

OFFER TO TENDER BONDS
made by
MIAMI-DADE COUNTY, FLORIDA

to the Holders described herein of all or any portion of the maturities listed on pages (i) through (iii) herein of the

MIAMI-DADE COUNTY, FLORIDA

Water and Sewer System Revenue Bonds, Series 2017A

Water and Sewer System Revenue Refunding Bonds, Series 2017B

Water and Sewer Revenue Refunding Bonds, Taxable Series 2019C

**THIS INVITATION WILL EXPIRE AT 5:00 P.M., NEW YORK CITY TIME, ON MAY 10, 2024,
UNLESS EARLIER TERMINATED OR EXTENDED AS DESCRIBED HEREIN. See "TERMS OF THE INVITATION" herein.**

This Offer to Tender Bonds, dated April 29, 2024 (as it may be amended or supplemented, this "*Invitation*"), describes an offer by Miami-Dade County, Florida (the "*County*"), with the assistance of Goldman Sachs & Co. LLC, as Dealer Manager (the "*Dealer Manager*"), to the beneficial owners (the "*Holders*" or "*Bondholders*") of the County's outstanding bonds of the series and certain maturities listed on pages (i) through (iii) of this Invitation (collectively, the "*Bonds*") to use a portion of the proceeds of the County's Water and Sewer System Revenue Refunding Bonds, Series 2024B (the "*Series 2024B Bonds*"), together with other legally available funds, to purchase Bonds tendered by any Bondholder (the "*Tender Offer*") at the offer prices based on the following:

- (i) with respect to the *federally taxable Bonds* listed in Table 1 on pages (i) and (ii) of this Invitation (the "*Taxable Bonds*"), the offer price will be based on a fixed spread to be added to the yields on certain benchmark United States Treasury Securities, all as set forth in Table 1; and
- (ii) with respect to the *federally tax-exempt Bonds* listed in Table 2 on page (iii) of this Invitation (the "*Tax-Exempt Bonds*"), the offer prices will be the purchase prices as set forth in Table 2,

plus, in each case, accrued interest on the Bonds tendered for purchase up to but not including the Settlement Date ("*Accrued Interest*"). If issued, the Series 2024B Bonds will be dated the Settlement Date, bear interest at the rates and mature on the dates (subject to prior redemption), and be issued in the manner, on the terms and with the security therefor described in the 2024 POS (as defined herein).

Subject to the terms and conditions of the Tender Offer, the County may purchase Bonds tendered for purchase on May 29, 2024, unless extended by the County, assuming all conditions to the Tender Offer have then been satisfied or waived by the County (such date being the "*Settlement Date*"), provided that such Bonds have been validly tendered for purchase by the Expiration Date set forth below. Bondholders who tender Bonds for purchase will receive Accrued Interest on such Bonds on the Settlement Date. The source of funds to purchase the Bonds validly tendered and accepted for purchase pursuant to the Tender Offer with respect to the principal amount thereof will be primarily from proceeds of the Series 2024B Bonds and supplemented by available funds from the County at the County's sole determination. The Series 2024B Bonds will be issued in the manner, on the terms and with the security therefor described in the Preliminary Official Statement dated April 29, 2024 attached hereto as APPENDIX A (the "*2024 POS*"). The payment of Accrued Interest on Bonds validly tendered and accepted for purchase will be funded from legally available moneys of the County and paid on the Settlement Date. The purchase of any Bonds validly tendered and accepted pursuant to the Tender Offer is contingent on the issuance of the Series 2024B Bonds. The consummation of the Tender Offer is also subject to certain other conditions, including, without limitation, the Financing Conditions (as defined herein). See "INTRODUCTION — General" and "TERMS OF THE TENDER OFFER — Conditions to Purchase" herein.

HOLDERS OF BONDS WHO DO NOT ACCEPT THE TENDER OFFER, AS WELL AS HOLDERS OF BONDS WHO TENDER BONDS FOR PURCHASE WHEREIN THE COUNTY IN ITS DISCRETION DOES NOT ACCEPT SUCH TENDER FOR PURCHASE, WILL CONTINUE TO HOLD SUCH BONDS (COLLECTIVELY, THE "UNTENDERED BONDS") AND SUCH UNTENDERED BONDS WILL REMAIN OUTSTANDING UNDER THE BOND ORDINANCE (AS DEFINED HEREIN). THE COUNTY RESERVES THE RIGHT TO, AND MAY DECIDE TO, IN THE FUTURE DEFEASE OR REFUND (ON AN ADVANCE OR CURRENT BASIS) SOME OR ALL OF THE UNTENDERED BONDS THROUGH THE ISSUANCE OF PUBLICLY-OFFERED OR PRIVATELY-PLACED TAXABLE OR TAX-EXEMPT OBLIGATIONS OR FUNDS OF THE COUNTY. See "INTRODUCTION - Bonds Not Tendered for Purchase" and "ADDITIONAL CONSIDERATIONS" herein.

To make an informed decision as to whether, and how, to tender Bonds for purchase pursuant to the Tender Offer, Bondholders must read this Invitation carefully, including the 2024 POS attached hereto, and consult with their broker, accounts executive, financial advisor, attorney and/or other professionals. For more information about risks concerning the Tender Offer, please see "ADDITIONAL CONSIDERATIONS" herein.

Any Bondholder wishing to accept the Tender Offer pursuant to this Invitation should follow the procedures more specifically described herein. Bondholders and their brokers and accounts executives with questions about this Invitation should contact the Dealer Manager or the Information Agent.

Key Dates and Times

*All of these dates and times are subject to change. All times are New York City time.
Notices of changes will be sent in the manner provided for in this Offer.*

Launch Date	April 29, 2024
Expiration Date	By 5:00p.m. on May 10, 2024
Preliminary Notice of Acceptance	By 5:00 pm. on May 13, 2024
Determination of Taxable Bonds Purchase Price	11:00 a.m. on May 14, 2024
Notice of Taxable Bonds Purchase Price	By 5:00p.m. on May 14, 2024
Final Notice of Acceptance	On or about May 15, 2024
Settlement Date	May 29, 2024

The Dealer Manager
for the Tender Offer is:

Goldman Sachs & Co. LLC

The Information Agent and Tender Agent
for the Tender Offer is:

Globic Advisors

BONDS SUBJECT TO THE TENDER OFFER

TABLE 1 – TAXABLE BONDS

<u>Series</u>	<u>CUSIP</u> ¹	<u>Maturity</u>	<u>Interest Rate</u>	<u>Outstanding Principal Amount</u>	<u>Par Call Date</u>	<u>Benchmark Treasury Security</u> ^{2*}	<u>Fixed Spread</u> ^{3†}
Series 2019C	59334DLJ1	10/1/2027	2.501%	\$48,055,000	[n/a]	3-year	(18)
Series 2019C	59334DLK8	10/1/2028	2.551%	\$49,085,000	[n/a]	5-year	(12)
Series 2019C	59334DLL6	10/1/2029	2.601%	\$50,195,000	[n/a]	5-year	(8)
Series 2019C	59334DLM4	10/1/2030	2.741%	\$14,625,000	10/1/2029	7-year	(5)
Series 2019C	59334DLN2	10/1/2031	2.841%	\$15,140,000	10/1/2029	7-year	(2)
Series 2019C	59334DLP7	10/1/2032	2.911%	\$15,630,000	10/1/2029	10-year	-
Series 2019C	59334DLQ5	10/1/2033	2.981%	\$16,145,000	10/1/2029	10-year	5
Series 2019C	59334DLR3	10/1/2034	3.011%	\$16,690,000	10/1/2029	10-year	8
Series 2019C	59334DLS1	10/1/2042	3.490%	\$322,525,000	10/1/2029	20-year	20

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^{2*} Each Benchmark Treasury Security (as defined herein) will be the most recently auctioned “on-the-run” United States Treasury Security for the maturity indicated as of the date and time that the Taxable Bonds Purchase Price is set, currently expected to be approximately 11:00 a.m. New York City time on May 14, 2024.

^{3†} The Fixed Spreads shown are subject to amendment by the County only pursuant to the terms described herein under “TERMS OF THE TENDER OFFER - Minimum Denominations and Consideration for Offers; Changes to the Terms of the Tender Offer.” The Purchase Price to be paid on the Settlement Date excludes Accrued Interest on the Bonds tendered for purchase, which interest will be paid up to but not including the Settlement Date in addition to the Purchase Price.

The table below provides an example of the Purchase Prices realized by a Bondholder that submits an offer based on the following indicative yield for the Benchmark Treasury Securities as of April 25, 2024, and the Fixed Spreads. **This example is being provided for convenience only and is not to be relied upon by a Bondholder as an indication of the Purchase Yield or Purchase Price for any CUSIP that may be paid by the County.** The County will publish a Notice of Taxable Bonds Purchase Prices at or around 5:00 p.m. New York City time on May 14, 2024. See “TERMS OF THE TENDER OFFER – Acceptable of Tenders for Purchase” of the Invitation for a description of the determination of the Purchase Prices.

INDICATIVE PURCHASE PRICES FOR THE TAXABLE BONDS

CUSIP No. ^{4†}	Maturity Date (October 1)	Benchmark Treasury Security*	Treasury Security Yield**	Fixed Spread (Basis Points)	Indicative Purchase Yield	Indicative Purchase Price (% of principal amount)
59334DLJ1	2027	3-year	4.856%	(18)	4.676%	93.344
59334DLK8	2028	5-year	4.720	(12)	4.600%	92.020
59334DLL6	2029	5-year	4.720	(8)	4.640%	90.451
59334DLM4	2030	7-year	4.730	(5)	4.680%	89.466
59334DLN2	2031	7-year	4.730	(2)	4.710%	88.512
59334DLP7	2032	10-year	4.706	-	4.706%	87.733
59334DLQ5	2033	10-year	4.706	5	4.756%	86.736
59334DLR3	2034	10-year	4.706	8	4.786%	85.652
59334DLS1	2042 ^(†)	20-year	4.935	20	5.135%	82.037

^{4†}Copyright 2024, American Bankers Association. CUSIP® is a registered trademark of the American Bankers Association. CUSIP Global Services is managed on behalf of the American Bankers Association by FactSet Research Systems Inc. This data is not intended to create a database and does not serve in any way as a substitute for the CUSIP Services. CUSIP numbers are provided for convenience of reference only. None of the County, the Dealer Manager or the Information Agent or their respective agents or counsel assume responsibility for the accuracy of such numbers.

(*) Each Benchmark Treasury Security (as defined herein) will be the most recently auctioned “on-the-run” United States Treasury Security for the maturity indicated as of the date and time that the Taxable Bonds Purchase Price is set, currently expected to be approximately 11:00 a.m. New York City time on May 14, 2024

(**) Yields as of close of business April 25, 2024.

(†) Term Bond; Priced to average maturity of August 17, 2040. See "INTRODUCTION -- Consideration for Tender Offer" herein.

BONDS SUBJECT TO THE TENDER OFFER (CONTINUED)

TABLE 2 – TAX-EXEMPT BONDS

<u>Series</u>	<u>CUSIP^{5*}</u>	<u>Maturity</u>	<u>Interest Rate</u>	<u>Outstanding Principal Amount</u>	<u>Call Date</u>	<u>Purchase Price as a Percentage of Par[†]</u>
Series 2017A	59334DJD7	10/1/2030	5.000%	\$14,200,000	10/1/2025	102.902
Series 2017A	59334DJE5	10/1/2031	5.000%	\$14,930,000	10/1/2025	102.902
Series 2017A	59334DJF2	10/1/2032	5.000%	\$15,695,000	10/1/2025	102.902
Series 2017A	59334DJG0	10/1/2033	5.000%	\$16,500,000	10/1/2025	102.902
Series 2017A	59334DJH8	10/1/2034	5.000%	\$17,345,000	10/1/2025	102.902
Series 2017B	59334DKC7	10/1/2030	5.000%	\$35,225,000	10/1/2025	102.902
Series 2017B	59334DKD5	10/1/2031	5.000%	\$36,920,000	10/1/2025	102.902
Series 2017B	59334DKE3	10/1/2032	5.000%	\$38,765,000	10/1/2025	102.902
Series 2017B	59334DKF0	10/1/2033	5.000%	\$40,705,000	10/1/2025	102.902

^{5*}Copyright 2024, American Bankers Association. CUSIP® is a registered trademark of the American Bankers Association. CUSIP Global Services is managed on behalf of the American Bankers Association by FactSet Research Systems Inc. This data is not intended to create a database and does not serve in any way as a substitute for the CUSIP Services. CUSIP numbers are provided for convenience of reference only. None of the County, the Dealer Manager or the Information Agent or their respective agents or counsel assume responsibility for the accuracy of such numbers.

[†]The Purchase Prices are subject to amendment by the County pursuant only to the terms described herein under “TERMS OF THE TENDER OFFER – Acceptable of Tenders for Purchase”. The Purchase Price to be paid on the Settlement Date excludes Accrued Interest on the Bonds tendered for purchase, which interest will be paid up to but not including the Settlement Date in addition to the Purchase Price.

PROVISIONS APPLICABLE TO THE TENDER OFFER

No later than May 14, 2024, the Notice of Taxable Bonds Purchase Price will be made available: (i) at the Municipal Securities Rulemaking Board through its Electronic Municipal Market Access website, currently located at <http://emma.msrb.org> (the “EMMA Website”), using the CUSIP numbers for the Bonds listed in the “Bonds Subject to the Tender Offer - Table 1 Taxable Bonds” above; (ii) to DTC (defined herein) and to the DTC participants holding the Bonds; and (iii) by posting electronically on the website of the Information Agent at <https://www.globic.com/miamidade>. The 2024 POS (the form of which is attached hereto as APPENDIX A) will also be made available: (i) at the EMMA Website, using the CUSIP numbers for the Bonds listed in the “Bonds Subject to the Tender Offer” tables in this Invitation; (ii) to DTC and to the DTC participants holding the Bonds; and (iii) by posting electronically on the website of the Information Agent at <https://www.globic.com/miamidade>.

The consummation of the Tender Offer is also subject to certain conditions, including, without limitation, the Financing Conditions. See “INTRODUCTION – General” and “TERMS OF THE TENDER OFFER – Conditions to Purchase” herein.

IMPORTANT INFORMATION

This Offer and other information with respect to the Tender Offer are and will be available from Goldman Sachs & Co. LLC (the “Dealer Manager”) and Globic Advisors (the “Information Agent”) at <http://emma.msrb.org> and <https://www.globic.com/miamidade>. Bondholders wishing to tender their Bonds for purchase pursuant to the Tender Offer should follow the procedures described in this Offer. The County reserves the right to cancel or modify the Tender Offer at any time on or prior to the Expiration Date, and reserves the right to make a future tender offer at spreads and prices different than those described herein in its sole discretion. The County will have no obligation to purchase Bonds tendered if cancellation or modification occurs or if the County is unable to issue the Series 2024B Bonds. The County further reserves the right to accept nonconforming tenders or waive irregularities in any tender. The County also reserves the right in the future to defease or refund (on an advance or current basis) any remaining portion of the Untendered Bonds through the issuance of publicly offered or privately placed taxable or tax-exempt obligations or funds of the County. The consummation of the Tender Offer is also subject to certain other conditions, including, without limitation, the Financing Conditions (as defined herein) that are anticipated to occur after the Expiration Date but prior to the Settlement Date.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THIS OFFER OR PASSED UPON THE FAIRNESS OR MERITS OF THIS OFFER OR UPON THE ACCURACY OR ADEQUACY OF THE INFORMATION CONTAINED IN THIS OFFER. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

This Invitation is not being extended to, and Bonds tendered in response to this Invitation will not be accepted from or on behalf of, Bondholders in any jurisdiction in which this Tender Offer or such acceptance thereof would not be in compliance with the laws of such jurisdiction. In any jurisdictions where the securities, “blue sky” or other laws require this Tender Offer to be made through a licensed or registered broker or dealer, this Invitation shall be deemed to be made on behalf of the County through the Dealer Manager or one or more registered brokers or dealers licensed under the laws of that jurisdiction.

References to website addresses herein are for informational purposes only and may be in the form of a hyperlink solely for the reader’s convenience. Unless specified otherwise, such websites and the information or links contained therein are not incorporated into, and are not a part of, this Invitation.

No dealer, salesperson or other person has been authorized to give any information or to make any representation not contained in this Invitation, including APPENDIX A, and, if given or made, such information or representation may not be relied upon as having been authorized by the County or any of its affiliates.

The delivery of this Invitation shall not under any circumstances create any implication that any information contained herein is correct as of any time subsequent to the date hereof or that there has been no change in the information set forth herein or in any attachments hereto or materials delivered herewith or in the affairs of the County, or its affiliates, since the date hereof. The information contained in this Invitation is as of the date of this Invitation only and is subject to change, completion, or amendment without notice.

Certain statements included or incorporated by reference into this Invitation constitute “forward-looking statements.” Such statements are generally identifiable by the terminology used such as “forecast,” “plan,” “expect,” “estimate,” “budget” or similar words. The achievement of certain results or other expectations contained in such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause actual results, performance or achievements described to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. The County does not plan to issue any updates or revisions to those forward-looking statements if or when changes to its expectations, or events, conditions or circumstances on which such statements are based, occur.

This Invitation, including APPENDIX A, contains important information which should be read in its entirety before any decision is made with respect to this Invitation.

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OFFER TO TENDER BONDS
made by
MIAMI-DADE COUNTY, FLORIDA
to the Holders described herein of all or any portion of the maturities listed on pages (i) through (iii)
herein of the
MIAMI-DADE COUNTY, FLORIDA

Water and Sewer System Revenue Bonds, Series 2017A
Water and Sewer System Revenue Refunding Bonds, Series 2017B
Water and Sewer Revenue Refunding Bonds, Taxable Series 2019C

INTRODUCTION

GENERAL

This Offer to Tender Bonds, dated April 29, 2024 (as it may be amended or supplemented, including the cover page and Appendices hereto, this “*Invitation*”), describes an offer by the Miami-Dade County, Florida (the “*County*”), with the assistance of Goldman Sachs & Co. LLC as Dealer Manager (the “*Dealer Manager*”), to the beneficial owners (the “*Holders*” or “*Bondholders*”) of the County’s outstanding bonds of the series and certain maturities listed on pages (i) through (iii) of this Invitation (collectively, the “*Bonds*”) to use a portion of the proceeds of the County’s Water and Sewer System Revenue Refunding Bonds, Series 2024B (the “*Series 2024B Bonds*”), together with other legally available funds, to purchase Bonds tendered by any Bondholder (the “*Tender Offer*”) at the purchase prices as follows:

- (i) with respect to the *federally taxable Bonds* listed in Table 1 on pages (i) and (ii) of this Invitation (the “*Taxable Bonds*”), the offer price will be based on a fixed spread to be added to the yields on certain benchmark United States Treasury Securities (“*Benchmark Treasury Security*”), each as shown on Table 1; and
- (ii) with respect to the *federally tax-exempt Bonds* listed in Table 2 on page (iii) of this Invitation (the “*Tax-Exempt Bonds*”), the offer prices will be the purchase prices, each as shown on Table 2,

plus, in each case, accrued interest on the Bonds tendered for purchase to but not including the Settlement Date (“*Accrued Interest.*”) If issued, the Series 2024B Bonds will be dated the Settlement Date, bear interest at the rates and mature on the dates (subject to prior redemption) and be issued in the manner, on the terms and with the security therefor all as set forth in the 2024 POS (as defined herein). The Tender Offer is being made to reduce the County’s debt service requirements.

The Bonds were issued by the County pursuant to Ordinance No. 93-134, enacted by the Board of County Commissioners (the “*Board*”) on November 16, 1993, as amended by Ordinance No. 13-47, enacted by the Board on June 4, 2013 (the “*2013 Ordinance*”), and as applicable, the 2013 Ordinance and certain resolutions adopted by the Board relating to the Bonds (collectively the “*Bond Ordinances*”). For certain information concerning the County, the Series 2024B Bonds and the security for such Series 2024B Bonds, see the Preliminary Official Statement dated April 29, 2024 attached hereto as APPENDIX A (the “*2024 POS*”).

The source of funds to purchase the Bonds validly tendered for purchase pursuant to the Tender Offer with respect to the principal amount thereof will be primarily from proceeds of the Series 2024B Bonds and supplemented by available funds from the County at the County’s sole determination. Bondholders who tender Bonds for purchase on the Settlement Date will receive Accrued Interest on such Bonds. See “*Sources of Funds to Purchase Bonds and Pay Accrued Interest*” herein.

Notwithstanding any other provision of this Invitation, the consummation of the Tender Offer and the County’s obligation to accept for purchase Bonds validly tendered (and not validly withdrawn) pursuant to the Tender Offer are subject to the satisfaction of or waiver of the following conditions on or prior to the Settlement Date: (a) the successful completion by the County of a debt financing transaction (the “*Proposed Financing*”),

including (i) the issuance of the Series 2024B Bonds, the proceeds of which will be sufficient, together with other legally available funds, to (x) fund the purchase of all Bonds validly tendered pursuant to the Tender Offer and (y) pay all fees and expenses associated with the issuance of the Series 2024B Bonds and the Tender Offer; (b) the County obtaining satisfactory and sufficient economic benefit as a result of the consummation of the Tender Offer when taken together with the Proposed Financing (collectively, the “*Financing Conditions*”), all on terms and conditions that are in the County’s best interest in its sole discretion; and (c) the other conditions set forth in “TERMS OF THE TENDER OFFER — Conditions to Purchase” herein. The County reserves the right, subject to applicable law, to amend or waive any of the conditions to the Tender Offer, in whole or in part, at any time prior to the Expiration Date (*as defined herein*) or from time to time, in its sole discretion. This Invitation may be withdrawn by the County at any time prior to the Expiration Date.

TO MAKE AN INFORMED DECISION AS TO WHETHER, AND HOW, TO TENDER THEIR BONDS FOR PURCHASE, BONDHOLDERS MUST READ THIS INVITATION AND ALL APPENDICES TO THIS INVITATION.

None of the County, the Dealer Manager or the Information Agent and Tender Agent (*as defined herein*) makes any recommendation that any Bondholder tender or refrain from tendering all or any portion of such Bondholder’s Bonds for purchase. Bondholders must make their own decisions and should read this Invitation carefully and consult with their broker, accounts executive, financial advisor, attorney and/or other appropriate professional in making these decisions.

Subject to the terms and conditions of the Tender Offer, the County may purchase Bonds tendered for purchase provided that such Bonds tendered for purchase have been validly tendered by 5:00 p.m., New York City time, on May 10, 2024 (as extended from time to time in accordance with this Invitation, the “*Expiration Date*”) and accepted by the County on or before 5:00 p.m., New York City time, on May 15, 2024 (the “*Final Acceptance Date*”), assuming all conditions to the Tender Offer have then been satisfied or waived by the County on or prior to May 29, 2024, (such date being the “*Settlement Date*”). Bondholders who tender Bonds for purchase in accordance with the provisions of this Invitation and that are accepted by the County will receive payment of Accrued Interest (*as defined herein*) on such Bonds on the Settlement Date.

In the event all conditions to the Tender Offer are not satisfied or waived by the County on or prior to the Settlement Date, any Bonds tendered pursuant to such Tender Offer shall be returned to the Holder and remain Outstanding.

HOLDERS OF BONDS WHO DO NOT ACCEPT THE TENDER OFFER, AS WELL AS HOLDERS OF BONDS WHO TENDER BONDS FOR PURCHASE WHEREIN THE COUNTY IN ITS DISCRETION DOES NOT ACCEPT, IN WHOLE OR PART, SUCH TENDER FOR PURCHASE, WILL CONTINUE TO HOLD SUCH BONDS (COLLECTIVELY, THE “*UNTENDERED BONDS*”) AND SUCH UNTENDERED BONDS WILL REMAIN OUTSTANDING UNDER THE BOND ORDINANCE. THE COUNTY RESERVES THE RIGHT TO, AND MAY DECIDE TO, DEFEASE OR REFUND (ON AN ADVANCE OR CURRENT BASIS) IN THE FUTURE SOME OR ALL OF THE UNTENDERED BONDS THROUGH THE ISSUANCE OF PUBLICLY-OFFERED OR PRIVATELY-PLACED TAXABLE OR TAX-EXEMPT OBLIGATIONS OR FUNDS OF THE COUNTY. See “INTRODUCTION - Bonds Not Tendered for Purchase” and “ADDITIONAL CONSIDERATIONS” herein.

CONSIDERATION FOR TENDER OFFER

“BONDS SUBJECT TO THE TENDER OFFER - Tables 1 and 2” on pages (i) through (iii) sets forth (i) the fixed spread (the “*Fixed Spread*”) for each CUSIP for the Taxable Bonds tendered pursuant to the Tender Offer, and (ii) the prices to be paid by the County for each CUSIP for the Tax-Exempt Bonds tendered pursuant to the Tender Offer.

The Fixed Spread represents the yield, expressed as an interest rate percentage above the yield on the indicated Benchmark Treasury Security at which the County may purchase the Taxable Bonds. The Fixed Spread will be added to the yield on a Benchmark Treasury Security for each CUSIP. The Benchmark Treasury Securities to be used in this calculation are set forth on page (ii). The yields on the Benchmark Treasury Securities (the “*Treasury Security Yields*”) will be based on the bid-side price of the U.S. Benchmark Treasury as quoted on the Bloomberg

Bond Trader FIT1 series of pages be determined at 11:00 AM on Tuesday, May 14, 2024. The Fixed Spread will be added to the Treasury Security Yield to arrive at a yield (the “Taxable Purchase Yield”)

The Taxable Purchase Yield will be used to calculate the Taxable Bond Purchase Price (hereinafter defined). The Taxable Bond Purchase Price will be the sum of the present value of all remaining scheduled principal and interest on the applicable Taxable Bonds, not including any portion of Accrued Interest as of the Settlement Date, discounted at the Purchase Yield to the Settlement Date on a semi-annual basis (assuming a 360-day year consisting of twelve thirty-day months). In the event the Taxable Bond Purchase Price is greater than \$1,000 per \$1,000 in principal amount of the Bonds, then the Taxable Bond Purchase Price will be calculated to the par call date for the Taxable Bonds (all remaining scheduled principal payments to occur on par call date). The Purchase Price for the 2042 Term Bond of the Taxable Bonds will be calculated to the average maturity date of August 17, 2040 as the maturity date.

The County will publish a Notice of Taxable Bonds Purchase Price by 5:00 p.m. on May 14, 2024.

The Notice of Taxable Bonds Purchase Price will be made available: (i) at the Municipal Securities Rulemaking Board through its Electronic Municipal Market Access website, currently located at <http://emma.msrb.org> (the “*EMMA Website*”), using the CUSIP numbers for the Bonds listed in the tables under “*BONDS SUBJECT TO THE TENDER OFFER*”; (ii) to DTC (defined herein) and to the DTC participants holding the Bonds; and (iii) by posting electronically on the website of the Information Agent at <https://www.globic.com/miamidade>.

SOURCES OF FUNDS TO PURCHASE BONDS AND PAY ACCRUED INTEREST ON BONDS PURCHASED

The source of funds to purchase the Bonds validly tendered for purchase pursuant to the Tender Offer with respect to the principal amount thereof will be primarily from proceeds of the Series 2024B Bonds and supplemented by available funds from the County at the County’s sole determination. The payment of Accrued Interest on Bonds validly tendered and accepted for purchase pursuant to the Tender Offer will be funded by legally available moneys of the County. **THE PURCHASE OF ANY BONDS TENDERED PURSUANT TO THE TENDER OFFER IS CONTINGENT ON THE ISSUANCE BY THE COUNTY OF THE SERIES 2024B BONDS.** The Series 2024B Bonds are described in the 2024 POS, attached hereto as APPENDIX A.

COUNTY INSTRUCTION OF SPECIAL CONSIDERATION OF ALLOCATIONS OF SERIES 2024B BONDS

The County has instructed Goldman Sachs & Co. LLC, as representative (“Representative”) of the underwriters of the 2024B Bonds (the “2024B Underwriters”) that any Bondholder who tenders any Bonds in the Tender Offer and who submits an order to purchase Series 2024B Bonds will, subject to the following sentence, receive special consideration of allocation for a like maturity of the Series 2024B Bonds up to the principal amount of Bonds that such Bondholder is tendering. The Representative has the discretion to accept orders outside of the County’s instructed special consideration if the Representative, with the approval of the County or its Municipal Advisor, determines it is in the best interests of the 2024B Underwriters, as per the rules of the Municipal Securities Rulemaking Board. The County also has the discretion to alter its special consideration instructions. The Representative will notify the 2024B Underwriters of any change in the County’s special consideration instructions. As such, Bondholders are advised that such special consideration may not ultimately be possible.

BROKERAGE COMMISSIONS AND SOLICITATION FEES

Bondholders will not be obligated to pay any brokerage commissions or solicitation fees to the County, the Dealer Manager, or the Information Agent and Tender Agent in connection with the Tender Offer. However, Bondholders should check with their broker, bank, accounts executive or other financial institution which maintains the account in which their Bonds are held (their “*Financial Representative*”) to determine whether it will charge any commissions or fees.

BONDS NOT TENDERED FOR PURCHASE

Any Bonds that are not tendered for purchase in response to the Tender Offer will continue to be outstanding, and payable and secured, pursuant to the terms of the Bond Ordinance. THE COUNTY RESERVES THE RIGHT TO, AND MAY DECIDE TO, DEFEASE OR REFUND (ON AN ADVANCE OR CURRENT BASIS) IN THE FUTURE SOME OR ALL OF THE UNTENDERED BONDS THROUGH THE ISSUANCE OF PUBLICLY-OFFERED OR PRIVATELY-PLACED TAXABLE OR TAX-EXEMPT OBLIGATIONS OR FUNDS OF THE COUNTY. See “ADDITIONAL CONSIDERATIONS” herein.

The tender for purchase by the County of Bonds of any CUSIP number may have certain potential adverse effects on holders of Bonds with such CUSIP not purchased pursuant to the Tender Offer, including, but not limited to, the following:

- The principal amount of the Bonds of such CUSIP number available to trade publicly will be reduced, which could adversely affect the liquidity and market value of any untendered Bonds of that CUSIP number that remain outstanding.
- The mandatory sinking fund redemptions with respect to untendered Bonds will be adjusted on a pro rata basis
- If less than all of the Bonds of a CUSIP number for which sinking fund installments have been established are purchased by the County pursuant to the Tender Offer, the average life of the remaining untendered Bonds of that CUSIP number may change.

DEALER MANAGER, INFORMATION AGENT AND TENDER AGENT

Goldman Sachs & Co. LLC is the Dealer Manager for the Tender Offer. Investors with questions about the Tender Offer should contact the Dealer Manager or Globic Advisors, which serves as Information Agent and Tender Agent (the “*Information Agent*” or the “*Tender Agent*”) for the Tender Offer, at the addresses and telephone numbers set forth on the page preceding the Appendices appending to this Offer. See “DEALER MANAGER” and “INFORMATION AGENT AND TENDER AGENT” herein.

TERMS OF THE TENDER OFFER

EXPIRATION DATE

The Tender Offer will expire on the Expiration Date, unless earlier terminated or extended, as described in this Invitation. In the sole discretion of the County, Bonds tendered after 5:00 p.m., New York City time, on the Expiration Date and prior to the acceptance of tenders by the County as described below under the heading “— Acceptance of Tenders Constitutes Irrevocable Agreement; Notice of Results” may be accepted by the County (in its sole discretion) for purchase. See “TERMS OF THE TENDER OFFER — Extension, Termination and Amendment of The Tender Offer; Changes to Terms” below for a discussion of the County’s ability to extend the Expiration Date and to terminate or amend the Tender Offer.

OFFERS ONLY THROUGH THE COUNTY’S ATOP ACCOUNTS

The Bonds are held in book-entry-only form through the facilities of The Depository Trust Company (“*DTC*”). The County, through the Information Agent and Tender Agent, will establish Automated Tender Offer Program (“*ATOP*”) accounts at DTC for the Tender Offer promptly after the date of this Offer. Bondholders who wish to tender Bonds pursuant to the Tender Offer may do so through the applicable ATOP accounts.

ALL TENDERS FOR PURCHASE MUST BE MADE THROUGH THE COUNTY’S ATOP ACCOUNTS. THE COUNTY WILL NOT ACCEPT ANY TENDERS FOR PURCHASE THAT ARE NOT MADE THROUGH ITS ATOP ACCOUNTS. LETTERS OF TRANSMITTAL ARE NOT BEING USED IN CONNECTION WITH THE TENDER OFFER.

Any financial institution that is a participant in DTC may make a book-entry tender of the Bonds by causing DTC to transfer such Bonds into the County's ATOP accounts relating to the Tender Offer, series, maturity and CUSIP number in accordance with DTC's procedures for such transfer. Bondholders who are not DTC participants can only tender Bonds pursuant to the Tender Offer by making arrangements with and instructing their Financial Representative to tender the Bondholder's Bonds through the applicable County ATOP accounts. To ensure a Bondholder's Bonds are tendered to the applicable County ATOP accounts by 5:00 p.m., New York City time, on the Expiration Date, the Bondholder must provide instructions to the Bondholder's Financial Representative in sufficient time for the Financial Representative to tender the Bonds to the applicable County ATOP accounts by this deadline. A Bondholder should contact its Financial Representative for information as to when the Financial Representative needs the Bondholder's instructions in order to tender the Bondholder's Bonds to the applicable County ATOP accounts by 5:00 p.m., New York City time, on the Expiration Date. See "— Tender of Bonds by Financial Institutions; County's ATOP Accounts."

THE COUNTY, THE DEALER MANAGER, AND THE INFORMATION AGENT AND TENDER AGENT ARE NOT RESPONSIBLE FOR THE TRANSFER OF ANY TENDERED BONDS TO THE APPLICABLE COUNTY ATOP ACCOUNTS OR FOR ANY MISTAKES, ERRORS OR OMISSIONS IN THE TRANSFER OF ANY TENDERED BONDS.

INFORMATION TO BONDHOLDERS

The County may give information about the Tender Offer to the market and Bondholders by delivery of the information to the Municipal Securities Rulemaking Board through the EMMA Website. Additionally, the County may give information about the Tender Offer to the Information Agent (collectively referred to herein, together with the EMMA Website, as the "*Information Services*"). The Information Agent will deliver information provided to it by the County through its website, <https://www.globic.com/miamidade>. Delivery by the County of information to the MSRB through the EMMA Website will be deemed to constitute delivery of this information to each Bondholder.

The County, the Dealer Manager, and the Information Agent and Tender Agent have no obligation to ensure that a Bondholder actually receives any information given to the Information Services.

Bondholders who would like to receive information transmitted by or on behalf of the County to the Information Services may receive such information from the Dealer Manager or the Information Agent and Tender Agent by contacting them using the contact information on the page preceding the Appendices appended to this Invitation.

Any updates to this Invitation, including, without limitation any supplements to the 2024 POS, will be distributed through the EMMA Website and will additionally be made available to the Information Agent. The final Official Statement with respect to the Series 2024B Bonds will be posted to the EMMA Website subsequent to the Final Acceptance Date and prior to the Settlement Date.

MINIMUM DENOMINATIONS AND CONSIDERATION FOR OFFERS; CHANGES TO THE TERMS OF THE TENDER OFFER

A Bondholder may tender Bonds for purchase of a particular CUSIP number that it owns in an amount of its choosing, but in a principal amount equal to the minimum denomination of \$5,000 (the "*Minimum Authorized Denomination*") or any integral multiple of \$5,000 in excess thereof only.

Tender Consideration. The purchase price for Tax-Exempt Bonds with each particular CUSIP tendered pursuant to the Tender Offer is set forth on page (iii) of this Invitation (each a "*Tax-Exempt Bond Purchase Price*") and the purchase price for the Taxable Bonds with each particular CUSIP tendered pursuant to the Tender Offer will be the sum of the present value of all remaining scheduled principal and interest on the applicable Taxable Bonds, not including any portion of Accrued Interest as of the Settlement Date, discounted at the purchase yield to the Settlement Date on a semi-annual basis (assuming a 360-day year consisting of twelve thirty-day months) (the "*Taxable Bond Purchase Price*") and together with the Tax-Exempt Bond Purchase Price, each a "*Purchase Price*" and collectively,

the “*Purchase Prices*”). In the event the Taxable Bond Purchase Price is greater than \$1,000 per \$1,000 principal amount of the Taxable Bonds, then the Taxable Bond Purchase Price will be calculated to the par call date for the Taxable Bonds (all remaining scheduled principal payments to occur on par call date). The Purchase Price for the 2042 Term Bond of the Taxable Bonds will be calculated to the average maturity date of August 17, 2040 as the maturity date. The Purchase Prices (and the Accrued Interest described below) will constitute the sole consideration payable by the County for the Tendered Bonds pursuant to the Invitation.

