontown WQTC sewershed after May 13, 2008. Any new connections approved prior to the lodging of the Consent Decree would be allowed, provided they are consistent with MSD's System Capacity Assurance Program, or if an equal or greater amount of flow from an existing sewer service connection was eliminated prior to allowance of the new connection.

MSD submitted a JWQTC Process Control Plan on October 31, 2008, as required by paragraph 26.a of the Amended Consent Decree. MSD received comments on December 12, 2008, and resubmitted the plan January 16, 2009, and again on February 20, 2009. MSD received conditional approval of this plan from EPA on April 1, 2009, pending finalization of the Amended Consent Decree that was under consideration by the Federal Court at the time the Process Control Plan was submitted. The Process Control Plan was accepted by the Federal Court and incorporated by reference into the Amended Consent Decree by an Order signed February 12, 2010, that was entered into the public record February 15, 2010.

Following the initial 30 days of operation, an evaluation of the initial implementation was conducted and a review memo issued May 15, 2009. The review determined that no changes were required in the basic process control strategy, but upgrades to computer systems at the WQTC and the establishment of automated data links between the Process Control Spreadsheet and the Laboratory Information Management System (LIMS) were recommended. A similar link with the Process Information (PI) data management system was also recommended. Pending completion of the automated data links, a parallel manual calculation of process control parameters will continue, to ensure that manual data entry time demands do not interfere with effective process control protocols being followed at the WQTC.

Comprehensive Performance Evaluation; Comprehensive Correction Plan & Elimination Plan for Certain WQTCs

Comprehensive Performance Evaluation (CPE): As a part of the CD, MSD is to prepare a CPE for the Cabinet/EPA review and approval for the following WQTCs:

- Lake Forest WQTC;
- Timberlake WQTC; and,
- WQTCs receiving flow from Jeffersontown WQTC (excluding dry weather flow sent to MFWQTC and wet weather flow sent to DGWQTC).

The purpose of the CPE is to identify any flow and/or loading rate restricted treatment process unit(s) at the WQTC which limit the plant's ability to comply with the KPDES permit requirements, including those necessary to provide the required application of Secondary Treatment to all flows into the WQTC. The CPE also evaluates the cause of any effluent limit violation occurring at the WQTC within the last three years.

Composite Correction Plan (CCP): MSD is required to prepare and submit for the Cabinet/EPA approval a Composite Correction Plan for each of the WQTCs identified above. The purpose of the CCP is to identify alternatives for the elimination of the WQTC or specific remedial actions, including capital improvements and other upgrades to the WQTC to address the problems in the CPE plan, except for the Timberlake WQTC. For the Timberlake WQTC, the CCP shall only include a plan for complete elimination of the WQTC. The CCP shall also include expeditious implementation and completion schedules not extending past December 31, 2015.

Elimination Plan: MSD is required to prepare and submit for the Cabinet/EPA review and approval an Elimination Plan for the complete elimination of the following WQTCs:

- Hunting Creek North WQTC;
- Hunting Creek South WQTC;
- Shadow Wood WQTC; and,
- Ken Carla WQTC.

The Elimination Plan is also to include expeditious implementation and completion schedules not extending past December 31, 2015.

In accordance with paragraphs 26.b and 26.c of the Amended Consent Decree, MSD submitted the required Comprehensive Performance Evaluations and Composite Correction Plans as part of the IOAP on December 19, 2008. Based on comments MSD received from EPA/KDEP, these plans were re-submitted as part of the IOAP Volume 1 on June 19, 2009. Oral approval of the CPEs was received on September 23, 2009. The CPEs and CCPs were accepted by the Federal Court and incorporated by reference into the Amended Consent Decree by an Order signed February 12, 2010, that was entered into the public record February 15, 2010.

Type 1 and Type 2 activities required in the approved CPEs occurred between July 1, 2011, and June 30, 2012, at the following WQTCs:

- Jeffersontown WQTC;
- Lake Forest WQTC;
- Cedar Creek WQTC;
- Hite Creek WQTC;
- Timberlake WQTC;
- North Hunting Creek WQTC;
- South Hunting Creek WQTC;
- Starview WQTC;
- Berrytown WQTC;
- Ken Carla WQTC; and,
- Chenoweth Hills WQTC.

Monitoring Recordkeeping and Reporting at WQTCs

Continuous Flow Monitoring: As a part of the Amended Consent Decree, MSD is to provide continuous flow monitoring at its WQTCs where required by its KPDES permits and to maintain records of such flow monitoring for a minimum of three years.

Bypass Monitoring: MSD is to report in the quarterly reports submitted to the EPA and the Cabinet all Bypasses at MSD's WQTCs prohibited pursuant to the Code of Federal Regulations (CFR). In addition, MSD is required to comply with the advance notice requirements of any anticipated Bypass and with the 24-hour notice requirements of unanticipated Bypass.

Effluent Sampling: MSD is required to sample the effluent at the Jeffersontown WWTP seven days a week for the parameters listed in the current KPDES permit in accordance with the sample type and location indicated in the permit. MSD is to maintain all documentation regarding these sampling events for a minimum period of three years.

Siphon Monitoring and Inspection: Beginning July 1, 2008, MSD began to electronically monitor the water surface elevation in the siphon head box upstream of the headworks of the Jeffersontown WQTC. Based on a given elevation within the siphon head box indicating that SSO is likely to occur, MSD is to inspect the siphon head box and manholes on the gravity interceptor within 2,000 feet of the headworks of the Jeffersontown WQTC. When these inspections identify an SSO, the occurrence is to be reported and documented in accordance with the approved SORP.

4.3.1.3 Reporting Requirement

Quarterly Reports

MSD is required to submit a quarterly report that describes its progress in complying with the Consent Decree, including a description of projects and activities, reductions in volumes and in the number of occurrences of unauthorized discharges, anticipated projects for the upcoming quarter, and other pertinent information.

The reports are structured as follows:

- Significant Accomplishments: Summarizes the high-level milestones achieved during the quarter and other important information.
- Current Activities Review: Describes the project scope, schedule, and status for past projects and activities that demonstrates the efforts conducted to comply with the CD.
- Performance Review: Gives an accounting of the current quarter and the cumulative reductions in volume and in the number of occurrences of unauthorized discharges from the SSS, CSS, WQTCs, and the discharges from MSD's CSO locations identified in the MFWQTC KPDES permit.
- Planned Activities: Describes the anticipated projects and activities that are scheduled to be performed for continued compliance with the CD.

The following quarterly reports have been submitted to date:

- Quarterly Report #1 January 31, 2006;
- Quarterly Report #2 April 28, 2006;
- Quarterly Report #3 July 28, 2006;
- Quarterly Report #4 October 30, 2006;
- Quarterly Report #5 January 30, 2007;
- Quarterly Report #6 April 30, 2007;
- Quarterly Report #7 July 30, 2007;
- Quarterly Report #8 October 30, 2007;
- Quarterly Report #9 January 30, 2008;
- Quarterly Report #10 April 30, 2008;
- Quarterly Report #11 July 30, 2008;
- Quarterly Report #12 October 30, 2008;
- Quarterly Report #13 January 30, 2009;
- Quarterly Report #14 April 30, 2009;
- Quarterly Report #15 July 30, 2009;
- Quarterly Report #16 October 30, 2009;
- Quarterly Report #17 January 30, 2010;
- Quarterly Report #18 April 30, 2010;
- Quarterly Report #19 July 30, 2010;
- Quarterly Report #20 October 30, 2010;
- Quarterly Report #21 January 30, 2011;
- Quarterly Report #22 April 30, 2011;
- Quarterly Report #23 July 29, 2011;
- Quarterly Report #24 October 28, 2011;
- Quarterly Report #25 January 30, 2012;
- Quarterly Report #26 April 27, 2012;
- Quarterly Report #27 July 31, 2012; and,
- Quarterly Report #28 October 30, 2012.

The reports are in conformance with the structure outlined above, and each of the reports has a comprehensive overview of the program elements, issues, and accomplishments relating to the CD.

Annual Reports

MSD is required to submit an annual report for its previous fiscal year with a summary CMOM Programs implementation pursuant to the CD, including a comparison of actual performance with any performance measures that have been established.

The report is structured to include the following sections:

- Program Activities Performed During the Reporting Period: This section describes the scope, schedule, and status of projects and other activities during the reporting period of July 1 through June 30 of the following year. The projects and activities described are those that demonstrate the efforts conducted to comply with the CD.
- Performance Overview: This section provides an accounting of the number of occurrences of overflows, including unauthorized discharges from the separate sanitary sewer and combined sanitary sewer systems, and the estimated volumes of each. A discussion of the probable reductions in both unauthorized discharge points and the discharges from MSD's CSO locations identified in the MFWQTC KPDES permit that are expected to result from MSD's projects and activities during the period is also included in this section.
- Program Activities for the Next Reporting Period: This section describes the anticipated projects and activities that are scheduled to be performed during the next reporting period for continued compliance with the CD.
- CMOM Program Implementation: This section describes the CMOM-specific projects and programmatic initiatives active during the reporting period, as well as those to be performed during the next reporting period.

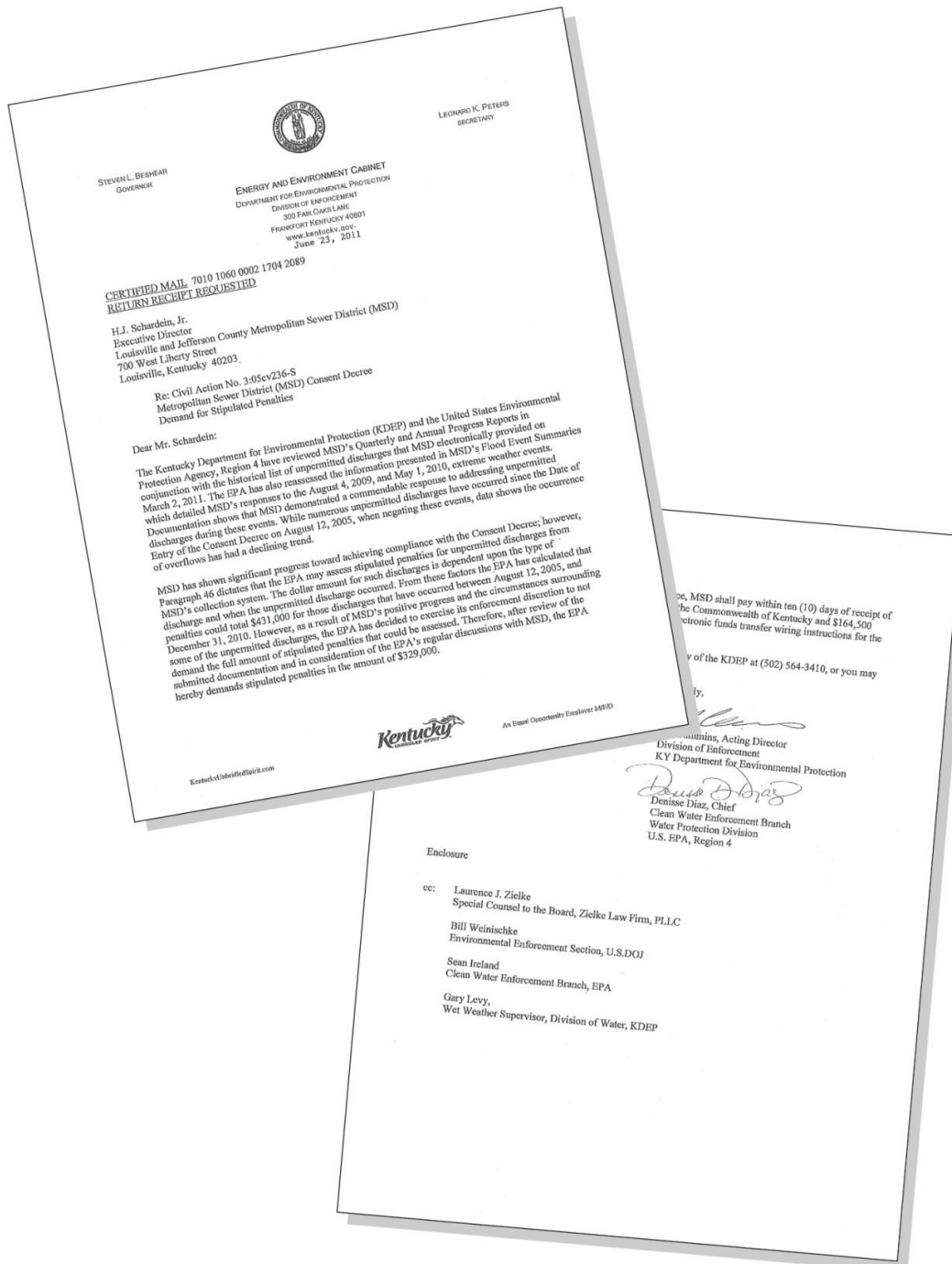
The following Annual Reports have been submitted to the Cabinet and EPA:

- First Annual Report dated December 31, 2006;
- Second Annual Report dated December 21, 2007;
- Third Annual Report dated December 18, 2008;
- Fourth Annual Report dated December 22, 2009;
- Fifth Annual Report dated December 30, 2010; and,
- Sixth Annual Report dated December 22, 2011.