The proceeds of the Series 2024B Bonds, together with other legally available funds, will be used to purchase Bonds tendered by any Bondholder and accepted by the County. The Series 2024B Bonds are described in the 2024 POS, attached hereto as APPENDIX A. The source of funds for payment of Accrued Interest on Bonds validly tendered and accepted for purchase will be from legally available moneys of the County and paid on the Settlement Date.

Changes to Terms of the Tender Offer. As described in “TERMS OF THE TENDER OFFER - Extension, Termination and Amendment of The Tender Offer; Changes to Terms and Purchase Prices” herein, the County may revise the terms of this Invitation prior to the Expiration Date. In the event the County determines to revise the terms of the Invitation, it shall provide notice thereof in the manner described in “TERMS OF THE TENDER OFFER – Information to Bondholders” no later than 11:00am, New York City time, three (3) business days prior to the then current Expiration Date. If the County changes the Purchase Prices for any of the Bonds pursuant to the Invitation, the County shall provide notice thereof no less than five (5) business days prior to the then current Expiration Date. **In such event, any offers submitted with respect to the Bonds prior to such change in the Purchase Price will remain in full force and effect and any Bondholder of such affected Bonds wishing to revoke their offer to tender such Bonds must affirmatively withdraw such offer prior to the Expiration Date as described in Section “TERMS OF THE TENDER OFFER - Amendment or Withdrawals of Tenders Prior to an Expiration Date” herein.**

ACCRUED INTEREST

The Purchase Price of the Bonds tendered and accepted for purchase will not be deemed to include any amount representing the interest which will have accrued on a tendered Bond of a particular CUSIP number from the last payment of interest thereon to but not including the Settlement Date (“*Accrued Interest*”). In addition to the Purchase Prices of the Bonds accepted for purchase by the County, Accrued Interest on such Bonds will be paid by, or on behalf of, the County to the tendering Bondholders on the Settlement Date.

PROVISIONS APPLICABLE TO ALL TENDERS

Need for Advice. A Bondholder should ask its Financial Representative or financial advisor for help in determining: (a) whether to tender Bonds of a particular CUSIP number for purchase, and (b) the principal amount of Bonds of such CUSIP number to be tendered. A Bondholder also should inquire as to whether its Financial Representative or financial advisor will charge a fee for submitting tenders if the County purchases the Bondholder’s tendered Bonds. The County, the Dealer Manager, and the Information Agent and Tender Agent will not charge any Bondholder for tendering Bonds.

Need for Specificity of Tender. A tender cannot exceed the par amount of Bonds owned by the Bondholder and must include the following information: (1) the CUSIP number(s) of the Bond(s) being tendered, and (2) the principal amount of each CUSIP number being tendered (such principal amount must be stated in integral multiples of \$5,000 and if not so stated, for tenders of less than all of the holder’s position in the Bonds, such principal amount will be reduced to the greatest integral multiple of \$5,000). Any Bondholder located outside of the United States should check with their broker to determine if there are any additional minimal increments, alternative settlement timing or other limitations.

“All or none” Offers are not permitted. A Bondholder cannot condition its Offer for any single CUSIP on the acceptance of its Offer for a separate CUSIP. No alternative, conditional or contingent tenders will be accepted.

Bonds may be tendered for payment only in principal amounts equal to the Minimum Authorized Denomination and integral multiples of \$5,000 in excess thereof. Holders who tender less than all of their Bonds must continue to hold their Bonds in at least the Minimum Authorized Denomination and integral multiples of \$5,000 in excess thereof.

ALL TENDERS FOR PURCHASE MUST BE MADE THROUGH THE APPLICABLE COUNTY ATOP ACCOUNTS. THE COUNTY WILL NOT ACCEPT ANY TENDERS FOR PURCHASE THAT ARE NOT MADE THROUGH ITS ATOP ACCOUNTS. LETTERS OF TRANSMITTAL ARE NOT BEING USED IN CONNECTION WITH THE TENDER OFFER. See “— Tender of Bonds by Financial Institutions; County’s ATOP Accounts” herein.

General. A Bondholder may only tender Bonds it owns or controls. By tendering Bonds pursuant to the Tender Offer, a Bondholder will be deemed to have represented and agreed with the County as set forth below under “— Representations by Tendering Bondholders to the County.” All tenders shall survive the death or incapacity of the tendering Bondholder.

Bondholders who would like to receive information furnished by the County to the Information Services can review the EMMA Website or otherwise must make appropriate arrangements with their Financial Representatives, or the Information Agent and Tender Agent.

REPRESENTATIONS BY TENDERING BONDHOLDERS TO THE COUNTY

By tendering Bonds for purchase, each tendering Bondholder will be deemed to have represented to and agreed with the County that:

(a) the Bondholder has received this Invitation and the 2024 POS and has had the opportunity to review this Invitation and the 2024 POS, each in their entirety, prior to making its decision to tender Bonds, and agrees if the purchase of any tendered Bonds is consummated, the purchase of such Bonds shall be on the terms and conditions set forth in this Invitation;

(b) the Bondholder has full power and authority to tender, sell, assign and transfer the tendered Bonds; and on the Settlement Date, the County will acquire good, marketable and unencumbered title thereto, free and clear of all liens, charges, encumbrances, conditional sales agreements or other obligations and not subject to any adverse claims, subject to payment to the Bondholder of the applicable Purchase Price(s), plus Accrued Interest;

(c) the Bondholder has made its own independent decision to tender its Bonds for purchase pursuant to the Tender Offer, and as to the terms thereof, and such decision is based upon the Bondholder’s own judgment and upon advice from such advisors with whom the Bondholder has determined to consult;

(d) the Bondholder is not relying on any communication from the County, the Dealer Manager or the Information Agent and Tender Agent as investment advice or as a recommendation to tender the Bondholder’s Bonds at the applicable Purchase Price, it being understood that the information from the County, the Dealer Manager and the Information Agent and Tender Agent related to the terms and conditions of the Tender Offer made pursuant to this Offer shall not be considered investment advice or a recommendation to tender Bonds; and

(e) the Bondholder is capable of assessing the merits of and understanding (on its own and/or through independent professional advice), and does understand, agree and accept, the terms and conditions of the Tender Offer.

TENDER OF BONDS BY FINANCIAL INSTITUTIONS; COUNTY’S ATOP ACCOUNTS

The County, through the Information Agent and Tender Agent, will establish the County’s ATOP accounts at DTC for the Tender Offer to which this Invitation relates promptly after the date of this Invitation. Tenders of Bonds pursuant to the Tender Offer may only be made by transfer to the County ATOP accounts. Any financial institution that is a participant in DTC may make a book-entry tender of the Bonds by causing DTC to transfer such Bonds into the County’s ATOP accounts corresponding to the Tender Offer in accordance with DTC’s procedures.

Concurrently with the delivery of Bonds through book-entry transfer into the applicable County ATOP accounts, an Agent's Message (as described below) in connection with such book-entry transfer must be transmitted to and received at the related County ATOP accounts by not later than 5:00 p.m., New York City time, on the Expiration Date, provided, however, a tender of Bonds related to an Agent's Message transmitted to the applicable County ATOP accounts after such time may be accepted by the County for purchase if the County, in its sole discretion, waives the defect in the timing of the delivery of such message. The confirmation of a book-entry transfer to either of the County's ATOP accounts as described above is referred to herein as a "**Book-Entry Confirmation.**" The term "**Agent's Message**" means a message transmitted by DTC to, and received by, the Information Agent and Tender Agent and forming a part of a Book-Entry Confirmation which states that DTC has received an express acknowledgment from the DTC participant tendering Bonds that are the subject of such Book-Entry Confirmation, stating the CUSIP number(s) and the principal amount(s) of the Bonds that have been tendered by such participant pursuant to the Tender Offer, and to the effect that such participant agrees to be bound by the terms of the Tender Offer. By causing DTC to transfer Bonds into the applicable County ATOP account, a financial institution warrants to the County that it has full authority, and has received from the Bondholder(s) of such Bonds all direction necessary, to tender, transfer and sell such Bonds as set forth in this Offer.

ALL TENDERS FOR PURCHASE MUST BE MADE THROUGH THE APPLICABLE COUNTY ATOP ACCOUNTS. THE COUNTY WILL NOT ACCEPT ANY TENDERS FOR PURCHASE THAT ARE NOT MADE THROUGH ITS ATOP ACCOUNTS. LETTERS OF TRANSMITTAL ARE NOT BEING USED IN CONNECTION WITH THE TENDER OFFER.

Bondholders who are not DTC participants can only tender Bonds pursuant to the Tender Offer by making arrangements with and instructing their Financial Representative to tender the Bondholder's Bonds through the applicable County ATOP accounts. To ensure a Bondholder's Bonds are tendered to the applicable County ATOP accounts by 5:00 p.m., New York City time, on the Expiration Date, a Bondholder must provide instructions to its Financial Representative in sufficient time for the Financial Representative to tender the Bondholder's Bonds to the applicable County ATOP accounts by this deadline. A Bondholder should contact its Financial Representative for information as to when the Financial Representative needs the Bondholder's instructions in order to tender the Bondholder's Bonds to the applicable County ATOP accounts by 5:00 p.m., New York City time, on the Expiration Date.

THE COUNTY, THE DEALER MANAGER, AND THE INFORMATION AGENT AND TENDER AGENT ARE NOT RESPONSIBLE FOR THE TRANSFER OF ANY TENDERED BONDS TO THE APPLICABLE COUNTY ATOP ACCOUNTS OR FOR ANY MISTAKES, ERRORS OR OMISSIONS IN THE TRANSFER OF ANY TENDERED BONDS.

DETERMINATIONS AS TO FORM AND VALIDITY OF THE TENDER OFFER; RIGHT OF WAIVER AND REJECTION

All questions as to the validity (including the time of receipt at the applicable County ATOP accounts), form, eligibility and acceptance of any Bonds tendered for purchase pursuant to the Tender Offer will be determined by the County in its sole discretion and such determinations will be final, conclusive and binding.

The County reserves the right to waive any irregularities or defects in any tender. The County, the Dealer Manager, and the Information Agent and Tender Agent are not obligated to give notice of any defects or irregularities in tenders and they will have no liability for failing to give such notice.

The County reserves the absolute right to reject any and all offers, whether or not they comply with the terms of this Invitation.

AMENDMENT OR WITHDRAWALS OF TENDERS PRIOR TO AN EXPIRATION DATE

A Bondholder may amend its offer to tender for purchase in respect of the amount being tendered by causing an amended offer to be received at the applicable County ATOP accounts at or before 5:00 P.M. on the Expiration Date (as the date and time may have been changed as provided in this Invitation).

An offer to tender for purchase may be withdrawn by a Bondholder by causing a withdrawal notice to be received at the applicable County ATOP Accounts at or before 5:00 P.M. on the Expiration Date (as the date and time may have been changed as provided in this Invitation).

An amended offer or a notice of withdrawal must be submitted in substantially the same manner as an offer.

Bondholders who have tendered for purchase their Bonds will not receive any information from the County, the Dealer Manager or the Information Agent and Tender Agent concerning offers by other Bondholders. Offering Bondholders will not be afforded an opportunity to amend their offers after 5:00 P.M. on the Expiration Date. An amended or withdrawn offer must specify the applicable CUSIP number, and with respect to amended offers, the principal amount previously offered and the new amount being offered. All questions as to the validity (including the time of receipt) of an amendment or withdrawal will be determined by the County in its sole discretion and will be final, conclusive and binding.

Tenders of Bonds may be withdrawn prior to 5:00 P.M. on the Expiration Date. **ALL TENDERS OF BONDS SHALL BE IRREVOCABLE AT 5:00 P.M. UPON THE EXPIRATION DATE** (as the date and time may have been changed as provided in this Invitation).

ACCEPTANCE OF TENDERS FOR PURCHASE

After the Expiration Date, the County will determine in its sole discretion the amount (if any) of the tendered Bonds that it will purchase based on such factors as the County deems relevant. The obligation of the County to purchase tendered Bonds is subject to satisfaction of certain conditions.

The County may choose to purchase some but not all of the tendered Bonds of a particular CUSIP. Should the County decide to only purchase a portion of the tendered Bonds of a certain CUSIP, the County will accept those tendered Bonds on a pro rata basis reflecting the ratio of (a) the principal amount, if any, that the County determines to purchase to (b) the aggregate principal amount of valid offers to sell received. In such event, should the principal amount of any individual tender offer, when adjusted by the pro rata acceptance, result in an amount that is not a multiple of the Minimum Authorized Denomination, the principal amount of such offer will be rounded up to the near multiple of \$5,000.

The County will be preliminarily accepting tender offers for purchase on the Preliminary Acceptance Date. The County will finalize its acceptance of the Tender Offers on the Final Acceptance Date.

Preliminary Acceptance Date. On the Preliminary Acceptance Date, the County will make an initial determination of the Bonds that it wishes to purchase, which shall be subject to change until the Final Acceptance Date. The County shall be under no obligation to purchase any Bond offered. The County will determine in its sole discretion if it will purchase any Bonds.

Final Acceptance Date. On the Final Acceptance Date, upon the terms and subject to the conditions of the Tender Offer, as set forth in this Invitation, the County will elect to accept for purchase outstanding Bonds validly tendered pursuant to the Tender Offer (or defectively tendered, if such defect has been waived by the County), with acceptance subject to the satisfaction or waiver by the County of the conditions to the purchase of tendered Bonds. See “— Acceptance of Tenders Constitutes Irrevocable Agreement; Notice of Results” and “— Conditions to Purchase.”

The County will have no obligation to purchase Bonds tendered for purchase if cancellation or modification occurs or if the County is unable to issue the Series 2024B Bonds. The County has the right to purchase none, some or all of the Bonds offered, notwithstanding any other statements herein about the County’s current intentions for amount of Bonds to be purchased. Bonds that will be purchased will be indicated by CUSIP. The County reserves the right to, and may decide to defease or refund, (on an advance or current basis), in the future some or all of the untendered Bonds or the Bonds not purchased pursuant to the Tender Offer through the issuance of publicly-offered or privately-placed taxable or tax-exempt obligations or

funds of the County. See also “— Bonds not Tendered for Purchase” for certain potential impacts on any untendered Bonds.

Notwithstanding any other provision of this Offer, the consummation of the Tender Offer and the County’s obligation to accept for purchase Bonds validly tendered (and not validly withdrawn) pursuant to the Tender Offer are subject to the satisfaction of or waiver of the Financing Conditions (see “INTRODUCTION - General” herein) and the other conditions set forth in “Conditions to Purchase” herein. The County reserves the right, subject to applicable law, to amend or waive any of the conditions to the Tender Offer, in whole or in part, at any time prior to the Expiration Date or from time to time, in its sole discretion. This Invitation may be withdrawn by the County at any time prior to the Expiration Date.

ACCEPTANCE OF TENDERS CONSTITUTES IRREVOCABLE AGREEMENT; NOTICE OF RESULTS

Acceptance by the County of Bonds tendered for purchase on the Final Acceptance Date will constitute an irrevocable agreement between the tendering Bondholder and the County to sell and purchase such Bonds, subject to satisfaction of all conditions to the other terms of the Tender Offer and this Invitation. See “Minimum Denominations and Consideration” herein and “— Conditions to Purchase” herein.

The acceptance of Bonds tendered for purchase is expected to be made by notification to the Information Services no later than 5:00 p.m., New York City time, on the Final Acceptance Date. This notification will state the principal amount of the Bonds of each CUSIP number that the County has agreed to accept for tender for purchase, as applicable, in accordance with the Tender Offer, which may be zero for a particular CUSIP number.

SETTLEMENT DATE

Subject to satisfaction of all conditions to the County’s obligation to purchase tendered Bonds, as applicable and as described herein, including, without limitation, the Financing Conditions, the Settlement Date is the day on which Bonds accepted for purchase will be purchased at the applicable Purchase Price(s), together with Accrued Interest thereon. The Settlement Date will occur following the Final Acceptance Date, subject to all conditions to the Tender Offer having been satisfied or waived by the County. The expected Settlement Date is May 29, 2024, unless extended by the County, assuming all conditions to the Tender Offer have been satisfied or waived by the County. Bondholders whose Bonds are accepted for purchase on the Settlement Date will receive Accrued Interest up to but not including the Settlement Date.

The County may, in its sole discretion, change the Settlement Date by giving notice to the Information Services prior to the change. See “— Conditions to Purchase.”

Subject to satisfaction of all conditions to the County’s obligation to purchase Bonds tendered for purchase pursuant to the Tender Offer, as described herein, payment by the County, or on the County’s behalf, will be made in immediately available funds on the Settlement Date by deposit with DTC of the aggregate Purchase Price and Accrued Interest on the Bonds accepted for purchase. The County expects that, in accordance with DTC’s standard procedures, DTC will transmit the aggregate Purchase Price (plus Accrued Interest) in immediately available funds to each of its participant financial institutions holding the Bonds accepted for purchase on behalf of Bondholders for delivery to the Bondholders. **The County, the Dealer Manager, and the Information Agent and Tender Agent have no responsibility or liability for the distribution of the Purchase Prices plus Accrued Interest by DTC to the Bondholders.**

PURCHASE AND ACCRUED INTEREST FUNDS

The source of funds to purchase the Bonds validly tendered for purchase pursuant to the Tender Offer with respect to the principal amount thereof will be primarily from proceeds of the Series 2024B Bonds and supplemented by available funds from the County at the County’s sole determination. The source of funds for payment of Accrued Interest on Bonds validly tendered and accepted for purchase will be from amounts legally available moneys of the County and paid on the Settlement Date. The purchase of any Bonds tendered pursuant to the Tender Offer is contingent on the issuance by the County of the Series 2024B Bonds, as well as certain other conditions which must

be satisfied on or prior to the Settlement Date. See “INTRODUCTION— General” and “— Conditions to Purchase” herein for more information on the conditions precedent to the Tender Offer.

CONDITIONS TO PURCHASE

In addition to the Financing Conditions (see “INTRODUCTION — General” herein), if after the Final Acceptance Date, but prior to payment for Bonds accepted by the County on the Settlement Date, any of the following events should occur, the County will have the absolute right to cancel its obligations to purchase Bonds validly tendered and accepted without any liability to any Bondholder:

- Litigation or another proceeding is pending or threatened which the County reasonably believes may, directly or indirectly, have an adverse impact on the Tender Offer or the expected benefits of the Tender Offer to the County or the Bondholders;
- A war, national emergency, banking moratorium, suspension of payments by banks, a general suspension of trading by the New York Stock Exchange or a limitation of prices on the New York Stock Exchange exists and the County reasonably believes this fact makes it inadvisable to proceed with the purchase of Bonds;
- A material change in the business or affairs of the County has occurred which the County reasonably believes makes it inadvisable to proceed with the purchase of Bonds;
- A material change in the net economics of the transaction has occurred due to a material change in market conditions which the County reasonably believes makes it inadvisable to proceed with the purchase of Bonds;
- There shall have occurred a material disruption in securities settlement, payment or clearance services; or
- In the event of the County’s obligation to purchase Bonds, if for any reason, the Series 2024B Bonds, are not issued.

These conditions (including the Financing Conditions) (the “*Conditions to Purchase*”) are for the sole benefit of the County and may be asserted by the County, prior to the time of payment of the Bonds it has agreed to purchase, regardless of the circumstances giving rise to any of these conditions or may be waived by the County in whole or in part at any time and from time to time in its discretion, and may be exercised independently for each CUSIP. The failure by the County at any time to exercise any of these rights will not be deemed a waiver of any of these rights, and the waiver of these rights with respect to particular facts and other circumstances will not be deemed a waiver of these rights with respect to any other facts and circumstances. Each of these rights will be deemed an ongoing right of the County which may be asserted at any time and from time to time prior to the time of payment of the Bonds it has agreed to purchase. Any determination by the County concerning the events described in this section will be final and binding upon all parties. If, prior to the time of payment for any Tendered Bonds, any of the events described happens, the County will have the absolute right to cancel its obligations to purchase Tendered Bonds without any liability to any Bondholder or any other purpose.

HOLDERS OF UNTENDERED BONDS AND SUCH UNTENDERED BONDS WILL REMAIN OUTSTANDING UNDER THE BOND ORDINANCE. THE COUNTY RESERVES THE RIGHT TO, AND MAY DECIDE TO, DEFEASE OR REFUND (ON AN ADVANCE OR CURRENT BASIS) IN THE FUTURE SOME OR ALL OF THE UNTENDERED BONDS THROUGH THE ISSUANCE OF PUBLICLY-OFFERED OR PRIVATELY-PLACED TAXABLE OR TAX-EXEMPT OBLIGATIONS OR FUNDS OF THE COUNTY. See “INTRODUCTION - Bonds Not Tendered for Purchase” and “ADDITIONAL CONSIDERATIONS” herein.

EXTENSION, TERMINATION AND AMENDMENT OF THE TENDER OFFER; CHANGES TO TERMS AND PURCHASE PRICES

Through and including an Expiration Date, the County has the right to extend the Tender Offer (an “Extension”) to any date in its sole discretion, provided that a notice of any Extension of an Expiration Date is given to the Information Services, including by posting such notice to the EMMA Website on or about 9:00 a.m., New York City time, on the first business day after the Expiration Date.

The County also has the right, prior to acceptance of Bonds tendered for purchase as described above under the heading “— Acceptance of Tenders Constitutes Irrevocable Agreement; Notice of Results,” to terminate the Tender Offer at any time by giving notice to the Information Services. The termination will be effective at the time specified in such notice.

The County also has the right, prior to acceptance of Bonds tendered for purchase as described above under the heading “— Acceptance of Tenders Constitutes Irrevocable Agreement; Notice of Results,” to amend or waive the terms of the Tender Offer in any respect and at any time by giving notice to the Information Services. This amendment or waiver will be effective at the time specified in such notice.

Except with respect to Extensions of the Tender Offer as described in (a) above, the County has the right to amend the terms of the Tender Offer to change the Purchase Price of the Bonds (a “Purchase Price Amendment”) by providing a notice of such Purchase Price Amendment to the Information Services, including by posting such notice to the EMMA Website no later than on or about 9:00 a.m., New York City time, five (5) business days prior to the Expiration Date. Further, the County has the right to amend or waive any term of the Tender Offer in any respect, other than an Extension or Purchase Price Amendment, by providing notice of such amendment or waiver to the Information Services, including by posting such notice to the EMMA Website no later than on or about 9:00 a.m., New York City time, three (3) business days prior to the Expiration Date.

In such event, any offers submitted with respect to the affected Bonds prior to the County providing notice of an Extension, Purchase Price Amendment or any other amendment or waiver of the Tender Offer, shall remain in full force and effect and any Bondholder of such affected Bonds wishing to revoke their offer to tender such Bonds must affirmatively withdraw such offer prior to the Expiration Date.

No extension, termination or amendment of the Tender Offer (or waiver of any terms of the Tender Offer or this Invitation) will change the County’s right to decline to purchase any Bonds without liability. See “— Conditions to Purchase.”

The County, the Dealer Manager and the Information Agent and Tender Agent have no obligation to ensure that a Bondholder actually receives any information given to the Information Services.

AVAILABLE INFORMATION

Certain information relating to the Bonds and the County may be obtained by contacting the Dealer Manager or Information Agent and Tender Agent at the contact information set forth on the page preceding the Appendices appended to this Offer. Such information is limited to (i) this Offer, including the information set forth in the 2024 POS which is attached hereto as APPENDIX A, and (ii) information about the County available through the EMMA Website.

References to website addresses herein are for informational purposes only and may be in the form of a hyperlink solely for the reader’s convenience. Unless specified otherwise, such websites and the information or links contained therein are not incorporated into, and are not a part of, this Offer.

ADDITIONAL CONSIDERATIONS

None of the County, the Dealer Manager or the Information Agent and Tender Agent make any recommendation that any Bondholder tender or refrain from tendering all or any portion of the Bonds. Each

Bondholder must make its decision and should read this Invitation and the 2024 POS and consult with its broker, accounts executive, financial advisor and/or other financial professional in making such decision.

In deciding whether to participate in the Tender Offer, each Bondholder should consider carefully, in addition to the other information contained in this Invitation, the following:

- In the event that the Series 2024B Bonds are not issued and sold, tendered Bonds accepted for purchase are not required to be purchased by the County and in such event, Bondholders will continue to hold their respective tendered Bonds.
- Even if the County does not purchase any tendered Bonds, the County shall have the right now or in the future to refund all or any portion of the tendered Bonds or may in the future invite Bondholders to tender such tendered Bonds for purchase by the County.

THE COUNTY MAY LATER ACQUIRE BONDS AT MORE FAVORABLE PRICES THAN THOSE OFFERED PURSUANT TO THIS OFFER

The County reserves the right to, and may in the future decide to, acquire some or all of the Bonds not purchased pursuant to the Tender Offer through open market purchases, privately negotiated transactions, subsequent tender offers, exchange offers, or otherwise, upon such terms and at such prices as it may determine, which may be more or less than the consideration offered pursuant to the Tender Offer set forth in this Invitation, which could be cash or other consideration. Any future acquisition of Bonds may be on the same terms or on terms that are more or less favorable to Bondholders than the terms of the Tender Offer described in this Offer and the Pricing Notice. The decision to make future purchases or exchanges by the County and the terms of such future transactions will depend on various factors existing at that time. There can be no assurance as to which of these alternatives, if any, the County will ultimately choose to pursue in the future.

TIMELINESS OF OFFERS

The Tender Offer will expire at 5:00 p.m., New York City time, on the Expiration Date (currently scheduled for May 10, 2024), unless extended or terminated. Bonds tendered for purchase as described in this Invitation after 5:00 p.m., New York City time, on the Expiration Date will not be accepted for tender, except in the County's sole discretion.

PRELIMINARY ACCEPTANCE DATE AND FINAL ACCEPTANCE DATE

The County will be preliminarily accepting tender offers on or before 5:00 p.m., New York City time, on May 13, 2024 (the "***Preliminary Acceptance Date***"). The County will finalize its acceptance of the Tender Offers on or before 5:00 p.m., New York City time, on May 15, 2024 (the "***Final Acceptance Date***"). Notification of preliminary acceptance of Bonds tendered pursuant to the Tender Offer will be given on or before 5:00 p.m., New York City time, on the Preliminary Acceptance Date and notification of final acceptance of Bonds tendered pursuant to the Tender Offer will be given on or before 5:00 p.m., New York City time, on the Final Acceptance Date, unless an Expiration Date is extended or the Tender Offer is terminated. See "TERMS OF THE TENDER OFFER - Acceptance of Tenders for Purchase" herein.

SUMMARY OF CERTAIN FEDERAL INCOME TAX CONSEQUENCES

The following is a general summary of the U.S. federal income tax consequences for Bondholders that respond to the Tender Offer and have their offer to tender their Bonds accepted by the County. The discussion is based on the Internal Revenue Code of 1986, as amended (the "***Code***"), the Treasury Regulations promulgated thereunder, and relevant rulings and decisions now in effect, all of which are subject to change or differing interpretations. No assurances can be given that future changes in U.S. federal income tax laws will not alter the conclusions reached herein. The discussion below does not purport to deal with U.S. federal income tax consequences applicable to all categories of investors. Further, this summary does not discuss all aspects of U.S. federal income taxation that may be relevant to a particular investor in the Bonds in light of the investor's particular circumstances or

to certain types of investors subject to special treatment under U.S. federal income tax laws (including individuals who are neither citizens nor residents of the United States; foreign corporations, trusts and estates, in each case, as defined for U.S. federal income tax purposes; insurance companies; tax-exempt organizations; financial institutions; brokers-dealers; partnerships and other entities classified as partnerships for U.S. federal income tax purposes; and persons who have hedged the risk of owning the Bonds). Tendering Bondholders should note that no rulings have been or will be sought from the Internal Revenue Service (the “*IRS*”), and no assurance can be given that the IRS will not take contrary positions, with respect to any of the U.S. federal income tax consequences discussed below. This U.S. federal income tax discussion is included for general information only and should not be construed as a tax opinion nor tax advice by the County or any of its advisors or agents to the Bondholders, and Bondholders therefore should not rely upon such discussion.

The discussion does not deal with special classes of beneficial owners of the Bonds, such as dealers or traders in securities, investors that elect mark to market accounting, banks, financial institutions, insurance companies, retirement plans or other tax-deferred or tax advantaged accounts, tax-exempt organizations, partnerships or other pass-through entities (or entities treated as such for U.S. federal income tax purposes), U.S. expatriates, persons holding their Bonds as a part of a hedging, integration, conversion or constructive sale transaction or a straddle, Bondholders that are “United States persons,” as defined in section 7701(a)(30) of the Code (“*U.S. Holders*”) and are subject to the alternative minimum tax, U.S. Holders that have a functional currency other than the U.S. Dollar, and persons who are not U.S. Holders (all of such holders of the Bonds should consult their tax advisors).

If a partnership or other flow-through entity holds the Bonds, the tax treatment of a partner in the partnership or beneficial owner of the flow-through entity generally will depend upon the status of the partner owner and the activities of the partnership or flow-through entity. A partner of a partnership or a beneficial owner of a flow-through entity holding Bonds should consult its own tax advisor regarding the U.S. federal income tax consequences of this Tender Offer.

Non-tendering Bondholders will not be subject to any U.S. federal income tax consequences in connection with the Tender Offer.

BONDHOLDERS SHOULD CONSULT THEIR OWN TAX ADVISORS IN DETERMINING THE U.S. FEDERAL, STATE, LOCAL, FOREIGN AND ANY OTHER TAX CONSEQUENCES TO THEM FROM THE TENDER OF THE BONDS PURSUANT TO THE TENDER OFFER.

A Bondholder who tenders their Bonds pursuant to the Tender Offer generally will recognize gain or loss for U.S. federal income tax purposes in an amount equal to the difference between (1) the amount realized by the Bondholder and (2) the Bondholder’s adjusted tax basis in the Tendered Bonds.

In the event of a Bondholder who tenders Bonds for cash pursuant to the Tender Offer, the amount realized will be the amount of money received by the Bondholder, exclusive of any amount paid for Accrued Interest.

Any gain or loss arising in connection with a taxable sale pursuant to the Tender Offer may be capital gain or loss (either long-term or short-term, depending on the Bondholder’s holding period for the Tendered Bonds) or may be ordinary income or loss, depending on the particular circumstances of the tendering Bondholder. Non-corporate holders may be eligible for reduced rates of U.S. federal income tax on long-term capital gains. The deductibility of capital losses is subject to various limitations.

Bondholders that are U.S. Holders will be subject to “backup withholding” of federal income tax in the event they fail to furnish a taxpayer identification number or there are other, related compliance failures.

DEALER MANAGER

Pursuant to the terms of that certain Dealer Manager Agreement between the County and the Dealer Manager, the County has retained Goldman Sachs & Co. LLC (“*Goldman Sachs*”) to act on its behalf as Dealer Manager for the Tender Offer. The County has agreed to pay the Dealer Manager customary fees for their services and to reimburse the Dealer Manager for their reasonable out-of-pocket costs and expenses relating to the Tender Offer. References in

this Invitation to the Dealer Manager are to Goldman Sachs only in its capacity as the Dealer Manager. The compensation of the Dealer Manager is based upon the amount of Bonds tendered to and accepted by the County.

The Dealer Manager may contact Bondholders regarding the Tender Offer and may request brokers, dealers, custodian banks, depositories, trust companies and other nominees to forward this Invitation to beneficial owners of the Bonds.

The Dealer Manager and their respective affiliates together comprise full-service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, principal investment, hedging, financing and brokerage activities. The Dealer Manager and their respective affiliates may have, from time to time, performed and may in the future perform, various investment banking services for the County for which they received or will receive customary fees and expenses. In the ordinary course of their various business activities, the Dealer Manager and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities and financial instruments which may include bank loans and/or credit default swaps) for their own accounts and for the accounts of their respective customers and may at any time hold long and short positions in such securities and instruments. Such investment securities activities may involve securities and instruments of the County, including the Bonds. Affiliates of a Dealer Manager may have holdings of Bonds that they are unable to disclose for legal or regulatory reasons.

In addition to its role as a Dealer Manager for the Bonds, Goldman is also serving as Representative of the underwriters for the Series 2024B Bonds as described in the 2024 POS.

The Dealer Manager is not acting as a financial or municipal advisor to the County in connection with the Tender Offer.

INFORMATION AGENT AND TENDER AGENT

The County has retained Globic Advisors to serve as Information Agent and Tender Agent for the Tender Offer. The County has agreed to pay the Information Agent and Tender Agent customary fees for its services and to reimburse the Information Agent and Tender Agent for its reasonable out-of-pocket costs and expenses relating to the Tender Offer.

APPROVAL OF LEGAL PROCEEDINGS

Certain legal matters and the issuance of the Series 2024B Bonds will be passed upon by Squire Patton Boggs (US) LLP and D. Seaton and Associates, P.A., both of Miami, Florida, Co-Bond Counsel to the County. A copy of the form of opinion of Co-Bond Counsel which will be delivered with the Series 2024B Bonds is set forth in APPENDIX F of the 2024 POS attached hereto as APPENDIX A. Certain legal matters will be passed upon for the County by Hunton Andrews Kurth LLP and DiFalco & Fernandez, both of Miami, Florida, Co-Disclosure Counsel to the County. Certain legal matters will be passed on for the County by the Office of the Miami-Dade, County Attorney, and for the Dealer Manager by their counsel, Nixon Peabody, New York, New York.

MISCELLANEOUS

No one has been authorized by the County, the Dealer Manager or the Information Agent and Tender Agent to recommend to any Bondholder whether to tender Bonds pursuant to the Tender Offer or the amount of Bonds to tender. No one has been authorized to give any information or to make any representation in connection with the Tender Offer other than those contained in this Invitation. Any recommendations, information and representations given or made cannot be relied upon as having been authorized by the County, the Dealer Manager or the Information Agent and Tender Agent.

None of the County, the Dealer Manager, or the Information Agent and Tender Agent make any recommendation that any Bondholder tender or refrain from tendering or exchanging all or any portion of the principal amount of such Bondholder's Bonds. Bondholders must make their own decisions and should read this Invitation

carefully and consult with their broker, accounts executive, financial advisor, attorney and/or other professional in making these decisions.

Investors with questions about the Tender Offer should contact the Dealer Manager or the Information Agent and Tender Agent. The contact information for the Dealer Manager and the Information Agent and Tender Agent is as follows:

The Dealer Manager for the Tender Offer is:

Goldman Sachs & Co. LLC
200 West Street
30th Floor
New York, New York 10282
Tel: (212) 357-3189
Attn: Ken Ukaigwe
Email: Ken.Ukaigwe@gs.com

The Information Agent and Tender Agent for the Tender Offer is:

Globic Advisors
485 Madison Avenue, 7th Floor
New York, New York 10022
Tel: (212) 227-9622
Attn: Robert Stevens
Email: rstevens@globic.com
Document Website: [https:// www.globic.com/miamidade](https://www.globic.com/miamidade).

APPENDIX A

2024 POS

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PRELIMINARY OFFICIAL STATEMENT DATED APRIL 29, 2024

NEW ISSUE - BOOK-ENTRY ONLY

RATINGS: See "RATINGS" herein.

In the opinion of Squire Patton Boggs (US) LLP and D. Seaton and Associates, P.A., Bond Counsel, under existing law, (i) assuming continuing compliance with certain covenants and the accuracy of certain representations, interest on the Series 2024 Bonds is excluded from gross income for federal income tax purposes and is not an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals, and (ii) the Series 2024 Bonds and the income thereon are exempt from taxation under the laws of the State of Florida, except estate taxes imposed by Chapter 198, Florida Statutes, as amended, and net income and franchise taxes imposed by Chapter 220, Florida Statutes, as amended. Interest on the Series 2024 Bonds may be subject to certain federal taxes imposed only on certain corporations. For a more complete discussion of the tax aspects, see "TAX MATTERS" herein.



MIAMI-DADE COUNTY, FLORIDA

\$323,160,000*

\$129,730,000*

**Water and Sewer System Revenue Bonds,
Series 2024A**

**Water and Sewer System Revenue Refunding Bonds,
Series 2024B**

Dated: Date of Delivery

Due: October 1, as shown on the inside front cover

Miami-Dade County, Florida (the "County") is issuing its Water and Sewer System Revenue Bonds, Series 2024A (the "Series 2024A Bonds"), and its Water and Sewer System Revenue Refunding Bonds, Series 2024B (the "Series 2024B Bonds" and, together with the Series 2024A Bonds, the "Series 2024 Bonds"), as fully-registered bonds in the name of Cede & Co., as registered owner and nominee of The Depository Trust Company, New York, New York ("DTC"), which will act as securities depository for the Series 2024 Bonds. Since purchases of beneficial interests in the Series 2024 Bonds will be made in book entry only form in denominations of \$5,000 or any integral multiple of \$5,000, beneficial owners will not receive physical delivery of bond certificates. Interest on the Series 2024 Bonds will be payable semi-annually on April 1 and October 1 of each year, commencing October 1, 2024. Principal of the Series 2024 Bonds will be payable at the designated office of U.S. Bank Trust Company, National Association, as Paying Agent and Registrar for the Series 2024 Bonds. As long as DTC or its nominee is the registered owner of the Series 2024 Bonds, payments of the principal of and interest on the Series 2024 Bonds will be made directly to DTC or its nominee. See "APPENDIX I - DESCRIPTION OF THE DEPOSITORY TRUST COMPANY AND THE BOOK-ENTRY SYSTEM."