Through the implementation of the CD, MSD has developed an excellent working relationship with the Kentucky Department for Environmental Protection (KDEP) and the United States Environmental Protection Agency (EPA). According to a letter from KDEP and EPA to MSD dated June 23, 2011, MSD has shown significant progress toward achieving compliance with the CD by reducing the amount of unpermitted discharges from MSD's collection system since the

Date of Entry of the Consent Decree on August 12, 2005. In addition, the EPA commended MSD on its responses to the August 4, 2009 and May 1, 2010, extreme weather events, as presented in MSD's Flood Event Summaries. As a result of MSD's positive progress, the EPA has exercised its enforcement discretion to reduce the stipulated penalties for unpermitted discharges that occurred between August 12, 2005 and December 31, 2010 from \$431,000 to \$329,000. A copy of the KDEP/EPA letter can be found in Figure 4-3.

Figure 4-3
KDEP/EPA Letter



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4.3.1.4 Civil Penalties and Supplemental Environmental Projects

The ACD contains stipulated penalties for MSD's failure to comply with provisions contained in the ACD, and MSD has agreed to the payment of an additional civil penalty in the amount of \$230,000, as well as making total expenditure under the original CD and the ACD for Supplemental Environmental Projects in an amount not less than \$2,250,000.

As a part of this program for supplemental environmental projects, MSD is installing rain barrels, rain gardens, riparian buffers, and sustainable landscapes and is implementing environmental programs in conjunction with schools and neighborhood communities.

Examples of Supplemental Environmental Projects

- **Riparian Buffer - \$75,000**
 - \$15,000 University of Louisville, Biology Dept., Research on groundwater movement through riparian systems.
 - \$35,000 Olmsted Conservancy Woodlands Restoration Project, partnering with MSD for storm water management.
 - \$25,000 Metro Parks for Grinstead/Lexington Road Riparian Buffer, revegetation along Beargrass Creek.
- **Watershed Education - \$250,000**
 - \$50,000 Jefferson County Soil Conservation, for elementary school watershed education.
 - \$150,000 Living Lands & Waters, for month-long Clean Sweeps and workshops.
 - \$50,000 Metro Parks, for Louisville and Jefferson County Environment Trust monitoring of conservation easements.
- **Sustainable Landscapes - \$100,000**
 - \$45,000 Youthbuild, for Summer 2007 E-Corps Program.
 - \$30,000 Active Louisville, for Robert Wood Johnson grant support for nutrition education and Farmers Markets for Portland and Liberty Green neighborhoods.
 - \$25,000 Farm Literacy program at Oxmoor Farm.
- **Environmental Certification - \$50,000**
- **Outdoor Classrooms - \$70,000**
 - \$65,000 Farnsley Middle School RESTORE Program.
 - \$5,000 Kennedy Montessori School Outdoor Classroom.
- **K&I Pedestrian Bridge Restoration**
 - \$100,000 Waterfront Development Corporation for K&I bridge restoration.

- **PRIDE Kentucky**
\$200,000 These funds were submitted to the state of KY for its use.

4.3.2 Engineering Sanitary Projects

There are approximately 23 projects currently listed under this category in the FY 2013 five-year CIP.

The projected budget for these projects for the next five years is \$222,576,000.

The budgets noted above for the Engineering Sanitary Projects include projects required under the Amended Consent Decree and the Initial Overflow Abatement program.

4.3.2.1 Engineering – Consent Decree Projects

There is one project currently listed under this category in the FY 2013 five-year CIP.

The projected budget for this project for the next five years is \$4,838,000.

4.3.2.2 Engineering – Integrated Overflow Abatement Projects

The Final Sanitary Sewer Discharge Projects and the Final Long Term Control Projects combined and termed as the Initial Overflow Abatement Projects identifies 34 different projects.

The projected budget for these projects for the next five years is \$181,091,000.

4.3.3 Regulatory Services Sanitary Projects

There are approximately 110 projects currently listed under this category.

The projected budget for these projects for the next five years is \$229,188,000.

The budgets noted above for the Regulatory Services Sanitary Projects include projects required under the Amended Consent Decree and the Initial Overflow Abatement program.

4.3.3.1 Regulatory Services – Consent Decree Projects

There are 44 Consent Decree related projects under the Regulatory Services Projects.

The projected budget for these projects over the next five years is \$24,863,000.

4.3.3.2 Regulatory Services – Integrated Overflow Abatement Projects

Initial Overflow Abatement Projects list identifies 41 different projects under the Regulatory Services Projects.

The projected budget for these projects for the next five years is \$126,627,000.

4.3.4 Infrastructure and Flood Protection Sanitary Projects

There are seven projects listed in this category.

The projected budget for these projects for the next five years is \$5,595,000.

4.3.5 Operations – Sanitary

A total of 29 projects are listed under Operations Sanitary.

The projected budget for these projects for the next five years is \$14,919,000.

4.3.6 General/Miscellaneous

The general/miscellaneous area includes the services of the Construction Team to implement compliance enforcement of the Erosion Prevention and Sediment Control Ordinance passed in 2000, Ohio River Greenway Levee Trail, Central Maintenance Facility, energy conservation project, odor control projects, strategic manhole flow monitoring, technical services engineering and testing support, and underground storage tank management.

There are 15 projects listed under this category.

The projected budget for these projects for the next five years is \$4,188,000.

4.3.7 LOJIC

Projects in this category include measurement of impervious areas; aerial photography and imagery updates; plan review and permitting; and, base mapping updates. There are 10 projects listed in this category.

The projected budget for these projects for the next five years is \$1,664,000.

4.3.8 Equipment

Capital Equipment projects are for the purchase of trucks and equipment used in the maintenance of MSD's infrastructure. 17 projects are listed in this category.

The projected budget for these projects for the next five years is \$17,458,000.

4.3.9 Drainage

MSD's storm water drainage system is comprised of various types of facilities to collect, convey, retain, and discharge storm water runoff into sewers, rivers, streams, and creeks that eventually drain into the Ohio River. These facilities include approximately 1,500 miles of major and secondary drainage channels, 16 pumping stations, including the Riverfront station (used in connection with the Ohio River flood protection wall), and six combined storm water/wastewater major pumping stations. Other associated drainage facilities include: ditches, culverts, conduits, ponds, detention basins, and retention basins. Essentially, all public facilities within the Drainage Service Area are operated and maintained by MSD by virtue of the consolidation of drainage services in accordance with the Agreements for Interlocal Cooperation, effective January 1, 1987, established between MSD, the city of Louisville, Jefferson County, and several third- and fourth-class cities (identified earlier, Table 3-9).

Included in MSD's responsibility are operation and maintenance of the approximately 30-mile-long Ohio River flood protection system. Seventeen miles of the flood protection system were built between 1947 and 1956, and a 13-mile extension of the flood protection system was completed to the southwestern border of Jefferson County in the 1980s. The flood protection system consists of earthen levees, concrete walls, pumping stations (including the Riverfront station), street closures, and drainage control gate closures that protect Louisville Metro. Ten of the flood pumping stations are more than 50 years old, and they continue to operate with original equipment. In order to maintain the integrity of the flood pumping stations along the Ohio River, MSD has been upgrading the western flood wall, improving the electrical system and replacing flood gates. Additionally, MSD is in the process of upgrading and/or replacing some of the major pumping stations along the Ohio River. MSD is rebuilding the Western Flood Pumping Station aided by federal stimulus funds.

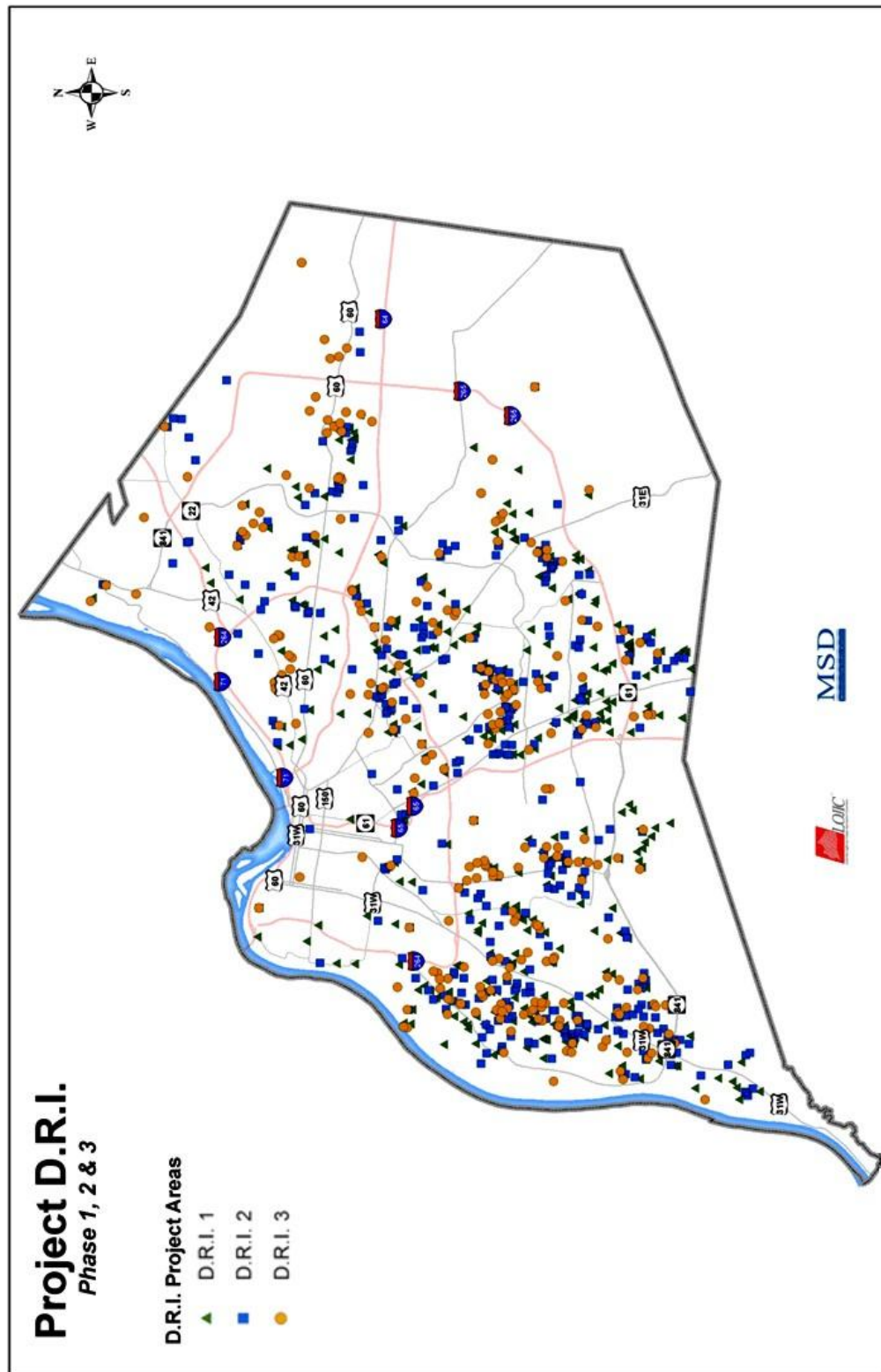
In January 2003, MSD and then-Mayor Jerry Abramson outlined a plan to tackle Louisville's most pressing drainage problems. This plan initiated a 30-month program – dubbed Project DRI (Drainage Response Initiative) – to review customer service requests, develop solutions, and allocate resources to achieve the solutions in a streamlined manner. Phase 1 of Project DRI identified 380 of the worst drainage problems in the Louisville Metro area. Phase 1 of Project DRI was completed in FY 2006, and Phase 2 ended during FY 2007. During 2008, plans for Phase 3 of Project DRI were announced which called for an additional investment of \$25 million over 30 months, beginning in January 2008. Phase 3 projects of Project DRI are ongoing. A fourth phase of Project DRI is expected to begin after the completion of Phase 3 and will include \$3.5 million per year in neighborhood drainage projects.