Payment of principal of and interest on the Series 2024 Bonds is secured, on a parity basis with certain other outstanding Bonds as described herein, by a pledge of and a lien on the Pledged Revenues, which consist of the Net Operating Revenues (as such terms are defined in this Official Statement) of the County's water and sewer utility system (the "Utility"). The Series 2024 Bonds are additionally secured by the Reserve Account, on a parity basis with certain other outstanding Bonds as described herein. See "SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2024 BONDS."

The Series 2024 Bonds are subject to optional redemption and mandatory sinking fund redemption prior to maturity as more fully described in this Official Statement.

The proceeds of the Series 2024A Bonds, together with other available moneys of the Miami-Dade Water and Sewer Department (the "Department"), will be used to: (i) pay the costs of the Series 2024 Project (as defined herein); (ii) make a deposit to the Reserve Account; (iii) fund capitalized interest, if advisable, and (iv) pay the costs of issuance of the Series 2024A Bonds.

The proceeds of the Series 2024B Bonds, together with other available moneys of the Department, will be used to: (i) refund, through the Tender Offer, the Refunded Bonds (as such terms are defined herein); and (ii) pay the costs of issuance of the Series 2024B Bonds.

THE SERIES 2024 BONDS ARE SPECIAL, LIMITED OBLIGATIONS OF THE COUNTY PAYABLE SOLELY FROM AND SECURED SOLELY BY PLEDGED REVENUES. THE SERIES 2024 BONDS DO NOT CONSTITUTE AN INDEBTEDNESS, LIABILITY, GENERAL OR MORAL OBLIGATION, OR A PLEDGE OF THE FAITH, CREDIT OR POWER OF THE COUNTY, THE STATE OF FLORIDA (THE "STATE") OR ANY POLITICAL SUBDIVISION OF THE STATE, WITHIN THE MEANING OF ANY CONSTITUTIONAL, STATUTORY OR CHARTER PROVISION. NEITHER THE STATE NOR ANY POLITICAL SUBDIVISION OF THE STATE NOR THE COUNTY SHALL BE DIRECTLY OR INDIRECTLY OR CONTINGENTLY OBLIGATED TO LEVY ANY AD VALOREM TAXES ON ANY PROPERTY TO PAY PRINCIPAL OF, OR THE INTEREST ON, THE SERIES 2024 BONDS OR OTHER RELATED COSTS, OR TO PAY THE SAME FROM ANY OTHER FUNDS OF THE COUNTY EXCEPT FROM THE PLEDGED REVENUES. THE ACCEPTANCE OF THE SERIES 2024 BONDS BY THE REGISTERED OWNERS FROM TIME TO TIME OF THE SERIES 2024 BONDS SHALL BE DEEMED AN AGREEMENT BETWEEN THE COUNTY AND SUCH REGISTERED OWNERS THAT THE SERIES 2024 BONDS AND THE INDEBTEDNESS EVIDENCED BY THE SERIES 2024 BONDS SHALL NOT CONSTITUTE A LIEN UPON THE UTILITY, ANY PART OF THE UTILITY, OR ANY OTHER PROPERTY OF THE COUNTY, BUT SHALL CONSTITUTE A LIEN ONLY ON THE PLEDGED REVENUES.

See the inside cover page for maturities, principal amounts, interest rates, prices, yields and initial CUSIP numbers.

This cover page contains information for quick reference only. It is not a complete summary of the information in this Official Statement. Investors must read this entire Official Statement, including the Appendices, to obtain information essential in making an informed investment decision with respect to the purchase of the Series 2024 Bonds.

The Series 2024 Bonds are offered when, as and if issued by the County and accepted by the Underwriters, subject to the opinions on certain legal matters relating to their issuance of Squire Patton Boggs (US) LLP, Miami, Florida, and D. Seaton and Associates, P.A., Miami, Florida, Bond Counsel for the County. Certain legal matters will be passed upon for the County by the Office of the MiamiDade County Attorney. Certain legal matters relating to disclosure will be passed upon for the County by Hunton Andrews Kurth LLP, Miami, Florida, and DiFalco & Fernandez, LLLP, Coral Gables, Florida, Disclosure Counsel. Certain legal matters will be passed upon for the Underwriters by their counsel, Nixon Peabody LLP, New York, New York. Public Resources Advisory Group, St. Petersburg, Florida, has served as Financial Advisor to the County in connection with the issuance of the Series 2024 Bonds. It is expected that the Series 2024 Bonds will be available for delivery through DTC in New York, New York, on or about May 29, 2024.

Goldman Sachs & Co. LLC

Janney Montgomery Scott

Mischler Financial Group, Inc.

Blaylock Van, LLC FHN Financial Capital Markets Siebert Williams Shank & Co., LLC TD Securities Wells Fargo Securities

Dated: _____, 2024

* Preliminary, subject to change.

This Preliminary Official Statement and the information contained herein are subject to change, completion and amendment without notice. The Series 2024 Bonds may not be sold nor may an offer to buy be accepted prior to the time the Official Statement is delivered in final form. Under no circumstances shall this Preliminary Official Statement constitute an offer to sell or the solicitation of an offer to buy nor shall there be any sale of the Series 2024 Bonds in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of such jurisdiction.

**MATURITY DATES, PRINCIPAL AMOUNTS, INTEREST RATES,
PRICES, YIELDS AND INITIAL CUSIP NUMBERS**

\$323,160,000*
MIAMI-DADE COUNTY, FLORIDA
WATER AND SEWER SYSTEM REVENUE BONDS,
SERIES 2024A

\$64,550,000* ___% Series 2024A Term Bonds due October 1, 2049; Price _____; Yield ___%;
Initial CUSIP No. _____⁽¹⁾

\$258,610,000* ___% Series 2024A Term Bonds due October 1, 2054; Price _____; Yield ___%;
Initial CUSIP No. _____⁽¹⁾

\$129,730,000*
MIAMI-DADE COUNTY, FLORIDA
WATER AND SEWER SYSTEM REVENUE REFUNDING BONDS,
SERIES 2024B

\$129,730,000* Series 2024B Serial Bonds

Maturity Date (October 1)	Principal Amount	Interest Rate	Price	Yield	Initial CUSIP No.⁽¹⁾
2027	\$ 7,475,000				
2028	7,820,000				
2029	8,190,000				
2030	10,790,000				
2031	11,345,000				
2032	11,925,000				
2033	12,535,000				
2034	5,460,000				
2035	2,455,000				
2036	2,590,000				
2037	2,735,000				
2038	2,890,000				
2039	3,050,000				
2040	12,820,000				
2041	13,480,000				
2042	14,170,000				

* Preliminary, subject to change.

⁽¹⁾ CUSIP numbers have been assigned by an organization not affiliated with the County and are included solely for the convenience of the Bondholders only at the time of issuance of the Series 2024 Bonds and neither the County nor the Underwriters make any representation with respect to such CUSIP numbers, nor undertake any responsibility for their accuracy now or at any time in the future. The CUSIP numbers are subject to being changed after the issuance of the Series 2024 Bonds as a result of various subsequent actions, including, but not limited to, a refunding in part of the Series 2024 Bonds.

MIAMI-DADE COUNTY, FLORIDA

Daniella Levine Cava, Mayor

MEMBERS OF THE BOARD OF COUNTY COMMISSIONERS

Oliver G. Gilbert, III, Chairman
Anthony Rodriguez, Vice-Chairman

Name	District	Name	District
Oliver G. Gilbert, III	1	Danielle Cohen Higgins	8
Marleine Bastien	2	Kionne L. McGhee	9
Keon Hardemon	3	Anthony Rodriguez	10
Micky Steinberg	4	Roberto J. Gonzalez	11
Eileen Higgins	5	Juan Carlos Bermudez	12
Kevin M. Cabrera	6	René Garcia	13
Raquel A. Regalado	7		

COUNTY CLERK AND COMPTROLLER

Juan Fernandez-Barquin

COUNTY ATTORNEY

Geraldine Bonzon-Keenan, Esq.

CHIEF ADMINISTRATIVE OFFICER

Carladenise Edwards

OFFICE OF MANAGEMENT AND BUDGET DIRECTOR

David Clodfelter

WATER AND SEWER DEPARTMENT

Roy Coley, Director

Marisela Aranguiz-Cueto, Deputy Director – Planning, Regulatory Compliance and Capital Infrastructure

Billie Jo McCarley, Deputy Director – Operations

Mariela Alvarez, Deputy Director – Internal and Administrative Services

Frances G. Morris, Deputy Director – Chief Financial Officer

BOND COUNSEL

Squire Patton Boggs (US) LLP
Miami, Florida

D. Seaton and Associates, P.A.
Miami, Florida

DISCLOSURE COUNSEL

Hunton Andrews Kurth LLP
Miami, Florida

DiFalco & Fernandez, LLLP
Coral Gables, Florida

FINANCIAL ADVISOR

Public Resources Advisory Group, Inc.
St. Petersburg, Florida

CONSULTING ENGINEER

Arcadis U.S., Inc.
Miami, Florida

Planning and Economics Group, Inc.
Miami, Florida

INDEPENDENT PUBLIC ACCOUNTANTS

Marcum, LLP Miami, Florida

NO DEALER, BROKER, SALESMAN OR OTHER PERSON HAS BEEN AUTHORIZED BY THE COUNTY, THE DEPARTMENT OR THE UNDERWRITERS TO GIVE ANY INFORMATION OR TO MAKE ANY REPRESENTATIONS, OTHER THAN THOSE CONTAINED IN THIS OFFICIAL STATEMENT, AND IF GIVEN OR MADE, SUCH OTHER INFORMATION OR REPRESENTATIONS MUST NOT BE RELIED UPON AS HAVING BEEN AUTHORIZED BY THE COUNTY, THE DEPARTMENT OR THE UNDERWRITERS. THIS OFFICIAL STATEMENT DOES NOT CONSTITUTE AN OFFER TO SELL OR THE SOLICITATION OF AN OFFER TO BUY NOR SHALL THERE BE ANY SALE OF THE SERIES 2024 BONDS BY ANY PERSON IN ANY JURISDICTION IN WHICH IT IS UNLAWFUL FOR SUCH PERSON TO MAKE SUCH OFFER, SOLICITATION OR SALE.

THE ORDER AND PLACEMENT OF MATERIALS IN THIS OFFICIAL STATEMENT, INCLUDING THE APPENDICES, ARE NOT TO BE DEEMED A DETERMINATION OF RELEVANCE, MATERIALITY OR IMPORTANCE, AND THIS OFFICIAL STATEMENT, INCLUDING THE APPENDICES, MUST BE CONSIDERED IN ITS ENTIRETY. THE CAPTIONS AND HEADINGS IN THIS OFFICIAL STATEMENT ARE FOR CONVENIENCE ONLY AND IN NO WAY DEFINE, LIMIT OR DESCRIBE THE SCOPE OR INTENT, OR AFFECT THE MEANING OR CONSTRUCTION, OF ANY PROVISIONS OR SECTIONS IN THIS OFFICIAL STATEMENT. THE OFFERING OF THE SERIES 2024 BONDS IS MADE ONLY BY MEANS OF THIS ENTIRE OFFICIAL STATEMENT.

THIS OFFICIAL STATEMENT CONTAINS STATEMENTS WHICH, TO THE EXTENT THEY ARE NOT RECITATIONS OF HISTORICAL FACT, CONSTITUTE "FORWARD LOOKING STATEMENTS." IN THIS RESPECT, THE WORDS "ESTIMATE," "PROJECT," "ANTICIPATE," "EXPECT," "INTEND," "BELIEF," AND SIMILAR EXPRESSIONS ARE INTENDED TO IDENTIFY FORWARD LOOKING STATEMENTS. SUCH STATEMENTS MAY BE SUBJECT TO RISKS AND UNCERTAINTIES THAT COULD CAUSE ACTUAL RESULTS TO DIFFER MATERIALLY FROM THOSE CONTEMPLATED IN SUCH FORWARD LOOKING STATEMENTS.

THE UNDERWRITERS HAVE PROVIDED THE FOLLOWING SENTENCE FOR INCLUSION IN THIS OFFICIAL STATEMENT. *THE UNDERWRITERS AND THE DEALER MANAGER HAVE REVIEWED THE INFORMATION IN THIS OFFICIAL STATEMENT IN ACCORDANCE WITH, AND AS PART OF, THEIR RESPECTIVE RESPONSIBILITIES TO INVESTORS UNDER THE FEDERAL SECURITIES LAWS AS APPLIED TO THE FACTS AND CIRCUMSTANCES OF THIS TRANSACTION, BUT THE UNDERWRITERS AND THE DEALER MANAGER DO NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF SUCH INFORMATION.*

THIS OFFICIAL STATEMENT IS BEING PROVIDED TO PROSPECTIVE PURCHASERS EITHER IN BOUND PRINTED FORM ("ORIGINAL BOUND FORMAT") OR IN ELECTRONIC FORMAT ON THE FOLLOWING WEBSITES: WWW.MUNIOS.COM AND WWW.EMMA.MSRB.ORG. THIS OFFICIAL STATEMENT MAY BE RELIED UPON ONLY IF IT IS IN ITS ORIGINAL BOUND FORMAT OR IF IT IS PRINTED IN FULL DIRECTLY FROM SUCH WEBSITES.

IN CONNECTION WITH THIS OFFERING, THE UNDERWRITERS MAY OVERALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKET PRICE OF THE SERIES 2024 BONDS AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME. THE UNDERWRITERS MAY OFFER AND SELL THE SERIES 2024 BONDS TO CERTAIN DEALERS AND OTHERS AT YIELDS HIGHER THAN THE YIELDS STATED ON THE INSIDE COVER PAGE OF THIS OFFICIAL STATEMENT, AND SUCH PUBLIC OFFERING YIELDS MAY BE CHANGED FROM TIME TO TIME, AFTER THE INITIAL OFFERING TO THE PUBLIC, BY THE UNDERWRITERS.

THE SERIES 2024 BONDS HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR ANY STATE SECURITIES LAW, NOR HAS THE BOND ORDINANCE BEEN QUALIFIED UNDER THE TRUST INDENTURE ACT OF 1939, AS AMENDED, IN RELIANCE UPON EXEMPTIONS CONTAINED IN SUCH ACTS. IN MAKING AN INVESTMENT DECISION, INVESTORS MUST RELY ON THEIR OWN EXAMINATION OF THE PLEDGED REVENUES AND THE TERMS OF THIS OFFERING, INCLUDING THE MERITS AND INVESTMENT RISKS INVOLVED. NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY OTHER FEDERAL, STATE OR GOVERNMENTAL

ENTITY OR AGENCY WILL HAVE PASSED UPON THE ACCURACY OR ADEQUACY OF THIS OFFICIAL STATEMENT OR APPROVED OR RECOMMENDED THE SERIES 2024 BONDS FOR SALE. ANY REPRESENTATION TO THE CONTRARY MAY BE A CRIMINAL OFFENSE.

REFERENCES TO WEBSITE ADDRESSES PRESENTED HEREIN ARE FOR INFORMATIONAL PURPOSES ONLY AND MAY BE IN THE FORM OF A HYPERLINK SOLELY FOR THE READER'S CONVENIENCE. UNLESS SPECIFIED OTHERWISE, SUCH WEBSITES AND THE INFORMATION OR LINKS CONTAINED THEREIN ARE NOT INCORPORATED INTO, AND ARE NOT PART OF, THIS OFFICIAL STATEMENT FOR PURPOSES OF RULE 15c2-12 OF THE UNITED STATES SECURITIES AND EXCHANGE COMMISSION, AS AMENDED, AND IN EFFECT ON THE DATE HEREOF.

THIS PRELIMINARY OFFICIAL STATEMENT IS IN THE FORM DEEMED FINAL BY THE COUNTY FOR PURPOSES OF RULE 15c2-12 PROMULGATED UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED, EXCEPT FOR CERTAIN INFORMATION PERMITTED TO BE OMITTED PURSUANT TO RULE 15c2-12(b)(1).

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OFFICIAL STATEMENT

relating to

MIAMI-DADE COUNTY, FLORIDA

\$323,160,000*
Water and Sewer System Revenue Bonds,
Series 2024A

\$129,730,000*
Water and Sewer System Revenue Refunding Bonds,
Series 2024B

INTRODUCTION

The purpose of this Official Statement of Miami-Dade County, Florida (the “County”), which includes the inside cover page and Appendices, is to furnish certain information in connection with the issuance and sale by the County of \$323,160,000* aggregate principal amount of its Water and Sewer System Revenue Bonds, Series 2024A (the “Series 2024A Bonds”), and \$129,730,000* aggregate principal amount of its Water and Sewer System Revenue Refunding Bonds, Series 2024B (the “Series 2024B Bonds” and, together with the Series 2024A Bonds, the “Series 2024 Bonds”). The Series 2024B Bonds are being offered by the County in connection with the Offer to Tender Bonds dated April 29, 2024 (the “Invitation”), inviting holders of certain Outstanding Bonds (as defined below) that are described in more detail in the Invitation (the “Invited Bonds”), to tender such Invited Bonds for purchase by the County (the “Tender Offer”). See “PLAN OF FINANCE – Series 2024B Bonds” herein.

The Series 2024 Bonds are being issued pursuant to the authority of, and in compliance with, the Constitution and Laws of the State of Florida (the “State”), including without limitation, (i) Chapter 125 and Chapter 166, Florida Statutes, each as amended; (ii) the Home Rule Amendment and Charter of the County, as amended; (iii) the Code of the County, as amended; and (iv) Ordinance No. 93-134 enacted by the Board of County Commissioners of the County (the “Board”) on November 16, 1993 (the “Original Ordinance”), as amended by Ordinance No. 13-47 enacted by the Board on June 4, 2013 (the “2013 Ordinance”; the Original Ordinance as amended by the 2013 Ordinance, the “Master Ordinance”), the 2013 Ordinance with respect to the Series 2024A Bonds, and Resolution No. R-317-24 adopted by the Board on April 16, 2024 (the “Series 2024 Resolution” and, together with the Master Ordinance, the “Bond Ordinance”). The full text of the Bond Ordinance is appended to this Official Statement as “APPENDIX D – THE BOND ORDINANCE.”

The Series 2024 Bonds are being issued for the purposes described under the heading “PLAN OF FINANCE.”

Payment of principal of and interest on the Series 2024 Bonds is secured, on a parity basis as described below, by a pledge of and lien on the Pledged Revenues, which consist of the Net Operating Revenues (as such terms are defined herein) of the County’s water and wastewater utility system (the “Utility”). The Series 2024 Bonds are additionally secured by the Reserve Account, on a parity basis with certain other Outstanding Bonds as described below. See “SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2024 BONDS.”

The Series 2024 Bonds are being issued on a parity basis as to the source and security for payment with the following Outstanding Bonds (as defined below), a portion of some of which Outstanding Bonds are expected to be purchased by the County and cancelled through the Tender Offer:

(i) the \$481,175,000 original aggregate principal amount of Miami-Dade County, Florida Water and Sewer System Revenue Refunding Bonds, Series 2015, currently outstanding in the principal amount of \$283,785,000 (the “Series 2015 Bonds”);

(ii) the \$381,355,000 original aggregate principal amount of Miami-Dade County, Florida Water and Sewer System Revenue Bonds, Series 2017A, all of which are currently outstanding (the “Series 2017A Bonds”);

* Preliminary, subject to change.

(iii) the \$548,025,000 original aggregate principal amount of Miami-Dade County, Florida Water and Sewer System Revenue Refunding Bonds, Series 2017B, currently outstanding in the principal amount of \$538,425,000 (the “Series 2017B Bonds”);

(iv) the \$233,305,000 original aggregate principal amount of Miami-Dade County, Florida Water and Sewer System Revenue Bonds, Series 2019, all of which are currently outstanding (the “Series 2019 Bonds”);

(v) the \$663,860,000 original aggregate principal amount of Miami-Dade County, Florida Water and Sewer System Revenue Bonds, Series 2019B, all of which are currently outstanding (the “Series 2019B Bonds”); and

(vi) the \$548,090,000 original aggregate principal amount of Miami-Dade County, Florida Water and Sewer System Revenue Bonds, Series 2019C, all of which are currently outstanding (the “Series 2019C Bonds”);

(vii) the \$605,600,000 original aggregate principal amount of Miami-Dade County, Florida Water and Sewer System Revenue Bonds, Series 2021, all of which are currently outstanding (the “Series 2021 Bonds” and, collectively with the Series 2015 Bonds, the Series 2017A Bonds, the Series 2017B Bonds, the Series 2019 Bonds, the Series 2019B Bonds and the Series 2019C Bonds, the “Outstanding Bonds”), and any future Additional Bonds, Completion Bonds and Refunding Bonds and with any future Hedge Obligations. *See* “SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2024 BONDS – Flow of Funds,” “ – Additional Bonds,” “ – Refunding Bonds,” and “ – Completion Bonds.” Any bonds issued under the provisions of the Master Ordinance shall be referred to as the “Bonds.”

This Official Statement contains descriptions of, among other things, the Series 2024 Bonds, the Bond Ordinance, the Miami-Dade Water and Sewer Department (the “Department”), the Utility and the County. Such descriptions and information do not purport to be comprehensive or definitive. Certain information in this Official Statement has been provided by The Depository Trust Company, New York, New York (“DTC”). The County and the Department have not provided information in this Official Statement with respect to DTC and do not certify as to the accuracy or sufficiency of the disclosure policies of or content provided by DTC and are not responsible for the information provided by DTC. All references in this Official Statement to the Bond Ordinance and related documents are qualified by reference to such documents, and references to the Series 2024 Bonds are qualified in their entirety by reference to the form of such bonds included in the Bond Ordinance. *All capitalized terms in this Official Statement shall have the meanings assigned to such terms in the Bond Ordinance unless another meaning is ascribed to any of such terms in this Official Statement.*

PLAN OF FINANCE

Series 2024A Bonds

The proceeds of the Series 2024A Bonds, together with certain other available funds of the Department, will be used to (i) pay the cost of the Series 2024 Project (as defined herein), (ii) make a deposit to the Reserve Account, (iii) fund capitalized interest, if advisable, and (iv) pay the costs of issuance of the Series 2024A Bonds. *See* “SERIES 2024 BONDS ESTIMATED SOURCES AND USES OF FUNDS.”

The Series 2024 Bonds are part of a series of Water and Sewer Revenue Bond new money issues previously issued and expected to be issued in the future by the County to fund a portion of the costs of the Department’s Multi-Year Capital Improvement Plan (“MYCIP”). The Department’s long-term MYCIP is approximately \$8.6 billion, of which approximately \$2.7 billion has been funded. The Department has identified approximately \$4.4 billion in capital needs to be funded over the next five Fiscal Years (the current MYCIP), which runs from Fiscal Year 2024 through 2029. The County expects to fund approximately 52% of these capital needs through the issuance of Bonds, including the Series 2024A Bonds. An additional \$1.4 billion in capital needs is expected to be funded from various sources after Fiscal Year 2029. *See* “FINANCIAL OPERATIONS - Multi-Year Capital Plan” herein for a description of such capital needs and projected costs. The Series 2024 Project includes the improvements described in Exhibit A to the Series 2024 Resolution. *See* “APPENDIX D – THE BOND ORDINANCE.” *See also* “SERIES 2024 BONDS ESTIMATED SOURCES AND USES OF FUNDS.”

Series 2024B Bonds

The proceeds of the Series 2024B Bonds, together with certain other available funds of the Department, will be used to (i) refund, through the Tender Offer, the Refunded Bonds (as defined herein), and (ii) pay the costs of issuance of the Series 2024B Bonds. See “SERIES 2024 BONDS ESTIMATED SOURCES AND USES OF FUNDS.”

On April 29, 2024, the County released the Invitation that set forth the terms and conditions of the Tender Offer inviting holders of the Invited Bonds to tender such Invited Bonds for purchase by the County. The purpose of the Tender Offer is to give the County the opportunity to retire the Invited Bonds on the date of issuance of the Series 2024B Bonds (the “Settlement Date”).

Pursuant to the Tender Offer as set forth in the Invitation, the owners of Invited Bonds may tender such Invited Bonds for cash and, subject to the conditions set forth therein, the County expects to purchase the Invited Bonds that are accepted for purchase per the terms and at the purchase prices determined as set forth in the Invitation. The Invited Bonds purchased pursuant to the Tender Offer (the “Refunded Bonds”) will be cancelled on the Settlement Date and shall no longer be deemed “Outstanding” within the meaning of the Master Ordinance. Funds to pay the purchase price of the Refunded Bonds, and to pay the costs of the Tender Offer, are expected to be provided from the proceeds of the Series 2024B Bonds and other available moneys of the Department.

This section is not intended to summarize all of the terms of the Invitation and reference is made to the Invitation for a discussion of the terms of the Tender Offer and the conditions for settlement of the Invited Bonds validly tendered and accepted for purchase.

The Refunded Bonds that are accepted by the County for tender for purchase, as more particularly described in the Invitation, are listed in APPENDIX J attached hereto. On the date of issuance of the Series 2024B Bonds, the principal of the Refunded Bonds that are Term Bonds will be applied against the Amortization Requirements on a pro rata basis.

DESCRIPTION OF THE SERIES 2024 BONDS

General

The Series 2024 Bonds shall bear interest at such rates and will mature on the dates and in the principal amounts set forth on the inside cover page of this Official Statement. U.S. Bank Trust Company, National Association will act as Paying Agent and Registrar for the Series 2024 Bonds (the “Paying Agent” or “Registrar”).

The Series 2024 Bonds will be issued initially as fully-registered bonds in the name of Cede & Co., as nominee of DTC, which will act as initial securities depository for the Series 2024 Bonds. Purchases of the Series 2024 Bonds will be made through a book-entry only system maintained by DTC, in denominations of \$5,000 or any integral multiple of \$5,000, and purchasers of the Series 2024 Bonds (the “Beneficial Owners”) will not receive physical delivery of bond certificates. As long as DTC or its nominee is the registered owner of the Series 2024 Bonds, the principal and interest payments will be made to DTC or its nominee, which will in turn remit such principal and interest payments to DTC’s Participants (as defined in APPENDIX I) for subsequent disbursement to the Beneficial Owners. See “APPENDIX I - DESCRIPTION OF THE DEPOSITORY TRUST COMPANY AND THE BOOK-ENTRY SYSTEM.”

Redemption of Series 2024 Bonds

Optional Redemption. The Series 2024 Bonds maturing on or prior to October 1, 20__ shall not be subject to optional redemption prior to maturity. The Series 2024 Bonds maturing on and after October 1, 20__ shall be subject to optional redemption prior to maturity, at the option of the County, in whole or in part at any time, on or after October 1, 20__, and if in part, in maturities determined by the County and by lot within a maturity, at a redemption price equal to 100% of the principal amount of the Series 2024 Bonds to be redeemed, plus accrued interest to the date of redemption and without premium.

Mandatory Redemption. The Series 2024A Bonds maturing on October 1, 20__, are subject to mandatory sinking fund redemption in part, prior to maturity, by lot, at a redemption price equal to the principal amount of the Series 2024A Bonds to be redeemed, commencing on October 1, 20__, in the years and principal amounts set forth below:

Year (October 1)	Amount
Payment at maturity	

The Series 2024A Bonds maturing on October 1, 20__, are subject to mandatory sinking fund redemption in part, prior to maturity, by lot, at a redemption price equal to the principal amount of the Series 2024A Bonds to be redeemed, commencing on October 1, 20__, in the years and principal amounts set forth below:

Year (October 1)	Amount
Payment at maturity	

Notice of Redemption. In the event any Series 2024 Bonds are called for redemption, the Paying Agent shall give notice in the name of the County, of the redemption of such Series 2024 Bonds, which notice shall (i) specify the Series 2024 Bonds to be redeemed, the CUSIP numbers, certificate numbers, the date of issue, interest rate, maturity date of the Series 2024 Bonds to be redeemed, the redemption date, the date of notice, the redemption price and the place or places where amounts due upon such redemption will be payable (which shall be the designated principal corporate trust office of the Paying Agent or of its agent) and, if less than all of the Series 2024 Bonds are to be redeemed, the numbers of the Series 2024 Bonds and the portion of Series 2024 Bonds so to be redeemed and (ii) state that on the redemption date, the Series 2024 Bonds to be redeemed shall cease to bear interest.

Notice of redemption shall be given by the Paying Agent in the name of the County by mailing a copy of the redemption notice to Cede & Co., as nominee of DTC, as registered owner of the Series 2024 Bonds, or, if DTC is no longer the registered owner of the Series 2024 Bonds, then to the then registered owners of the Series 2024 Bonds at least thirty (30) days prior to the date fixed for redemption, by first class mail and postage prepaid at their addresses appearing on the bond registration books of the County maintained by the Registrar, and if applicable, to the securities depository.

A second notice of redemption shall be given (within 60 days after the redemption date) in the manner required above, to the registered Holders of redeemed Series 2024 Bonds which have not been presented for payment within 30 days after the redemption date. However, failure to give such notice shall not affect the validity of the redemption of the Series 2024 Bonds.

Effect of Calling for Redemption. On the date so designated for redemption, notice having been mailed as provided in the Master Ordinance, the Series 2024 Bonds so called for redemption shall become and be due and payable at the redemption price provided for redemption of such Series 2024 Bonds on such date, together with accrued interest, if any, and moneys for payment of the redemption price, together with accrued interest, if any, being held in separate accounts by the Paying Agent in trust for the registered owners of the Series 2024 Bonds to be redeemed, interest on the Series 2024 Bonds so called for redemption shall cease to accrue, such Series 2024 Bonds shall not be deemed to be Outstanding for purposes of the Bond Ordinance, and shall cease to be entitled to any lien, benefit or security under the Bond Ordinance, and the registered owners of such Series 2024 Bonds shall have no rights in respect of the Series 2024 Bonds except to receive payment of the redemption price of the Series 2024 Bonds, together with accrued interest, if any, to such date.

Whenever any Series 2024 Bonds shall be delivered to the Paying Agent for cancellation, upon payment of the principal amount of the Series 2024 Bonds, or for replacement, transfer or exchange, such Series 2024 Bonds shall be canceled and destroyed by the Paying Agent, and counterparts of the certificate of destruction evidencing any such destruction shall be furnished to the County.

Conditional Notice of Redemption. In the case of an optional redemption of any Series 2024 Bonds, the notice of redemption may state that (1) it is conditioned upon the deposit of moneys with the Paying Agent or with an escrow agent under an escrow deposit agreement, in amounts necessary to effect the redemption, no later than the redemption date or (2) the County retains the right to rescind such notice on or prior to the scheduled redemption date (in either case, a “Conditional Redemption”), and such notice and optional redemption shall be of no effect if such moneys are not so deposited or if the notice is rescinded. Any such notice of Conditional Redemption shall be captioned “Conditional Notice of Redemption.” Any Conditional Redemption may be rescinded at any time prior to the redemption date if the County delivers a written direction to the Paying Agent directing the Paying Agent to rescind the redemption notice. The Paying Agent shall give prompt notice of such rescission to the affected Bondholders. Any Series 2024 Bonds subject to Conditional Redemption where redemption has been rescinded shall remain Outstanding, and neither the rescission nor the failure by the County to make such funds available shall constitute an Event of Default under the Bond Ordinance. The County shall give immediate notice to each MSIR (as hereinafter defined) and the affected Bondholders that the redemption did not occur and that the Series 2024 Bonds called for redemption and not so paid remain Outstanding under the Bond Ordinance.

SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2024 BONDS

Pledged Revenues

The payment of principal of and interest on the Series 2024 Bonds is secured by a pledge of and lien on the Net Operating Revenues of the Utility (the “Pledged Revenues”). For a description of the application and use of the Pledged Revenues, see “Flow of Funds” below. The Series 2024 Bonds are being issued on a parity basis as to source and security for payment with the Outstanding Bonds, any future Bonds and with certain Hedge Obligations as hereinafter described in this Official Statement. See “INTEREST RATE SWAP AGREEMENTS.”

The term “Net Operating Revenues” is defined in the Master Ordinance as Operating Revenues reduced by Operating Expenses. The term “Operating Revenues” is defined in the Master Ordinance as all operating income or earnings received or accrued by the County from the ownership, operation or use of the Utility, or any part of the Utility, including, but not limited to, user charges for the provision of water service and sewer service, meter installation fees, and the like, delinquent charges and investment earnings, but shall exclude any income from the investment of the Construction Fund, proceeds from insurance (except business interruption insurance), condemnation or the disposition of property not in the ordinary course of business, Capital Facilities Charges, grants and proceeds from the sale of any obligations of the County (exclusive of short-term obligations for Utility working capital) and payments on special assessments for water and sewer improvements.

The term “Capital Facilities Charges” is defined in the Master Ordinance as all payments received by the County or the Department which are related to acquiring, constructing, expanding or equipping capacity and facilities of the Utility, for the purpose of reserving capacity in either the Water System or the Sewer System, connecting to either System, or paying or reimbursing any capital cost relating to such acquisition, construction, expansion or equipping of excess and unused capacity of either System or any expansion thereof, including connection charges and impact fees relative to the Utility, but shall not include (i) amounts received for the acceptance, treatment or disposal of sewage, (ii) amounts received from the sale of water, (iii) meter installation fees and (iv) other revenues constituting Operating Revenues.

The term “Operating Expenses” is defined in the Master Ordinance as all current expenses, paid or accrued, and any Operating Expense reserve described in Section 503 of the Master Ordinance, for the operation, maintenance and ordinary current repairs of the Utility and its components, as calculated in accordance with generally accepted accounting principles for municipal utilities (“GAAP”), including, without limitation, insurance premiums (or comparable payments under a self-insurance or risk management program), labor, cost of materials and supplies used for current operation, charges for the accumulation of appropriate reserves for current expenses not annually recurrent but which are such as may reasonably be expected to be incurred in accordance with GAAP and Credit Facility

Charges, administrative expenses and professional fees and expenses, before depreciation, amortization and interest expense determined in accordance with GAAP, provided, however, there will not be taken into account:

- (a) any gain or loss resulting from either the extinguishment or refinancing of indebtedness;
- (b) loss from the sale, exchange or other disposition of capital assets not made in the ordinary course of business; and
- (c) any capital expenditures for renewal, replacement, expansion or acquisition of capital assets of the Utility (including any deposit to reserves therefor).

The Master Ordinance permits the County to acquire a water and/or sewer system and specifically designate such system to be a “Separate System” for purposes of the Master Ordinance. Any Separate System so designated would not constitute a part of the Utility, and revenues generated by such Separate System would not constitute Operating Revenues subject to the lien of the Master Ordinance and costs allocable thereto would not be taken into account for purposes of determining Operating Expenses and Net Operating Revenues. There are currently no Separate Systems.

Flow of Funds

Section 502 of the Master Ordinance creates the following funds and accounts (all of which are to be held by the County) for the security of the Outstanding Bonds, the Series 2024 Bonds, and any future Bonds:

- (a) the Revenue Fund;
- (b) the Debt Service Fund, and therein a Bond Service Account, a Redemption Account and a Reserve Account;
- (c) the Renewal and Replacement Fund;
- (d) the Plant Expansion Fund;
- (e) the Rate Stabilization Fund; and
- (f) the General Reserve Fund.

In addition, the Series 2024 Resolution creates the “Series 2024A Bond Service Subaccount,” the “Series 2024B Bond Service Subaccount,” the “Series 2024A Redemption Subaccount,” and the “Series 2024B Redemption Subaccount” in the Debt Service Fund.

Section 503 of the Master Ordinance requires that the County deposit all Operating Revenues of the Utility in the Revenue Fund as received, and that all moneys in the Revenue Fund be applied in the order of priority described below:

- (1) The County must make withdrawals from the Revenue Fund in amounts necessary to pay Operating Expenses and to establish an Operating Expense reserve in an amount determined by the County (which may not exceed 1/6th of the budgeted Operating Expenses for the then-current Fiscal Year).
- (2) Subject only to the payments and set asides described in (1) above, the remaining moneys in the Revenue Fund are required to be applied on or before the 20th day of each month in the following order:
 - (i) to the credit of the Bond Service Account, an amount equal to one-sixth (1/6th) of the amount of the interest payable on the Bonds of each Series on the interest payment date next succeeding (less any amount received as capitalized or accrued interest from the proceeds of any Bonds which is available for such interest payment) and an amount equal to one-twelfth (1/12th) of

the next maturing installment of principal (or Accreted Value, as applicable) on all Serial Bonds then outstanding; provided, however, that:

(A) in each month intervening between the date of delivery of a Series of Bonds, and the next succeeding interest payment date and the next succeeding principal payment date, respectively, the amount described in this subparagraph (i) shall be that amount which when multiplied by the number of deposits to the credit of the Bond Service Account required to be made during such respective periods will equal the amounts required (in addition to any amounts received as accrued interest or capitalized interest from the proceeds of such Bonds) for such next succeeding interest payment and next maturing installment of principal, respectively;

(B) the amount described in this subparagraph (i) shall be reduced to take into account Hedge Receipts to be received on or before the succeeding interest payment date and shall be increased to provide for the payment of any Hedge Obligations to be paid on or before the succeeding interest payment date; and

(C) with respect to any Bonds (or any Hedge Agreement) bearing interest at a Variable Rate and/or payable other than semiannually, the amount specified in this subparagraph (i) for the payment of interest (or Hedge Obligation) shall be that amount necessary to provide substantially equal monthly payments for the payment of such interest (or Hedge Obligation) on the payment dates therefor;

(ii) to the credit of the Redemption Account, an amount equal to one-twelfth (1/12th) of the principal amount (or Accreted Value, as applicable) of Term Bonds of each Series then Outstanding required to be retired in satisfaction of the Amortization Requirements for such Bond Year, plus the redemption premiums, if any, which would be payable in such Bond Year if such Term Bonds were to be redeemed prior to their respective maturities from moneys held for the credit for the Debt Service Fund;

(iii) to the credit of the Reserve Account, the Reserve Account deposit requirement established by the Master Ordinance for such month; provided, however, no deposit shall be required in any month in which the amount on deposit in the Reserve Account is at least equal to the Reserve Account Requirement. If a Reserve Account Credit Facility is utilized and the Provider of the Reserve Account Credit Facility is required to advance any sums to meet Principal and Interest Requirements or other sums required to be funded from the Reserve Account, the County shall reimburse the Provider within 12 months from the date the County receives written notice of such advance by the Provider;

(iv) to the payment of principal (including amortization installment, if any) of, and premiums and interest on, and other required payments with respect to Subordinate Obligations;

(v) to the credit of the Renewal and Replacement Fund, an amount equal to one-twelfth (1/12th) of the amount to be deposited from Revenues, if any, recommended by the Consultant pursuant to the provisions of Section 607 of the Master Ordinance, to be deposited to the credit of said fund during such Fiscal Year;

(vi) in the discretion of the County, to the credit of the Rate Stabilization Fund in such sums as are determined by the County; and

(vii) to the credit of the General Reserve Fund, the balance, if any, remaining thereafter. At the election of the County, amounts credited to the General Reserve Fund may be applied to any other lawful purpose of the Utility and, to the extent legally permitted, to make contributions to other funds of the County in the amounts determined by the Board; provided, however that in the event of any deficiencies in any Accounts or Funds created by the Master

Ordinance, the moneys in the General Reserve Fund shall be applied to make up all such deficiencies prior to applying any moneys in the Reserve Account or the Renewal and Replacement Fund for such purpose.

If the amount deposited in any month to the credit of any of the Accounts or Funds shall be less than the amount required to be deposited under the provisions of the Master Ordinance, the requirement therefor shall nevertheless be cumulative and the amount of any deficiency in any month shall be added to the amount otherwise required to be deposited in each month thereafter until such time as all deficiencies have been made up.

As described in subparagraph (i) above, Hedge Obligations are payable on parity as to source and security with Bonds issued and Outstanding under the Bond Ordinance. The term “Hedge Obligations” is defined in the Master Ordinance as net payments required to be made by the County under a Hedge Agreement from time to time as a result of fluctuation in hedged interest rates or in the value of any index of payment and, under certain conditions set forth in the Master Ordinance, termination charges with respect to a Hedge Agreement. A “Hedge Agreement” includes, but is not limited to, an interest rate swap agreement meeting the criteria set forth in the Master Ordinance and entered into by the County as a hedging device with respect to its obligation to pay debt service on the Bonds. *See* “INTEREST RATE SWAP AGREEMENTS” herein.

Limited Obligations

THE SERIES 2024 BONDS ARE SPECIAL, LIMITED OBLIGATIONS OF THE COUNTY PAYABLE SOLELY FROM AND SECURED SOLELY BY PLEDGED REVENUES. THE SERIES 2024 BONDS DO NOT CONSTITUTE AN INDEBTEDNESS, LIABILITY, GENERAL OR MORAL OBLIGATION, OR A PLEDGE OF THE FAITH, CREDIT OR POWER OF THE COUNTY, THE STATE OR ANY POLITICAL SUBDIVISION OF THE STATE, WITHIN THE MEANING OF ANY CONSTITUTIONAL, STATUTORY OR CHARTER PROVISION. NEITHER THE STATE NOR ANY POLITICAL SUBDIVISION OF THE STATE NOR THE COUNTY SHALL BE DIRECTLY OR INDIRECTLY OR CONTINGENTLY OBLIGATED TO LEVY ANY AD VALOREM TAXES ON ANY PROPERTY TO PAY PRINCIPAL OF, OR THE INTEREST ON, THE SERIES 2024 BONDS OR OTHER RELATED COSTS, OR TO PAY THE SAME FROM ANY OTHER FUNDS OF THE COUNTY EXCEPT FROM THE PLEDGED REVENUES. THE ACCEPTANCE OF THE SERIES 2024 BONDS BY THE REGISTERED OWNERS FROM TIME TO TIME OF THE SERIES 2024 BONDS SHALL BE DEEMED AN AGREEMENT BETWEEN THE COUNTY AND SUCH REGISTERED OWNERS THAT THE SERIES 2024 BONDS AND THE INDEBTEDNESS EVIDENCED BY THE SERIES 2024 BONDS SHALL NOT CONSTITUTE A LIEN UPON THE UTILITY, ANY PART OF THE UTILITY, OR ANY OTHER PROPERTY OF THE COUNTY, BUT SHALL CONSTITUTE A LIEN ONLY ON THE PLEDGED REVENUES.

Rate Covenant

The County has covenanted in Section 602 of the Master Ordinance to fix, charge and collect rates and charges for the use of the services and facilities furnished by the Utility and, from time to time and as often as it shall be necessary, to adjust such rates and charges by increasing or decreasing the same or any selected categories of such rates and charges so as to provide Net Operating Revenues in each Fiscal Year equal to (a) one hundred twenty five percent (125%) of the Principal and Interest Requirements on the Bonds for such Fiscal Year, plus (b) one hundred percent (100%) of the required deposits into the Reserve Account (less any portion of such deposits to be deposited from proceeds of Bonds) together with any Reserve Account Credit Facility costs payable in such Fiscal Year. In addition to satisfying the debt service coverage requirements set forth above, the adjusted Net Operating Revenues remaining after deduction of the Maximum Principal and Interest Requirements on all Bonds shall be at least equal to one hundred percent (100%) of all debt service and reserve requirements on Subordinate Obligations.

The term “Principal and Interest Requirements” is defined in the Master Ordinance as the respective amounts which are required in each Fiscal Year to pay (a) principal and interest on all Bonds then Outstanding and (b) the Amortization Requirements, if any, for all Term Bonds then Outstanding for such Fiscal Year; provided, however, that: (i) the amount of such Principal and Interest Requirements for any Fiscal Year may be reduced by the amount of any capitalized interest to be used to pay interest in such Fiscal Year and by the anticipated earnings on money in the applicable Bond Service Account, and such earnings will be deposited to the credit of the applicable Bond Service Account; and (ii) the Principal and Interest Requirements for any Bonds bearing interest at a Variable Rate shall be

determined as provided in the Definition of “Variable Rate” in the Master Ordinance (*see* APPENDIX D for this definition). “Maximum Principal and Interest Requirements” is defined in the Master Ordinance, as of any particular date of calculation, as the greatest amount of Principal and Interest Requirements for the then current or any future Fiscal Year.

The Master Ordinance defines “Reserve Account Credit Facility” as a surety bond, a policy of insurance, a letter of credit or other financial product obtained by the County with respect to any Bonds, from an entity that is rated in one of the two highest ratings categories by Moody’s and S&P (each as defined under the caption “RATINGS” below) and which financial product provides for payment of Principal and Interest on such Bonds in amounts not greater than the Reserve Account Requirement for such Bonds in the event of an insufficiency of available moneys to pay when due principal of, premium, if any, and interest on such Bonds.

In case the County has made deposits of Net Operating Revenues to or withdrawals from the Rate Stabilization Fund during such Fiscal Year, Net Operating Revenues shall be adjusted by subtracting the amount of any such deposits and by adding the amount of any such withdrawal.

For additional rate coverage considerations applicable to the Utility in connection with certain Subordinate Obligations, *see* “APPENDIX A – BOND FEASIBILITY REPORT” hereto. For more information regarding the Subordinate Bonds (as defined herein) and the County’s participation in the State Revolving Fund Loan Program and the WIFIA (as defined herein) loan program, *see* “SUBORDINATE OBLIGATIONS” herein.

Reserve Account

The Master Ordinance provides for the creation of a Reserve Account and provides, except as described below, upon the issuance of each Series of Bonds, the County shall deposit or provide for the deposit to the Reserve Account, an amount, which together with amounts on deposit therein, shall equal the Reserve Account Requirement; provided, however, the County may fund up to fifty percent (50%) of the Reserve Account Requirement applicable to a Series of Bonds over 36 months if it will not cause any rating then assigned the Outstanding Bonds to be withdrawn or reduced. The “Reserve Account Requirement” is defined in the Master Ordinance as the Maximum Principal and Interest Requirements in the then current or any subsequent Fiscal Year on all Outstanding Bonds or such lesser amount which is the greatest allowable under the Internal Revenue Code of 1986, as amended (the “Code”).

In lieu of depositing cash to the Reserve Account in an amount equal to the Reserve Account Requirement, the County may elect to provide a Reserve Account Credit Facility. A “Reserve Account Credit Facility” is defined in the Master Ordinance as a surety bond, a policy of insurance, a letter of credit or other financial product obtained by the County with respect to any Bonds, from an entity that is rated in one of the two highest ratings categories by Moody’s and S&P and which financial product provides for payment of Principal and Interest on such Bonds in amounts not greater than the Reserve Account Requirement for such Bonds in the event of an insufficiency of available moneys to pay when due principal of, premium, if any, and interest on, such Bonds.

As of September 30, 2023, the balance of the Reserve Account was approximately \$271.0 million consisting of approximately \$160.2 million in cash and approximately \$110.8 million in reserve insurance policies constituting Reserve Account Credit Facilities, which as of that date the amount was approximately \$45.2 million over the Reserve Account Requirement. Upon the issuance of the Series 2024 Bonds, there shall be on deposit in the Reserve Account an amount in excess of the Reserve Account Requirement for all Bonds Outstanding, including the Series 2024 Bonds, consisting of \$_____ in cash and \$110,837,650 in reserve insurance policies constituting Reserve Account Credit Facilities for a total of \$_____, which amount is \$_____ over the Reserve Account Requirement. The Reserve Account Credit Facilities are provided by Assured Guaranty as successor to Financial Security Assurance Inc. (“Assured”) (\$43,823,316 in the aggregate), National Public Finance Guaranty Corporation as successor to Financial Guaranty Insurance Company (“NPF”) (\$36,514,334 in the aggregate) and Berkshire Hathaway Assurance Corporation (“Berkshire”) (\$30,500,000 in the aggregate). Approximately \$49.6 million and \$53.1 million of the Reserve Account Credit Facilities will terminate on October 1, 2025 and October 1, 2026, respectively. In order to ensure that the Reserve Account is adequately funded following the termination of such Reserve Account Credit Facilities, the Department intends to take the appropriate actions authorized under the Bond Ordinance to satisfy the Reserve Account Requirement.

The following table lists the Reserve Account Credit Facilities held in the Reserve Account as security for the Outstanding Bonds and the Series 2024 Bonds:

RESERVE ACCOUNT CREDIT FACILITIES

Surety Policies	Amount (rounded, in millions)	Matures
Assured	\$19.07	10/01/2025
Berkshire	30.50	10/01/2025
NPFG	28.31	10/01/2026
Assured	24.75	10/01/2026
NPFG	8.21	10/01/2029
	\$110.84	

Moneys held for the credit of the Reserve Account shall first be used for the purpose of paying the interest on and the principal of the Bonds whenever and to the extent that the available moneys held for such purpose for the credit of the Bond Service Account and the General Reserve Fund shall be insufficient for such purpose, and thereafter for the purpose of making deposits to the credit of the Redemption Account of the Debt Service Fund pursuant to the requirements of the Master Ordinance whenever and to the extent that withdrawals from the Revenue Fund and the amount on deposit in the General Reserve Fund are insufficient for such purposes, and shall next be used to pay Payment Obligations with respect to the applicable Reserve Account Credit Facility, if any. Amounts withdrawn from the Reserve Account for the purpose of payment of debt service on any Bonds shall be replenished by substantially equal monthly deposits into the Reserve Account over a period not to exceed 60 months. If at any time the moneys held for the credit of any subaccount in the Reserve Account shall exceed the Reserve Account Requirement for those Bonds that are secured by such subaccounts, such excess shall be withdrawn by the Finance Director and deposited to the credit of the Revenue Fund.

The County may create subaccounts in the Reserve Account for any Series of Bonds. In such event, moneys in such subaccount shall be held specifically for the benefit of the respective Series of Bonds for which such subaccounts were created. In this regard, the remaining amounts on deposit would be available for payment of debt service of all Bonds, including such Series of Bonds for which a separate subaccount has been created. No such separate subaccount is currently in existence and the County is not creating a separate subaccount for the benefit of the Series 2024 Bonds.

Additional Bonds

Upon satisfying certain conditions contained in Section 208 of the Master Ordinance, the County may issue additional bonds (the “Additional Bonds”) and other obligations that are payable on a parity with the Series 2024 Bonds and the Outstanding Bonds. Additional Bonds may be issued (a) for the purpose of paying all or any part of the cost of constructing or acquiring any Improvements, (b) to refund any obligations of the County which financed or refinanced any Improvements, or (c) to finance termination payments relating to Hedge Agreements.

Except in the case of Refunding Bonds and Completion Bonds as described in “Refunding Bonds” and “Completion Bonds” below, the County, after satisfaction of all other conditions in the Master Ordinance, may issue Additional Bonds and any other obligations that are First Lien Obligations (which, for purposes of meeting these conditions, are deemed to be Additional Bonds) if there has been filed a certificate of the Finance Director (i) setting forth the amount of the Net Operating Revenues for any four consecutive quarters (the “Computation Period”) in the six preceding quarters, subject to certain adjustments permitted under the Master Ordinance, (ii) setting forth the respective amounts of the Principal and Interest Requirements for each Fiscal Year thereafter including the Additional Bonds to be issued, (iii) certifying that the Net Operating Revenues, as adjusted in accordance with Section 208(c) of the Master Ordinance, for the Computation Period shall have equaled at least the sum of one hundred ten percent (110%) of the Maximum Principal and Interest Requirements on all Bonds to be Outstanding as of the date of such issuance, plus one hundred percent (100%) of all required deposits to the Reserve Account during the Computation Period and (iv) certifying that the Net Operating Revenues (as adjusted in accordance with Section 208(c) of the Master Ordinance) remaining after deduction of Maximum Principal and Interest Requirements on all Bonds shall be

at least equal to one hundred percent (100%) of all debt service and reserve requirements on all Subordinate Obligations.

In addition to the certificate of the Finance Director described above, there shall be filed with the Finance Director a certificate signed by a Consultant meeting the criteria set forth in the Master Ordinance setting forth (x) the estimated date on which the Improvements being financed or refinanced with the Additional Bonds will be placed in operation, (y) the Consultant's estimate of the Net Operating Revenues for each of the three Fiscal Years following the Fiscal Year in which the Improvements will be placed in operation as estimated in item (x) of said certificate, taking into account the rates and charges in effect on the date of delivery of such Additional Bonds and any revised rates and charges that shall become effective prior to or during such Fiscal Year, and (z) that after taking into account (x) and (y) above, the Net Operating Revenues (as adjusted in accordance with Section 208(c) of the Master Ordinance) will satisfy the ratio set forth in (iii) of the preceding paragraph, and that the adjusted Net Operating Revenues remaining after deduction of the Maximum Principal and Interest Requirements on all Bonds shall be at least equal to one hundred percent (100%) of all debt service and reserve requirements on Subordinate Obligations.

The Series 2024 Bonds are being issued as Additional Bonds.

For additional limitations on the issuance of additional obligations payable from Net Operating Revenues of the Utility as a result of the County's participation in the WIFIA loan program, *see* "APPENDIX A – BOND FEASIBILITY REPORT" hereto. For more information regarding the County's WIFIA loan program, *see* "SUBORDINATE OBLIGATIONS – WIFIA Loan Program" herein.

Refunding Bonds

The Master Ordinance provides for the issuance of "Refunding Bonds" for the purpose of providing funds for paying principal of, redemption premium and interest on all or any part of the Outstanding Bonds at maturity or prior redemption date. Refunding Bonds so issued will be secured and payable from Pledged Revenues on a parity with all Bonds issued and Outstanding under the Master Ordinance. The coverage tests applicable to Additional Bonds (*see* "Additional Bonds" above) do not apply to Refunding Bonds provided that the Finance Director certifies that the Principal and Interest Requirements for each Fiscal Year thereafter (except for years subsequent to the final maturity of all the Outstanding Bonds) on account of all Bonds to be Outstanding after issuance of such Refunding Bonds and the payment and redemption of the Bonds to be paid and redeemed shall not exceed the Principal and Interest Requirements for each such Fiscal Year on account of all Bonds Outstanding immediately prior to the issuance of such Refunding Bonds. However, Refunding Bonds may also be issued by meeting the historical coverage test for Additional Bonds – *see* "Additional Bonds."

Completion Bonds

The Master Ordinance provides for the issuance of "Completion Bonds" for the purpose of providing funds for paying the cost of completion of any Project for which one or more Series of Bonds have theretofore been issued, in a principal amount not greater than ten percent (10%) of the estimated cost of such Project. Completion Bonds so issued will be secured and payable from Pledged Revenues on parity with all Bonds issued under the Master Ordinance. The coverage tests applicable to Additional Bonds (and described above) are not applicable to Completion Bonds.

See "APPENDIX D – THE BOND ORDINANCE" for a more complete discussion on the issuance of Additional Bonds, Refunding Bonds and Completion Bonds.

Defeasance

The Master Ordinance provides that in the event Bonds are defeased in the manner described in the Master Ordinance, the right, title and interest of the Holders of such Bonds in the Bond Ordinance will cease, determine and become void. *See* "APPENDIX D – THE BOND ORDINANCE."

Additional Covenants of the County

The County has covenanted in the Master Ordinance that it will neither furnish free service nor provide service otherwise than in accordance with the established rate schedule for the Utility. The County has also agreed to certain restrictions on the sale or disposal of assets comprising the Utility. The County has covenanted to cause the Department to adopt an annual operating budget which may be amended from time to time, to operate the Utility in an efficient and economic manner, to maintain the Utility in good repair, and to timely pay all principal and interest payments, when due, on the Bonds, and that it will diligently enforce and collect payment of all fees and charges for the use of the Utility.

The County has further covenanted to maintain a practical insurance program for the Utility, to maintain separate records and accounts for the Utility, to keep accurate accounts of revenues, costs and expenditures, to issue annual audited financial reports of the Utility, to require, to the extent permitted by law, all lands, buildings and structures within the service area of the Utility fronting or abutting on the distribution lines to connect with and/or use the Utility, and to retain qualified Consultants and Accountants as required by the Master Ordinance. *See* “APPENDIX D – THE BOND ORDINANCE.”

Other Obligations

The County has incurred certain obligations that are secured by a subordinate pledge of and lien on the Pledged Revenues. The County may also issue additional Subordinate Obligations payable on a subordinate basis to the Outstanding Bonds and the Series 2024 Bonds pursuant to the Master Ordinance. The County does not expect to issue any Subordinate Obligations in the near future. *See* “SUBORDINATE OBLIGATIONS.”

Remedies

Upon an Event of Default as described in Section 701 of the Master Ordinance, the Series 2024 Bonds will not be subject to acceleration. Rather, a trustee or Bondholder acting for the Holders of all Bonds may by suit, action, mandamus or other judicial proceedings, protect and enforce any and all rights, including the right to the appointment of a receiver, existing under and to the extent permitted by the laws of the State, or granted and contained in the Master Ordinance, and may enforce and compel the performance of all duties required in the Master Ordinance or by any applicable statutes to be performed by the County or by any officer thereof. However, nothing in the Master Ordinance shall be construed to grant to any Bondholder any lien on any property of or within the corporate boundaries of the County, and no Bondholder shall have any right to affect, disturb or prejudice the security of the Master Ordinance. *See* “ENFORCEABILITY OF REMEDIES.”

Modifications or Supplements to Master Ordinance

The Master Ordinance can be supplemented as set forth in Section 801 of the Master Ordinance, which relates to supplemental ordinances without consent of the Holders, and Section 802 of the Master Ordinance, which relates to supplemental ordinances with consent of the Holders. *See* “APPENDIX D – THE BOND ORDINANCE.”

SUBORDINATE OBLIGATIONS

The County has incurred the obligations described below, which are secured by a subordinate pledge of and lien on Pledged Revenues (“Subordinate Obligations”).

State Revolving Fund Loan Program

Under the State Revolving Fund Loan Program, the Department has received various loan commitments in the aggregate amount of \$403,605,447 for the construction of wastewater treatment facilities. As of September 30, 2023, draws against wastewater treatment loan commitments totaled \$383,605,447. As of September 30, 2023, the outstanding principal balance related to drawn commitments was \$154,896,265. The remaining \$20,000,000 of the wastewater loan commitments remain undrawn. The Department has also received loan commitments in the aggregate amount of \$97,087,192 for drinking water construction projects. As of September 30, 2023, drinking water loan

commitments were drawn in full. As of September 30, 2023, the outstanding principal balance related to drawn commitments was \$39,591,514. The water loan commitments have been fully drawn. Default in payment of principal and interest on any of the loans described above or any future loans could cause an acceleration of the entire amount of such loans.

WIFIA Loan Program

In 2017, the United States Environmental Protection Agency (“EPA”) selected the Department to be one of 12 entities invited to apply for funding through the inaugural Water Infrastructure Finance and Innovation Act (“WIFIA”) loan program. The Department closed on \$99.7 million in WIFIA funding at an interest rate of 2.89% on March 22, 2019, for its Ocean Outfall Reduction and Resiliency Enhancement Project. WIFIA will fund up to 49% of the project’s estimated cost on a reimbursement basis, or \$99.7 million of this project’s costs, the remainder of which is being funded through the State Revolving Fund Loan Program and Department cash on hand. In addition to the \$99.7 million project cost, the WIFIA loan is funding capitalized interest. The Department will start making payments on the WIFIA loan on October 1, 2028. This WIFIA loan is funding a portion of the projects to meet compliance with the Ocean Outfall Legislation.

The Department also received funding as part of the second round of the WIFIA loan program. On May 28, 2020, the Department closed on \$326.2 million in WIFIA funding at an interest rate of 1.38% for the design and construction of five new electrical distribution buildings at three wastewater treatment plants. The funding will provide 49% of the project’s estimated cost, or \$326.2 million. It is anticipated that the remainder of this project will be funded through Department cash on hand and the proceeds of the Subordinate Bonds. *See “ - Subordinate Bonds”* below. In addition to the \$326.2 million project cost, this WIFIA loan is funding capitalized interest. The Department will start making payments on this WIFIA loan on October 1, 2028.

The Department also received additional funding as part of the third round of the WIFIA loan program. On July 15, 2020, the Department closed on \$235.2 million in WIFIA funding at an interest rate of 1.27% for upgrades to the South District Wastewater Treatment Plant. The funding will provide 49% of the project’s estimated cost, or \$235.2 million. It is anticipated that the remainder of this project will be funded through Department cash on hand and the proceeds of the Subordinate Bonds. *See “ - Subordinate Bonds”* below. In addition to the \$235.2 million project cost, this WIFIA loan is funding capitalized interest. The Department will start making payments on this WIFIA loan on October 1, 2028.

The Department also received additional funding as part of the fourth round of the WIFIA loan program. On September 15, 2021, the Department closed on \$424.2 million in WIFIA funding at an interest rate of 1.82% for upgrades to the Central and North District Wastewater Treatment Plants. The funding will provide 49% of the project’s estimated cost, or \$424.2 million. It is anticipated that the remainder of this project will be funded through Department cash on hand and the proceeds of the Subordinate Bonds. In addition to the \$424.2 million project cost, this WIFIA loan is funding capitalized interest. The Department will start making payments on this WIFIA loan on October 1, 2028.

Subordinate Bonds

The County issued \$236,135,000 in Subordinate Water and Sewer System Revenue Bonds, Series 2021 (the “Subordinate Bonds”) in July 2021 to provide required matching funds for the portion of the improvements being funded under the WIFIA loans that closed in 2020. Payment of principal and interest on the Subordinate Bonds and WIFIA loans is made from Pledged Revenues. However, such application of Pledged Revenues is subordinate to the pledge of Pledged Revenues to the payment of principal and interest on the Bonds, including the Series 2024 Bonds.

Commercial Paper Notes

The County does not have a commercial paper program in place at this time, but could establish one in the future.

INTEREST RATE SWAP AGREEMENTS

The County previously entered into interest rate swaps with respect to the Series 2015 Bonds and the Series 2019B Bonds (which interest rate swap was originally associated with the County’s Water and Sewer System Revenue Refunding Bonds, Series 2013B), but terminated each of such interest rate swaps in early 2020. The County is not currently a party to any interest rate swap agreements with respect to Utility debt. *See* “SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2024 BONDS – Flow of Funds” and “ – Additional Bonds.”

SERIES 2024 BONDS ESTIMATED SOURCES AND USES OF FUNDS

The following table sets forth the estimated sources and uses of the proceeds of the Series 2024 Bonds:

	Series 2024A	Series 2024B
Sources of Funds		
Par Amount		
Plus: Original Issue Premium/Discount		
Total Sources		
Uses of Funds		
Deposit to Series 2024A Construction Account		
Purchase of the Refunded Bonds		
Deposit to Reserve Account		
Underwriters’ Discount		
Costs of Issuance ⁽¹⁾		
Total Uses		

⁽¹⁾ Includes legal fees, financial advisory fees, the Dealer Manager Fee, printing costs and other costs associated with the Series 2024 Bonds.

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**DEBT SERVICE REQUIREMENTS ON THE OUTSTANDING BONDS, SERIES 2024 BONDS AND
SUBORDINATE OBLIGATIONS**

The following table sets forth the debt service requirements, *on a cash basis*, on all Outstanding Bonds, the Series 2024 Bonds and all Subordinate Obligations, as of September 30, 2023. This table will be updated in the final Official Statement to remove the debt service on the Refunded Bonds and add the debt service on the Series 2024 Bonds.

Fiscal Year Ending Sept. 30	Debt Service on Outstanding Bonds ⁽¹⁾	Series 2024 Bonds			Total Senior Debt Service	Debt Service on Subordinate Obligations ⁽²⁾⁽³⁾	Total Debt Service ⁽³⁾
		Principal	Interest	Total ⁽³⁾			
2024	\$ 223,449,477				\$ 26,259,682		
2025	223,267,602				25,851,536		
2026	223,338,852				25,851,536		
2027	222,239,852				25,851,536		
2028	194,196,049				54,166,304		
2029	193,962,542				54,859,977		
2030	193,754,302				54,238,882		
2031	195,592,831				54,222,613		
2032	195,587,331				54,219,335		
2033	195,592,898				54,219,335		
2034	195,588,312				50,241,323		
2035	195,587,853				49,051,811		
2036	195,582,937				49,050,186		
2037	195,589,663				49,048,230		
2038	195,589,094				49,052,286		
2039	195,593,223				49,051,476		
2040	195,594,204				49,052,280		
2041	195,594,799				49,048,980		
2042	195,603,737				49,051,480		
2043	195,612,130				49,049,180		
2044	195,564,494				49,048,546		
2045	195,566,794				49,048,046		
2046	195,561,288				49,048,671		
2047	195,565,519				49,048,671		
2048	195,571,466				49,051,446		
2049	175,624,200				49,052,446		
2050	148,847,325				49,052,346		
2051	40,464,025				49,050,146		
2052	40,466,550				49,049,746		
2053					30,312,346		
2054					30,312,346		
2055					30,312,346		
2056					30,312,346		
2057					30,312,346		
2058					30,312,345		
2059					24,382,809		
	<u>\$5,400,149,349</u>				<u>\$1,569,144,915</u>		

⁽¹⁾ Inclusive of all Outstanding Bonds. The interest on the Outstanding Bonds has been calculated at their respective fixed rate of interest.

⁽²⁾ Includes estimated debt service payments on the four WIFIA loans assuming all draws are made in accordance with the currently anticipated draw schedule, the Subordinate Bonds and loans under the State Revolving Loan Fund Program. For a more complete description of such Subordinate Obligations, see "SUBORDINATE OBLIGATIONS," "APPENDIX B - BOND FEASIBILITY REPORT" and "APPENDIX C - FINANCIAL REPORT OF THE MIAMI-DADE WATER AND SEWER DEPARTMENT FOR FISCAL YEAR ENDED SEPTEMBER 30, 2023."

⁽³⁾ Totals may not foot due to rounding.

THE DEPARTMENT

History

On October 3, 1972, the electorate of the County approved the formation of a new County-wide water and sewer agency by expanding the then-existing Department of Water and Sewer of the City of Miami (the “City”). Subsequently, the Board established the Miami-Dade Water and Sewer Authority (the “Authority”), which began operating on April 1, 1973. On March 13, 1975, the City, the County and the Authority agreed to the transfer of all water and sewer properties, facilities and funds of the Department of Water and Sewer of the City to the Authority with the condition that certain property donated by the City would be returned to the City in the future if such property was not needed for water or sewer utility purposes.

On October 4, 1983, the Board enacted Ordinance No. 83-92, which abolished the Authority effective November 1, 1983, and established the Miami-Dade Water and Sewer Authority Department as a department within the County government. On October 19, 1993, the Department changed its name to the Miami-Dade Water and Sewer Department.

Organization and Administration

The Department is responsible for the everyday operation and maintenance of the Utility. The Utility is administered by the Board under the supervision of the County Mayor. Roy Coley has been the Director of the Department (the “Director”) since May 21, 2021. The Department is divided into two major groups under the supervision of four Deputy Directors, with seven Assistant Directors each responsible for a number of specific divisions.

Management

The following are brief resumes of the Director and the four Deputy Directors, which include the Chief Financial Officer:

Roy Coley, Director, was appointed Director of the Department on May 17, 2021. Boasting more than 25 years of hands-on experience in water resources operations and maintenance, Mr. Coley infuses his work with innovative strategies for water management, the renewal of antiquated drinking water systems, and the overhaul of wastewater infrastructure. Holding licenses in water and wastewater treatment from both the states of Florida and Alabama, Mr. Coley’s expertise is further fortified by six certifications in various water resources, treatment, and management fields from California State University College of Engineering, Sacramento.

His academic credentials also include a Bachelor of Arts degree in Organizational Leadership from St. Thomas University of Miami, earned with the highest honors of summa cum laude. Mr. Coley holds a Master of Business Administration degree from Saint Leo University of Florida, underlining his capacity to blend technical knowledge with astute business acumen.

Billie Jo McCarley, Deputy Director of Operations, oversees all operations and maintenance of water and wastewater systems of the Utility. Ms. McCarley has 21 years of utility experience and joins the Department from the Knoxville Utilities Board (“KUB”). During her tenure with KUB, she led teams and oversaw projects throughout the organization including water, wastewater, natural gas and electric utilities that served the greater Knoxville community. Prior to her tenure in KUB, she served as a First Lieutenant in the United States Marine Corps. As Platoon Commander for the 8th Engineers Bridge Company, she led marines in various missions including bridging and rafting operations at Camp LeJeune, North Carolina, and deployments conducting humanitarian relief bridge building in Honduras and Puerto Rico after extensive damage caused by natural disasters.

Ms. McCarley holds a Bachelor of Science degree in Civil Engineering from Marquette University, where she also minored in Military Science. She holds a Professional Engineer license from the state of Tennessee. Ms. McCarley also holds several memberships to national and state industry professional organizations including the

American Water Works Association, the American Society of Civil Engineers, the National Society of Professional Engineers, the Association of Metropolitan Water Agencies and the Tennessee Association of Utility Districts.

Frances G. Morris, Deputy Director, Chief Financial Officer, directs all financial strategies of the Department including internal and external financial reporting, coordination of implementation of water and sewer rates, debt financing and administration, cash flow management, investments, and budget strategies. As the financial steward of the Department, Ms. Morris also contributes to the development and implementation of the Utility's alignment with the County's Strategic Plan.

Ms. Morris received her Bachelor's degree in Business Administration with an emphasis in Accounting from Barry University in 1992. She was hired by the County in 1994 and spent four years at the County's Department of Solid Waste Management and eight years at the County's Seaport Department. She was hired as the Department's Assistant Controller in 2006, became the Assistant Director of Finance in 2010 and the CFO in 2015.

Marisela Aranguiz-Cueto, Deputy Director, Planning, Regulatory Compliance and Capital Infrastructure, oversees the implementation of the Capital Improvement Program for the Department. Prior to joining the County, she worked for 13 years as a lead engineer and program manager for a private engineering firm. She has both a Bachelor's and a Master's of Science in Civil Engineering from Florida International University and over 18 years of experience in the water industry. During her professional experience, Ms. Aranguiz-Cueto has focused her management style on collaborative efforts, bringing cross-functional teams and stakeholders together to influence and implement organizational change and improvements. She was recognized as the recipient of the Government of the Year Award in 2021 by the ASCE Miami-Dade Branch and the 2023 Outstanding Service to the Engineer Profession by the Florida Engineering Society. Lastly, Ms. Aranguiz-Cueto also serves as a board member of the Water Research Foundation.

Mariela Alvarez, Deputy Director, Internal and Administrative Services oversees the day-to-day operations of the Department's administrative and support services areas including planning, organizing, and directing all internal support functions for Customer Service, Training and Development, Risk and Safety, Security and Communications, Quality Assurance, General Maintenance and Small Business Development. Ms. Alvarez brings a vast industry knowledge and Department experience to this position along with 25 years acquiring diversified skills spanning various organizations in the academe and business establishments as a trainer, human resources specialist, IT Business Process Professional and Customer Service Manager. Ms. Alvarez, also worked with Florida Power & Light in several supervisory capacities, as well as for Progressive Waste Solutions and Assurant Group. She is also a certified life coach and a published author, having written *A Better Life: A Life's Coach's Guide*, an inspirational reference guide for improving relationships and improving one's overall well-being.

Ms. Alvarez holds a master's degree in human resources development and administration and a bachelor's degree in professional studies and business from Barry University. She is also a member of the Miami Women Leaders Association.

WATER AND SEWER (WASTEWATER) SYSTEM

General

The Utility is divided into the Water System and the Sewer System. The Sewer System is also referred to as the "Wastewater System." The Department administers each system on a unified basis for purposes of billing but separates the two for rates, capital improvements and accounting. However, the Utility is combined for financial statement purposes. See "Note 1 – Summary of Significant Accounting Policies" in "APPENDIX C – FINANCIAL REPORT OF THE MIAMI-DADE WATER AND SEWER DEPARTMENT FOR FISCAL YEAR ENDED SEPTEMBER 30, 2023." Water System and Sewer System funds can be used interchangeably when there is a shortfall or surplus in either system. See also, "APPENDIX A - BOND FEASIBILITY REPORT."

Service Area

The Utility currently provides water and wastewater treatment to substantially all of the County either directly to retail customers or indirectly through wholesale contracts between the Department and various municipalities. The County is the largest county in the southeastern United States in terms of population. In 2023, the population of the County was estimated at approximately 2,763,366. See “APPENDIX B – GENERAL INFORMATION RELATIVE TO MIAMI-DADE COUNTY, FLORIDA.”

The Department’s long-term objective of expansion to County-wide operation has been achieved by the acquisition of all privately-owned utilities in the County. Since 1973, the Department has acquired 26 independent systems.

The Department supplies treated water on a wholesale basis to 15 municipally-owned water utilities in the County and to approximately 462,214 retail water customers. The only municipalities in the County that operate water treatment facilities for customers located primarily within their municipal boundaries are the City of Homestead, Florida City, the City of North Miami Beach and the City of North Miami. In addition, the Department provides wastewater transmission treatment and disposal service on a wholesale basis to 12 municipally owned wastewater utilities, Homestead Air Reserve Base, and approximately 377,496 retail wastewater customers. The City of Homestead is the only municipality in the County that owns and operates its own wastewater treatment plant. See “WATER AND SEWER SYSTEM – Sewer (Wastewater) System” below.