4.3.9.1 Engineering Drainage

Besides the DRI projects, there are two other engineering drainage projects listed in this category.

The projected budget for these projects for the next five years is \$4,047,000.

Figure 4-4
Completed DRI Phase 1 & 2 Projects



4.3.9.2 Regulatory Services Drainage

There are no Regulatory Services Drainage projects listed in this category.

4.3.9.3 Infrastructure and Flood Protection Drainage Projects

There are 36 Infrastructure and Flood Protection Drainage Projects listed in this category.

The projected budget for these projects for the next five years is shown to be \$3,889,000.

4.3.9.4 Operations – Drainage

There are four Operations Drainage projects listed in this category.

The projected budget for these projects is \$1,147,000.

4.4 MSD MASTER PLAN

MSD has budgeted in FY13 for the initiation of a comprehensive master plan. Master planning will be initiated and subsequently completed to provide MSD with a long-range plan (20 years is typical) and refined CIP aligned with the long-range plan. The master plan, once completed, will enhance MSD's operations.

5. FINANCIAL STRUCTURE

5.1 BOND RESOLUTION

Under the 1993 Bond Resolution, MSD moved to consolidate its numerous operating, capital, and debt service funds into three on-going funds: the Revenue Fund, which receives and disposes of all Revenues as defined in the Resolution; the Bond Fund which consists of Debt Service and Debt Service Reserve Accounts; and the Construction & Acquisition (C&A) Fund which receives all construction bond proceeds, contributed capital, and MSD net income designated by its Board for capital construction. Revenues deposited in the Revenue Fund are applied to pay the debt service coverage on all outstanding bonds, operation and maintenance expenses of the System, and for the renewal and replacement of capital assets. This structure greatly facilitates the flow of funds to capital investment. MSD anticipates that it will maintain a minimum working capital balance of approximately \$71.7 million with an average of \$145.8 million in net available revenues in its Revenue Fund during the five-year planning period 2013 through 2017. During the five-year planning period, MSD will reduce its working capital from \$206.2 million in the beginning of FY 2013 to \$65.0 million at the end of FY 2017. This reduction will be used to partly fund the five-year CIP. The issuance of the previous bond issues under the 1993 Bond Resolution provided MSD with a 30-year level debt service structure for all MSD long-term debt.

5.2 THE 2011 MSD CIP FINANCING PLAN

Chapter 76 of the Kentucky Revised Statutes charts MSD to expand its sewer and drainage system to a potential customer base that includes all of the residents of Louisville Metro.

Chapter 76 provides MSD with four basic means by which to finance its CIP. First, it permits MSD to generate net revenues from service charges and other operating income with which to fund renewal, replacement, and new construction and acquisition. Second, Chapter 76 permits MSD to pledge all or a portion of revenues of the system to provide coverage, including excess coverage, of debt service on bonds issued and loans negotiated by MSD. (Louisville Metro Government has facilitated the exercise of this statutory authority by permitting MSD to increase its revenue by up to 7 percent annually, by unilaterally increasing base service charge rates, in order to maintain 110 percent debt service coverage on MSD's revenue bonds prospectively). Third, Chapter 76 permits MSD to accept capital contributed by governments (monetary grants), property owners, and developers (usually in-kind). Fourth, Chapter 76 permits MSD to assess property owners for all or a portion of costs incurred by MSD to construct collector systems serving their properties. The sources of funds referred to in Table 5-1 will be available to construct \$316.5 million of projects identified as having first priority in the next five years, among other things.

As of June 30, 2012, MSD will have capital funds available in the amount of \$206.0 million to partially finance the long-term CIP. It is reasonable to assume that the balance of the CIP projects will be financed through net revenues, available funds, contributed capital, and financing proceeds from future bond issues. Projected sources of funds for the five-year period are presented in Table 5-1.

Table 5-1
Sources of Funds
FY 2013 through 2017
MSD Five-year Capital Improvement Plan
(\$ Thousands)

Funding Source	Projected Funding Budget
From Existing Revenues	\$3,196
From Bond Issues	\$140,000
From Contributed Capital	2,000
Available Revenues	245,399
Capitalized Interest and Issuance Costs	(4,255)
Working Capital	141,237
TOTAL FIVE-YEAR CIP FUNDING SOURCES	\$527,577

MSD's comprehensive plan is for financing the CIP projects in annual increments averaging \$63.3 million of gross capital project design/construction expenses and \$24.4 million of MSD capital project management expenses. The projects are sourced from an average of \$28.0 million in net financing proceeds and \$49.1 million in annual available net revenue and contributed capital.

5.3 MSD REVENUES

Approximately 82 percent of MSD's total available revenues in FY 2012 were derived from wastewater and storm water service charges, which are collected from residential, commercial and industrial customers. This percentage is expected to increase to nearly 93 percent by FY 2017.

One of MSD's principal customer service goals is to provide service at reasonable rates, with predictable annual increases in rates. For the past 22 years, MSD has strategically approached revenue generation to meet its financial obligations. One forward-thinking revenue generation strategy has been implementation of annual scheduled rate increases (Table 5-2). Rate increases were implemented for all years from 1988 through 2012, with the exception of 2007. MSD is permitted to increase revenue by seven percent annually from service charge rate increases alone. Table 5-2 presents an overview of rate increases from 1987 through 2012.

To finance projects associated with the Consent Decree, a Consent Decree Surcharge was introduced in August 2007. The Consent Decree Surcharge generated nearly \$28.9 million during FY 2008. MSD conducted a public outreach campaign to educate customers on the Consent Decree and to explain the need for the surcharge. The public and the Louisville Metro Council reacted favorably to the surcharge and were active participants in prioritizing how the funds were spent.

Table 5-2
Annual Rate and Revenue Increase

Date of Rate Increase	Wastewater			Storm Water		
	% Rate Increase		Annual Additional Revenue From Rate Increase	% Rate Increase		Annual Additional Revenue From Rate Increase
1/1/87				N/A		\$8,165,000
7/1/88	4.3%	(A)	\$1,496,000			
1/1/91	6.5%	(A)	\$2,731,000			
1/1/92	4.5%	(A)	\$1,973,000			
12/1/92				57.1%	(A)	\$4,879,000
8/1/94	5.0%	(B)	\$2,337,000			
8/1/95	7.0%	(B)	\$3,516,000			
8/1/96	5.0%	(B)	\$2,703,000	4.4%	(A)	\$604,000
8/1/97	5.0%	(B)	\$2,772,000	4.5%	(A)	\$663,000
8/1/98	5.0%	(B)	\$2,900,000	5.0%	(A)	\$800,000
8/1/99	5.0%	(B)	\$3,150,000	5.0%	(A)	\$850,000
8/1/00	5.0%	(B)	\$3,101,000	5.0%	(A)	\$861,000
8/1/01	5.0%	(B)	\$3,314,000	5.0%	(A)	\$921,000
8/1/02	6.5%	(B)	\$4,540,000	6.5%	(A)	\$1,326,000
8/1/03	6.5%	(B)	\$5,012,659	6.5%	(A)	\$1,407,505
8/1/04	6.5%	(B)	\$5,184,032	6.5%	(A)	\$1,526,281
8/1/05	6.5%	(B)	\$5,655,634	6.5%	(A)	\$1,671,724
8/1/06	6.9%	(B)	\$6,414,405	6.9%	(A)	\$1,957,887
8/15/07			\$28,875,000 ²			
8/1/08	6.5%	(B)	\$8,017,688	6.5%	(A)	\$2,015,401
8/1/09	6.5%	(B)	\$8,466,545	6.5%	(A)	\$2,095,583
8/1/10	6.5%	(B)	\$8,683,175	6.5%	(A)	\$2,246,123
8/1/11	6.5%	(B)	\$9,395,795	6.5%	(A)	\$2,417,718
8/1/12	6.5%	(B)	\$9,705,399	6.5%	(A)	\$2,417,697

¹ Initial storm water rate: \$1.75 per equivalent service unit.
² MSD adopted a surcharge to help fund the EPA Consent Decree effective August 15, 2007. Residential customers will pay \$6.95 per month and Commercial & Industrial customers will pay the greater of \$6.95 per month or a volume charge ranging from \$.49 to \$.93 per thousand gallons of water used or sewage discharged depending on their billing classification. This amount does not reflect a full year of surcharge collections. It only reflects the amount collected from August 15, 2007, through the end of FY 2008.
(A) Across-the-board adjustment of all rates.
(B) Composite yield of a variety of rate adjustments.

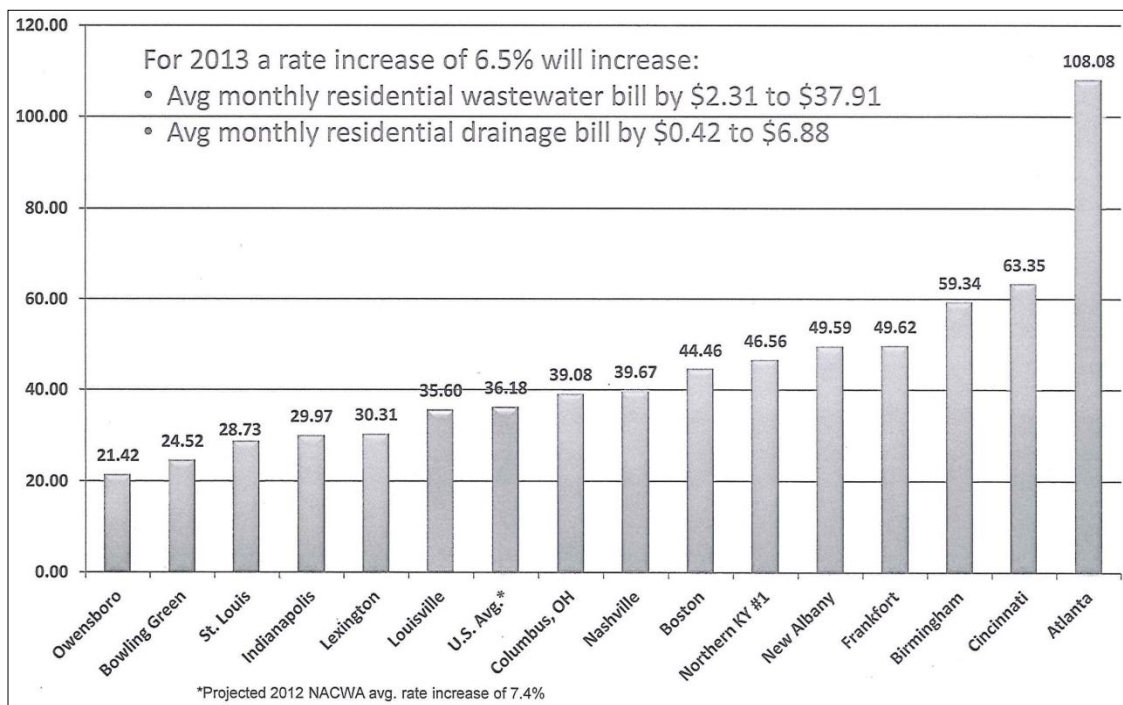
Source: MSD

5.3.1 Comparison with Other Cities

MSD has annually increased rates as noted above. Furthermore, MSD added a Consent Decree Surcharge in 2007 with the support of its customers. Both these revenue generating methods have been implemented to satisfy system and regulatory requirements while maintaining MSD's principal customer service goal to provide service at reasonable rates.