With the exception of three retail customers, the Department’s wholesale customers are also its largest water and wastewater customers by revenues. The three exceptions are the Miami International Airport, Florida Power & Light Company, and the Florida Department of Corrections. Miami International Airport is the Department’s second largest water customer and sixth largest wastewater customer. Florida Power & Light Company, which operates a large electric power plant in the County, is the Department’s seventh largest water customer. The Florida Department of Corrections is the Department’s sixth largest water customer and tenth largest wastewater customer.

The Department has entered into long-term agreements with its wholesale customers. The majority of the wholesale water agreements expire between 2027 and 2030. The Department’s wholesale wastewater agreements have terms expiring between 2029 and 2041.

Water System

General. The principal components of the Water System include 15 wellfields, with a total of 95 active permitted production wells in the Biscayne Aquifer and five installed aquifer storage and recovery wells in the Floridan Aquifer, three major water treatment plants, five smaller water treatment plants, two lime recalcining plants, and an extensive transmission and distribution system composed of storage reservoirs, pump stations and an interconnected network of transmission and distribution mains.

Sources. The Department draws its raw water primarily from the surficial Biscayne Aquifer, a non-artesian (or near surface) aquifer that underlies an area of about 3,200 square miles in Miami-Dade, Broward and Palm Beach counties, and secondarily from the Upper Floridan Aquifer, an artesian water source that underlies most of the State. In Southeast Florida, the Upper Floridan Aquifer ranges from a subsurface depth of 950 feet to 1,250 feet; however, because water from the Upper Floridan Aquifer has a higher content of salt, its water is much more expensive to process. Therefore, the Upper Floridan Aquifer is a less desirable water source.

The South Florida Water Management District (the “District”) governs the use of the State’s water resources in Southeast Florida through the water use permitting process. On November 15, 2007, the District issued a consolidated 20-year Water Use Permit (the “Water Use Permit”), which sets limits on the use of the Biscayne Aquifer and Floridan Aquifer. In addition, the Water Use Permit includes a schedule for the construction of the alternative water supply projects needed to meet demands, which have been incorporated into the Department’s MYCIP. The Water Use Permit has been amended four times, in 2010, 2012, 2015 and 2022, to reflect declines in consumption resulting from an effective water conservation program, lower than expected population growth, and the economic

recession. Alternative water supply projects in the original plan have been delayed or eliminated, thereby reducing capital needs in the near term.

The C-51 Reservoir Phase 1 Project (the “C-51 Reservoir”) is a regional alternative water supply project and multi-stakeholder public-private partnership that will provide utilities with sustainable water supplies in South Florida. It involves the construction of a 14,000 acre-foot in-ground reservoir in central Palm Beach County immediately adjacent to the existing District L-8 Flow Equalization Basin that will provide 35 million gallons per day (“mgd”) in alternative water supply benefits to utilities through rights to additional Biscayne Aquifer allocation in respective water use permits. Other than the cost of the permit for increased water rights described below, the County is not contributing to the costs of construction of the C-51 Reservoir. The project has environmental benefits including aquifer recharge and reduction of tidal discharges. The in-ground reservoir will store and route water supplies through primary and secondary canal systems to individual utility wellfields to provide direct aquifer recharge to offset withdrawals from the Biscayne Aquifer. Broward County Water and Wastewater Services, the City of Sunrise, the City of Lauderhill, and the City of Dania Beach have submitted Letters of Intent to utilize water made available via the C-51 Reservoir and entered into allocation agreements. Participating water utilities will be able to expand use of the Biscayne Aquifer in full accordance with the Regional Water Availability Rule, while also taking advantage of existing wellfields and treatment facilities. For the Department this means obtaining 15 mgd of additional Biscayne Aquifer withdrawal rights. Unlike other sources, this water can be withdrawn from the Department’s existing well fields and treated at the Utility’s existing Water Treatment Plants with no additional capital investment. The operating expense associated with the C-51 Reservoir project is minimal. The District will serve as the project operator with reimbursement for operational expenses by the project partners.

Below is a summary of each of the primary components of the C-51 Reservoir project/partnership.

C-51 Reservoir Allocation:

- 15 mgd allocation – this allocation will be through the Department’s 20-Year Water Use Permit, and the C-51 Reservoir, Inc. a Florida Not-for-Profit (“C-51 NFP”) Consumptive Use Permit (which expires 12/27/65).
- The Department completed the C-51 Reservoir allocation agreement and paid \$69 million for its increased withdrawal rights. The Department is now part of the C-51 NFP with a 15 mgd agreement, and the County has 15 of 35 voting rights per the C-51 NFP bylaws.

Water Use Permits:

- Once an allocation has been permitted by the District, the applicant can renew the permit at any time, and as long as the applicant can demonstrate compliance with the District’s three prong approval process, the permitted allocation is extended to the updated expiration date of the permit.
 - o Example: the Department’s initial 20-year Water Use Permit expires in 2027, with a base of 347 mgd. The Department has submitted several permit modifications, most recently in 2020, so the permit now expires in 2040 for the Biscayne Aquifer allocation of 350 mgd.
 - o For the C-51 NFP Consumptive Use Permit, the C-51 NFP can modify that permit to extend it periodically into the future as long as the C-51 Reservoir is operational, meaning that 15 mgd allocation can be extended for as long as the life of the C-51 Reservoir. The Department’s C-51 Water Use Permit allocation expires in 2065.
 - o Palm Beach Aggregates (“PBA”) has transferred the C-51 Reservoir over to the C-51 NFP, and PBA is no longer involved in the Consumptive Use Permit. No further payments are due to PBA.

Pumping and Production. The Department pumps its raw water from 15 existing wellfields that use the Biscayne Aquifer as the source water supply. In order to process and prepare raw water for consumption, the

Department operates three major water treatment plants, five smaller water treatment plants, two lime recalcining plants and an extensive transmission and distribution system composed of storage reservoirs, pump stations and a network of transmission and distribution water mains. The five smaller treatment plants, which have a combined treatment capacity of 14.2 mgd, serve the extreme southern part of the County.

Water Treatment Plants. The following table reflects the permitted treatment capacities and actual flows for the County’s water treatment plants for the 12 months ending September 2023.⁽¹⁾

Component	Hialeah/Preston	Orr	South Dade Water System⁽²⁾	Hialeah Reverse Osmosis⁽³⁾
Permitted Plant Rated Capacity	225.0 mgd ⁽⁴⁾	214.7 mgd ⁽⁵⁾	14.2 mgd	10.0 mgd ⁽⁵⁾
<u>Actual Flows:</u>				
Average Daily	141.66 mgd	174.37 mgd	7.2 mgd	6.77 mgd
Peak Day	155.63 mgd	202.24 mgd	8.6 mgd	8.75 mgd

⁽¹⁾ Water supply allocations are currently granted for source and well fields, and not specifically to plants.

⁽²⁾ Represents five smaller water treatment plants in the southern part of the County.

⁽³⁾ Hialeah Floridan Aquifer Reverse Osmosis (RO) (Joint Participation – the County and City of Hialeah).

⁽⁴⁾ Hialeah Plant permit capacity is 60 mgd and Preston Plant is 165 mgd for a total of 225 mgd.

⁽⁵⁾ Orr Plant facility capacity is 248 mgd but permitted capacity is only 214.74 mgd.

Source: The Department

The City of Hialeah (“Hialeah”) reverse osmosis water treatment plant (the “Plant”) is jointly owned by Hialeah and the Department, but operated by the contractor that designed and built the Plant. The County and Hialeah share equally in the operations and maintenance costs and benefit equally from the water produced at the Plant. The Plant first opened in 2015 and currently has a treatment capacity of 10.0 mgd.

Transmission. High service pumping facilities located at each of the three major water treatment plants and a low pressure system deliver water directly to the Department’s four high service pump stations. From there, the water is distributed through 8,574 miles of water mains, ranging in size from 2 to 72 inches in diameter, to the ultimate users.

Salt Water Front Monitoring. The County has developed with the US Geological Survey (“USGS”) an advanced salt water front monitoring network, and it maintains a robust program of monitoring wells as well as data collection and analysis. These data and analyses are available to all stakeholders through the USGS. The goal of this collaborative effort is to develop a sustainable and resilient water supply for the County’s projected population.

Water-Use Efficiency Plan. The Water-Use Efficiency Plan (the “Plan”) is a component of the County’s Water Use Permit (“WUP”) issued by the South Florida Water Management District (“SFWMD”) and approved by the Board. The County-wide Plan has been in effect since 2007, building a sustainable water supply through the efficient use of limited water resources. The Plan includes both indoor and outdoor water conservation Best Management Practices (“BMPs”) that are measured through a quantifiable process affording accountability of water saved. Indoor BMPs consist of rebates for installing high-efficiency fixtures including toilets, faucets, and showerheads in properties located throughout the County. Outdoor BMPs include rebates for landscape and irrigation retrofits and upgrades to properties that have functioning, in-ground automatic irrigation systems. Non-BMP measures in the Plan include the adoption of a permanent two day per week landscape irrigation rule, mandating the installation of water-efficient fixtures in new construction, promoting the use of Florida Friendly methods and landscaping, educational outreach campaigns to residents and businesses and utility water loss reduction efforts. These initiatives have reduced finished water demand by 13 mgd as of December 31, 2023, compared to finished water demands in 2006, the year prior to Plan implementation. In addition, the Plan has resulted in reducing residents’ average per capita water use rate used in calculating the annual allocation of water provided in the WUP. This outcome allows for the deferral of constructing expensive alternative water supply projects to meet future water needs, reduce the utility’s operating expenses and fulfills the County’s efforts to ensure the efficient use of water confirming that water conservation is the least expensive form of alternative water supply.

The overall Plan's objective is to improve water use efficiency, reduce loss and waste, and comply with Florida's legislative criteria and water conservation initiatives.

The following are current indoor and outdoor BMPs implemented by the County:

- High-efficiency fixture rebates including toilets, faucets, and showerheads for single-family properties
- Multi-family properties
- Senior high-efficiency toilet rebates
- High-efficiency rebates for commercial and lodging facilities
- Free high-efficiency showerhead exchange program for single-family and multi-family properties
- Free high-efficiency showerhead exchange program for lodging facilities
- Landscape irrigation evaluation rebates for residential and commercial properties
- Landscape ordinance requiring the use of Florida Friendly principles
- Implementation of a county-wide permanent two day a week landscape irrigation ordinance
- Tiered rate conservation structure that charges more for increasing water use
- Construction standards effective January 1, 2009, that codify high efficiency plumbing fixtures in new residential, industrial, commercial, and institutional properties
- Comprehensive outreach campaigns to county residents and students
- Continuation of a leak detection survey and repair of the entire water distribution system on an annual basis

In 2023, the County updated its permanent landscape irrigation ordinance incorporating all SFWMD's rule elements that were not included in the initial ordinance or had been formulated since that time.

Energy Efficiency. The Department established an energy program to build on successful energy management initiatives and formalize a path to an increasingly more energy efficient utility. The Department's energy segments include wastewater treatment, water production, wastewater pump stations, and buildings which consume approximately 370 million kilowatts per hour ("kWh") of electricity and 46 million kWh from biogas, natural gas, diesel and propane per year. Combined, this is the amount of energy it takes to power approximately 31,000 homes for one year.

The energy program is tasked with identifying and facilitating ways to reduce energy consumption and shift to renewable energy sources. In 2019, the Department concluded the U.S. Department of Energy ("USDOE") Better Buildings Sustainable Wastewater Infrastructure of the Future ("SWIFt") Accelerator 3-year program which resulted in the development of a Utility-wide Energy Management Plan for Wastewater Treatment. The plan provided a roadmap with near term and longer-term actions aimed at achieving thirty percent energy intensity savings by 2030. The short-term goals have resulted in a cumulative reduction of 5.3% in energy savings which puts the Department on track with its 30% energy reduction target. The Department continued its partnership with USDOE through the Better Buildings Better Plants Program & Challenge for which it reports progress on a biweekly basis to generate an annual energy performance report. The Department also plans to follow the guidelines of the International Energy Management Standard ISO 50,001 through the 50,001 Ready Navigator, which will allow the Department to have

best practices for energy reductions. The Department will continue its partnership with USDOE as a member of the Better Climate Challenge to generate a baseline for greenhouse gas inventories and identify opportunities to reduce emission and the Department's carbon footprint at all of its facilities.

The Department is pursuing other operational and capital improvements that will increase the capacity of biogas. A few examples are Consent Decree rehabilitation of digestors, incorporating higher fats, oils and grease capacity, feeding landfill gas to the Cogens, and implementing strategic agreements such as parallel interconnection that supports net-metering wherein excess power generated locally can be back-fed onto the main electric grid. Lastly, the Department also conducted two energy audits on two of its administration buildings and was able to identify more than \$500,000 per year of potential energy reduction initiatives.

Together these efforts demonstrate the Department's commitment to a long-term energy management strategy that incorporates reduction of energy as population growth takes place.

Water Quality. The Safe Drinking Water Act (the "Water Act") and the related drinking water standards in the Florida Administrative Code have established quality standards designed to reduce the allowable concentration of a variety of substances. The Water Act also requires local water utilities to issue "consumer confidence reports" describing the source and quality of the water they provide. The Department's "Water Quality Report" provides the required information, verifying the Department's continuing compliance with water quality standards.

The County is currently testing lead and copper in the Water System on an annual basis. Results are available upon request, or in the County's consumer confidence report, published annually and available on the County's website.

See "REGULATORY MATTERS" for a detailed description of certain regulatory matters with respect to the Water System.

Sewer (Wastewater) System

General. The Department's Sewer (Wastewater) System consists of collection sewers, manholes, lift stations, force mains, interceptors, pump stations and three regional wastewater treatment plants: the North District Wastewater Treatment Plant at Interama (the "North District Plant"), the Central District Wastewater Treatment Plant at Virginia Key (the "Central District Plant") and the South District Wastewater Treatment Plant at Blackpoint (the "South District Plant"). The treated effluent is primarily disposed of by deep well injection and ocean outfalls.

Collection. There has been steady growth in the wastewater service provided by the Department due to an increase in total population in the County, the acquisition of small utilities and the extension of sewers to areas previously served by septic tank systems. The amount of wastewater treated annually, however, may vary significantly depending upon the amount of annual rainfall.

Wastewater is brought to the Department's treatment facilities through nearly 6,422 miles of local collection facilities which include gravity sewers, manholes, lift stations and force mains. The Department has divided the County into three districts in which wastewater is collected and transmitted to a wastewater treatment plant located in each of the three districts. The districts are interconnected to allow for limited redirection of flows.

The maintenance and improvement of the Utility's 1,049 sewage pump stations owned (1,030) and operated (19) by the Department was one of the requirements of the terms of the prior consent decrees. *See* "REGULATORY MATTERS." The Department's program to upgrade its sewage pump stations is continuing. A typical station upgrade includes improvements to the electric service, controls and alarm systems, the replacement of motors, the addition of pumps or a complete replacement pump station.

Groundwater, stormwater or other water not requiring treatment introduced into the Sewer System overloads pump stations and treatment plants. The cost of pumping and providing treatment for this excess water is substantial. Consequently, the Department has established an Infiltration/Inflow Reduction Program to conduct sewer system evaluations and to rehabilitate the system by repairing pipes where feasible, replacing pipes damaged beyond repair,

installing leakproof manhole covers and repairing manholes. Many of the program activities are continuously funded and required to maintain the Sewer System’s integrity and to continually reduce infiltration and inflow amounts. The Department is not responsible for any separate stormwater systems or their associated operating and capital costs.

The Department has an on-going program of inspection and correction to address the corrosive effects of hydrogen sulfide (a by-product of raw sewage) on its concrete force mains. The Department periodically inspects mains and implements corrective action with respect to any affected main.

Wastewater Treatment Plants. The Department operates three regional wastewater treatment plants located in various sections of the County as described above. The three plants have a combined treatment capacity of 375.5 mgd. The following table summarizes the treatment permit parameters and the actual flows of each of the County’s wastewater treatment plants.

	North District	Central District	South District	Total
<u>Installed Treatment Capacity, mgd</u>	120.0	143.0	112.5	375.5
<u>Permit Parameters</u>				
Annual Average Daily Flow, mgd	120.0	143.0	112.5	375.5
Effluent CBOD5, mg/L ⁽¹⁾	25/20 ⁽²⁾	25/20 ⁽²⁾	20	-
Effluent Suspended Solids, mg/L	30/20 ⁽³⁾	30/20 ⁽³⁾	5 ⁽⁴⁾	-
<u>Actual Flows 12-Month Average for Fiscal Year 2023⁽⁵⁾</u>				
Annual Average Daily Flow, mgd ⁽⁶⁾	106.8	124.07	118.0	348.96
Effluent CBOD5, mg/L ⁽⁶⁾	9.5/8.7	16.54	4.3	-
Effluent Total Suspended Solids, mg/L ⁽⁶⁾	15.3	23.98	6.58	-

⁽¹⁾ “CBOD5” means 5 Day Chemical Biological Oxygen Demand; “mg/L” means milligrams per liter.

⁽²⁾ 25mg/L in secondary effluent going to the outfall; 20mg/L in effluent going to the injection wells.

⁽³⁾ 30mg/L in secondary effluent going to the outfall; 20mg/L in effluent going to the injection wells.

⁽⁴⁾ 5mg/L for the High Level Disinfection secondary effluent going to the wells.

⁽⁵⁾ Influent flows for the 12 months ending September 30, 2023.

⁽⁶⁾ These levels are below those allowed by permit.

Source: The Department

Disposal of Sludge and Treated Wastewater. The disposal of the by-products of the treatment process (sludge and effluent or treated wastewater) is an important part of the Department’s plans to improve and expand its Sewer System. Steps taken by the Department in accordance with this plan are discussed in the following paragraphs.

Sludge is stabilized in anaerobic digesters at the Central District and South District Plants, with sludge from the North District Plant being transmitted via pipeline to the Central District Plant for treatment. After stabilization, sludge is dewatered in centrifuges to form a cake, a material that is dry enough to be loaded and hauled in a dump truck. Stabilized sludge cake can be disposed of in Class I Solid Waste Landfills. The stabilized cake can also be used as an agricultural soil supplement because it meets the requirements for Class B material, but only with State approved permits which require a substantial amount of documentation, monitoring and record keeping. After dewatering, the sludge cake can be further dried on paved drying beds and then composted to produce Class AA residuals, which can be sold as a soil supplement with relatively few restrictions. At the South District Plant, sludge cake is further dried on paved beds and a portion is composted to Class AA standards and sold as a soil supplement. The Department has discontinued the use of the sludge drying beds and composting facilities at the Central District Plant in order to reduce odors, which had caused complaints at a neighboring residential community. To this end, the Department has negotiated agreements to dispose of sludge cake; in accordance with these agreements, the sludge cake is disposed of by hauling and placing it in landfills or utilized as Class B agricultural soil supplement.

Disposal of treated wastewater at the North District Plant, which currently has a permitted treatment capacity of 120.0 mgd, is accomplished by discharge into the Atlantic Ocean and deep injection wells. The Central District Plant also disposes of effluent by discharge into the Atlantic Ocean. Since March 2020 effluent has also been discharged with wastewater from the sludge dewatering centrifuges, digester wastewater, and leachate from a groundwater recovery system at the former Virginia Key Landfill into two non-hazardous injection wells. As noted

below, state law now requires the Department to design and construct an alternative to the use of ocean outfalls by the end of 2025. *See* “REGULATORY MATTERS.”

The South District Plant disposes of its effluent through 17 deep injection wells to the Lower Floridan Aquifer, a saline aquifer at a depth below 2,400 feet. The South District Plant has a permitted treatment capacity of 112.5 mgd. On December 1, 2020, the Department received operating permits for all injection wells from the Florida Department of Environmental Protection (“FDEP”).

The Department continues to explore different ways to reuse effluent. The practicality of reuse is affected by the cost of the added treatment, the cost of transmission and distribution systems, the possibility of contaminating the drinking water system through inadvertent cross connections, public attitudes about using treated wastewater and the quality of the water available for reuse. In April 2007, the Department completed an updated Reuse Feasibility Study. Some of the projects recommended in the Study were incorporated in the 20-year Water Use Permit and into the MYCIP (as described below); however, as a result of water demand reductions through the Water Conservation Program, reuse is no longer required by the Water Use Permit. In 2018, the Department completed its Reuse Feasibility Study to address the reuse requirements in the Ocean Outfall Legislation (as defined herein). The most feasible future reuse opportunities are related to industrial reuse in partnership with a major user, such as Florida Power and Light, or other arrangements with multiple stakeholders that would make large-scale reuse projects viable. *See* “REGULATORY MATTERS.”

Environmental Quality Management

The public’s concern for environmental quality is reflected in many of the Department’s activities, from meeting the effluent discharge quality limits and the changing water quality standards to providing facilities that are unobtrusive and have minimal adverse impact on the environment. Federal, State and local regulations regarding preservation of wetlands impact nearly all land development activities in South Florida, including those of the Department and private developers. The necessity of protecting wetlands has required revisions to the Department’s construction plans in the past, and will continue to do so with such requirements possibly increasing the cost of future Department projects. If a project is essential for the welfare of the community, and damage to valuable ecologic systems is unavoidable, the permits may be issued with provisions for mitigating the losses by constructing or upgrading wetlands, planting mangroves or some similar program at a different location.

Since few sites remain for future plant locations which are not wetlands or near existing residential neighborhoods, it is anticipated that future water and sewage treatment plant expansions will require special design features such as multistory construction to minimize land requirements, special architectural and acoustical treatments, and odor control systems to make them unobtrusive. *See* “INVESTMENT CONSIDERATIONS - Climate Change.”

Regulations

Other than the matters described in “REGULATORY MATTERS,” the Department is in compliance with all other material federal, State and local rules and regulations. *See also*, “APPENDIX A - BOND FEASIBILITY REPORT.”

Everglades Remedial Program

The federal Water Resources Development Act of 2000 approved the Comprehensive Everglades Restoration Plan (“CERP”), which was developed by a multi-agency study team led by the U.S. Army Corps of Engineers. The CERP provides a framework and guide to restore, protect and preserve the water resources of central and southern Florida, including the Everglades. The CERP includes more than 60 projects and will take more than 30 years to construct.

Pursuant to conditions of the Water Use Permit, the Department has investigated the feasibility of utilizing reclaimed water to rehydrate the coastal wetlands in proximity to the South District Wastewater Treatment Plant. No final determination has been made at this time with respect to a CERP project to rehydrate the coastal wetlands, and the Department has no formal obligations to sponsor such a project.

Facilities Security

Security at the Department's facilities has remained high since the September 11, 2001 attacks, and in 2002 the Board enacted Ordinance 02-68 addressing long-term security at the Department's facilities, including wellfields and treatment plants. Ordinance 02-68 specifically authorized the Department's Director to take any actions deemed necessary in an emergency to secure the Department's facilities. The Director has determined that a need exists to maintain increased security at the Department's facilities. The Department has established an identification badging office in order to comply with Ordinance 02-68. As part of the process for issuing identification badges, criminal background checks are conducted on employees, contractors and visitors requiring access to sensitive plant areas.

The Department has implemented a number of proactive measures to enhance the security of its water facilities as well as its response capabilities. Ten staff members have been licensed in the Risk Assessment Methodology for Water for conducting vulnerability assessments. The vulnerability assessment of the Water System was completed in March 2003 and submitted to the EPA as mandated by the America's Water Infrastructure Act. In 2020, the Department undertook a comprehensive Risk and Resilience Assessment as required by the 2018 America's Water Infrastructure Act. This assessment considered all threat categories, including cybersecurity, and has facilitated the Department's understanding of vulnerabilities and the development of corresponding mitigative measures. Additionally, in 2019, the Department partnered with the Department of Homeland Security to undertake a cybersecurity assessment of the Utility. *See* "INVESTMENT CONSIDERATIONS - Cybersecurity."

The Department has prepared its Emergency Response Plan in accordance with the EPA regulations. This was submitted to the EPA prior to September 30, 2003, updated in June 2014 and updated again in November 2020. The Emergency Response Plan has been completed for all three water plants. In accordance with federal requirements, the Department continues to assess, identify and implement feasible opportunities to minimize the vulnerability of the Department's facilities. Since November 2013, the Federal Department of Homeland Security and the US Army Corp of Engineers have conducted several Site Assessments Visits in accordance with the National Infrastructure Protection Plan.

The EPA has not yet mandated performing vulnerability assessments of wastewater systems. The Department has performed a vulnerability assessment of its Wastewater System, which encompasses an assessment of its Wastewater Treatment Plants, the collection system, and the pumping and transmission system. The Department in conjunction with the Miami-Dade Police Homeland Security Bureau has implemented a security program consisting of security audits, physical security assessments, vulnerability assessments and security force integrity checks.

The Department has also expanded security by adding additional security supervisors to manage and coordinate all security operations at the Department's plants and facilities. The Department continues addressing hardening of all facilities by installing a state of the art closed-circuit television surveillance system, access control, and improving and streamlining the command and control of security operations via the newly established security operations center.

Insurance

The Department is insured against loss to facilities through a blanket property insurance program covering real and personal property, including coverage for boiler and machinery, flood and terrorism perils. Scheduled properties include various wastewater treatment plants, regional water treatment plants, pump stations, water storage facilities, maintenance facilities, ocean outfalls, headquarters building, and leased properties. The current schedule of values is approximately \$2.1 billion.

The current program has a limit of \$165 million with a deductible of \$1 million per occurrence for most perils, including terrorism. Terrorism coverage is provided for both certified and non-certified acts. The program has a named windstorm deductible of \$35 million per occurrence. The Department also purchases individual National Flood Insurance Program ("NFIP") policies for buildings located in Special Flood Hazard Areas. The flood insurance program includes an additional \$10 million in coverage over the amount available under the NFIP and five percent of total insured values for each item in a flood loss not eligible for coverage under the NFIP, in each case subject to a \$1 million per occurrence minimum.

The Department is covered under the County’s self-insurance program administered by the Risk Management Division of the General Services Department in accordance with Section 768.28, Florida Statutes, as amended. F.S. §768.28 provides that tort claims against municipal governments are limited to \$200,000 per claim and \$300,000 in the aggregate for any event or occurrence without a specific act of the Florida Legislature. This limitation applies to most of the liability claims that arise against the County or any local government in Florida, although certain liability claims such as claims under civil rights statutes, are not subject to these limitations.

WATER AND SEWER (WASTEWATER) CUSTOMERS AND REVENUES

Accounts

The Department receives revenues for the sale of its water and wastewater services from retail as well as wholesale customers. The numbers of retail customers for the past five Fiscal Years are as follows:

**Active Retail Customers
For Fiscal Year Ended September 30,**

	2019	2020	2021	2022	2023
Water	449,985	451,509	457,286	459,962	462,214
Wastewater	366,069	367,618	372,681	375,345	377,496
Percent Ratio Wastewater Customers to Water Customers	81.4%	81.4%	81.5%	81.6%	81.7%

Source: The Department

The ten largest customers for the Utility for Fiscal Year ended September 30, 2023, were:

Water System

Name	Dollar Amount (in thousands)	Percent of Water Utility Gross Revenues
City of Miami Beach	\$15,807	3.8%
Miami Int’l Airport	12,487	2.9
City of Hialeah	11,249	2.8
City of North Miami	5,109	1.2
Florida Department of Corrections	2,607	0.6
City of Homestead	1,608	0.4
Florida Power & Light Company - Turkey Point	1,578	0.4
University of Miami	1,575	0.4
City of Hialeah Gardens	1,471	0.4
City of Opa-locka	1,367	0.3

Source: The Department

Wastewater System

Name	Dollar Amount (in thousands)	Percent of Wastewater Utility Gross Revenues
City of Hialeah	\$51,265	10.0%
City of Miami Beach	31,767	6.1
City of North Miami	13,330	2.5
City of Homestead	6,558	1.3
City of Coral Gables	5,072	1.0
City of North Miami Beach	4,829	0.9
Miami Int'l Airport	3,732	0.7
City of Opa-locka	3,377	0.6
City of Hialeah Gardens	2,739	0.5
Florida Department of Corrections	2,194	0.4

Source: The Department

Rates

For Fiscal Year 2024, the County adopted water and wastewater rates adjustments, effective October 1, 2023. The Schedule of Rates included a residential water and wastewater meter charge plus 3 ccf (2,244 gallons) of water and wastewater in the first tier (\$4.61 and \$7.85, respectively, per month for a 5/8 meter). These amounts are charged whether or not the water is used, resembling a readiness to serve fee. Dwellings with water consumption between 2,245 and 12,716 gallons per month pay a rate of \$4.9955 per 1,000 gallons. Dwellings with consumption of 12,717 and over pay a rate of \$12.0838 per 1,000 gallons. Residential wastewater with consumption over 2,244 gallons pays a rate of \$9.9524 per 1,000 gallons. The Department's current schedule of water and wastewater rates is attached as APPENDIX E hereto.

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Rate Comparison

The combined residential water and wastewater bills of the Department are generally lower than those of comparable water and wastewater utilities in other parts of the U.S. as shown in the following table:

COMPARISON OF COMBINED WATER AND SEWER CHARGES (5.236 Gallons of Residential Water Use)*

<u>City/County</u>	<u>Monthly Charge</u>
San Francisco, California	\$231.19
Honolulu, Hawaii	139.79
Atlanta, Georgia	128.87
Cape Coral, Florida	113.03
Houston, Texas	107.61
St. Petersburg, Florida	104.61
Boston, Massachusetts	102.51
Hollywood, Florida	95.00
Broward County, Florida	85.11
Philadelphia, Pennsylvania	80.31
Jacksonville, Florida	61.31
Palm Beach County, Florida	60.90
Orange County, Florida	58.79
Tampa, Florida	57.62
Miami-Dade County, Florida	57.20
Dallas, Texas	55.03

* Rates effective October 1, 2023.

Source: The Department

Billing and Collection

The Department is responsible for all billing and collections. Of its approximately 460,000 customers, 433,100 are billed quarterly and 26,900 are billed monthly. Whether a customer is billed monthly or quarterly depends upon consumption. Once a customer's average monthly usage, established over a one-year period, exceeds 100,000 gallons, then the customer is billed monthly. All system-produced bills are normally mailed two to three days after meter readings are obtained. The past due date on all bills is 21 days after the billing date. A 10% late charge is assessed on any portion of the water and/or wastewater charge that remains unpaid after the past due date and a delinquent bill is mailed. Forty-two days after billed, unpaid accounts with a balance greater than \$100 are included on a potential disconnect list. Accounts from this list are processed for disconnection of service. If an account remains unpaid 10 days after service has been discontinued, the customer is sent a final bill. A special assessment lien is filed against any owner-occupied real property that has received services and has charges that are more than 60 days past due and unpaid. The Department may proceed against lessees to collect delinquent water and wastewater charges. In the event a variance or discrepancy in a customer's usage is discovered, the Department will investigate to determine the cause. Supplemental bills will be sent to the customer with adjustments and such bills are subject to the same deadlines and penalties as regularly prepared bills. The Department issues adjusted and corrected bills for various reasons such as leaks, misreadings, coding errors, administrative rulings, back billings and stopped or inaccurate meters.

Annually, the Department analyzes and records a bad debt reserve for accounts that may be written off. Additionally, the Department performs an annual write-off of retail and non-retail accounts that are more than two years old, have been referred to a collection agency for at least one year, and determined by the Department to be uncollectible. Periodically, the Board approves write-offs at the Department's recommendation for accounting purposes only. The Department continues to legally pursue payment from the delinquent customer. The Board last approved write-offs in 2019 for billed amounts going back to 2013.

The following table sets forth the Department's collection rates for Fiscal Years 2013 through 2017, which are the Fiscal Years for which the most recent write-offs have been recorded:

Year	Retail Billing	Total Annual Aggregate of Write-Offs to Date		Collection Rate in %
		Amount	% of Annual Billings	
2013	\$ 437,778,000	\$1,776,800.59	0.41%	99.59%
2014	465,057,000	1,961,842.87	0.42	99.58
2015	486,201,000	1,624,047.86	0.33	99.67
2016	520,146,000	999,189.97	0.19	99.81
2017	554,546,000	1,926,514.50	0.35	99.65
2018	563,839,000	-	-	-
2019	586,158,000	-	-	-
2020	627,340,000	-	-	-
2021	674,875,000	-	-	-
2022	703,749,000	-	-	-
Total	\$7,243,209,000	\$8,288,395.79		

Year	Retail Billing	Total Annual Aggregate of Write-Offs to Date		Collection Rate in %
		Amount	% of Annual Billings	
2013	\$ 21,876,000	\$ 103,133.18	0.47%	99.53%
2014	28,022,000	107,913.32	0.39	99.61
2015	28,305,000	22,431.35	0.08	99.92
2016	28,685,000	39,090.11	0.14	99.86
2017	28,932,000	799,988.65	2.77	97.23
2018	30,275,000	-	-	-
2019	30,033,000	-	-	-
2020	23,758,000	-	-	-
2021	20,158,000	-	-	-
2022	26,530,000	-	-	-
Total	\$266,574,000	\$1,072,556.61		

Year	Retail Billing	Total Annual Aggregate of Write-Offs to Date		Collection Rate in %
		Amount	% of Annual Billings	
2013	\$ 25,447,000	\$1,293.00	0.01	99.99
2014	31,161,000	0.00	0.00	100.00
2015	30,582,807	0.00	0.00	100.00
2016	26,453,386	0.00	0.00	100.00
2017	21,539,696	0.00	0.00	100.00
2018	-	-	-	-
2019	-	-	-	-
2020	-	-	-	-
2021	-	-	-	-
2022	-	-	-	-
Total		\$1,293.00		

FINANCIAL OPERATIONS

Utility Revenues, Operation and Maintenance Expenses, as well as certain assumptions and opinions pertaining to such financial data are described in the Financial Report of the Department for Fiscal Year Ended September 30, 2023. *See* “APPENDIX C – FINANCIAL REPORT OF THE MIAMI-DADE WATER AND SEWER DEPARTMENT FOR FISCAL YEAR ENDED SEPTEMBER 30, 2023.”

Historical Results of Operations and Debt Service Coverage

The following table summarizes historical operating results for the Utility for Fiscal Years ended September 30, 2019 through 2023. The historical results have been prepared based on information provided in the Department’s audited financial statements for Fiscal Years 2019 through 2023. The table also reflects the historical debt service coverage based on historical Pledged Revenues and debt service requirements.

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HISTORICAL OPERATING RESULTS AND DEBT SERVICE COVERAGE
(\$ in thousands)
(Fiscal Year Ended September 30)

	2019	2020	2021	2022	2023
<i>OPERATING REVENUES:</i>					
Retail	\$586,158	\$627,340	\$674,875	\$703,749	\$748,003
Wholesale	118,260	118,383	132,092	140,654	165,790
Other	30,033	23,758	20,158	26,530	40,619
Total operating revenues	<u>\$734,451</u>	<u>\$769,481</u>	<u>\$827,125</u>	<u>\$870,933</u>	<u>\$954,412</u>
<i>OPERATING AND MAINTENANCE EXPENSES:</i>					
Source of supply	\$ 13,966	\$ 14,179	\$14,291	\$15,462	\$17,140
Collection system	32,481	33,169	36,695	36,064	39,252
Pumping	50,162	52,228	55,962	58,477	66,727
Treatment	169,240	165,021	178,812	208,393	228,090
Transmission and distribution	39,058	40,328	37,825	44,619	49,186
Customer accounting and service	33,422	49,731	59,626	43,183	23,190
General and administrative	103,896	124,023	93,828	103,316	158,574
Total operating and maintenance expenses	<u>\$442,225</u>	<u>\$478,679</u>	<u>\$477,038</u>	<u>\$509,513</u>	<u>\$582,158</u>
Operating income before depreciation	292,226	290,803	350,087	361,420	372,253
<i>PRIMARY DEBT SERVICE COVERAGE:</i>					
Net Operating Revenues	\$292,226	\$290,803	\$350,087	\$361,420	\$372,253
Investment Earnings ⁽¹⁾	15,355	10,413	1,870	3,784	30,789
Net Transfers from (to) Rate Stabilization Fund	-	-	-	-	-
Net revenues available for debt service	<u>\$307,581</u>	<u>\$301,215</u>	<u>\$351,957</u>	<u>\$365,204</u>	<u>\$403,042</u>
Debt service requirements ⁽²⁾	173,198	188,003	202,029	223,846	225,057
Actual coverage	1.78x	1.60x	1.74x	1.63x	1.79x
Required coverage	1.25x	1.25x	1.25x	1.25x	1.25x
<i>SUBORDINATED DEBT SERVICE COVERAGE:</i>					
Net revenues available for debt service	\$307,581	\$301,215	\$351,957	\$365,204	\$403,042
Less: Maximum principal and interest ⁽³⁾	182,569	202,029	225,057	225,057	225,057
Adjusted net revenues	<u>\$125,012</u>	<u>\$99,186</u>	<u>\$126,900</u>	<u>\$140,147</u>	<u>\$177,985</u>
Debt service and reserve requirements ⁽⁴⁾	15,589	16,934	16,910	23,883	23,038
Actual coverage	8.02x	5.86x	7.50x	5.87x	7.73x
Required coverage	1.00x	1.00x	1.00x	1.00x	1.00x
<i>STATE REVOLVING FUND LOANS DEBT SERVICE:</i>					
Net revenues available for debt service	\$307,581	\$301,215	\$351,957	\$365,204	\$403,042
Less: revenue required for primary debt service coverage ⁽⁵⁾	216,498	235,004	252,536	279,808	281,321
Adjusted net revenues	<u>\$ 91,083</u>	<u>\$ 66,212</u>	<u>\$ 99,421</u>	<u>\$ 85,396</u>	<u>\$121,721</u>
Debt service requirements ⁽⁶⁾	15,589	16,934	16,910	16,187	12,504
Actual coverage	5.84x	3.91x	5.88x	5.28x	9.73x
Required coverage	1.15x	1.15x	1.15x	1.15x	1.15x

Note: Totals may not foot due to rounding.

⁽¹⁾ Excludes interest income from Construction Fund.

⁽²⁾ Represents debt service requirements on Outstanding Bonds for such Fiscal Year.

⁽³⁾ Maximum Principal and Interest Requirements on the Bonds for such Fiscal Year.

⁽⁴⁾ Debt service payments on the WIFIA loans are not expected to commence until 2028. See "SUBORDINATE OBLIGATIONS – WIFIA Loan Program" for more information.

⁽⁵⁾ Represents 125% of primary debt service requirements.

⁽⁶⁾ Represents debt service requirements on outstanding State Revolving Fund Loans for such Fiscal Year.

Source: Water and Sewer Department's Annual Comprehensive Financial Report for The Fiscal Year Ended September 30, 2023.

The following table summarizes unaudited operating results for the Utility for the six months ended March 31, 2024, compared to (1) budgeted amounts for the same period and the variance thereto and (2) audited operating results for the Utility for the six months ended March 31, 2023.

	<u>Unaudited FY 2024</u>			<u>Audited FY 2023</u>	
	<u>Actual</u>	<u>Budget</u>	<u>Variance Fav/(Unfav)</u>	<u>Actual</u>	<u>Variance Fav/(Unfav)</u>
OPERATING REVENUES					
Retail Water	\$188,047,280	\$183,195,096	\$ 4,852,184	\$177,215,717	\$10,831,563
Retail Wastewater	198,263,471	188,577,216	9,686,255	182,064,578	16,198,892
Wholesale Water	25,365,928	20,424,168	4,941,760	19,099,068	6,266,860
Wholesale Wastewater	67,468,561	59,110,309	8,358,252	51,957,086	15,511,475
Other Revenues	18,440,967	14,792,533	3,648,434	20,993,566	(2,552,598)
TOTAL OPERATING REVENUES	\$497,586,209	\$466,099,322	\$ 31,486,887	\$451,330,016	\$46,256,192
OPERATING & MAINTENANCE EXPENSES					
Water Source of Supply	\$ 8,204,357	\$11,571,749	\$ 3,367,391	\$ 6,507,253	(\$ 1,697,104)
Water Pumping	943,328	1,230,892	287,564	1,010,102	66,774
Water Treatment and Purification	45,945,474	48,448,888	2,503,413	43,318,147	(2,627,327)
Water Transmission and Distribution	26,823,813	26,049,964	(773,848)	24,330,311	(2,493,502)
Sewer Collection	21,375,651	19,426,252	(1,949,398)	18,601,476	(2,774,175)
Sewer Pumping	34,208,466	28,177,433	(6,031,032)	31,411,413	(2,797,053)
Sewer Treatment and Disposal	69,330,729	64,151,959	(5,178,770)	65,669,223	(3,661,506)
Customer Accounting	5,072,204	5,077,398	5,194	4,318,419	(753,785)
Customer Service	13,298,269	15,858,265	2,559,996	15,413,554	2,115,285
General and Administration	41,179,692	57,127,852	15,948,160	51,209,653	10,029,961
Fringes and Overhead	-	-	-	-	-
Stores Overhead	-	-	-	-	-
Vehicle Overhead	-	-	-	-	-
TOTAL OPERATING & MAINTENANCE EXPENSES	\$266,381,987	\$277,120,657	\$ 10,738,669	\$261,789,555	(\$ 4,592,432)
OPERATING INCOME BEFORE DEPRECIATION	\$231,204,221	\$188,978,664	\$42,225,556	\$189,540,461	\$41,663,759
Depreciation & Amortization	(131,570,715)	-	(131,570,715)	(119,347,745)	(12,222,970)
OPERATING INCOME (LOSS)	\$ 99,633,506	\$188,978,664	(\$ 89,345,158)	\$ 70,192,716	\$29,440,789

Note: Totals may not foot due to rounding.

Source: The Department.

Management's Discussion

Over the past eleven fiscal years the Board implemented several rate increases and retail structure changes to address the operating and maintenance cost increases that occur as a normal part of business each year. These retail rate increases take into account the U.S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index for All Urban Consumers Water and Sewerage Maintenance – U.S. City Average and are commonly referred to as “maintenance index” adjustments and Capital Program requirements. The Board’s actions have resulted in a 74% increase in revenues over the past eleven years, from \$548 million to \$954 million. The Board adopted rate increases of 8% effective October 1, 2013, 6% effective October 1, 2014, 6% effective October 1, 2015, and 8% effective October 1, 2016. The Department implemented a tier restructuring effective October 1, 2017, that changed the volume for the lowest tier from five cubic feet to four cubic feet, expanded the usage level for the second tier by one cubic foot, and consolidated wastewater tiers two and three. The Fiscal Year 2019 Adopted Budget included a retail sewer base facility charge increase of \$1.80 per 5/8-inch meter, and a greater increase for multifamily units and large meter customers. Beginning in Fiscal Year 2020, the County adjusted volume charges and consumption tier levels based on estimated consumption and household occupancy, resulting in a water meter charge and base facility charges that include 2.244 gallons, whether or not that water is used. Other consumptions were adjusted for Fiscal Year 2020 based on the average consumption of 59 gallons per person per day. For Fiscal Year 2021, retail customers consumption tier levels continued to be adjusted based on household occupancy along with adjusted volume charges. Fiscal years 2022, 2023 and 2024 included retail rate increases of 4%, 5% and 4% respectively to all retail rate classes: residential, multi-family dwellings, mixed-used buildings, and non-residential customers. Increased revenues include wholesale rate adjustments based on cost of service as per wholesale contracts, as well as increases to fees.

A consent decree agreement (the “2014 Consent Decree”) was negotiated among the County, the U.S. Department of Justice, the State and FDEP that addresses regulatory violations resulting from failing infrastructure. The 2014 Consent Decree was presented to and adopted by the Board on May 21, 2013, lodged with the U.S. District Court for the Southern District of Florida by the U.S. Department of Justice on June 6, 2013, effective on December 6, 2013, and approved by the Court on April 9, 2014. *See* “REGULATORY MATTERS – Sewer (Wastewater) System – Consent Decree.”

In Fiscal Year 2013, Senate Bill 444 Modifying the State Ocean Outfall Statute was signed into law by then Governor Rick Scott, providing additional flexibility for the affected utilities to manage peak flows and to fulfill the wastewater reuse requirements in the statute.

The Department maintains both a General Reserve Fund and a Rate Stabilization Fund to provide for contingencies and to mitigate rate increases. As of the end of Fiscal Year 2023 the Department’s General Reserve Fund and Rate Stabilization Fund totaled over \$116.9 million. The Department is also required to maintain an operations and maintenance reserve equal to two months of budgeted operations and maintenance expenses. The Department is holding \$85.9 million in the operations and maintenance reserve for Fiscal Year 2023.

The Renewal and Replacement Fund is funded from budgeted revenues and expended typically in the same Fiscal Year for system maintenance and repair. As of September 30, 2023, the balance in the Renewal and Replacement Fund was approximately \$173.9 million. The Department also maintains a Plant Expansion Fund which is funded by connection fees and is restricted by law to funding projects that expand system capacity. The Department uses funds in the Plant Expansion Fund for qualifying expansion projects or qualifying expansion components of larger projects. As of September 30, 2023, the balance in the Plant Expansion Fund was approximately \$43.4 million.

The chart below provides the balances in the various Department funds as of September 30, 2023. As discussed above, certain funds are restricted to specific uses.

Fund Balances ⁽¹⁾⁽²⁾	(in thousands)
Revenue Fund	\$85,884
General Reserve	86,362
Rate Stabilization Fund	30,534
Renewal and Replacement Fund	173,919
Plant Expansion Fund	43,373

⁽¹⁾ As of September 30, 2023.

⁽²⁾ Does not include Debt Service Fund.

Multi-Year Capital Plan

The Department has for many years used a formal capital program and budgeting process. Under this process, capital programs are projected forward over a six-year period and beyond and a detailed budget is adopted and appropriated for the first year of each multi-year period. Both program and budget commitments are reviewed each year and modified as necessary.

The Department continually refines its processes on cost estimation, identifying project interdependency, and reevaluates project scopes to refine the capital plan. Using this approach, the Department has deferred projects beyond the horizon of the MYCIP, continuously prioritizing and reducing previous 15-year plans from \$13.3 billion for Fiscal Year 2018 to \$11.4 billion for Fiscal Year 2019 and subsequent years. In addition to project deferrals, to focus on near-term projects, the Department outlook for the MYCIP is ten years in Fiscal Year 2020. The Department also reduced the Fiscal Year 2020 MYCIP to \$7.5 billion due largely to revised flow projections which defer the need for certain new water and wastewater treatment plants and associated conveyance from 2025 to 2035 or beyond. The Fiscal Year 2024 MYCIP remains at \$8.6 billion.

Outlined in the following table is a summary of the MYCIP for Fiscal Year 2024. The funding of the MYCIP includes proceeds of the Outstanding Bonds, the Series 2024 Bonds, Additional Bonds, Subordinate Obligations (including WIFIA loans, State revolving fund loans, commercial paper notes and Subordinate Bonds), and certain annual revenue sources of the Department. These MYCIP capital expenditures consist of the design, construction, construction management and program management expenses associated with capital improvements related to wastewater treatment, collection facilities, and pumping stations, expansion of improvements to the water treatment plants and water main rehabilitation, and other similar projects. These projects are consistent with the improvements identified in the Water and Wastewater Facilities Master Plans, the 2014 Consent Decree and the Interim Peak Flow Management Plan. The capital improvement projects are necessary to: (i) provide additional capacity to serve additional customers; (ii) meet the requirements of the regulatory actions imposed by FDEP and the EPA; (iii) provide back-up reserve capacity in the water and wastewater transmission systems; (iv) comply with level service requirements contained in the Comprehensive Development Master Plan; and, (v) improve operating efficiencies of the Utility.

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ADOPTED FISCAL YEAR 2024 MULTI-YEAR CAPITAL PLAN⁽¹⁾
(\$ in thousands)

WATER

Fund Description	Prior⁽²⁾	2024	2025	2026	2027	2028	2029	Future⁽³⁾	Total
Fire Hydrant Fund	\$ 13,936	\$ 2,600	\$ 2,828	\$ 2,856	\$ 2,885	\$ 2,914	\$ 2,943	\$ 2,943	\$ 33,905
Plant Expansion Fund	31,979	4,831	2,487	1,682	1,504	-	-	-	42,483
Construction – 2021 Bond	99,492	-	-	-	-	-	-	-	99,492
Construction – 2013 Bonds	1,007	-	-	-	-	-	-	-	1,007
Construction – 2019 Bonds	15,586	-	-	-	-	-	-	-	15,586
Series 2024 Bonds & Future WASD Revenue Bonds	21,777	64,387	114,878	146,828	155,362	175,061	234,078	756,534	1,668,905
Special Construction Fund	12,128	200	200	200	200	200	200	200	13,528
Renewal & Replacement Fund	220,687	47,402	40,000	45,000	45,000	45,000	45,000	45,000	533,089
WASD Commercial Paper – 2015	19,302	-	-	-	-	-	-	-	19,302
Hialeah R O Plant Construction	8,030	-	-	-	-	-	-	-	8,030
Total Water	\$443,924	\$119,420	\$160,393	\$196,566	\$204,951	\$223,175	\$282,221	\$804,677	\$2,435,328

WASTEWATER

Fund Description	Prior⁽²⁾	2024	2025	2026	2027	2028	2029	Future⁽³⁾	Total
WIFIA Loan	\$ 133,519	\$112,574	\$193,107	\$170,906	\$109,752	\$126,233	\$123,565	\$115,712	\$1,085,368
Ojus Funding	9,230	-	-	-	-	-	-	-	9,230
Plant Expansion Fund	176,587	16,644	5,841	4,908	-	-	-	-	203,980
Construction – 2021 Fund	547,026	-	-	-	-	-	-	-	547,026
General Obligation Bonds	43,963	27,957	23,502	22,579	13,868	4,131	-	-	136,000
Construction – 2013 Bonds	29,691	-	-	-	-	-	-	-	29,691
Construction – 2019 Bonds	313,677	-	-	-	-	-	-	-	313,677
Series 2024 Bonds & Future WASD Revenue Bonds	-	261,134	272,468	333,541	239,690	165,544	139,222	201,181	1,612,780
Special Construction Fund	28,683	11,084	15,769	8,877	5,232	3,766	2,755	200	76,366
Renewal & Replacement Fund	279,389	52,598	60,000	55,000	55,000	55,000	55,000	55,000	666,987
WASD Commercial Paper – 2015	373,066	-	-	-	-	-	-	-	373,066
Subordinate Debt- Wastewater	290,000	-	-	-	-	-	-	-	290,000
Future Subordinate Debt Wastewater	-	-	1,500	1,500	155,198	195,517	155,172	240,968	749,855
State Revolving Loans - Wastewater	64,171	-	-	-	-	-	-	-	64,171
Total Wastewater	\$2,289,002	\$481,992	\$572,187	\$597,310	\$578,740	\$550,191	\$475,714	\$613,061	\$6,158,197
Combined Water And Wastewater	\$2,732,927	\$601,412	\$732,580	\$793,876	\$783,691	\$773,366	\$757,935	\$1,417,738	\$8,593,535

⁽¹⁾ This Table sets forth expenditures by funding sources for the adopted Fiscal Year 2024 MYCIP.

⁽²⁾ Prior represents expenditures before Fiscal Year 2024 for active MYCIP projects.

⁽³⁾ Future is defined as Fiscal Years 2030 through 2032.

Source: The Department

REGULATORY MATTERS

Water System

Ground Water Under Direct Influence of Surface Water.

Ground Water Rule. The Ground Water Rule (“GWR”) provides for increased protection against microbial pathogens in public water systems that use ground water sources. In 2009, the Florida Department of Health determined that all of the Department’s water treatment plants meet the 4-log virus treatment requirements of the GWR and approved the associated monitoring plans implemented by the Department to comply with the GWR.

Revised Total Coliform Rule. The Revised Total Coliform Rule became effective April 1, 2016, and establishes a maximum contaminant level for *E. coli* and uses *E. coli* and total coliforms to initiate a “find and fix” approach to address fecal contamination that could enter into the distribution system. It requires public water systems to perform assessments to identify sanitary defects and subsequently take action to correct them. The Department is substantially in compliance with this rule.

Lead and Copper Rule. The Lead and Copper Rule was promulgated in 1991 to address the control of copper and lead that may leach from home plumbing systems. The Department is substantially in compliance with this rule. The Department has completed Phase 1 efforts evaluating the type and magnitude of available records to support the Lead Surface Line (“LSL”) inventory development, created an initial LSL inventory framework, identified the initial number of unknown service lines and made recommendations to address information gaps. Phase 1 efforts were intended to inform and focus efforts in subsequent phases until compliance with LCR Revisions has been achieved. Phase 2 efforts developed a Service Line Material Verification Plan, created a School and Childcare Facility testing plan, created content for public engagement and communications, and developed Customer Survey and Field Application Tools that will be deployed to assist the Department in identifying service lines with unknown material in a cost-efficient method. The Department is currently working in Phase 3, which will build on the efforts of Phases 1 and 2 and will prepare the inventory for public access, prepare and finalize compliance deliverables and submit them to FDEP by the October 2024 deadline. The Department is substantially in compliance with this rule.

PFAS MCL. In April 2024, the EPA established national limits for six types of perfluoroalkyl and polyfluoroalkyl substances (“PFAS”). Under the new regulations, two types of PFAS (PFOA and PFOS) cannot exceed four parts per trillion in public drinking water, and three additional PFAS cannot exceed 10 parts per trillion in public drinking water. As of April 2024, public water systems have three years to begin monitoring for PFAS and then two additional years (until 2029) to become compliant with the new limits.

The Department first began sampling for PFAS – then an unregulated contaminant – in 2015, and has continuously tested quarterly since 2019, meeting the EPA’s then Health Advisory Levels for PFAS instituted in 2016, which was 70 parts per trillion. The Department has sampled and included the results of PFOA and PFOS in its Water Quality Report since 2019. These were the only two PFAS compounds that the EPA had Health Advisory Guidelines for at the time (since 2016). When the EPA announced in 2022 that additional PFAS-related compounds were being considered, the Department proactively began sampling for them, despite there being no established criterion for it.

According to December 2023’s PFAS sampling results, the Department’s Orr Water Treatment Plant and Preston Plant passed the now regulated requirements for the new compounds and the Hialeah Plant only exceeded by one part per trillion for PFHxS and exceeded the Hazard level by 1.22.

The Department is in the process of initiating pilot programs to identify which PFAS treatment methods (granular activated carbon, reverse osmosis, and ion exchange systems and direct wellhead treatment activities) work best at each of the Department’s three main treatment plants and at its South Dade Utilities. Varying concentrations at each plant may require a different treatment method from facility to facility. This will be a delicate process to safeguard the public’s drinking water supply while keeping it affordable.

Sewer (Wastewater) System

North District Wastewater Treatment Plant. On February 20, 2017, the FDEP issued an operating permit under the National Pollutant Discharge Elimination System (the “NPDES Permit”), along with an Administrative Order (the “AO”). The AO includes schedules for compliance with the Ocean Outfall Legislation, a Surface Water Quality Monitoring Plan, toxicity study, and effluent monitoring and sampling requirements, as well as a schedule for 2014 Consent Decree projects. The Department is substantially in compliance with the NPDES Permit and the AO. In August 2021, the Department submitted a domestic wastewater permit renewal application to FDEP. The permit renewal is under review by FDEP. The current operating permit and Amendment to Administrative Order (“AOA”) is administratively continued until this new permit and administrative order is finalized and effective. The North District Plant disposes of its effluent through an ocean outfall and four deep injection wells to the Lower Floridan Aquifer similar to South District. The Department received the operating permit renewal for these wells from the FDEP on May 15, 2020.

Central District Wastewater Treatment Plant. On January 13, 2016, the FDEP issued an operating permit and an AOA based on the point of discharge being within State waters. The Department is substantially in compliance with the NPDES Permit, the AO and the AOA. The FDEP issued a permit renewal with AO for the Central District Wastewater Treatment Plant on May 27, 2021. The Central District Plant disposed of its effluent through an ocean outfall and two deep injection wells to the Lower Florida Aquifer similar to South District. The Department is operating the two injection wells under an FDEP Construction and Testing Permit issued on December 17, 2015, and authorization from FDEP to continue Constructing and Testing on November 7, 2022.

South District Wastewater Treatment Plant. On December 6, 2005, the EPA promulgated revisions to the Federal Underground Injection Control (“UIC”) Requirements for Class I Municipal Disposal Wells in Florida. On September 19, 2017, the FDEP issued a new operating permit for the South District Wastewater Treatment Plant, with an effective date of December 10, 2017, which includes a schedule for completing some improvements at the plant. The Department is substantially in compliance with the operating permit. In June 2022, the Department submitted a domestic wastewater operating permit renewal application to FDEP, which is currently under review. The current operating permit is administratively continued until this new permit is finalized and effective. The South District Plant disposes of its effluent through 17 deep injection wells to the Lower Floridan Aquifer, a saline aquifer at a depth below 2,400 feet. The South District Plant has a permitted treatment capacity of 112.5 mgd. On December 1, 2020, the Department received operating permits for all injection wells from FDEP.

Sewer System Consent Decree. On May 21, 2013, the Board authorized the execution of the 2014 Consent Decree between the County, the U.S. Department of Justice, the State and FDEP, for improvements to the County’s wastewater collection and treatment system. On June 6, 2013, the Department of Justice lodged the proposed 2014 Consent Decree with the U.S. District Court for the Southern District of Florida in the lawsuit entitled United States, State of Florida and State of Florida Department of Environmental Protection v. Miami-Dade County, *Case No. 1:12-cv-24400-FAM*. On June 12, 2013 (the “Date of Lodging”), the Notice of Lodging was published in the Federal Register. The publication opened a 30-day public comment period on the proposed 2014 Consent Decree. The effective date for the 2014 Consent Decree was December 6, 2013, six months after the Date of Lodging. On April 9, 2014, the Court issued three Orders: (i) Granting Motion to enter 2014 Consent Decree; (ii) Modifying Section X of the 2014 Consent Decree (doubling the proposed stipulated penalties); and (iii) Requiring Status Reports.

The schedule for construction projects identified in the 2014 Consent Decree began on the Date of Lodging. The schedules for the remaining deliverables dealing with assessments and reports began on the date of entry of the 2014 Consent Decree. Penalty provisions became effective on the date of entry of the 2014 Consent Decree. The prior consent decrees were terminated upon entry of the 2014 Consent Decree and the 2014 Consent Decree supersedes the prior consent decrees.

The 2014 Consent Decree requires system improvements at the treatment plants and throughout the collection system originally valued at \$1.6 billion over a period of 15 years; continuation of the capacity maintenance program, including enforcement of the 10 hour criterion at pump stations; expansion of the pump station remote monitoring program (Supervisory Control and Data Acquisition – SCADA – system); maintenance and application of the wastewater collection and transmission system model; a spare parts program; application of these requirements to wholesale customers through the Volume Sewer Customer Ordinance administered by the Department of Regulatory

and Economic Resources; expansion of the Fats, Oils, and Grease control program; implementation of a sewer overflow response plan; enhancement of the information management system and the wastewater system asset management program; assessment of force mains; assessment of gravity sewers; enhancement of the pump station maintenance and operations program; enhancement of the wastewater treatment plant operations and maintenance program; and implementation of a financial analysis program to support the completion of all 2014 Consent Decree deliverables on schedule. The Department has retained a firm to provide program and construction management services for the 2014 Consent Decree program, two firms to provide design services for the wastewater treatment plants and the wastewater collection and transmission system, and a fourth firm to provide the capacity, management, operations and maintenance requirements. As a result, the updated estimate at completion is \$2.1 billion. The increase in cost is associated with project cost updates for the development and execution of the 2014 Consent Decree program. Specifically, with modifications that were made during the validation and design phase, which was performed in 2016. The updated construction program included additional consideration for sea level rise, the application of new technologies, and the decision to replace certain assets as opposed to rehabilitating them. The validated program had a direct effect on construction cost as well as the level of effort required to manage the various components of the program. In addition, during the course of program execution, the original 81 2014 Consent Decree projects were further split into 173 individual projects as a result of: (1) multiple project components being performed by different entities (i.e. in-house vs. external contractors), (2) multiple components located far from each other, such as in the case of the smaller pump stations and CD Capital Improvement Project 4.9 Asbestos Containing pipelines, (3) multiple components required to be performed either in phases or during separate dry seasons due to operational concerns. Therefore, in December 2017, the County submitted a request to EPA and FDEP to extend the schedule of 43 projects. The request for schedule extensions was approved by EPA in April 2018. The Department has assigned dedicated internal staff to manage these projects. The Department is substantially in compliance with the 2014 Consent Decree.

Wastewater System Overflow Violations. Any unpermitted discharge from wastewater collection and treatment systems constitutes a violation of the Clean Water Act and can be subject to both federal and state enforcement action. Overflows may occur as the result of inadequate capacity, line blockages, construction and vandalism, pipeline failures due to age or corrosion, and equipment failures at pump stations and treatment plants. The 2014 Consent Decree includes a civil penalty to account for overflows not previously included in the FDEP penalty program.

Elimination of the Use of Ocean Outfalls. Florida law was amended in 2008 to prohibit the construction of new ocean outfalls and the use of existing ones for disposal of average flows by 2025. The law was amended in 2013 (collectively, the “Ocean Outfall Legislation”) to provide additional flexibility for the affected utilities to manage peak flows and to fulfill the mandated wastewater reuse requirements. The Ocean Outfall Legislation requires the Department to (i) submit a plan by July 1, 2013 to meet the requirements of the legislation (see below description of the Department’s submitted plan); and (ii) meet the provisions of the advanced wastewater treatment and management requirements by December 31, 2018, either by (a) provision of advanced wastewater treatment to all ocean outfall flows, or (b) a reduction in outfall baseline loadings of total nitrogen and total phosphorus which is equivalent to that which would be achieved by advanced wastewater treatment requirements, or (c) a reduction in cumulative outfall loadings of total nitrogen and total phosphorus occurring between December 31, 2008 and December 31, 2025, which is equivalent to that which would be achieved if the advanced waste treatment requirements were fully implemented beginning December 31, 2018, and continued through December 31, 2025. After 2025, the outfalls can be used for peak flow discharges not to exceed 5% of annual flows. By December 31, 2025, a fully functioning reuse system must be installed using a minimum of 60% of the ocean outfall flows for irrigation, groundwater replenishment, industrial cooling or other acceptable uses of reclaimed water. The Ocean Outfall Legislation limits the required reuse to projects that are “technically, environmentally and economically” feasible.

The Department submitted the Ocean Outfall Legislation Compliance Plan (the “Compliance Plan”) to the Secretary of FDEP on June 28, 2013. This was a comprehensive plan which also included the wastewater facilities upgrades needed to meet future demands through the year 2035. Since 2013 when the Compliance Plan was presented to FDEP, wastewater flows have been reassessed with more current data. The data shows lower future demands than originally anticipated. An updated Compliance Plan (the “2019 Compliance Plan”) was transmitted to FDEP in December 2019. The 2019 Compliance Plan focused on the required upgrades to the two existing wastewater treatment plants with ocean outfalls, Central District and North District Wastewater Treatment Plants, to comply with the legislation requirements.

Regarding the reuse requirement, Florida Power and Light (“FPL”) and the Department entered into an agreement in June 2020 for reclaimed water processing, treatment and use at the FPL Turkey Point complex, also known as the Clean Water Recovery Center, for FPL to use up to 15 mgd of reclaimed water from the South District Wastewater Treatment Plant. The reclaimed water will be used in the cooling towers for FPL’s Unit 5 generating facility. It is estimated FPL will be ready to receive the reclaimed water by the end of 2024. The Department is also embarking on its own strategy to increase industrial reuse within the Wastewater Treatment Plants. The new water reuse strategy is based on the use of Effluent Energy Recovery Systems (EERS) to provide cooling to buildings and energy-intensive processes at the treatment plants. This industrial reuse approach utilizes the low temperature of the WWTP effluent to cool plant processes using centralized heat exchangers and will cease the use of electrically powered cooling towers. This will result in an additional 115 mgd of industrial reuse.

Regarding the advanced wastewater treatment and management requirement, the Department selected the equivalent nutrient diversion method to meet this requirement, and while there have been project delays and unexpected work to bring the system to its rated capacity, the nutrient diversions goal is on target for compliance. Moreover, the Department has achieved substantial progress to date in its Injection Well Program to advance the nutrient diversion objectives set forth by the legislation. Below is the status and anticipated completion dates of on-going project activities.

- Construction is complete for two Class I industrial injection wells, and one dual-zone monitoring well and the industrial injection well pump station at the Central District Wastewater Treatment Plant. The system is now in operation.
- Industrial well pump station at Central District Wastewater Treatment Plant was substantially completed on July 11, 2019.
- Seven Class I Municipal Injection Wells and their associated monitoring wells at the Central District Wastewater Treatment are substantially complete.

The Department is undertaking a total of 12 projects with a total budget of \$1.3 billion related to compliance with the legislation and is on target to comply by December 31, 2025. To this end, design permitting and procurement activities are on-going for upgrades at the North and Central District Wastewater Treatment Plants. Additionally, seven Class I injection wells are currently under construction at the Central District Wastewater Treatment Plant. Additionally, two more Class I Municipal Injection Wells and Electrical Distribution Building # 2 to serve the power needs of the Ocean Outfall Legislation improvements, including back-up generators, are currently under construction at the Central District Wastewater Treatment Plant. At the North District Wastewater Treatment Plant five Class I Municipal Injection Wells and their associated monitoring wells are nearing substantial completion.

See “APPENDIX A - BOND FEASIBILITY REPORT” for additional information regarding federal and State regulations applicable to the Utility.

REPORT OF CONSULTING ENGINEER

The County has retained Arcadis U.S., Inc. (“Arcadis”), Miami, Florida, as its consulting engineer to develop reports relating to the Utility, the MYCIP and certain financial matters. Planning and Economics Group, Inc., Miami, Florida, serves as a sub-consultant to Arcadis (together with Planning and Economics Group, Inc, collectively, the “Consulting Engineer”). The Consulting Engineer has prepared the Bond Feasibility Report dated April 15, 2024, included as APPENDIX A to this Official Statement in reliance upon the authority of such firms as experts in engineering and related financial matters. The Bond Feasibility Report should be read in its entirety for a complete discussion of asset conditions, operating revenues, expenses of operation and maintenance, and the assumptions and rationale underlying its forecast. To the extent that actual conditions differ from those assumed in preparing such forecasted amounts, the actual results will vary from those shown therein.

The Consulting Engineer has formed certain opinions and reached certain conclusions as a result of the analyses performed and described in the Bond Feasibility Report. These conclusions and opinions, include, but are not limited to, the following:

- Based on actual and estimated future annual financial operations of the Department, with the implementations of rate increases noted in the Consulting Engineer’s report, the Department is expected to generate projected Pledged Revenues sufficient during the next five years to meet the Department’s principal financial requirements as follows:
 - o fund all expenses of operation, maintenance, rehabilitation and replacement of the Department;
 - o fund all reserve funds required to be established out of such Pledged Revenues;
 - o fund the principal and interest on all Outstanding Bonds and Subordinate Obligations issued under or pursuant to the Master Ordinance, including the Series 2024 Bonds, for which such Pledged Revenues are pledged, as the same become due and payable;
 - o meet requirements set forth in Sections 208 and 602 of the Master Ordinance, which requires the Department to meet specific debt service coverage ratios;
 - o meet the WIFIA loans debt service coverage requirements set forth in the WIFIA loan agreements;
 - o meet the estimated expenditure and funding obligations of the MYCIP through Fiscal Year 2029, the review period; and
 - o fund costs of issuance.

- Based upon onsite physical inspections and investigations of major system facilities, and discussions with key Department staff, the water and wastewater systems are in Fair condition and meet industry level of service requirements for the Department’s customers. Condition is assessed based on a Good-Fair-Poor scale with Fair condition defined by the Consulting Engineer as assets observed to have provided “long term service without notable measures of degradation; in the useful portion of its useful life”. Steps are being taken by the Department to address the facilities’ renewal and replacement needs. The projects contained in the MYCIP for Fiscal Years 2024 through 2029 are part of an overall program to provide for the water and wastewater systems’ continued operations and level of service expectations as well as to meet consent decree and other regulatory requirements.

- The existing water and wastewater infrastructure, together with planned system improvements, will provide the Department with adequate water and wastewater capacity to meet demands in the service area through Fiscal Year 2029, the review period.

- The 2014 Consent Decree focuses primarily on system improvements at the treatment plants, the collection system, and the continuation of the capacity maintenance program, including enforcement of the 10-hour criterion at pump stations and the pump station remote monitoring program (Supervisory Control and Data Acquisition - SCADA system). The 2014 Consent Decree identified project costs of \$1.9 billion of which \$1.6 billion is related to capital projects and are reflected in the MYCIP. As a part of the terms and conditions of the 2014 Consent Decree, the Department must submit monthly status reports detailing the status of specific activities necessary to meet the requirements of the 2014 Consent Decree. It is important to note that all projects contained in the 2014 Consent Decree are included in the MYCIP, but as projects develop, schedules for completion may be modified, with the approval of the EPA. The Department has assigned dedicated staff to manage 2014 Consent Decree projects and is currently in compliance with the 2014 Consent Decree.

- The Department is subject to the State Senate Bill 1302 (Chapter 2008-232, Laws of Florida, Section 403.086 (9)), as amended in 2013 by Florida Senate Bill 444, that requires the six ocean outfalls along the southeast coast of Florida that are being used for treated wastewater disposal be eliminated

as a primary means of domestic wastewater discharge by 2025. The nutrient reduction requirement stated in the legislation could have been achieved by either installation of an Advance Wastewater Treatment (AWT) option in 2018, or an equivalent nutrient load reduction level that would need to be achieved by 2025. The Department has elected to achieve a reduction in cumulative outfall loadings of total nitrogen and total phosphorus by 2025. The Department is on target to meet this compliance requirement by 2025. The updated Ocean Outfall Legislation Compliance Plan was issued to FDEP in July 2022.

INVESTMENT CONSIDERATIONS

Enforceability of Remedies

The remedies available to the owners of the Series 2024 Bonds upon an Event of Default under the Bond Ordinance are in many respects dependent upon regulatory and judicial actions that are often subject to discretion and delay. Under existing laws and judicial decisions, the remedies provided for under the Bond Ordinance may not be readily available or may be limited. The various legal opinions to be delivered concurrently with the delivery of the Series 2024 Bonds will be qualified to the extent that the enforceability of certain legal rights related to the Series 2024 Bonds is subject to various limitations including those imposed by bankruptcy, reorganization, insolvency or other similar laws affecting the enforcement of creditors' rights generally and by equitable remedies and proceedings generally.

Climate Change

The State is naturally susceptible to the effects of extreme weather events and natural disasters including floods, droughts, hurricanes, and heat waves, which could result in negative economic impacts on coastal communities like the County. Such effects can be exacerbated by long-term shifts in the climate, including increasing temperatures and rising sea levels driven by global greenhouse gas emissions, and changing policies aimed at curbing greenhouse gas emissions, including the transition to carbon free transportation and energy sources that directly impact the local economy.

The County is addressing the threat of climate change through: (1) incorporating climate change goals into the Comprehensive Development Master Plan, policies, and code; (2) conducting regular community-wide greenhouse gas emissions inventories (<https://www.miamidade.gov/global/economy/resilience/greenhouse-gas-inventories.page>) and implementing a Climate Action Strategy to reduce emissions (<https://miamidade.gov/climateactionstrategy>); (3) assessing the vulnerability of key public infrastructure and implementing a countywide Sea Level Rise Strategy (<https://www.miamidade.gov/global/economy/resilience/sea-level-rise-strategy.page>), which details key actions and capital projects that reduce risk to current and future flooding, while providing a vision for the community to adapt to rising sea levels; (4) applying the County's Local Mitigation Strategy designed to reduce or eliminate long-term risk to human life and property from hazards (<https://www.miamidade.gov/fire/library/OEM/local-mitigation-strategy-part-1-strategy.pdf>); (5) developing and implementing policies and initiatives to reduce the impacts of extreme heat across the community (<https://www.miamidade.gov/global/economy/environment/heat.page>); and (6) creating a Biscayne Bay Recovery Task Force Report and Recommendations, (<https://www.miamidade.gov/global/economy/environment/biscayne-bay-solutions-recovery-plan.page>), which provides a roadmap for the recovery of Biscayne Bay in consideration of the impacts of climate change. The County details its progress in implementing its climate mitigation and adaptation programs in its Climate Action Strategy 2023 Progress Report (<https://www.miamidade.gov/environment/library/resilience/2023-04-cas-progress-report.pdf>) and Sea Level Rise Strategy Year 1 Progress Update (<https://miami-dade-county-sea-level-rise-strategy-draft-mdc.hub.arcgis.com/>).

The County's strategy for approaching climate change in collaboration with its municipalities, including specifically the City of Miami and the City of Miami Beach, is outlined in the collaborative Resilient 305 Strategy (<https://resilient305.com/>) and the County's regional approach to climate change is outlined in the Southeast Florida Regional Climate Change Compact's (the "Compact") Regional Climate Action Plan (<https://southeastfloridaclimatecompact.org/regional-climate-action-plan/>). For planning purposes the County relies upon the Compact's Unified Sea Level Rise Projection for Southeast Florida, last updated in 2019 (<https://southeastfloridaclimatecompact.org/unified-sea-level-rise-projections/>).

The County is collaborating with the U.S. Army Corps of Engineers (USACE) on a number of studies and projects that aim to address flooding and climate related impacts, including the Miami-Dade County Coastal Storm Risk Management Back Bay study, for which the County is the local sponsor (<https://www.saj.usace.army.mil/MiamiDadeBackBayCSRMFfeasibilityStudy/>); the USACE study under the authority of Section 216 of the Flood Control Act of 1970 that will focus on reducing flood risk and increasing flood resilience in high-risk urban watersheds in southeast Florida, while looking to enhance the overall benefits of the multipurpose Central & South Florida Project (<https://www.saj.usace.army.mil/CSFFRS/>); and on beach nourishment projects consistent with the Miami-Dade County Beach Erosion Control Master Plan (<https://www.miamidade.gov/environment/beach-renourishment.asp>), among others.