Figure 5-1 shows forecasted 2013 average monthly wastewater and drainage bills for 15 cities, including Louisville. Louisville shows as the sixth lowest average monthly bill amongst cities listed, as well as lower than the U.S. average as projected from 2012 National Association of Clean Water Agencies (NACWA) data.

Figure 5-1
Average Monthly Residential Wastewater Bill
2012



Source: MSD

Table 5-3 shows eight cities with Consent Decrees, including Louisville. The estimated cost to implement the Consent Decrees ranges from \$650 million to \$4.7 billion. Louisville has the second lowest cost to implement of the eight listed. Also note that Louisville has the second lowest cost to implement amongst the cities listed on Table 5-3. The two cities with lower bills have significantly higher estimated Consent Decrees implementation costs and likely will raise their monthly wastewater and drainage rates to meet their Consent Decrees implementation costs.

The comparison data illustrated in Figure 5-1 and Table 5-3 are evidence of MSD's commitment to its principal customer service goal to provide service at reasonable rates.

Table 5-3
Cities with Consent Decrees
Costs to Implement

City	Year	Estimated Cost to Implement	Average Wastewater Bill
Atlanta	1999	\$4 billion	\$108.08
Cincinnati	2002	\$2 billion	\$63.35
Knoxville	2004	\$650 million	
Louisville	2005	\$850 million	\$35.60
Northern Kentucky	2005	\$880 million	\$46.56
Indianapolis	2006	\$1.7 billion	\$29.97
Nashville	2007	\$1.5 billion	\$39.67
St. Louis	2012	\$4.7 billion	\$38.73

Source: MSD

5.3.2 Revenue Enhancement

At this time, maintaining their forward-thinking approach to meeting financial obligations, MSD is implementing revenue enhancement strategies. The purpose for currently implementing revenue enhancement strategies is to compensate for declining revenue associated with reductions in wastewater generation within the MSD service area. Revenue enhancement strategies may include any non-rate-affecting method to adjust revenue.

The initial revenue enhancement activity will involve reviewing customer profiles to confirm that the customer wastewater and stormwater billing characteristics are accurate. For those found to be inaccurate, billing adjustments will be made. An example of change seen within the MSD service area is the conversion of single-family homes to apartments (commercial properties). This change to the customer profile will result in proper billing of the multi-unit dwelling and the associated revenue enhancement for MSD.

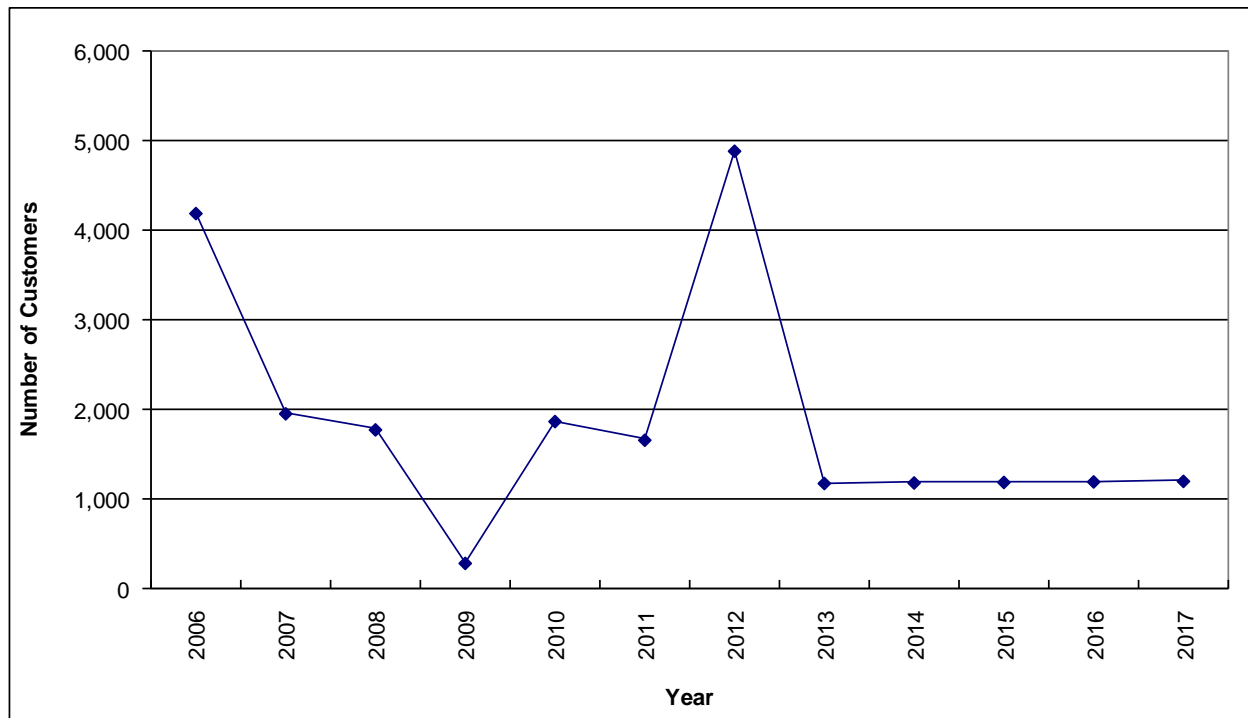
5.3.3 Customer Increase

The controlled upgrading and expansion of MSD's combined system of services will increase the number of customers. Therefore, there will be an increase in the amount of revenues collected from service fees and other rates and rentals associated with wastewater and storm water drainage services.

MSD is projecting the number of wastewater customers to increase by approximately 0.5 percent annually from FY 2013 to FY 2017. The actual annual change in MSD customers from FY 2006 to FY 2012 and the estimated increase from FY 2013 to FY 2017 can be seen in Figure 5-2.

The projected increase is expected to result in a total of approximately 5,937 new wastewater customers (mostly residential customers) for the five-year planning period FY 2013 through FY 2017. Storm water revenue increases are projected primarily from service area expansion and expansion of impervious surfaces within MSD's service area.

Figure 5-2
Annual Change in MSD Customers



MSD customers are actual through year 2012 and projected for years 2013 to 2017.

5.4 PROJECTED REVENUE/EXPENSE POSITION

Table 5-4 presents a financial projection of MSD sewer and drainage system operations through FY 2017, together with actual data for the five years ending June 30, 2012. All operating results are stated on a basis consistent with the definitions and other provisions of the 1993 Bond Resolution. Actual operating results for the fiscal years 2008 through 2011 are based on MSD's audited financial statements and FY 2012 are based on preliminary financial statements. The MSD projections and estimates are deemed by Corradino to be reasonably based on industry standards and in accordance with accepted engineering practice. Using the fiscal year 2013 budget and 2008 through 2012 financial reports as a basis for projection, the five fiscal years, 2013 through 2017, were estimated using the following assumption:

- Estimated aggregate net debt service on MSD long-term debt ranges from \$93.1 million in fiscal year 2013 to \$98.8 million in fiscal year 2017.

Table 5-4
Louisville/Jefferson County, Kentucky, Metropolitan Sewer District
Sewer and Drainage System Subordinated Bond Anticipation Notes, Series 2012A
Actual and Projected Revenues and Expenses and Projected Debt Service Coverage⁽¹⁾
(\$ in thousands)

	FY 2008 Actual	FY 2009 Actual	FY 2010 Actual	FY 2011 Actual	FY 2012 Preliminary	FY 2013 Projected	FY 2014 Projected	FY 2015 Projected	FY 2016 Projected	FY 2017 Projected
AVAILABLE REVENUES:										
Rates, Fees, Rentals and Charges:										
Wastewater service charges	125,782	130,661	133,853	145,880	149,626	156,359	163,395	170,748	178,432	186,461
Stormwater service charges	31,107	32,343	34,757	37,417	40,855	43,674	46,688	49,909	53,353	57,034
Revenue enhancement program	-	-	-	-	-	1,200	2,200	3,500	4,700	5,700
Total Rates, Fees, Rentals and Charges	156,889	163,004	168,610	183,297	190,481	201,233	212,283	224,157	236,484	249,195
Other Available Revenues:										
Other operating income	4,394	4,552	2,980	2,379	1,756	1,820	1,820	1,820	1,820	1,820
Current assessment payments	2,251	4,387	7,093	2,740	2,095	3,000	3,000	3,000	3,000	3,000
BAB interest reimbursement	-	-	2,260	7,978	10,986	10,986	10,986	10,986	10,986	10,986
Investment income	6,085	25,568	33,785	25,722	29,701	5,711	5,936	5,886	5,800	5,800
Less: capitalized investment income	(1,190)	-	(5,990)	(12,134)	(1,851)	(1,500)	(1,600)	(1,600)	(1,600)	(1,600)
Total Other Available Revenues	11,540	34,507	40,128	26,685	42,687	20,017	20,142	20,092	20,006	20,006
TOTAL AVAILABLE REVENUES	168,429	197,511	208,738	209,982	233,168	221,250	232,425	244,249	256,490	269,201
SENIOR BOND DEBT SERVICE										
Current maturities of long-term debt	21,255	23,105	23,785	24,840	25,740	25,740	27,035	28,525	30,135	31,825
Interest expense (senior lien)	66,918	72,776	69,949	78,954	89,244	83,133	84,813	85,607	84,196	82,710
Less: Capitalized interest expense	(10,530)	-	(13,910)	(25,195)	(26,384)	(15,795)	(16,114)	(16,265)	(15,997)	(15,715)
AGGREGATE NET DEBT SERVICE	77,643	95,881	79,824	78,599	88,600	93,078	95,734	97,867	98,334	98,820
110% OF AGGREGATE NET DEBT SERVICE	85,407	105,469	87,806	86,459	97,460	102,386	105,307	107,653	108,167	108,702
OPERATING EXPENSES:										
Labor	35,439	35,931	38,066	40,300	38,150	38,512	42,406	51,566	55,392	55,443
Utilities	9,312	7,876	8,541	9,906	10,094	10,574	11,781	14,492	15,743	15,930
Materials and supplies	6,242	6,364	6,493	6,466	6,222	8,303	9,251	11,380	12,362	12,509
Contractual services	8,640	9,032	8,060	12,400	13,293	11,812	13,160	16,188	17,585	17,794
Bad Debt	3,813	2,638	3,207	1,208	1,181	1,324	1,475	1,814	1,971	1,994
Chemicals and fuel	3,691	4,140	4,385	4,077	3,963	4,563	5,084	6,254	6,793	6,874
Insurance premiums/claims	1,191	1,502	1,572	1,242	1,809	1,256	1,399	1,721	1,870	1,892
All other operating expenses	2,007	2,051	2,616	1,399	413	913	1,017	1,251	1,359	1,376
TOTAL OPERATING EXPENSES	70,335	69,534	72,939	76,999	75,126	77,257	85,575	104,666	113,074	113,813

Table 5-4 (continued)
Louisville/Jefferson County, Kentucky, Metropolitan Sewer District
Sewer and Drainage System Subordinated Bond Anticipation Notes, Series 2012A
Actual and Projected Revenues and Expenses and Projected Debt Service Coverage⁽¹⁾
(\$ in thousands)

	FY 2008 Actual	FY 2009 Actual	FY 2010 Actual	FY 2011 Actual	FY 2012 Preliminary	FY 2013 Projected	FY 2014 Projected	FY 2015 Projected	FY 2016 Projected	FY 2017 Projected
SOURCES (USES) OF WORKING CAPITAL:										
From current year available revenues	20,451	32,096	55,975	54,384	69,442	50,915	51,117	41,716	45,083	56,568
Contributed capital	1,266	1,574	381	374	400	400	400	400	400	400
Proceeds from bonds	166,125	84,590	429,822	330,000	260,125	80,000	80,000	60,000	226,340	226,340
Proceeds from notes (1)	-	-	452,680	228,805	226,340	226,340	226,340	226,340	226,340	226,340
Decrease(increase) in debt service reserves	(4,064)	(8,439)	(42,440)	(30,931)	-	-	(8,000)	(6,000)	-	-
Defeasance/retirement of bonds	(61,900)	(75,447)	(463,670)	(15,490)	(291,040)	-	-	-	-	-
Defeasance/retirement of notes	-	-	-	(452,680)	(226,340)	(226,340)	(226,340)	(226,340)	(226,340)	(226,340)
Contractual capital project design/construction	(39,317)	(48,420)	(70,056)	(134,042)	(75,635)	(120,529)	(83,217)	(44,371)	(31,387)	(37,041)
MSD capital project management	(26,510)	(24,401)	(28,129)	(30,472)	(33,200)	(40,176)	(34,674)	(18,488)	(13,078)	(15,433)
Net capitalized interest	(9,340)	-	(7,920)	(13,061)	(24,533)	(14,295)	(14,514)	(14,665)	(14,397)	(14,115)
Underwriters' discounts and issuance costs	(1,927)	(704)	(6,948)	(2,792)	(2,515)	(515)	(1,475)	(1,235)	(515)	(515)
Increase(decrease) in working capital	44,784	(39,151)	319,695	(65,905)	(96,956)	(124,200)	(10,364)	17,357	(13,895)	(10,135)
BEGINNING WORKING CAPITAL	43,780	88,564	49,413	369,108	303,203	206,247	82,047	71,683	89,040	75,146
ENDING WORKING CAPITAL	\$ 88,564	\$ 49,413	\$ 369,108	\$ 303,203	\$ 206,247	\$ 82,047	\$ 71,683	\$ 89,040	\$ 75,146	\$ 65,010
NET REVENUES	98,094	127,977	135,799	132,983	158,042	143,993	146,850	139,583	143,416	155,389
DEBT SERVICE COVERAGE RATIO (2)	126%	133%	170%	169%	178%	155%	153%	143%	146%	157%
SUBORDINATED DEBT SERVICE										
			15,126	13,136	17,776	15,013	14,834	14,649	14,454	14,454
DEBT SERVICE COVERAGE RATIO (3)			143%	145%	149%	133%	133%	124%	127%	137%

(1) - Anticipates a rollover of \$226.34 million of BANS. These BANS will be replaced with long-term financing when market conditions are favorable.

(2) - Excludes Subordinated Debt

(3) - Includes Subordinated Debt

Table 5-4 (continued)
Louisville/Jefferson County, Kentucky, Metropolitan Sewer District
Sewer and Drainage System Subordinated Bond Anticipation Notes, Series 2012A
Actual and Projected Revenues and Expenses and Projected Debt Service Coverage

Notes

(1)

The classification of Revenues and Expenses follows the definitions contained in MSD's 1993 *Sewer and Drainage System Revenue Bond Resolution* and its supplements (collectively, "*the Resolution*"). This classification varies in certain material respects from the classifications that would be applied following *generally accepted accounting principles for governmental enterprises* ("*GAAP*"), as well as from those prescribed in MSD's earlier (1989, 1971 and 1949) Revenue Bond Resolutions.

The Resolution requires MSD to provide *Available Revenues*, as defined in the Resolution, sufficient to pay 110 percent of each fiscal year's *Aggregate Net Debt Service* on Revenue Bonds and 100 percent 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 that is capitalized in accordance with GAAP. Available Revenues include, therefore, but should be distinguished from service charges and other operating income (collectively, "operating revenues"), and investment income, as reported in MSD's general purpose financial statements. Most notably, Available Revenues also include property owner assessments and assessment installments which become due during any reporting period.

Operating Expenses include all reasonable, ordinary, usual or necessary current expenses of maintenance, repair and operation of the *System* determined in accordance with GAAP, but exclude reserves for extraordinary maintenance and repair (if any), and do not include administrative and engineering expenses of MSD which are necessary or incident to capital improvements for which debt may be issued pursuant to the Resolution, and which, pursuant to the Resolution, may be paid from the proceeds of such debt as *Costs of Construction and Acquisition*. Operating Expenses are, therefore, identical to service and administrative costs, as reported in MSD's general purpose financial statements, but do not include depreciation, which is a component of operating expenses in those statements.

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 GAAP is capitalized and which may be paid from the proceeds of debt issued pursuant to the Resolution as a Cost of Construction and Acquisition, 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. Thus, the interest expense component of Aggregate Net Debt Service is identical to interest expense as reported in MSD's general purpose statements of revenue, expense and net assets.

(2)

Rates, Fees, Rents and Charges, as defined in the Resolution are identical to MSD's *service charges* for the conveyance and treatment of wastewater and for storm water drainage and flood protection, as reported in MSD's general purpose financial statements. The revenue enhancement program refers to an initiative that will involve reviewing customer profiles to confirm customer wastewater and stormwater billing characteristics are accurate. Where inaccuracies are found, profiles will be updated and appropriate billing rates will be applied.

For fiscal years prior to FY 2013, the figures in Table 5-4 are actuals.

(3)

Other Available Revenues include other operating income and investment income as reported in MSD's general purpose financial statements, and property owner assessments and assessment installments which become due during any reported period.

Other operating income consists largely of system development charges: wastewater capacity charges, sewer connection fees, storm water regional facilities fees and LOJIC product sales. The category also includes miscellaneous fines and charges for service incidental to MSD's primary mission and biosolid pellet sales. Biosolid pellet sales began in 2006. For fiscal years prior to FY 2012, the figures in Table 5-4 are actuals. The 2012 numbers are preliminary.

For FY 2013, revenue from these sources is projected at \$1.8 million and is projected to remain constant through 2017. These projections reflect MSD's recent experience and the likelihood under current MSD policy that a number of these fees and charges will be adjusted to reflect the system value added from MSD's investment in increased System capacity. MSD considers the Table 5-4 projection of this category a low-to-middle case conservative forecast, given the other economic and policy assumptions underlying the overall projection.

Assessments are levied by MSD pursuant to the provisions of Chapter 76 of the Kentucky Revised Statutes, which authorizes MSD to issue apportionment warrants which evidence the allocation of liability for collector project costs among benefited property owners, and are negotiable. Property owners may repay MSD in lump sum or in equal monthly installments over 20 years at seven percent interest. Assessments are booked, at the face value of apportionment warrants issued by MSD, as contributed capital in MSD's general purpose financial statements. (Effective in FY 2002, GASB Statement 34 requires all contributed capital to be recorded as revenue, and MSD's financial statements reflect this change.) However, because a significant portion of the assessments is a long-term receivable (in MSD's recent experience, about 40 percent of property owners pay in full within two years of the assessment), MSD records only that portion of assessments, together with accrued interest, becoming due within any reported period as Available Revenues.

For fiscal years prior to FY 2012, the figures in Table 5-4 are actuals and the 2012 figures are preliminary. For FY 2013 and subsequent fiscal years, assessments have been projected in accordance with MSD's current project delivery schedule and MSD's experience that approximately 60 percent of assessed property owners will elect MSD's installment payment plan. For the five-year period ending June 30, 2017, MSD projects revenue of \$3.0 million annually from existing and future assessment projects.

For fiscal years prior to FY 2012, *investment income* figures (gross and net) are actuals and identical to those reported in MSD's general purpose financial statements. For FY 2012 data is preliminary and for subsequent fiscal years, investment income is projected as the product of projected average balances of cash and investments (reserved for authorized construction and unreserved).

(4)

Aggregate Net Debt Service components – current maturities of long-term debt, interest expense and capitalized interest expense – for fiscal years prior to FY 2012 figures are actual, and are identical to those reported in MSD's general purpose financial statements. Data for FY 2012 are considered preliminary. For FY 2013 and subsequent fiscal years both current maturities of long-term debt and interest expense include scheduled payments on Bonds previously issued pursuant to the Resolution, scheduled payments on the Series 2012A Notes and payments to be scheduled on *Additional Notes* (at the same yield) projected to be issued during FY 2014 and 2015. For FY 2013 and subsequent fiscal years, capitalized interest expense is projected as the product of expected average balances of construction in progress and of cash and investments reserved for authorized construction.

(5)

Pursuant to Article 7 Section 7.11 A. of the Resolution, MSD covenants to “fix, establish, maintain and collect rates, fees, rents and charges for services of the System, which together with other Available Revenues are expected to produce Available Revenues which will be at least sufficient for each Fiscal Year to pay the sum of: [1] an amount equal to 110 percent of the principal of and interest coming due on Prior Lien Bonds and 110 percent of the Aggregate Net Debt Service for such Fiscal Year...” Table 5-4 exhibits compliance with this covenant requirement for each of the ten actual and projected fiscal years.

(6)

Operating Expenses for FY 2008 through FY 2011 are actuals and are identical to the figures reported in MSD's general purpose financial statements. Data for FY 2012 is preliminary. For FY 2013 expenses, net of capitalized overhead, will increase by 2.8 percent and then increase by 2.4 to 2.5 percent annually FY 2014 through FY 2017. Table 5-4 projects changes in operating costs, net of capitalized overhead, based on assumed underlying annual inflation of three percent for all categories except labor. Labor, the largest expense, is projected to increase by 6.4 percent in 2013 and by 1.8 to 1.9 percent annually for FYs 2014 through 2017.

(7)

For purposes of Table 5-4, the *Sources (Uses) of Working Capital* analysis provides an accounting of funds held by MSD which, while remaining subject to the pledge effected by the Resolution in Article 5 Section 5.1 for the benefit of Bondholders, are available pursuant to the Resolution to pay Costs of Construction and Acquisition.

Contributed capital consists of cash or in-kind contributions in aid of construction and acquisition from governments, property owners and developers, but excludes assessments. Both

the actual figures for years prior to FY 2012, preliminary figures for FY 2012, and the projected figures for subsequent years represent principally construction of new lines by developers.

Proceeds from bonds and notes for fiscal years 2008 through 2011 are actual and 2012 figures are preliminary. Table 5-4 includes projected issues of \$80 million in FY 2014 and \$60 million in 2015.

In the *Defeasance/retirement of debt* Category, approximately \$452.7 million was used to refund the 2009 Bond Anticipation Note (BAN) and the 2010 BAN in FY 2011. The \$226.3 million in FY 2012 through 2017 represent the continued current refunding of subsequently issued bond anticipation notes until such time that market conditions favor long-term financing.

The categories *contractual capital project design/construction*, *MSD capital project management*, *net capitalized interest*, and *underwriters' discount and issuance cost* represent collectively the amount (actual for FY 2008 through FY 2011, preliminary for FY 2012, and projected from MSD's Board-approved five-year capital budget for FY 2013 through FY 2017) of Costs of Construction and Acquisition incurred by MSD for the planning, management, design and construction of improvements and betterments of its sewage collection and treatment and storm water drainage and flood control facilities.

(8)

Net Revenues is the amount by which Revenues exceed Operating Expenses. Actual Net Revenues are presented for fiscal years preceding FY 2012 and preliminary data for FY 2012. For FY 2013 and subsequent fiscal years, Net Revenues are the projected results of operations as measured by the definitions of the Resolution.