Cyber-Security

Computer networks and systems, integral to the seamless functioning of the County, facilitate data transmission and storage. These systems support both digital and physical departmental operations and services for the public. They collect, process, and store sensitive information, including intellectual property, details of technical infrastructure, proprietary business procedures, supplier and partner data, and personally identifiable information (PII) of customers, constituents, and employees. It's crucial to securely handle, preserve, store, and transmit this data to maintain public trust and ensure smooth departmental operations and public service delivery.

With the rise in cyber-attacks aimed at government entities, the threats of financial crimes like ransomware, confidential data leaks, or disruptions of essential services have become more prevalent. The Ukrainian crisis has highlighted how rapidly global events can escalate cyber risk. Malicious actors, including nation-state hackers, constantly search for vulnerabilities to exploit. Their objectives can range from accessing sensitive data to interrupting services, often targeting critical infrastructure and government operations for maximum impact. Employee errors or misconduct can also lead to data loss or system disruptions.

Significant cyber-attacks can compromise networks and threaten the confidentiality, integrity, and availability of systems and their data. The impacts can be extensive, possibly leading to interruptions in the County's public safety, revenue stream, legal disputes, liabilities under privacy laws, regulatory penalties, and disruptions to operations and public services. Unauthorized alteration, disclosure, or destruction of data can lead to substantial repercussions on various aspects of an organization or governmental body.

In response to these risks, the County has established a dedicated Enterprise Security Office. Its mission is to protect the County's digital assets by implementing a holistic defense strategy. This strategy comprises risk and vulnerability reduction, policy formulation and execution, establishment and adoption of evolving security standards, ongoing compliance monitoring, and the capacity to respond and recover from cyber incidents.

Coronavirus (COVID-19)

The Novel Coronavirus 2019 ("COVID-19") pandemic, along with various governmental measures taken to protect public health in light of the pandemic, has had an adverse impact on global financial markets and economies, including financial markets and economic conditions in the United States. The impact of the COVID-19 pandemic on the U.S. economy has been broad based and negatively impacted national, state and local economies. In response to the COVID-19 pandemic, then-President Trump on March 13, 2020, declared a "national emergency," which, among other effects, allowed the executive branch to disburse disaster relief funds to address the COVID-19 pandemic and related economic dislocation. In addition, the U.S., the State and the County imposed certain health and public safety restrictions in response to COVID-19, all of which have since been lifted. The County cannot predict whether additional or new actions may be taken by governmental authorities including the State and/or County to contain or otherwise address the impact of the COVID-19 or a similar outbreak. For information on the County's COVID-19 response, please see the County's website at <http://www.miamidade.gov/global/initiatives/coronavirus/home.page>.

While the national public health emergency due to COVID-19 was officially ended on May 11, 2023, the County cannot predict any ongoing impact. In addition, the County's finances in the future may be adversely affected by the continued spread of COVID-19, the various governmental actions in response thereto or changes in the behavior of businesses and people. While the onset of COVID-19 resulted in significant decreases in state and local sales tax revenues as a result of decreased tourism and commercial activity throughout the State, including within the County,

sales tax receipts in the County have recovered and are currently at or above pre-pandemic levels. The County experienced increased costs associated with this pandemic but also received substantial support from the federal government. As of September 30, 2023, the County had been awarded a total of \$2.676 billion under all federal programs related to the COVID-19 pandemic, the majority of which is restricted to specific purposes. Of those amounts awarded, as of September 30, 2023, the County had received \$2.608 billion (unaudited).

LITIGATION

The County is a defendant from time to time in various lawsuits. No litigation questioning the corporate existence of the County or the right of its officials to their respective offices, or questioning or affecting the validity of the Series 2024 Bonds or the Bond Ordinance is pending. Furthermore, to the knowledge of the Office of the County Attorney, no litigation that would materially or adversely affect the ability of the County to consummate its obligations under the Bond Ordinance, including its payment obligations thereunder, is threatened.

TAX MATTERS

In the opinion of Squire Patton Boggs (US) LLP and D. Seaton and Associates, P.A., Bond Counsel, under existing law: (i) interest on the Series 2024 Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986, as amended (the “Code”), and is not an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals and (ii) the Series 2024 Bonds and the income thereon are exempt from taxation under the laws of the State of Florida, except estate taxes imposed by Chapter 198, Florida Statutes, as amended, and net income and franchise taxes imposed by Chapter 220, Florida Statutes, as amended. Bond Counsel expresses no opinion as to any other tax consequences regarding the Series 2024 Bonds.

The opinion on federal tax matters will be based on and will assume the accuracy of certain representations and certifications, and continuing compliance with certain covenants, of the County contained in the transcript of proceedings and that are intended to evidence and assure the foregoing, including that the Series 2024 Bonds are and will remain obligations the interest on which is excluded from gross income for federal income tax purposes. Bond Counsel will not independently verify the accuracy of the County’s representations and certifications or the continuing compliance with the County’s covenants.

The opinion of Bond Counsel is based on current legal authority and covers certain matters not directly addressed by such authority. It represents Bond Counsel’s legal judgment as to exclusion of interest on the Series 2024 Bonds from gross income for federal income tax purposes but is not a guaranty of that conclusion. The opinion is not binding on the Internal Revenue Service (the “IRS”) or any court. Bond Counsel expresses no opinion about (i) the effect of future changes in the Code and the applicable regulations under the Code or (ii) the interpretation and the enforcement of the Code or those regulations by the IRS.

The Code prescribes a number of qualifications and conditions for the interest on state and local government obligations to be and to remain excluded from gross income for federal income tax purposes, some of which require future or continued compliance after issuance of the obligations. Noncompliance with these requirements by the County may cause loss of such status and result in the interest on the Series 2024 Bonds being included in gross income for federal income tax purposes retroactively to the date of issuance of the Series 2024 Bonds. The County has covenanted to take the actions required of it for the interest on the Series 2024 Bonds to be and to remain excluded from gross income for federal income tax purposes, and not to take any actions that would adversely affect that exclusion. After the date of issuance of the Series 2024 Bonds, Bond Counsel will not undertake to determine (or to so inform any person) whether any actions taken or not taken, or any events occurring or not occurring, or any other matters coming to Bond Counsel’s attention, may adversely affect the exclusion from gross income for federal income tax purposes of interest on the Series 2024 Bonds or the market value of the Series 2024 Bonds.

Interest on the Series 2024 Bonds may be subject: (1) to a federal branch profits tax imposed on certain foreign corporations doing business in the United States; (2) to a federal tax imposed on excess net passive income of certain S corporations; and (3) to the alternative minimum tax imposed under Section 55(b) of the Code on “applicable corporations” (within the meaning of Section 59(k) of the Code). Under the Code, the exclusion of interest from gross income for federal income tax purposes may have certain adverse federal income tax consequences on items of income, deduction or credit for certain taxpayers, including financial institutions, certain insurance companies,

recipients of Social Security and Railroad Retirement benefits, those that are deemed to incur or continue indebtedness to acquire or carry tax-exempt obligations, and individuals otherwise eligible for the earned income tax credit. The applicability and extent of these and other tax consequences will depend upon the particular tax status or other tax items of the owner of the Series 2024 Bonds. Bond Counsel will express no opinion regarding those consequences.

Payments of interest on tax-exempt obligations, including the Series 2024 Bonds, are generally subject to IRS Form 1099-INT information reporting requirements. If a Series 2024 Bond owner is subject to backup withholding under those requirements, then payments of interest will also be subject to backup withholding. Those requirements do not affect the exclusion of such interest from gross income for federal income tax purposes.

Bond Counsel's engagement with respect to the Series 2024 Bonds ends with the issuance of the Series 2024 Bonds, and, unless separately engaged, Bond Counsel is not obligated to defend the County or the owners of the Series 2024 Bonds regarding the tax status of interest thereon in the event of an audit examination by the IRS. The IRS has a program to audit tax-exempt obligations to determine whether the interest thereon is includible in gross income for federal income tax purposes. If the IRS does audit the Series 2024 Bonds, under current IRS procedures, the IRS will treat the County as the taxpayer and the beneficial owners of the Series 2024 Bonds will have only limited rights, if any, to obtain and participate in judicial review of such audit. Any action of the IRS, including but not limited to selection of the Series 2024 Bonds for audit, or the course or result of such audit, or an audit of other obligations presenting similar tax issues, may affect the market value of the Series 2024 Bonds.

Prospective purchasers of the Series 2024 Bonds upon their original issuance at prices other than the respective prices indicated on the inside cover of this Official Statement, and prospective purchasers of the Series 2024 Bonds at other than their original issuance, should consult their own tax advisors regarding other tax considerations such as the consequences of market discount, as to all of which Bond Counsel expresses no opinion.

Risk of Future Legislative Changes and/or Court Decisions

Legislation affecting tax-exempt obligations is regularly considered by the United States Congress and may also be considered by the State legislature. Court proceedings may also be filed, the outcome of which could modify the tax treatment of obligations such as the Series 2024 Bonds. There can be no assurance that legislation enacted or proposed, or actions by a court, after the date of issuance of the Series 2024 Bonds will not have an adverse effect on the tax status of interest or other income on the Series 2024 Bonds or the market value or marketability of the Series 2024 Bonds. These adverse effects could result, for example, from changes to federal or state income tax rates, changes in the structure of federal or state income taxes (including replacement with another type of tax), or repeal (or reduction in the benefit) of the exclusion of interest on the Series 2024 Bonds from gross income for federal or state income tax purposes for all or certain taxpayers.

For example, federal tax legislation that was enacted on December 22, 2017 reduced corporate tax rates, modified individual tax rates, eliminated many deductions, repealed the corporate alternative minimum tax that was in effect at that time, and eliminated the tax-exempt advance refunding of tax-exempt bonds and tax-advantaged bonds, among other things. Additionally, investors in the Series 2024 Bonds should be aware that future legislative actions might increase, reduce or otherwise change (including retroactively) the financial benefits and the treatment of all or a portion of the interest on the Series 2024 Bonds for federal income tax purposes for all or certain taxpayers. In all such events, the market value of the Series 2024 Bonds may be affected and the ability of holders to sell their Series 2024 Bonds in the secondary market may be reduced.

Investors should consult their own financial and tax advisors to analyze the importance of these risks.

Original Issue Discount and Original Issue Premium

Certain of the Series 2024 Bonds ("Discount Bonds") may be offered and sold to the public at an original issue discount ("OID"). OID is the excess of the stated redemption price at maturity (the principal amount) over the "issue price" of a Discount Bond. The issue price of a Discount Bond is the initial offering price to the public (other than to bond houses, brokers or similar persons acting in the capacity of underwriters or wholesalers) at which a substantial amount of the Discount Bonds of the same maturity is sold pursuant to that offering. For federal income

tax purposes, OID accrues to the owner of a Discount Bond over the period to maturity based on the constant yield method, compounded semiannually (or over a shorter permitted compounding interval selected by the owner). The portion of OID that accrues during the period of ownership of a Discount Bond (i) is interest excluded from the owner's gross income for federal income tax purposes to the same extent, and subject to the same considerations discussed above, as other interest on the Series 2024 Bonds, and (ii) is added to the owner's tax basis for purposes of determining gain or loss on the maturity, redemption, sale or other disposition of that Discount Bond. A purchaser of a Discount Bond in the initial public offering at the issue price (described above) for that Discount Bond who holds that Discount Bond to maturity will realize no gain or loss upon the retirement of that Discount Bond.

Certain of the Series 2024 Bonds ("Premium Bonds") may be offered and sold to the public at a price in excess of their stated redemption price at maturity (the principal amount). That excess constitutes bond premium. For federal income tax purposes, bond premium is amortized over the period to maturity of a Premium Bond, based on the yield to maturity of that Premium Bond (or, in the case of a Premium Bond callable prior to its stated maturity, the amortization period and yield may be required to be determined on the basis of an earlier call date that results in the lowest yield on that Premium Bond), compounded semiannually. No portion of that bond premium is deductible by the owner of a Premium Bond. For purposes of determining the owner's gain or loss on the sale, redemption (including redemption at maturity) or other disposition of a Premium Bond, the owner's tax basis in the Premium Bond is reduced by the amount of bond premium that is amortized during the period of ownership. As a result, an owner may realize taxable gain for federal income tax purposes from the sale or other disposition of a Premium Bond for an amount equal to or less than the amount paid by the owner for that Premium Bond. A purchaser of a Premium Bond in the initial public offering who holds that Premium Bond to maturity (or, in the case of a callable Premium Bond, to its earlier call date that results in the lowest yield on that Premium Bond) will realize no gain or loss upon the retirement of that Premium Bond.

Owners of Discount and Premium Bonds should consult their own tax advisors as to the determination for federal income tax purposes of the existence of OID or bond premium, the determination for federal income tax purposes of the amount of OID or bond premium properly accruable or amortizable in any period with respect to the Discount or Premium Bonds, other federal tax consequences in respect of OID and bond premium, and the treatment of OID and bond premium for purposes of state and local taxes on, or based on, income.

DISCLOSURE REQUIRED BY FLORIDA BLUE SKY REGULATIONS

Florida law requires the County to make a full and fair disclosure of any bonds or other debt obligations which it has issued or guaranteed and which are or have been in default as to principal or interest at any time after December 31, 1975 (including bonds or other debt obligations for which it has served as a conduit issuer). Florida law further provides, however, that if the County in good faith believes that such disclosures would not be considered material by a reasonable investor, such disclosures may be omitted. The County is not and has not been in default as to principal and interest on bonds or other debt obligations which it has issued as the principal obligor or guarantor.

There are several special purpose governmental authorities of the County that serve as conduit issuers of private activity bonds for purposes such as housing, industrial development and health care. Defaults have occurred in connection with some of those private activity bonds; however, such defaults affect only the defaulted issues and have no effect on the payment of the Series 2024 Bonds. The County has no obligation to pay such bonds and the conduit issuers had only a limited obligation to pay such bonds from the payments made by the underlying obligors with respect to such issues. Therefore, the County in good faith believes that defaults relating to conduit issuers are not material with regard to the Series 2024 Bonds and any disclosure concerning any defaults of conduit financings is not necessary.

CONTINUING DISCLOSURE

General Undertaking

The County has covenanted in the Series 2024 Resolution, in accordance with the provisions of, and to the degree necessary to comply with, the secondary disclosure requirements of Rule 15c2-12 (the "Rule") of the Securities and Exchange Commission (the "SEC"), to provide or cause to be provided for the benefit of the beneficial owners of the Series 2024 Bonds to the Municipal Securities Rulemaking Board (the "MSRB") via its Electronic Municipal

Market Access system (“EMMA”) and in an electronic format prescribed by the MSRB and such other municipal securities information repository as may be required by law or applicable regulation, from time to time (each such information repository, a “MSIR”), the information set forth in the Series 2024 Resolution, commencing with the Fiscal Year ending September 30, 2024. *See* “APPENDIX H – CONTINUING DISCLOSURE UNDERTAKING.”

The County has selected Digital Assurance Certification, L.L.C. (“DAC”) to serve as the County’s disclosure dissemination agent for purposes of filing the information as required by the Rule with the MSRB in an electronic format prescribed by the MSRB. During any period that DAC or any other party is acting as disclosure dissemination agent for the County with respect to the County’s continuing disclosure obligations, the County will comply with the provisions of any agreement by and between the County and any such disclosure dissemination agent.

The County has reserved the right to modify from time to time the specific types of information provided or the format of the presentation of such information, to the extent necessary or appropriate in the judgment of the County; provided that the County has agreed that any modification will be done in a manner consistent with the Rule.

Procedures and Past Performance

The County has procedures in place with respect to its continuing disclosure undertakings and, as noted above, utilizes DAC to assist it in its compliance. The following information describes the instances of non-compliance with such undertakings, known to the County, in the past five years.

It has come to the County’s attention that, although an executed copy of the Escrow Deposit Agreement relating to certain defeased bonds, which included as an exhibit the notices of defeasance, was filed on EMMA within ten days of the defeasance, due to an administrative oversight the County did not timely file separate defeasance notices relating to such bonds. The County filed these defeasance notices on June 25, 2019. With respect to such defeased bonds that have been subsequently called for redemption, the County has timely filed notices of optional redemption.

Limited Information; Limited Rights of Enforcement

The County’s obligation under its continuing disclosure undertaking with respect to the Series 2024 Bonds is limited to supplying limited information at specified times and may not provide all information necessary to determine the value of the Series 2024 Bonds at any particular time.

The County has agreed that its continuing disclosure undertaking is intended to be for the benefit of the Beneficial Owners of the Series 2024 Bonds and shall be enforceable by such Beneficial Owners if the County fails to cure a breach within a reasonable time after receipt of written notice from a Beneficial Owner that a breach exists; provided, however, that any Beneficial Owner’s right to enforce the provisions of the undertaking shall be on behalf of all Beneficial Owners and shall be limited to a right to obtain specific performance of the County’s obligations with respect to continuing disclosure under the Series 2024 Resolution in a federal or state court located within the County, and any failure by the County to comply with the provisions of the undertaking shall not be a default with respect to the Series 2024 Bonds.

EMMA

Under existing law, County filings of continuing disclosure under the County’s continuing disclosure undertaking must be made through EMMA. Investors can access EMMA at www.emma.msrb.org and follow the instructions provided on such website to locate filings by the County with respect to the Series 2024 Bonds. While all filings under the Rule must be made through EMMA, filings made by the County prior to July 1, 2009, with respect to its continuing disclosure obligations relating to the Outstanding Bonds cannot be found through EMMA and must be located through the pre-existing MSIRs.

RATINGS

Fitch, Moody's and S&P (each as defined below) have assigned ratings of "AA-" (stable outlook), "Aa3" (stable outlook), and "AA" (stable outlook), respectively, to the Series 2024 Bonds. Such ratings, including any related outlook with respect to potential changes in such rating, reflect only the views of such organizations and are not a recommendation to buy, sell or hold the Series 2024 Bonds. An explanation of the procedures and methodology used by each rating agency and the significance of such ratings should be obtained from the rating agency furnishing the same, at the following addresses: Fitch Ratings ("Fitch"), 33 Whitehall Street, New York, New York 10004; Moody's Investors Service, Inc. ("Moody's"), 7 World Trade Center, 250 Greenwich Street, New York, New York 10007; and S&P Global Ratings ("S&P"), 55 Water Street, New York, New York 10041. Generally, a rating agency bases its rating on the information and materials furnished to it and on investigations, studies and assumptions of its own. There is no assurance that any such ratings will continue for any given period of time or that such ratings will not be revised downward or withdrawn entirely by the rating agencies concerned, if in the judgment of such rating agencies, circumstances so warrant. Any such downward revision or withdrawal of such ratings may have an adverse effect on the market price of the Series 2024 Bonds.

INDEPENDENT ACCOUNTANTS

The financial statements of the Department for the Fiscal Year ended September 30, 2023, included in APPENDIX C, have been audited by Marcum, LLP, independent certified public accountants. Marcum, LLP (1) has not been engaged to perform, and has not performed since the date of its report on such financial statements, any procedures with respect to such financial statements and (2) has not performed any procedures relating to this Official Statement. The consent of Marcum, LLP for the use of the financial statements herein has not been sought. *See* "APPENDIX C – FINANCIAL REPORT OF THE MIAMI-DADE WATER AND SEWER DEPARTMENT FOR FISCAL YEAR ENDED SEPTEMBER 30, 2023."

PENSIONS AND OTHER POSTEMPLOYMENT BENEFITS

The Department, as an agency of the County, participates in and contributes to the Florida Retirement System. *See* "Note 10 – Pension Plan" in "APPENDIX C – FINANCIAL REPORT OF THE MIAMI-DADE WATER AND SEWER DEPARTMENT FOR FISCAL YEAR ENDED SEPTEMBER 30, 2023." The County also provides health care and non-pension benefits to retired employees eligible to participate in the County's postemployment benefit plan as described in "Note 15 – Postemployment Benefits Other Than Pensions" included in APPENDIX C.

FINANCIAL ADVISOR

Public Resources Advisory Group, Inc., St. Petersburg, Florida, is the Financial Advisor to the County with respect to the issuance and sale of the Series 2024 Bonds. The Financial Advisor has assisted the County in the preparation of this Official Statement and has advised the County as to other matters relating to the planning, structuring and issuance of the Series 2024 Bonds. The Financial Advisor is not obligated to undertake and has not undertaken to make an independent verification or to assume responsibility for the accuracy, completeness or fairness of the information contained in this Official Statement, and is not obligated to review or ensure compliance with the undertaking by the County to provide continuing secondary market disclosure.

Public Resources Advisory Group, Inc. is an independent advisory firm and is not engaged in the business of underwriting, trading or distributing municipal or other public securities.

UNDERWRITING

Goldman Sachs & Co. LLC, as representative, and the other underwriters listed on the cover page (collectively, the "Underwriters"), have agreed pursuant to a bond purchase agreement between the County and the Underwriters with respect to the Series 2024 Bonds (the "BPA"), subject to certain conditions, to purchase the Series 2024A Bonds from the County at a purchase price of \$_____ (representing the par amount of the Series 2024A Bonds, plus/less original issue premium/discount of \$_____, less an underwriters' discount of \$_____ (____% of the principal amount of the Series 2024A Bonds)) and to purchase the Series 2024B Bonds from the County at a

purchase price of \$_____ (representing the par amount of the Series 2024B Bonds, plus/less original issue premium/discount of \$_____, less an underwriters' discount of \$_____ (_____% of the principal amount of the Series 2024B Bonds)). The initial public offering prices and yields set forth on the inside cover of this Official Statement may be changed by the Underwriters and the Series 2024 Bonds may be offered and sold to certain dealers (including dealers depositing such Series 2024 Bonds into investment trusts) and others at the prices lower than or yields higher than such public offering yields. The Underwriters may over allot or effect transactions that stabilize or maintain the market prices of the Series 2024 Bonds at levels above that which might otherwise prevail in the open market and to discontinue such stabilizing, if commenced, at any time.

In connection with the Tender Offer, Goldman Sachs & Co. LLC is also serving as Dealer Manager (in such capacity, the "Dealer Manager") pursuant to the terms of a dealer manager agreement with the County. For its services as Dealer Manager, the Dealer Manager will be compensated (the "Dealer Manager Fee") in an amount equal to a percentage of the aggregate principal amount of Refunded Bonds tendered and accepted for purchase. The Dealer Manager Fee is expected to be paid from a portion of the proceeds of the Series 2024B Bonds.

The Underwriters will be compensated by a fee and/or an underwriting discount that will be set forth in the BPA to be negotiated and entered into in connection with the issuance of the Series 2024 Bonds. Payment or receipt of the underwriting fee or discount will be contingent on the closing of the transaction and the amount of the fee or discount may be based, in whole or in part, on a percentage of the principal amount of the Series 2024 Bonds. While this form of compensation is customary in the municipal securities market, it presents a conflict of interest since the Underwriters may have an incentive to recommend to the County a transaction that is unnecessary or to recommend that the size of the transaction be larger than is necessary unless a larger deal size is deemed by the issuer to be financially beneficial.

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

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

In addition, certain of the Underwriters have entered into distribution agreements with affiliates or other broker-dealers (that have not been designated by the County as Underwriters) for the distribution of the Series 2024 Bonds at the original issue prices. Such agreements generally provide that the relevant Underwriter will share a portion of its underwriting compensation or selling concession with such broker-dealers.

RELATIONSHIPS OF PARTIES

A number of the firms serving as Bond Counsel, Disclosure Counsel or Underwriters' counsel (1) have represented and may continue to represent one or more of the Underwriters in connection with other transactions in jurisdictions other than the County and (2) represent the County on certain other matters and represent certain other clients in matters adverse to the County.

EXPERTS

The report of the Consulting Engineer to the Department included in APPENDIX A to this Official Statement was prepared by Arcadis, Miami, Florida, and Planning and Economics Group, Inc., Miami, Florida, in connection with the Series 2024 Bonds.

LEGAL MATTERS

Certain legal matters incident to the issuance of the Series 2024 Bonds are subject to the legal opinions of Squire Patton Boggs (US) LLP, Miami, Florida, and D. Seaton and Associates, P.A., Miami, Florida, Bond Counsel to the County, copies of whose legal opinions will be delivered with the Series 2024 Bonds. Certain other legal matters will be passed upon for the County by the Office of the Miami-Dade County Attorney. Certain legal matters relating to disclosure will be passed upon for the County by Hunton Andrews Kurth LLP, Miami, Florida, and DiFalco & Fernandez, LLLP, Coral Gables, Florida, Disclosure Counsel. Nixon Peabody LLP, New York, New York, is acting as counsel to the Underwriters solely for the purposes of preparing the bond purchase agreement and any agreements among the Underwriters; they have not been asked to and are not passing on the accuracy or completeness of this Official Statement.

The proposed text of the legal opinions of Bond Counsel is set forth as APPENDIX F to this Official Statement. The proposed text of the legal opinions to be delivered to the County by Disclosure Counsel is set forth as APPENDIX G to this Official Statement. The actual legal opinions to be delivered may vary from the text of APPENDIX F or APPENDIX G, as the case may be, if necessary, to reflect facts and law on the date of delivery of the Series 2024 Bonds.

While Bond Counsel has participated in the preparation of certain portions of this Official Statement, it has not been engaged by the County to confirm or verify, and except as may be set forth in the opinions of Bond Counsel delivered to the Underwriters, expresses and will express no opinion as to the accuracy, completeness or fairness of any statements in this Official Statement, or in any other reports, financial information, offering or disclosure documents or other information pertaining to the County or the Series 2024 Bonds that may be prepared or made available by the County, the Underwriters or others to the Holders of the Series 2024 Bonds or other parties.

The legal opinions of Bond Counsel, Disclosure Counsel and the Office of the Miami-Dade County Attorney are based on existing law, which is subject to change. Such legal opinions are further based on factual representations made to Bond Counsel, Disclosure Counsel and the Office of the Miami-Dade County Attorney as of the date thereof. Bond Counsel, Disclosure Counsel and the Office of the Miami-Dade County Attorney assume no duty to update or supplement their respective opinions to reflect any facts or circumstances, including changes in law, that may thereafter occur or become effective.

The legal opinions to be delivered concurrently with the delivery of the Series 2024 Bonds express the professional judgment of the attorneys rendering the opinions regarding the legal issues expressly addressed therein. By rendering a legal opinion, the opinion giver does not become an insurer or guarantor of the result indicated by that expression of professional judgment, of the transaction on which the opinion is rendered, or of the future performance of parties to the transaction. Nor does the rendering of an opinion guarantee the outcome of any legal dispute that may arise out of the transaction.

CERTIFICATE CONCERNING THE OFFICIAL STATEMENT

Concurrently with the delivery of the Series 2024 Bonds, the County will furnish its certificate, executed by the County's Finance Director and the Department's Director to the effect that, to the best of their knowledge, this Official Statement, as of its date and as of the date of delivery of the Series 2024 Bonds, does not contain any untrue statement of material fact and does not omit any material fact that should be included herein for the purpose for which the Official Statement is to be used, or which is necessary to make the statements contained herein, in light of the circumstances under which they were made, not misleading.

MISCELLANEOUS

References to the Bond Ordinance and certain other contracts, agreements and other materials not purporting to be quoted in full are brief outlines of certain provisions and do not purport to summarize or describe all the provisions of such documents. Reference is hereby made to such documents and other materials for the complete provisions, copies of which will be furnished by the County upon written request.

Any statements in this Official Statement involving matters of opinion, whether or not expressly so stated, are intended as such and not as representations of fact. Statements in this Official Statement, while not guaranteed, are based upon information which the County believes to be reliable.

The distribution of this Preliminary Official Statement by the County has been duly authorized by the Board. The Board has deemed this Preliminary Official Statement “final” as of its date within the meaning of the Rule, except for the omission of certain pricing and other information permitted to be omitted by the Rule.

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BOND FEASIBILITY REPORT

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Miami-Dade Water & Sewer Department

Bond Feasibility Report

**Water and Sewer System Revenue Bonds, Series
2024A**

April 26, 2024

Bond Feasibility Report

Water and Sewer System Revenue Bonds, Series 2024A

April 26, 2024

Prepared By:

Arcadis U.S., Inc.
701 Waterford Way, Suite 420
Miami, Florida 33126
Phone: 305 913 1316

Prepared For:

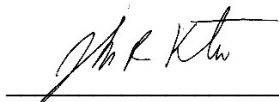
Mr. Roy Coley
Director
Miami-Dade Water and Sewer Department
3071 SW 38th Avenue
Miami, Florida 33146

Our Ref:

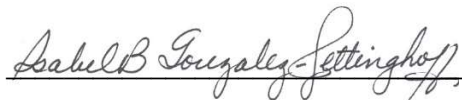
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Leah K. Richter, PE
Vice President, Arcadis, U.S., Inc.



John R. Kersten
Vice President, Arcadis, U.S., Inc.



Isabel Gonzalez-Jettinghoff
President, Planning and Economics Group, Inc.

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Mr. Roy Coley
Director
Miami-Dade Water and Sewer Department
3071 SW 38th Avenue
Miami, Florida 33146

Subject:

Bond Feasibility Report, Water and Sewer System Revenue Bonds, Series 2024A (Series 2024A Bonds)

Dear Mr. Coley:

Arcadis U.S., Inc. (Arcadis), in association with Planning & Economics Group Inc., (jointly referred to as the Consultant) has been engaged by the Miami-Dade Water and Sewer Department (Department) to prepare the Bond Feasibility Report (Report) for the proposed issuances of the Water and Sewer System Revenue Bonds Series 2024A (Series 2024A Bonds), pursuant to Miami-Dade County Ordinance 93-134, as amended (Master Bond Ordinance). This Report has been prepared for inclusion into the Official Statement for the Series 2024A Bonds.

The purpose of this Report and its accompanying analysis is to assess the feasibility of issuing the Series 2024A Bonds, after a review by the Consultant of the operations, condition assessment, and finances of the Department. The Report presents certain operating aspects of the Department, summaries of facility condition, as well as a feasibility analysis.

The Series 2024A Bond proceeds will be used for the following purposes:

- Pay for the costs of the Series 2024A Projects, those identified as needed in the current fiscal year;
- Make a deposit to the Reserve Account with respect to the Series 2024A Bonds;
- Pay the capitalized interest, if advisable; and
- Pay the cost of issuance of the Series 2024A Bonds.

For Additional Bonds, the County's Master Bond Ordinance requires, in Section 208 (d) (ii) that the Department's bond engineering consultant develop ". . . estimates of Net Operating Revenue for each of the three Fiscal Years following the Fiscal Year in which the Improvements will be placed in operation..." In addition, Section 208 (d) (iii) of the Master Bond Ordinance requires the Consultant to state that after allowable adjustments in the Net Operating Revenues, the Adjusted Net Operating Revenues will be sufficient to meet the requirements of the Master Bond Ordinance for senior debt service coverage as well as for Subordinate Obligations.

Under the terms of the Department's Master Bond Ordinance, an outside bond engineering consultant is engaged to annually inspect and evaluate approximately one-third of the water and wastewater system. The results of these inspections are documented in annual reports that describe the condition of the inspected facilities. The Consultant has, as the Department's current bond engineering consultant, conducted the required inspections of the system.

Based on this review, we offer the following statements and conclusions concerning the Department's financial and operational conditions with respect to the issuance of the Series 2024A Bonds:

1. Based upon onsite physical inspections and investigations of major system facilities, and discussions with key Department staff, it is our opinion that the water and wastewater systems are in Fair condition and meet industry level of service requirements for the Department's customers. Condition is assessed based on a Good-Fair-Poor scale with Fair condition defined by the Consultant as assets observed to have provided "long term service without notable measures of degradation; in the useful portion of its useful life". Steps are being taken by the Department to address the facilities' Renewal & Replacement (R&R) needs. The projects contained in the Department's Multi Year Capital Improvement Plan (MYCIP) for Fiscal Year (FY) 2024 through FY 2029 are part of an overall program to provide for the water and wastewater systems' continued operations and level of service expectations as well as to meet consent decree and other regulatory requirements.

Based on a review of the organizational structure of the Department, and interviews with key managers, it is our opinion that the Department is organized in a manner which provides for appropriate delegation of management authority and responsibility through the various organizational levels.

Based on actual and estimated future annual financial operations of the Department, it is our opinion that, with the implementation of the rate increases noted in our analysis, the Department will generate projected Pledged Revenues sufficient during the next five years to meet the Department's principal financial requirements as follows:

- Fund all expenses of operation, maintenance, rehabilitation, and replacement of the Department;
- Fund all reserve funds required to be established out of such Pledged Revenues;
- Fund the principal and interest on all Outstanding Bonds and Subordinate Obligations issued under, or pursuant to, the Master Bond Ordinance, as the same become due and payable, for which such revenues are pledged;
- Meet requirements set forth in sections 208 and 602 of the Master Bond Ordinance, which requires the Department to meet specific debt service coverage ratios;
- Meet Water Infrastructure Finance and Innovation Act (WIFIA) debt service coverage requirements spelled out in the WIFIA Loan Agreements;
- Meet the estimated expenditure and funding obligations of the MYCIP through FY 2029, the review period; and
- Fund the costs of issuance.

In our opinion, water and wastewater rates, fees, and charges, including projected increases are reasonable and attainable based on discussions with the County and within generally acceptable ranges for such services, low in comparison to other regional utilities and utilities of comparable size, and are ultimately collectible.

The existing water and wastewater infrastructure, together with planned system improvements, will provide the Department with adequate water and wastewater capacity to meet demands in the service area through FY 2029, the review period.

Rehabilitating and replacing aging water and wastewater infrastructure is a priority for the Department. The Department has made a concerted effort to assess the condition of its most critical water and wastewater infrastructure and has focused attention on repairing, rehabilitating, or replacing vulnerable water and wastewater facility assets, water transmission mains, and sewage collection lines.

On May 21, 2013, the Board of County Commissioners adopted Resolution R-393-13 approving the execution of the Consent Decree (Case: No. 1:12-cv-24400-FAM) between Miami-Dade County, the United States of America, the State of Florida and the Florida Department of Environmental Protection (FDEP). This Consent Decree closed the Department's previous First Partial Consent Decree and the Second and Final Partial Consent Decree

with the EPA. The Consent Decree focuses primarily on system improvements at the treatment plants, the collection system, and the continuation of the capacity maintenance program, including enforcement of the 10-hour criterion at pump stations and the pump station remote monitoring program (Supervisory Control and Data Acquisition - SCADA system). The Consent Decree identified project costs of \$1.9 billion of which \$1.6 billion is related to capital projects and are reflected in the Department's Multi-Year Capital Improvement Program. As a part of the terms and conditions of the Consent Decree, the Department must submit monthly status reports detailing the status of specific activities necessary to meet the requirements of the Consent Decree. It is important to note that all projects contained in the Consent Decree are included in the MYCIP, but as projects develop, schedules for completion may be modified, with the approval of the EPA. The Department has assigned dedicated staff to manage Consent Decree projects and is currently in compliance with the Federal Consent Decree.

The Department is subject to the State of Florida Senate Bill 1302 (Chapter 2008-232, Laws of Florida, Section 403.086 (9)), as amended in 2013 by Florida Senate Bill 444, that requires the six ocean outfalls along the southeast coast of Florida, that are being used for treated wastewater disposal, be eliminated as a primary means of domestic wastewater discharge by 2025. The nutrient reduction requirement stated in the legislation could have been achieved by either installation of an Advance Wastewater Treatment (AWT) option in 2018, or an equivalent nutrient load reduction level that would need to be achieved by 2025. The Department has elected to achieve a reduction in cumulative outfall loadings of total nitrogen and total phosphorus by 2025. The Department is on target to meet this compliance requirement by 2025. The updated Ocean Outfall Legislation Compliance Plan was issued to FDEP in July 2022.

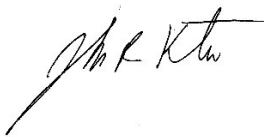
In Summary, based upon our investigations and analyses of the Department's facilities and records, the Department presents as a well-managed utility that maintains both sound finances and continuously improving infrastructure conditions.

Very truly yours,

Arcadis U.S., Inc.

Arcadis U.S., Inc.

Planning & Economics Group



Leah K. Richter, PE
Vice President

John R. Kersten
Vice President

Isabel Gonzalez-Jettinghoff
President

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1 Introduction

1.1 Background

Miami-Dade County is located along the southeast tip of the Florida peninsula, bounded by Biscayne Bay and the Atlantic Ocean to the east, Everglades National Park to the west, the Florida Keys to the south, and Broward County to the north. It occupies an area of more than 2,000 square miles, one-third of which is in the Everglades National Park. The total population served by the County is approximately 2.7 million. Due to its proximity and high volume of travel and trade within the region, Miami-Dade County is often referred to as the “Gateway to Latin America and the Caribbean.”