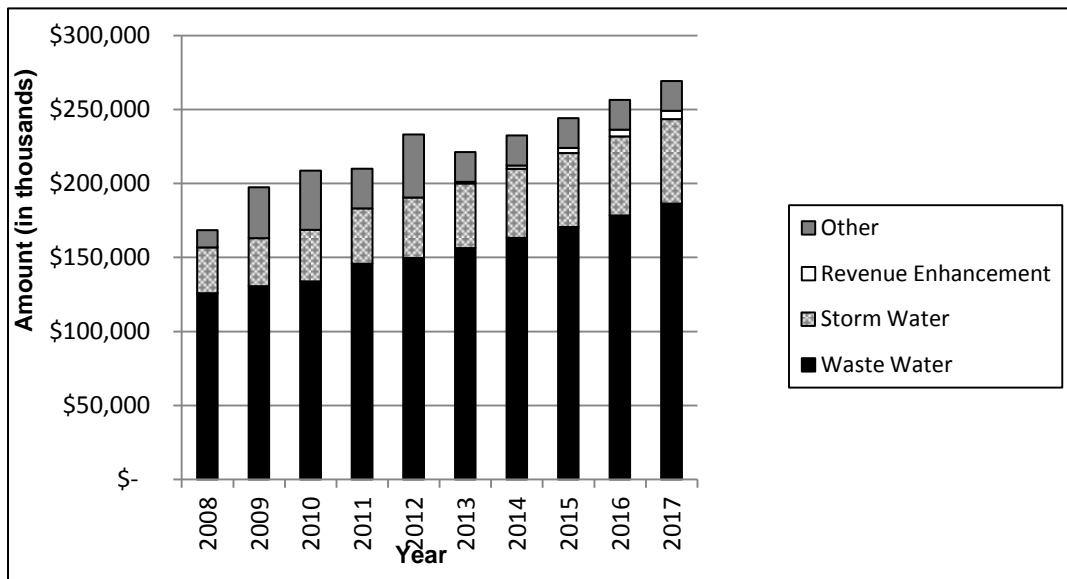
(9)

Debt service coverage is the ratio, expressed as a percentage, of Net Revenues to Aggregate Net Debt Service.

Debt service coverage is computed in order to determine MSD's ability to deliver the certificate of its Authorized Officer prior to the authentication and delivery of Additional Bonds pursuant to the provisions of Article 2, Section 2.2 A [6] and [7], and Section 2.6 of the Resolution (collectively, the *Additional Bonds Test*). As used only for this purpose, debt service coverage is measured by subtracting Operating Expenses from Revenues before determining debt service coverage. For all other purposes of the Resolution (including MSD's covenants concerning the establishment and amendment of rates, fees, rents and charges) 110 percent of Aggregate Net Debt Service is subtracted first from Available Revenues to determine net revenues available for other purposes of MSD. Pursuant to these covenants, MSD's budgetary and financial management policies require that, for any period, Revenues available after subtraction of 110 percent coverage of Aggregate Net Debt Service (and 100 percent of Senior Subordinated Debt Service), are the net revenues available for Operating Expenses. There are two debt service coverage ratios presented in Table 5-4, one excluding Subordinated Debt and one including Subordinated Debt.

- Revenues from wastewater and storm water service charges are expected to increase by 5.0 percent in FY 2013 through FY 2017. Beginning in FY 2013, it is projected that implementation of MSD's Revenue Enhancement Program will generate \$1.2 million, increasing to \$5.7 million in FY 2017. This results in an increase in total revenues from rates, fees, rentals, and charges from \$201.2 million in FY 2013 to \$249.2 million in FY 2017. Other operating income is expected to increase by \$1.8 million in FY 2013 through 2017. Figure 5-3 shows the actual (FY 2008 through FY 2012) and projected (FY 2013 through FY 2017) available revenues.

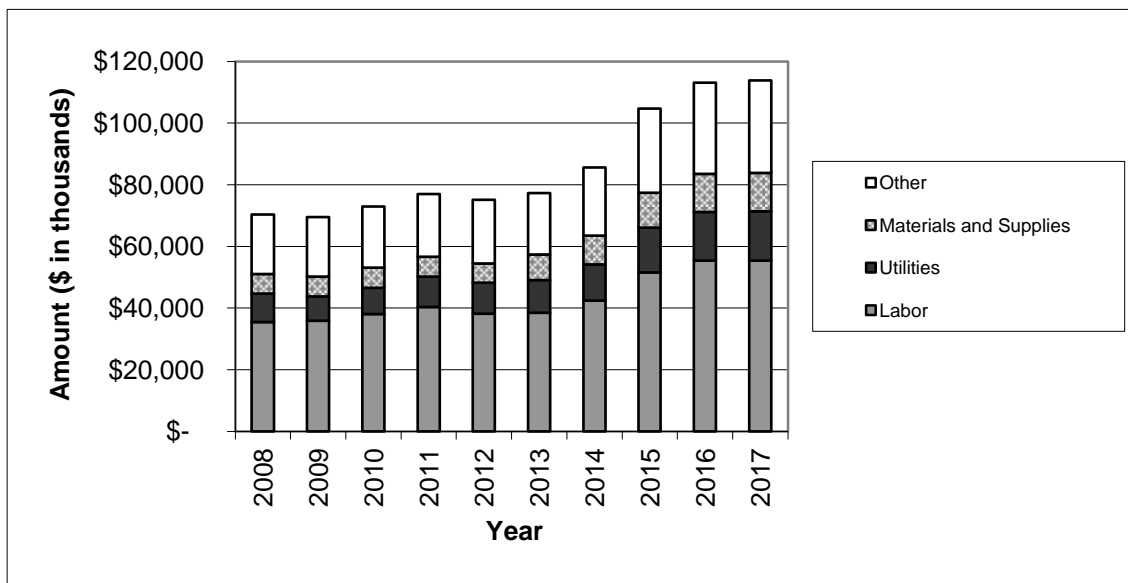
Figure 5-3
Available Revenues



MSD's available revenues are actual through 2011, preliminary for 2012, and projected for years 2013 to 2017.

- Labor costs, net of capitalized overhead expenses, are expected to increase by 6.4 percent in 2013 and then 1.8 to 1.9 percent from 2014 through 2017. All other operating expenses, net of capitalized overhead, with the exception of utilities, are expected to increase by 3.0 percent annually in FY 2013 through 2017. Figure 5-4 shows the actual (FY 2008 through FY 2011), preliminary (FY 2012), and projected (FY 2013 through FY 2017) operating expenses.
- Working capital is expected to decrease from \$206.2 million in FY 2013 to \$65.0 million in FY 2017.

**Figure 5-4
Operating Expenses**



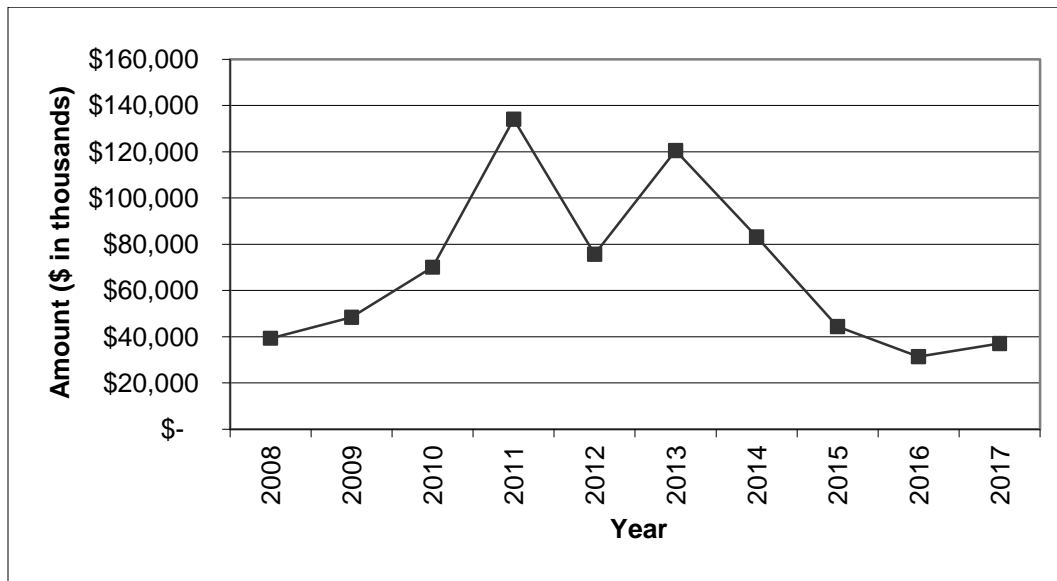
MSD's operating expenses are actual through 2011, preliminary for 2012, and projected for years 2013 to 2017.

- Capital Improvement Project (CIP) cost is expected to decrease from \$120.5 million in FY 2013 to \$37.0 million in 2017. Figure 5-5 shows the actual (FY 2008 through 2012) and projected (FY 2013 through FY 2017) CIP expenses. During the five-year planning period (FY 2013 through FY 2017), MSD projects \$316.5 million in gross capital project design and construction.

Based on these assumptions, the net revenues are projected to increase from \$144.0 million in FY 2013 to \$155.4 million in FY 2017.

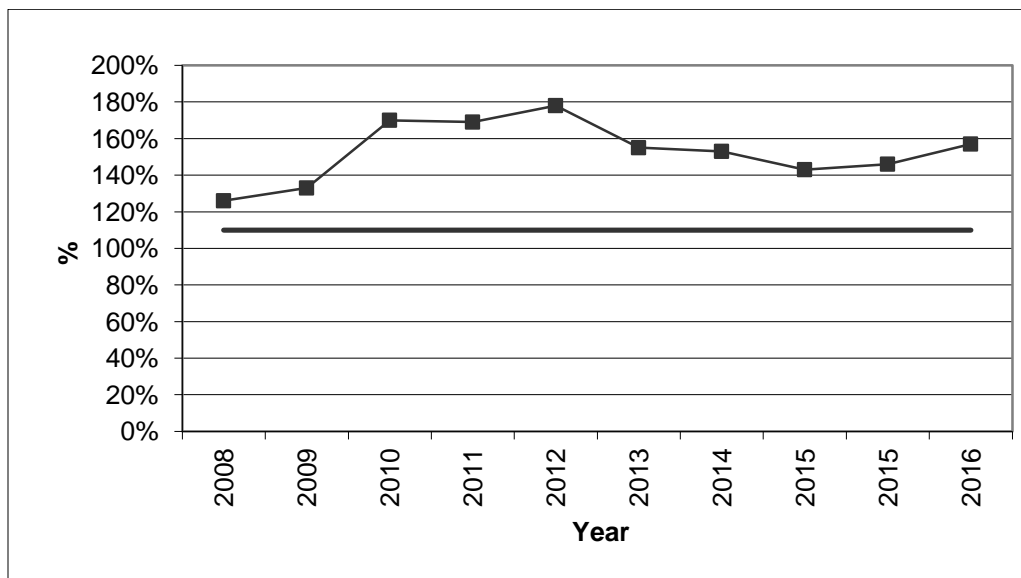
During the five-year planning period, MSD will meet the required 110 percent (shown as horizontal line in Figure 5-6) debt service coverage under the MSD 1993 Bond Resolution. Figure 5-6 shows the actual, estimated, and projected debt service coverage.

Figure 5-5
Annual Contractual Capital Project
Design/Construction Expenses



MSD's annual CIP Expenses are actual through 2011, preliminary for 2012, and projected for years 2013 to 2017.

Figure 5-6
Debt Service Coverage



Debt service coverage is actual through year 2011, preliminary for 2012, and projected for the years 2013 to 2017.

6. FINDINGS AND CONCLUSIONS

6.1 ASSUMPTIONS AND PROJECTIONS

Certain assumptions and projections were made relative to the financial and engineering issues reviewed and evaluated in the preparation of this report. The assumptions and projections were necessary in order to review, evaluate, and estimate the engineering merits of MSD's CIP, management of the CIP, proposed capital improvement projects, and the financial implications of implementation of CIP projects over the next five years. These assumptions and projections have also been reviewed and evaluated. The assumptions and projections made with regard to reviewing and evaluating the financial and engineering issues associated with the Series 2012A Notes and the CIP were determined to be reasonable and in accordance with accepted engineering practice.

The assumptions and projections are dependent upon future events and conditions, which may differ from those assumed. To the extent that future conditions differ from those assumed herein, the actual results may vary from those forecast. 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. 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 MSD's service area, unanticipated changes in law or unanticipated material litigation, efficiency of operations, and the capital construction and expenditure plans and results of MSD. The potential variance of the actual from the forecast results would not significantly affect the overall validity of this assessment of financial and engineering feasibility for two reasons. First, MSD can substitute additional (or other) revenue-producing wastewater and storm water drainage capital improvement projects if constraints arise with any of the proposed projects intended for implementation in the next five years. Second, the MSD ratemaking process can be utilized to increase service charge and fee revenues to meet financial requirements. MSD's relatively low level of charges and fees allows a considerable margin of policy elasticity for raising fees.

The principal assumptions and projections incorporated in this review are as noted below:

- MSD will realize an annual increase in wastewater service charge revenues due to population and activity increase in its service area (including private development and industrial expansion), planned annual rate increases, revenue enhancement efforts, expansion of its service areas through construction of proposed wastewater facilities in the expansion action areas, continuation of the sanitary sewer assessment and collector projects program, and acquisition of small private treatment plants.
- MSD will realize an annual increase in storm water service revenues due to population growth, planned annual rate increases, household and dwelling unit growth, increase in the measured impervious surface area in the service area, and expansion of its service area. Storm water rates will be increased annually to fund additional capital drainage projects.

- MSD's ongoing strategic planning process, proposed master plan initiative, action plan implementation, improved management, program and project scheduling and tracking, continued implementation of computerized project scheduling, tracking, and management systems, citizen involvement with programs and projects, and outside management reviews of operations should provide appropriate monitoring of MSD's operating expenses and capital project scheduling and costs.
- MSD will realize an offset in operating expenses through decommissioning of small wastewater treatment plants, more thorough use of automated plant process controls, increased use of remote monitoring of wastewater pump stations, reduction of operating costs, and a continuing gradual reduction of consultant fees.
- MSD is authorized on its own authority to implement annual seven percent increases in its primary rates to meet expected increases in operating expenses, material costs, and capital improvement requirements. Larger increases can be approved by the Louisville Metro Council, as was most recently implemented in 2007.

6.2 FINANCIAL CAPABILITY OF MSD

On the basis of previous studies, investigations, and our analysis, it can be concluded that the financial position of MSD continues to remain strong. It is our opinion that MSD can successfully undertake the financial obligations attendant with implementation of its five-year CIP, including wastewater and storm water drainage capital improvement projects. This conclusion is based on the current service charge rate structure and projections.

MSD has an established customer base that currently is supporting the costs of providing wastewater and storm water drainage services. Because our analysis was based on conservative growth estimates, it is reasonable to assume MSD's financial position may become even stronger than projected. As MSD continues to grow, it should benefit from economies of scale, which will tend to reduce unit-operating costs.

6.3 CERTIFICATION OF NET REVENUES

Given MSD's service charge and fee system, its ability to increase service charges and fees, its authority to operate and expand wastewater and storm water drainage services throughout Louisville Metro, and its projected revenue and expense position, there should be adequate net revenues to meet Current Bond debt service and operating obligations in Fiscal Years 2013 through 2017.¹ Assuming implementation of future rate increases, as planned, to meet increases in operating expenses and material costs and capital improvement requirements, net revenues will be equal to or greater than 110 percent of the Aggregate Net Debt Service for each such fiscal year.

¹ By Louisville Ordinance No. 86, Series 1971, "Net Revenues" is defined as "gross revenues [or total income] from service charges less operating expenses and debt payments other than debt service payments on MSD's outstanding revenue bonds."

6.4 ABSENCE OF MATERIAL LITIGATION

MSD has advised that there is no litigation or other legal proceeding pending or, to the knowledge of MSD, threatened to restrain or enjoin the issuance, sale or delivery of the Series 2012A Notes or the implementation of the financing as described herein, or in any way contesting or affecting the validity of the Series 2012A Notes or the financing as described herein or any proceedings of MSD taken with respect to the issuance or sale of the Series 2012A Notes, the pledge or application of any moneys or securities provided for the payment of the Series 2012A Notes or the existence or powers of MSD insofar as they relate to the authorization, sale and issuance of the Bonds or such pledge or application of moneys and securities or the implementation of the plan of financing as described herein.

MSD has further advised that there is no litigation or other legal proceeding pending or, to the knowledge of MSD, threatened which challenges the authority of MSD to operate its sewer and drainage system or to collect revenues therefrom or which contests the creation, organization or existence of MSD or the title of any of its Board members or executive staff to their respective offices.

On April 10, 2009, the United States District Court for the Western District of Kentucky, Louisville Division (the "Court"), entered an Amended Consent Decree, in Civil Action No.: 3:08-CV-00608-CRS (the "Amended Consent Decree"). The Amended Consent Decree amended, superseded and replaced the original Consent Decree entered by the Court on August 12, 2005, between the Commonwealth of Kentucky, the United States of America and MSD. The Amended Consent Decree resolved all pending claims of violations of the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977, and the Water Quality Act of 1987 (hereinafter "Clean Water Act" or "the Act") pursuant to 33 U.S.C. 1251 et seq. and the regulations promulgated thereunder.

By entering into the Amended Consent Decree, MSD neither admitted nor denied the alleged violations described therein but did acknowledge that sanitary sewer overflows and unauthorized discharges have occurred and MSD accepted the obligations imposed under the Amended Consent Decree. To date, MSD has complied with all submittals and reporting requirements contained in the Amended Consent Decree. A copy of the Amended Consent Decree is available at the offices of MSD. MSD intends to perform all Capital Improvement Programs and other requirements contained in the Amended Consent Decree. The cost of the capital improvements required to be completed under the Amended Consent Decree is currently estimated to be approximately \$850 million of which approximately \$303 million has been spent using proceeds of MSD's Sewer and Drainage System Revenue Bonds, Series 2008, 2009C, and Series 2010A. The Amended Consent Decree contains stipulated penalties for MSD's failure to comply with provisions contained in the Amended Consent Decree. MSD has agreed to make total expenditure under the original Consent Decree and the Amended Consent Decree for Supplemental Environmental Projects in an amount not less than \$2,250,000.

MSD's Final Sanitary Sewer Discharge Plan and the CSO Long Term Control Plan were submitted concurrently and certified on December 19, 2008, under the title of the Integrated Overflow Abatement Plan (IOAP). The IOAP was accepted by the Federal Court and

incorporated by reference into the Amended Consent Decree by an Order signed February 12, 2010, that was entered into the public record February 15, 2010.

On May 17, 2010, two individuals filed, pro se, in Jefferson District Court, Louisville, Kentucky, a Complaint alleging that MSD violated KRS 76.090 by implementing a revised rate schedule effective August 1, 2009, without required approvals. MSD filed a Motion seeking to have the Circuit Court enter Judgment in MSD's favor. On September 16, 2010, the Jefferson Circuit Court granted MSD's Motion for Summary Judgment. The Judgment held that MSD complied with all statutory notice and public disclosure requirements for its rate increase and dismissed with prejudice the Plaintiffs' Complaint. On October 15, 2010, Plaintiffs filed a Notice of Appeal, however failed to perfect the appeal as required by the Kentucky Rules of Civil Procedure. On June 9, 2011, MSD filed a Motion to Dismiss for failure to perfect and on December 9, 2011, the Kentucky Court of Appeals granted MSD's Motion dismissing the Plaintiffs' appeal.

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

MSD has further advised that there is no litigation or other legal proceeding (other than that relating to the Amended Consent Decree) pending or, to the knowledge of MSD, threatened against or affecting MSD or its Board wherein an unfavorable decision, ruling, or finding would have a materially adverse effect on the operations, properties, or financial condition of MSD.

6.5 MERITS OF THE CAPITAL IMPROVEMENT PROGRAM

The proposed wastewater and storm water drainage system capital improvement projects included in the MSD CIP are needed to: (1) upgrade and improve services provided by existing facilities; and (2) accommodate growth into developed but unserved areas. MSD is moving forward with implementation of capital drainage projects for Project DRI. MSD is also moving forward with implementation of sanitary sewer system capital projects consistent with the original Consent Decree and the Amended Consent Decree.

MSD has improved the efficiencies in cost and customer support through integration of capital projects planning, design, construction inspection, and administration for all wastewater and drainage projects. The existing combined sewer rehabilitation, I/I program, and combined sewer overflow (CSO) abatement program projects are to be implemented to improve the existing sewer infrastructure in existing wastewater service areas. The wastewater capital projects to be implemented are important to enhancement of water quality.

6.6 FUTURE REVENUE AND EXPENSE POSITION

6.6.1 Operations and Maintenance Expenses

Revenues from wastewater and storm water drainage services operated and maintained by MSD are conservatively projected to be adequate to cover expected operations and maintenance costs,

payments required for projected outstanding debt service, and the normal renewals and replacements required throughout the System.

Total operating expenses, net of capitalized overhead, are projected to increase by 8.4 percent in 2013 and by 2.4 to 2.5 percent annually in FYs 2014 through 2017 for combined wastewater and storm water drainage services. This projection anticipates: (1) inflationary effects on operation and maintenance costs; (2) service area growth; and (3) cost saving through annual productivity gains in operations and services. Because of the rate-making procedures under which MSD operates, it is assumed that MSD will implement rate increases, as required, to meet higher than estimated inflation rates or other related service costs which may exceed revenues and impact the Debt Service Coverage Ratio.

6.6.2 Debt Service

The issuance of the Series 2012A Notes is considered to be financially feasible; sound from an engineering and operations perspective; and, necessary to allow the System to properly serve the existing and future service areas in an efficient and proper manner. Assuming implementation of future rate increases, as required, to meet increases in operating expenses in response to higher than expected inflationary wage and material cost impacts and/or capital improvement requirements, net revenues will be equal to or greater than 110 percent of the Aggregate Net Debt Service for each of the Fiscal Years 2013 through 2017. MSD is projecting an annual average debt service coverage of approximately 151 percent for FY 2013 through FY 2017, excluding subordinated debt and 131 percent when subordinated debt is included.

6.6.3 New Revenue Generation Sources

The generation of new revenue sources will occur as a result of implementing the MSD CIP and implementation of the Revenue Enhancement Program. Wastewater service projects will increase the customer base by approximately 1,200 customers annually to MSD's system, during the five-year period FY 2013 through FY 2017. Storm water revenue increases are projected primarily from service area expansion and expansion of impervious surfaces within MSD's service area.

Attachment B

**IN THE UNITED STATES BANKRUPTCY COURT
FOR THE NORTHERN DISTRICT OF ALABAMA
SOUTHERN DIVISION**

In re:)	
)	
JEFFERSON COUNTY, ALABAMA,)	Case No. 11-05736-TBB9
a political subdivision of the State of)	
Alabama,)	Chapter 9
)	
Debtor.)	

AFFIDAVIT OF JAMES H. WHITE, III

BEFORE ME, a Notary Public in and for the County and State aforesaid, personally appeared James H. White, III, who is known to me and being by me first duly sworn, deposes and says:

My name is James H. White, III and I am Chairman of Porter White Capital Advisors, Inc., a financial consulting firm ("PW&Co"). A copy of my Curriculum Vitae is attached as Exhibit 3 to this Affidavit. Since the late 1970's I have been engaged on behalf of PW&Co or its affiliates on numerous occasions on a voluntary or professional basis in a variety of projects relating to the Jefferson County sewer system ("Sewer System"). The first such engagement was as a nonpaid member of a committee formed by the Jefferson County Commission in the late 1970's to consider problems in the treatment of sewage in a Sewer System plant discharging into the Cahaba River resulting from low flows in the river during summer months. Other projects included in the early 1980's a

comprehensive model of sewer system operations suitable for predicting required capital expenditures and sewer rates; the financing in the early 1980's of sewer system improvements; analysis of interest rate swaps entered into by Jefferson County at various times from 1997 forward; as a subcontractor to BE&K in 2003, the analysis of the County's sewer system financing structure leading to a report released in September, 2003; as financial advisor to the County in the period 2007 to July 2008 during which the County attempted to deal with the disruption to its outstanding sewer financings caused by failure of bond insurance companies and disruption in the worldwide financial markets associated with the "Great Recession." Neither I nor any of the firms with which I have been associated have been involved with planning, promoting, underwriting or arranging any of the County's outstanding sewer debt. I also served as financial advisor to The Water Works and Sewer Board of the City of Birmingham ("Water Board") during a period of several years during the 1990's and was employed by counsel to the Water Board on or about July 15, 2013, to assist counsel in preparing comments on the Disclosure Statement filed on behalf of Jefferson County in the Chapter 9 bankruptcy case now pending in the Bankruptcy Court for the Northern District of Alabama. From time to time subsequent to July 2008, PW&Co has provided financial advice to others in connection with Jefferson County debt. Such advice

has been consistent with this affidavit and any advice we have rendered to counsel for the Water Board.

Exhibits 1 and 2 attached hereto were prepared by me or under my supervision. I hereby affirm, to the best of my knowledge and belief, that Exhibits 1 and 2 accurately display the information set forth therein, all of which is based on Exhibit 9 to the Disclosure Statement referred to above.

James H. White, III

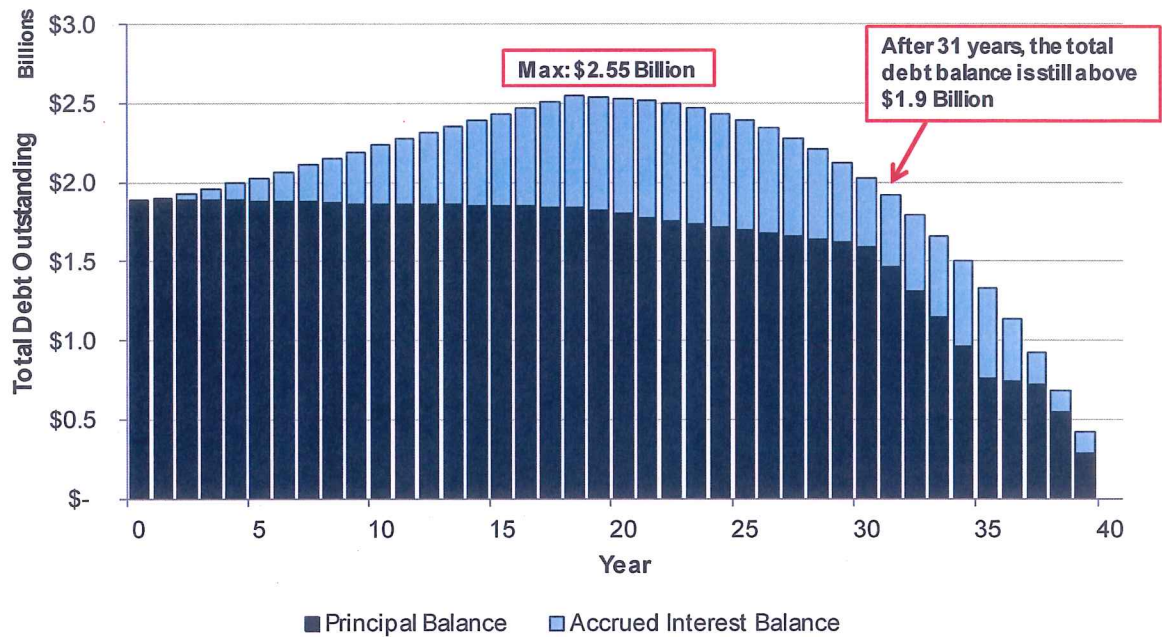
James H. White, III

Sworn and subscribed before me this the _____ day of July 2013.

Karen H. Rich
Notary Public

My commission expires: 1/5/14

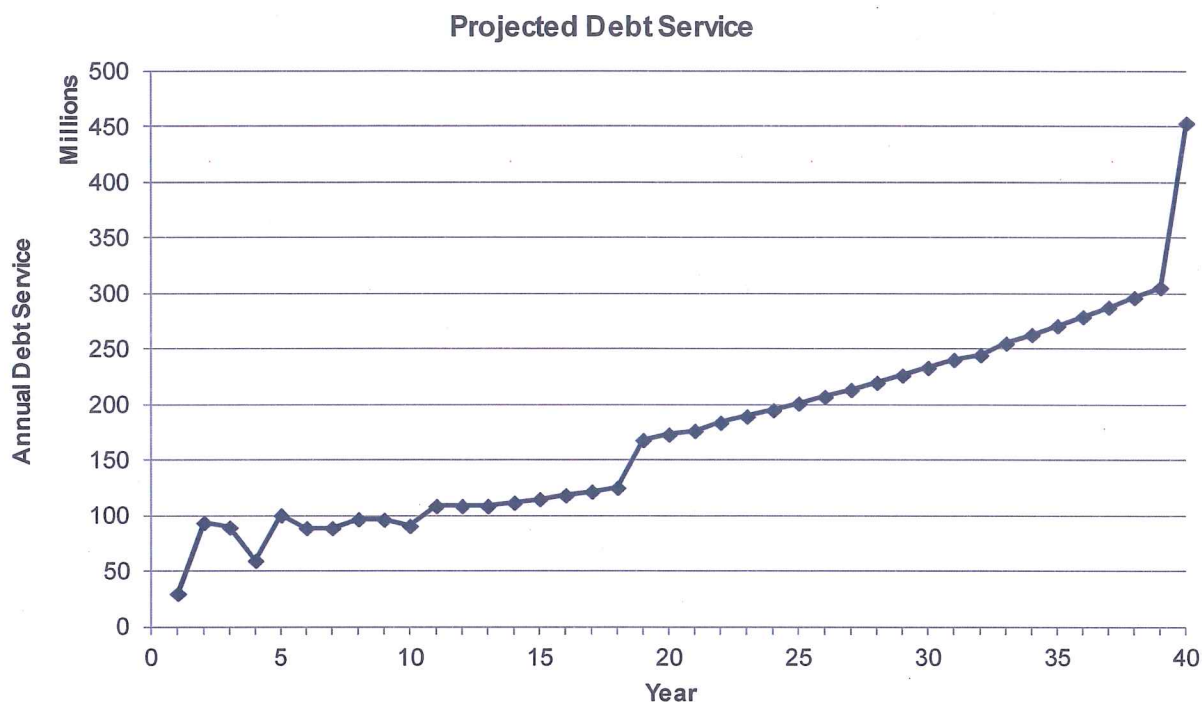
Exhibit 1



Source: Internal analysis of information found in Exhibit 9 of the Disclosure Statement.

Note: Exhibit 9 of the financial plan lays out the anticipated financing for each bond. We used municipal finance software, DBC[®] Finance, to model both the principal and interest payments over the life of the financing and the accrued interest that is not paid and compounds on the capital appreciation bonds and the convertible capital appreciation bonds. DBC[®] Finance is commonly used by underwriters, financial advisors, and issuers to structure/size bond issues, calculate debt service, and perform refunding analysis.

Exhibit 2



Source: Exhibit 9 of the Disclosure Statement.

Note: Page 3 of Exhibit 9 shows the projected debt service on the proposed financing. The graph above uses the debt service information in the column labeled 'Gross Debt Service', with one exception in the final year of the financial plan (2053). The graph above shows the gross debt service, while the table on page 3 of Exhibit 9 shows the debt service after reducing the total debt service by the full amount of the debt service reserve.

Exhibit 3

BIOGRAPHICAL INFORMATION

JAMES H. WHITE, III

Porter, White & Company, Inc.
15 Richard Arrington Jr. Boulevard, North
Birmingham, AL 35203
(205) 252-3681
(205) 252-8803
jim@pwco.com

James H. White, III ("Jim") is an investment banker and lawyer with 45 years of experience in public, project and real estate finance and development, and in middle market and venture capital corporate finance.

Professional Experience

Investment Banking. Chairman of Porter, White & Company and predecessor firms since 1975, engaged in the investment banking and financial advisory businesses.

1973-1975, Associate, J. H. Shannon & Co., investment bankers specializing in health facilities financing; special counsel to the University of Alabama at Birmingham.

University Legal Counsel. 1970-1973, Counsel, University of Alabama at Birmingham, Associate General Counsel, The Board of Trustees of the University of Alabama.

Private Law Practice. 1968-1970, Associate, Bradley, Arant, Rose & White, Birmingham, Alabama, with primary interest in public law and corporate securities law.

Education

LLB, Yale University Law School, 1967; AB, Princeton University, 1964, Magna Cum Laude.

Personal

Born October 20, 1942, in Birmingham, Alabama; married to Marjorie Longenecker White; three children.

Member, Alabama Bar Association; Member, American Bar Association; Associate Member, National Association of Bond Lawyers; Director and Member Executive Committee, Public Affairs Research Council of Alabama, Inc.; President and Director, Birmingham Public Library Foundation.

Registered with Financial Industry Regulatory Authority as a General Securities Principal and as a Municipal Principal.

Selected Professional Accomplishments

(1) Financial advisor to Jefferson County from January 1, 2007 to February 1, 2007 and from April 1, 2007 to July 8, 2008.

(2) Financial advisor to The Board of Trustees of the University of Alabama from May 1, 2009 to present; financial advisor to the Birmingham Airport Authority June, 2012 to present; financial advisor to the Birmingham-Jefferson Civic Center Authority, 1992 to present.

(3) Liquidating trustee for Birmingham Steel pursuant to Plan of Reorganization in the Chapter 11 case, In re: Birmingham Steel Corporation, et al., Case No. 02-11586 (LK) in the United States Bankruptcy Court for the District of Delaware.

(4) Financial advisor to the City of Birmingham and its principal agencies for twenty years (1979 to 1999), during which the City addressed the problems of a core industrial city with a declining population, low per capita income and changing work force by implementing financing and development strategies and capital expenditures that resulted in job growth, improved infrastructure and civic amenities, a growing tax base, and improved credit standing.

(5) As legal advisor and subsequently consultant to the University of Alabama at Birmingham ("UAB") led the effort to fund a significant expansion of the campus of this post-World War II urban research university and medical center, including the original concept, tax and financial structure of a medical faculty practice plan to support

the teaching, research and service function of UAB, and the innovative planning and financing of a world class outpatient facility for the plan.

(6) Co-founder of the Public Affairs Research Council of Alabama whose mission is applied research and public education on public policy issues in Alabama.

(7) Investment banker for the acquisition and expansion of middle market companies and start-up biotechnology companies capitalizing on scientific discoveries at the UAB Medical Center.

(8) Investment banker and consultant for acquisitions and divestitures and financings of hospitals, physician practices, academic medical practices, physician office buildings and outpatient clinics, AIDS clinic, HMO-PPO.

(9) Project coordination and financial planner for major private and public/private projects, including a green-field steel mill, site selection for an automobile manufacturing plant (Honda), airport restructuring and modernization, and convention and civic center expansion and financial restructuring.

(10) Investment and financial advisor to non-profit and governmental entities in formulating debt and investment policies to optimize financial performance through strategic financial planning and the application of asset-liability management techniques.

Publications

James H. White, III, *Constitutional Authority to Issue Debt*, 33 Cumberland Law Review 561 (2002-2003).

James H. White, III, *Financing Plans for the Jefferson County Sewer System: Issues and Mistakes*, 40 Cumberland Law Review 717 (2009-2010).