In October 1972, the Board of County Commissioners (BCC) of Miami-Dade County, Florida created the Miami-Dade Water and Sewer Authority for the purpose of establishing an agency responsible for providing water and wastewater services throughout the County. In 1973, all properties of the water and wastewater systems of the City of Miami and of the County were put under the control of the Water and Sewer Authority. The BCC changed the status of the Authority to that of a County department effective November 1, 1983, under the provisions of Miami-Dade County Ordinance 83-92, establishing the Miami-Dade Water and Sewer Authority Department. On October 19, 1993, its name was changed to the Miami-Dade Water and Sewer Department (WASD or Department).

The Department’s water system, considered the largest water utility in the southeastern United States, serves 462,214 retail customers and 15 wholesale customers within the County. Water is drawn primarily from the surficial Biscayne Aquifer, a non-artesian (or near surface) aquifer, which underlies an area of about 3,200 square miles in Miami-Dade, Broward, and Palm Beach counties. The water system is primarily served by three regional water treatment plants (WTPs). Currently, five small auxiliary treatment facilities serve the southernmost area of the County. The Hialeah Reverse Osmosis WTP (Hialeah RO WTP), operated under a Joint Participation Agreement (JPA) between the Department and City of Hialeah, currently adds 10 MGD of capacity to the system. There are 15 major Biscayne aquifer wellfields comprised of 95 permitted production wells and five installed aquifer storage and recovery wells in the Floridan Aquifer, which supply untreated water to the WTPs. Distribution throughout the service area of more than 400 square miles is performed via seven remote finished water storage and pumping facilities through approximately 8,574 miles of water mains ranging in size from 2-inches to 72-inches in diameter.

The wastewater system serves 377,496 retail customers and 13 wholesale customers, consisting of 12 municipal customers and the Homestead Air Reserve Base. It consists of three regional wastewater treatment plants (WWTPs), 1,049 sewage pump stations, and 6,422 miles of collection and transmission pipelines.

On May 21, 2013, the BCC authorized the execution of a Consent Decree (CD) between the County, the United States of America, the State of Florida, and the Florida Department of Environmental Protection (FDEP), for the Department’s improvements to the wastewater collection and transmission system and the treatment plants. This CD was filed in Federal Court on June 6, 2013, and entered on April 9, 2014, and resulted in the termination and closing of two existing Consent Decrees. The CD requires the County to implement a Capacity, Management, Operations and Maintenance (CMOM) Program to document and enhance many of its existing programs. On March 28, 2017, the County came to an agreement with the United States Environmental Protection Agency (US EPA) and the FDEP to submit an updated CMOM consolidated schedule after all programs had been approved. This updated schedule was submitted for review and approval in August 2018 showing completion of the CMOM

Program by 2030. It also requires the Department to upgrade its collection, transmission, and treatment facilities by completing 81 individual capital improvement projects throughout the Water and Wastewater System which have an approximate total cost of \$2.01 billion. Implementation of the CD projects continues, and the County is substantially in compliance with the CD requirements. As of December 31, 2023, the Department has reached substantial completion on 61 projects with a total cost of \$990 million, 15 projects are currently in the construction phase at a cost of about \$884 million, and 5 projects are in pre-construction phases including planning, procurement at a cost of \$214 million. The Department has agreed to invest \$1.6 billion over a fifteen-year period to the design and construction of these capital improvement projects.

1.2 Purpose of the Senior Series 2024A Bonds

The Multiyear Capital Improvement Plan (MYCIP) calls for approximately \$381.3 million for the purpose of paying Costs of Improvements with funding from senior lien revenue bonds in FY 2023-24. Therefore, the County is issuing approximately \$319.2 million of Senior Series 2024A Bonds for the Department. The bond issue is expected to be sold at a premium, which will generate additional proceeds for total project funds of approximately \$344.0 million. The Department's last issuance of senior lien revenue bonds was in April 2021.

In addition, the County is considering Additional Bonds under the provision of Section 208 of the Master Ordinance, for the purpose of refunding, together with any other available moneys, through a tender program as described in the Series 2024A/B Resolution, all or portions of several Water and Sewer System Revenues Bonds currently outstanding.

This Report is prepared in connection with the Senior Series 2024A Bonds, being issued to provide funds, together with any other available funds of the Department, to (i) pay for the cost of the Series 2024A Projects; (ii) funding the Reserve Account established under the Master Ordinance; (iii) funding capitalized interest, if advisable; and (iv) paying the costs of issuance of the Series 2024A Bonds.

2 Department and Organization Management

2.1 County-Wide Organization

The Department is under the supervision of the Mayor and is administered under policy decisions of the BCC. The organizational structure is comprised of:

- County Electorate
- Mayor
- Board of County Commissioners
- County Attorney’s Office
- Water and Sewer Department

2.2 Water and Sewer Department Organization and Management

Figure 2-1 presents the top-tier organizational structure of the Department. The Department’s Director is appointed by the Mayor and oversees the overall management and direction of the Department. The Department is divided into four major groups under the supervision of four Deputy Directors. In addition to the Deputy Directors, the Department includes seven Assistant Directors, each responsible for a number of specific divisions. The Assistant Directors are responsible for the Water Systems Operations, Wastewater System Operations, Planning and Regulatory Compliance, Customer Initiatives and Support, Utility Engineering, Utility Engineering, and Contract Compliance and Monitoring.

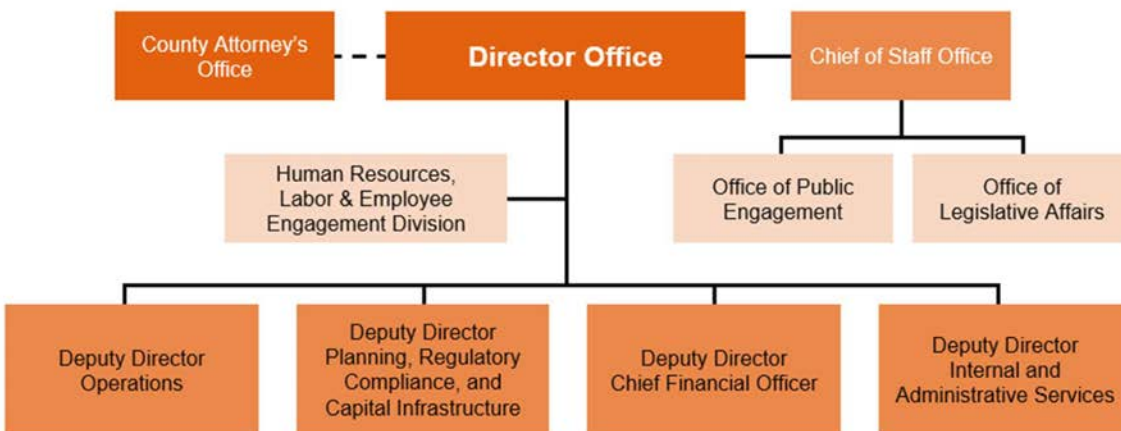


Figure 2-1 Top-Tier Organizational Structure of the Water and Sewer Department

2.2.1 Office of the Director, Roy Coley

The Office of the Director is responsible for overall administration of the Department, internal and external communications, media and customer relations, governmental affairs, and public records requests. The office staff reporting directly to the Office of the Director is comprised of the Deputy Directors of Operations, Planning, Regulatory Compliance, and Capital Infrastructure, Internal and Administrative Services, Chief of Staff Office, and Chief Financial Officer, as shown in Figure 2-1.

Specifically, the Office of the Director is responsible for:

- Formulating and establishing departmental policy and directing the overall operations;
- Coordinating activities with the County's Executive Office;
- Coordinating items submitted to the BCC;
- Directing state and federal legislative actions; and
- Liaising with municipalities.

2.2.1.1 Chief of Staff Office, Amanda Kinnick

Ms. Amanda Kinnick serves as the Chief of Staff and reports to the Director of the Department. The Chief of Staff works with the senior executive leadership team to ensure that the Department's goals are being met effectively and efficiently. Ms. Kinnick is tasked with multifarious responsibilities and directly interacts with internal and external stakeholders on the behalf of the Director and Department. The Chief of Staff is responsible for supervising, coordinating, and directing the day-to-day administration operations of the Director's office, which includes the following:

- Directing office staff and ensuring the execution of goals and objectives as identified by the Director.
- Serving as a liaison to the Mayor's Office, Commission, other Departments, and stakeholders on Departmental topics and operational issues.
- Overseeing the coordination of Departmental items through the Board of City Commission's agenda process; cording with staff on the development, submittal, and approval of items, ensures agenda items are placed on calendar for hearing; attends briefings and Board of City Commission meetings.
- Overseeing the development and dissemination of public information, including supervising the preparation of marketing material, project information, new releases, talking points, and media interviews.
- Reviewing organizational and staffing plans to ensure that they are consistent with designate objectives.
- Developing and/or recommending modifications to Department policies and procedures, as necessary.
- Leading and overseeing the Office of Public Engagement and Legislative and Municipal Affairs Division.

2.2.1.2 Deputy Director of Operations, Billie Jo McCarley

The Deputy Director of Operations is responsible for the Operations Group which is tasked with directing water and wastewater operations as well as defining and monitoring operating goals and procedures for operations.

Water System Operations supplies customers with an uninterrupted supply of high-quality drinking water that meets federal, state, and local public health and environmental standards, in addition to managing the water resources for the Department. This group is responsible for the administration and operation of the Water Production and Maintenance Division, the Water Transmission and Distribution Division, the Laboratory Division,

and the Meter Installation Division. Responsibilities include continuing with the Implementation of a Capacity, Management, Operations, and Maintenance (CMOM) Programs. The responsibilities of the divisions are as follows:

- The Water Production and Maintenance Division, which consists of the Alexander Orr, Jr. Water Treatment Plant (WTP); Hialeah WTP; Preston WTP; Northwest Wellfield; and the South Dade Water System, is responsible for operating the WTPs, water pumping stations and reuse water system; along with providing electrical and structural maintenance for treatment facilities and pumping stations.
- The Water Transmission and Distribution Division is responsible for installation, repair, relocation, and replacement of all water mains and valves in the Department's water system and responding to emergencies.
- The Laboratory Services Division is responsible for conducting all testing necessary to demonstrate compliance with Federal, State and County drinking water and wastewater regulations.
- Meter Installation Division is responsible for installing, maintaining and replacing meters.

Wastewater System Operations is responsible for the treatment of all wastewater in accordance with federal, state, and local public health and environmental standards, in addition to the disposal of all residuals/effluent. This group consists of the Supervisory Control and Data Acquisition Systems (SCADA) Division, the Pump Station Maintenance Division, the Wastewater Collection and Transmission Line Division and the Wastewater Treatment and Maintenance Division. The responsibilities of the divisions are as follows:

- The SCADA Division is responsible for the operation and maintenance of the Department's SCADA network and system.
- The Pump Station Maintenance Division is responsible for the operation of the Department's 1,049 pump stations, as well as for coordinating personnel and materials needed to ensure that all lift station equipment is mechanically, electrically, and structurally operational.
- The Wastewater Collection and Transmission Line Division is responsible for the installation, repair, relocation, and replacement of all gravity sewer lines, force mains, valves, sewer laterals, and manholes County-wide.
- The Wastewater Treatment and Maintenance Division is responsible for the operation of the Wastewater Treatment Plants (WWTPs) and main pumping stations, and the mechanical, electrical, and structural maintenance for the WWTPs.

2.2.1.3 Deputy Director, Planning, Regulatory Compliance, and Capital Infrastructure, Marisela Aranguiz-Cueto

The Deputy Director of Planning, Regulatory Compliance, and Capital Infrastructure oversees the execution of the Capital Improvement Program, directs the Capital Improvements Technical Support Team, and oversees the Utility Engineering, Utility Construction, and Planning and Regulatory Compliance groups. These groups encompass the following Divisions: Planning & Modeling, Utilities Development, Regulatory Compliance & Monitoring, Hydrogeology Technical Services, Pre & Post Utility Design Services, Pump Stations & Pipelines Engineering, Treatment Plant Engineering, Wastewater Plants Construction (OOL & Consent Decree), Water Plants Construction, and Pump Stations & Pipelines Construction.

Responsibilities include:

- Directing department-wide capital project planning, design, and construction, as well as regulatory compliance activities including the consent decree, ocean outfall, pump station resilience/flow reduction programs;

- Managing and overseeing the execution of the Department’s capital improvement program;
- Directing permitting and program management for capital improvement projects;
- Ensuring compliance with state and federal agreements; and
- Developing the Department’s design and construction standards.
- Directing Technical Enhancements and Support Team for e-Builder functionalities.
- Providing guidance over activities related to Capital Projects and Compliance as well as be responsible for overseeing the Renewal and Replacement Program and the County’s Consent Decree Program, which requires the completion of over 80 individual capital improvement projects related to upgrades in its collection, transmission, and treatment facilities.

2.2.1.4 Deputy Director, Chief Financial Officer, Frances Morris

The Deputy Director - Chief Financial Officer is responsible for providing budgetary, capital planning and coordination, and contractual oversight for the Department as well as the oversight of the entire financial operations of the Department. The Finance Group consists of the following divisions and sections: Contract Compliance and Monitoring, Management Services, Procurement, Construction Contracts, Inter-governmental Affairs and Architectural and Engineering (A/E) Contracts, Budget and Capital Financing, System Implementation, Controllers, and Resilience Program.

The responsibilities of the divisions are as follows:

- The Chief Financial Officer is responsible for all financing activities of the Department, interim and long-term financing, State of Florida Revolving Fund (SRF) loan program loans, Water Infrastructure Finance and Innovation Act (WIFIA) Agreement Loans, and grant management.
- The Contract Compliance and Monitoring Assistant Director group consists of the Management Services Division, Contract Compliance and Monitoring Division, and Stores and Procurement Division. The Contract Compliance and Monitoring group is responsible for overseeing construction payments, supporting functions of the County’s Internal Services Department (ISD), issuing task orders, ensuring task orders comply with all County policies and procedures, and ensuring that payment requests are consistent with work to be done.
- The Capital Planning and Finance Division and the Operating Budget and Performance Monitoring Division are responsible for the development and monitoring of the Department’s operating budget, and overall financial requirements. The divisions design rates, fees, and charges to recover operating and maintenance costs, debt service payments, and transfers to capital funds, and monitor reserve levels. The divisions are also responsible for coordinating the development, funding, monitoring, and implementation of the multi-year capital improvement plan (MYCIP) and determining and sizing the Department’s future bond needs.
- The Technology and System Implementation Division is responsible for developing enhanced business processes to maximize the use of the Customer Care and Billing (CC&B) system, Enterprise Resource Planning, and Equipment Asset Management System enterprise software systems.
- The Controllers Division is responsible for general ledgers, asset management, accounts payable, retail billing, special billing and collection, financial reporting and inventory control functions, and preparing financial statements and internal monthly management reports.
- The Resilience Program is responsible for formalizing and facilitating resilience throughout the Department’s programs and functions. The Resilience Program focuses on continuing the successful water-efficiency and conservation efforts, expanding energy-efficiency and renewable-energy initiatives, reducing vulnerabilities,

and increasing the Department's ability to adapt more readily to acute shocks and longer-term stresses, to bounce back better.

- The Construction Contracts Division is responsible for the procurement of licensed and eligible businesses for water and sewer construction contracts for pump stations, water and sewer treatment plants, and pipeline projects. Responsibilities include keeping the vendors' mailing list updated so businesses receive advertisements for upcoming contracts.

2.2.1.5 Deputy Director, Internal and Administrative Services, Mariela Alvarez

The Deputy Director of Internal and Administration Services is responsible for the administrative, operational, and organizational support of the utility. The Deputy Director of Internal and Administrative Services acts as a liaison between the Director's office, County executive staff, customers, and governmental agencies, focusing on customer initiatives, support services, safety and security, training and development, and quality assurance. The Internal and Administration Services Deputy Director oversees the Customer Initiatives and Support Services group, the Retail Customer Service Division, the General Maintenance Division, and the Small Business Initiatives Section.

The Customer Initiatives and Support Services group is responsible for overseeing the Security and Communication Division, the Safety, Risk Management and Employee Development Section, and the Quality Assurance, Quality Control Division.

3 Sociographic and Demographic Data

3.1 County History

The County is the largest county in the southeastern United States in terms of population. The County currently covers more than 2,000 square miles, located in the southeastern corner of the State, and includes, among other municipalities, the cities of Miami, Miami Beach, Coral Gables, and Hialeah. In 2023, the population of the County was estimated to be approximately 2.7 million (U.S. Census Bureau).

The County was created on January 18, 1836, under the Territorial Act of the United States. It included the land area now forming Palm Beach County and Broward County, together with the land area of the present County. In 1909, Palm Beach County was established from the northern portion of what was then Dade County. In 1915, Palm Beach County and the County contributed nearly equal portions of land to create what is now Broward County. There have been no significant boundary changes to the County since 1915.

3.2 Economy (County)

The County’s economy has transitioned from mixed service and industrial in the 1970s to a service economy. The shift to services is led by expansion of international trade, the tourism industry, and health services. Wholesale and retail trades have become stronger economic forces in the local economy and are projected to continue. This reflects the County’s position as a wholesale center in Southeast Florida, serving a large international market. The tourism industry remains one of the largest sectors in the local economy.

3.3 Employment Data

Per Capita Personal Income for the County, southeastern United States, Florida, and the County is presented in Table 3-1 below. As can be seen in the following table, the per capita personal income across all geographic areas has increased between 2010 and 2023.

Table 3-1 Per Capita Personal Income

Year	USA	Southeast ¹	Florida	Miami-Dade
2010	\$40,557	\$43,257	\$38,475	\$38,216
2011	\$42,649	\$44,864	\$40,131	\$39,358
2012	\$44,237	\$46,470	\$41,115	\$40,062
2013	\$44,401	\$45,405	\$40,696	\$39,634
2014	\$46,287	\$48,366	\$43,140	\$42,450
2015	\$48,060	\$51,179	\$45,273	\$44,801
2016	\$48,971	\$51,754	\$46,073	\$44,641
2017	\$51,004	\$55,828	\$48,504	\$48,861
2018	\$53,309	\$59,752	\$50,964	\$53,148
2019	\$55,547	\$62,991	\$52,426	\$54,902
2020	\$59,153	\$65,640	\$56,561	\$56,235
2021	\$64,430	\$74,982	\$63,078	\$65,948

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Year	USA	Southeast ¹	Florida	Miami-Dade
2022	\$65,470	\$78,336	\$64,806	\$68,481

Source: U.S. Bureau of Economic Analysis; CAINC1 Personal Income Summary. November 2023.

Note: All dollar estimates are in current dollars (not adjusted for inflation).

¹ The Southeast region includes Miami, Port St. Lucie, and Fort Lauderdale, FL (Combined Statistical Area) data.

Tables 3-2 and 3-3 present 2023 data relative to the largest public and private employers in the County.

Table 3-2 Ten Largest Public Employers

Employer Name	Number of Employees
Miami-Dade County Public Schools	39,959
Miami-Dade County	27,662
U.S. Federal Government	19,200
Florida State Government	17,100
Jackson Health System	12,173
City of Miami	4,758
Florida International University	6,608
Homestead AFB	3,250
Miami VA Healthcare System	2,500
Miami-Dade College	7,111

Source: The Beacon Council

Table 3-3 Ten Largest Private Employers

Employer Name	Number of Employees
University of Miami	19,996
Baptist Health South Florida	5,134
American Airlines	11,102
Nicklaus Children's Hospital	4,147
Carnival Cruise Line	3,500
Mount Sinai Medical Center	3,321
Florida Power & Light	3,011
Royal Caribbean International/Celebrity	2,989
Wells Fargo	2,050
Bank of America Merrill Lynch	1,987

Source: The Beacon Council

3.4 Population Data

Table 3-4 presents demographic data pertaining to population in incorporated and unincorporated areas of the County.

Table 3-4 Trend and Forecasts, Population in Incorporated and Unincorporated Areas

Year	Population Incorporated Areas	Population Unincorporated Areas	Total	Percentage Growth in Population*
Trends				
2000	1,049,074	1,204,288	2,253,362	8.1
2010	1,386,864	1,109,571	2,496,435	10.8
2011	1,407,480	1,109,057	2,516,537	0.8
2012	1,429,993	1,121,297	2,551,290	1.4
2013	1,444,554	1,137,821	2,582,375	1.2
2014	1,467,113	1,146,579	2,613,692	1.2
2015	1,493,477	1,160,457	2,653,934	1.5
2016	1,524,063	1,176,731	2,700,794	1.8
2017	1,551,506	1,191,589	2,743,095	1.6
2018	1,575,590	1,203,732	2,779,322	1.3
2019	1,599,930	1,212,130	2,812,060	1.2
2020	1,612,348	1,220,446	2,832,794	0.7
2021	1,534,155	1,197,784	2,731,939	-3.6
2022	1,555,544	1,202,048	2,757,592	0.9
2023	1,556,958	1,206,408	2,763,366	0.2
Forecasts				
2030	N/A	N/A	3,157,900	14.3
2040	N/A	N/A	3,483,200	10.3

Sources: Bureau of Economic and Business Research, University of Florida, Florida Estimates of Population 2012 through 2023 and U.S Census Bureau.

Note: Change in population from the year indicated on the prior line, not necessarily annual growth.

4 Water System

This section presents descriptions and assessments of the physical and operational condition of the Department's Water System assets, as well as a discussion of applicable regulations and an evaluation of compliance status with current permits.

4.1 Introduction

The Department's Water System service area covers approximately 375 square miles and includes ten wellfields, three regional water treatment facilities and associated transmission and distribution pipelines. The Department produces and distributes potable water to approximately 462,214 retail customers in the unincorporated areas of the County and 15 wholesale customers.

The regional water treatment facilities are the Hialeah, John Preston, and Alexander Orr WTPs, which have a total combined permitted capacity of 440 MGD. The Hialeah and John Preston plants serve the northern part of the system, and the Alexander Orr plant serves the central part of the system.

The potable water distribution network throughout the County consists of approximately 8,574 miles of pipe with sizes ranging from 2-inch service lines to 72-inch finished water transmission mains. Distribution of finished water throughout the service area is accomplished with the use of six remote finished water storage and pumping facilities as well as storage and pumping stations located at the water treatment facilities.

The Department also operates five small wellfields and treatment facilities, referred to as the South Dade Water System, which serves the southernmost part of the system. The South Dade Water System has a combined permitted capacity of 14.2 MGD. The Hialeah RO WTP, operated under a JPA between the Department and the City of Hialeah, adds 10.0 MGD of treatment capacity to the system. However, the Hialeah RO WTP is not currently being operated by the Department.

4.1.1 Condition of Water System Assets

In accordance with the Master Bond Ordinance, Water System assets are independently inspected on a rotating basis, with all facilities inspected at least once every three years. Asset conditions are assessed on a Good-Fair-Poor scale, which is outlined as follows:

- Good – Midterm service without notable measures of degradation (in the prime of its useful life).
- Fair – Long term service without notable measures of degradation (still in the useful portion of its useful life).
- Poor – Assets may require replacement (approaching or past expected end of life).

Based upon the findings of the inspections previously conducted, the Department's Water System facilities are generally in Good or Fair physical and operational condition and meet industry standard level of service requirements, with exceptions noted.

Throughout the inspections, some assets were observed to be in Poor condition; however, these assets will be addressed through the Department's capital or R&R projects. As part of the annual inspections, the Consultant meets with Department staff to discuss assets found to be in Poor condition and confirm that a capital or R&R project has been identified to address the issues observed and take the necessary actions if they are not. Where

noted, deficiencies should be further assessed and prioritized, and remedial measures implemented in an appropriate timeframe by the Department. Water System assets inspected are identified in Table 4-1 below.

Table 4-1 Water Utility System Assets

Facility
Water Treatment Plants
Hialeah
Alexander Orr
John Preston
Wellfields
Miami Springs (Upper and Lower)
John Preston
Hialeah
Snapper Creek (Alexander Orr WTP)
West (Alexander Orr WTP)
Southwest (Alexander Orr WTP)
Southwest-Wellfield ASR
West-Wellfield ASR
Northwest
Alexander Orr
South Dade Water System
Medley (Stand-by) Wellfield
South Dade Water System
Everglades
Leisure City
Elevated Tank
Naranja
Newton
Remote Booster Pumping Stations and Storage Facilities
Carol City Ground Storage Tank
NW 67 th Street Ground Storage Tank
NW 36 th Street Ground Storage Tank
NW 30 th Avenue Ground Storage Tank
NW 20 th Street Storage Tanks Ground Storage Tank

Facility
Golf Grounds Pumping Station

4.2 Raw Water Supply

The Department draws its raw water primarily from the surficial Biscayne Aquifer, which underlies an area of approximately 3,200 square miles in Miami-Dade, Broward, and Palm Beach counties. Biscayne aquifer source water is supplied to the system by a total of 95 raw water production wells in 15 wellfields across the County. Table 4-2 **Error! Reference source not found.** provides a summary of the Miami-Dade County-permitted Biscayne aquifer wells located in each wellfield.

For additional water supply needs, the Department has the ability to draw raw water from the Miami-Dade County Upper Floridan Aquifer (UFA) wells. Table 4-3 provides a summary of each of the UFA wellfields.

The Consultant previously inspected the Department’s supply wells (Alexander Orr Jr., John Preston, and Hialeah raw water supply wells) and wellfields (Snapper Creek, Southwest, West, Miami Springs Upper and Lower, Northwest, and Medley) to evaluate the overall physical and operation condition of the wellfield assets. The Water System wells and wellfield infrastructure were generally in Fair condition and appeared to be operated and maintained in good working order.

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Table 4-2. Summary of Biscayne Aquifer Wellfields

Wellfields	WTP Served	Design Capacity (MGD)	Number of Wells	Permitted Allocation ¹		Emergency Power	Comments
				(MGY)	(MGM)		
Hialeah	Hialeah / Preston	12.54	3	25,805.00 ²	2,257.98 ²		Raw water is metered through a 36-inch venturi meter at the Hialeah plant.
John E. Preston	Hialeah / Preston	53.28	7			■	Serves as standby raw water capacity only. Six of the wells include backup generators and can supply 43.2 MGD.
Miami Springs (Upper & Lower)	Hialeah / Preston	79.30	Upper - 12 Lower - 8				Raw water is metered through a 42-inch venturi meter.
Medley ³ (Stand-by)	Hialeah / Preston	48.96	4	-	-		Not in use. Operation of the emergency standby wells is permitted for a total of two hours per month for maintenance activities.
Northwest	Hialeah / Preston	149.35	15	24,929.50	2,181.33	■	Raw water is conveyed through a 96-inch raw water main running east along NW 74th street to the Preston plant. Raw water is measured via two venturi meters, 72- and 60-inch in diameter, at the plant.
Alexander Orr	Alexander Orr	74.40	10	22,484.00	1,967.35	■	Raw water is supplied to the plant via three raw water mains 48-, 60- and 96-inches in diameter and is metered via four venturi meters at the plant.
Snapper Creek	Alexander Orr	40.00	4	7,336.50	641.94	■	Raw water is conveyed through interconnected 48- and 60-inch raw water mains and is metered via a venturi meter.
Southwest	Alexander Orr	161.20	17	52,779.00	4,618.16	■	Raw water is transmitted through three raw water mains 48-, 60- and 72-inches in diameter. The raw water flows into the plant and is measured by a venturi meter.
West	Alexander Orr	32.40	3	2,482.00	217.18	■	Raw water is supplied to the Alexander Orr WTP via a 96-inch diameter main and is metered via a venturi meter.
Leisure City	South Dade Water System	4.18	4	1,752.00	153.30	■	Each of the five wellfields (i.e. Leisure City, Everglades Labor, Elevated Tank, Newton and Naranja) is associated with its own individual plant and no interconnectivity exists between the wellfields. The operational flexibility of the system is limited. Backup generator power is available at each of the five wellfields and the total capacity connected to generator power is 6.8 MGD.
Everglades Labor Camp	South Dade Water System	5.04	3	1,058.50	92.62		
Elevated Tank	South Dade Water System	4.32	2	511.00	44.71		
Newton	South Dade Water System	4.32	2	365.00	31.94		
Naranja	South Dade Water System	1.15	1	328.50	28.74		
Cluster 10 (Proposed)	South Dade Water System	N/A	N/A	5,475.00	479.06		The construction of three new wells, referred to as the Cluster 10 Wellfield, is proposed to supply an additional 15 MGD to the South Miami-Dade Service Area.

¹ Permitted allocations for each wellfield are established by annual allocations in million gallons per year (MGY) and maximum monthly allocations in million gallons per month (MGM).

² Combined permitted allocation for the Hialeah, Preston, and Miami Springs Upper and Lower Wellfields.

³ The Medley Wellfield is not in use and is available for emergency operations. Per the 2022 WUP, the Department is authorized to exercise the emergency wells for a total of two hours per month as needed for bacterial clearance and pump maintenance. Operation of the emergency wells at the Medley Wellfield that exceeds the permitted monthly duration shall require prior approval from SFWMD.

Table 4-3 Summary of Upper Floridan Aquifer Wellfields

Wellfields	WTP Served	Design Capacity (MGD)	Number of Wells	Permitted Allocation (MGY)	Comments
Hialeah RO WTP	Hialeah WTP	10.0 ¹	10 ²	4,855 ³	New Upper Floridan Aquifer RO WTP. This plant is not currently operated by the Department.
Southwest Wellfield ASR	Alexander Orr WTP	10	2		Assessment and rehabilitation of the ASR wells began in FY 2019 and was completed in FY 2021. The cycle testing plan was submitted to FDEP UIC in FY 2022. FDEP approval of the plan was received and cycle testing is scheduled for March 2024.
West Wellfield ASR	Alexander Orr WTP	15	3		Assessment and rehabilitation of the ASR wells is on hold pending the results of the Southwest Wellfield ASR cycle testing.
South Miami Heights WTP	New South Miami Heights WTP	24	7		New Upper Floridan Aquifer RO treatment at South Miami Heights WTP (finished water supply of 17.145 MGD; project placed on hold as a backup water supply).

¹ The Hialeah RO WTP was initially proposed to have a finished design capacity of 20 MGD. The facility has a current treatment capacity of 7.5 MGD, with the potential to provide an additional 2.5 MGD (10 MGD total) once four additional production wells are released for operation. At this time, there are no planned projects to increase the Hialeah RO production capacity to 20 MGD.

² Six wells were installed as part of Phase 1-a (7.5 MGD design capacity). Four additional wells were constructed as part of Phase 1-b and were scheduled to be put in service in December 2023; however, the four new wells are not currently in operation.

³ Withdrawals from the Upper Floridan Aquifer are restricted to a total annual allocation of 13.3 MGD and a total maximum monthly allocation of 425.73 MG per the 2022 modification of WUP No. 13-00017-W.

4.3 Water Treatment Plants

4.3.1 Locations and Service Areas

The Department operates three regional WTPs that supply treated water to the main distribution system. The regional facilities are the Hialeah, John Preston, and Alexander Orr WTPs, which have a total combined permitted capacity of 439.74 MGD. The Hialeah and John Preston plants serve the northern part of the system, and the Alexander Orr plant serves the central part of the system. The Department also operates the South Dade Water System, which has a combined permitted capacity of 14.19 MGD and serves the southernmost part of the County. The Hialeah RO WTP, operated under a JPA between the Department and the City of Hialeah, adds 10.0 MGD of treatment capacity to the system. However, the Hialeah RO WTP is not currently being operated by the Department. The locations of major treatment facilities and wellfields are shown in Figure 4-1.

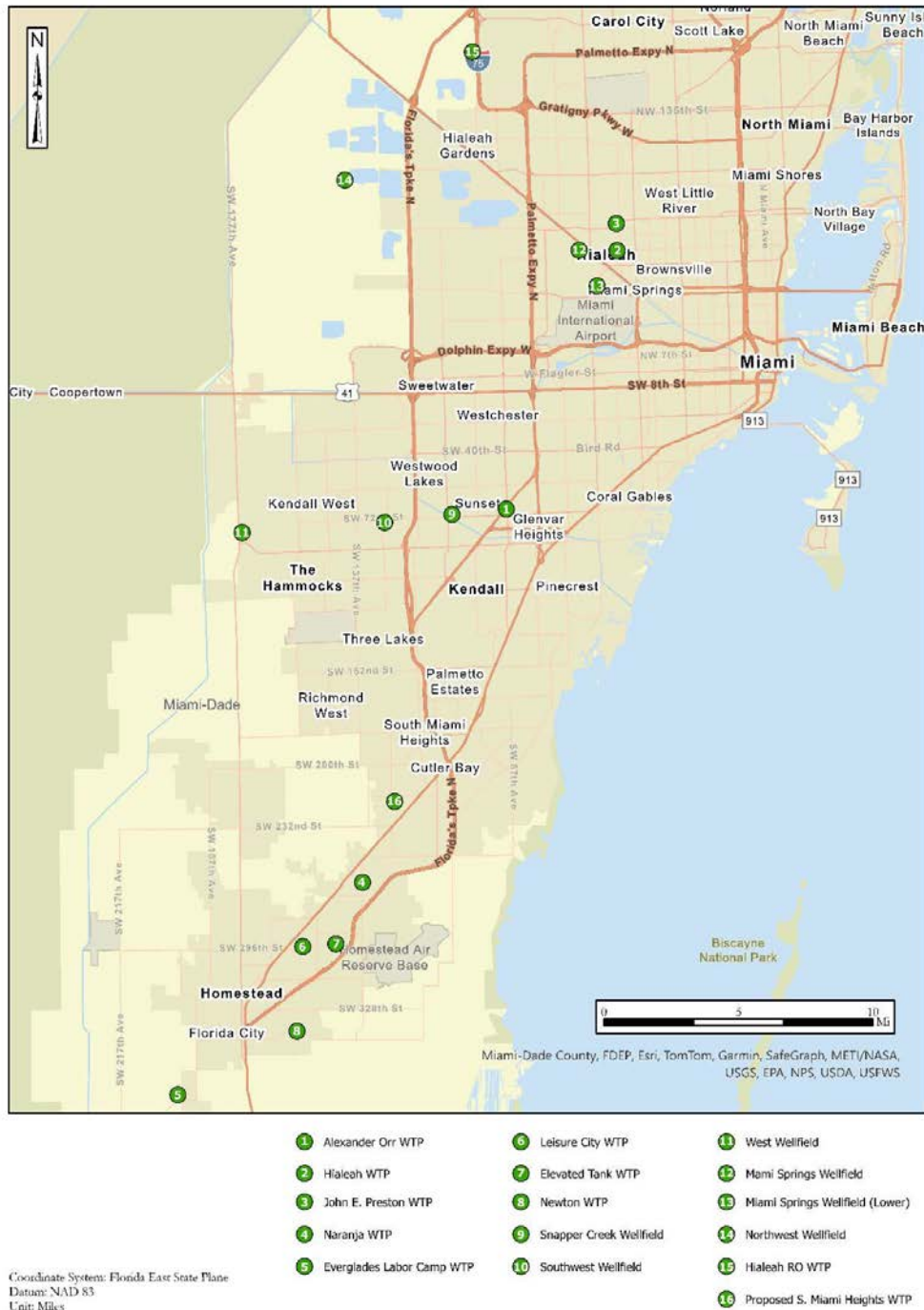


Figure 4-1 Major Treatment Facilities and Wellfields Locations

4.3.2 WTP Operations

4.3.2.1 Treatment Processes

The regional water treatment facilities utilize processes that include lime softening (i.e., reduction of hardness), filtration, and disinfection. Conditioning agents (e.g., phosphate and fluoride) are used to further enhance the stability and aesthetic quality (such as taste and color) of the treated water. Processes are employed to facilitate the handling, reduction, recycling, and disposal of residuals produced by the treatment process. The South Dade Water System relies on disinfection and conditioning agents for treatment.

4.3.2.2 Residuals Handling and Disposal

The three large regional water treatment facilities use lime softening as the primary treatment of the groundwater. The residuals generated in the process are comprised almost entirely of calcium carbonate (CaCO_3) solids. Approximately 70 percent of the source water hardness is removed in the lime softening clarifiers and is withdrawn from the clarifiers as CaCO_3 residuals.

The Hialeah and John Preston WTPs discharge calcium carbonate residuals from the lime softening process through a 12-inch line (from the Hialeah WTP) and a 16-inch line (from the John Preston WTP) to either the Miami Springs and/or Northwest Wellfield residuals lagoons (an expansion of the Northwest Wellfield lagoon was completed by the Department in 2021). Both lines are approximately eight miles in length, and the line from the John Preston plant also has a 12-inch branch that allows for discharge to the south side of the Miami Springs lagoon. Also, valving is in place to allow the Hialeah WTP sludge pumps to discharge through the 16-inch sludge pipeline that serves the John Preston plant residuals system and vice versa.

The Hialeah WTP also includes a rotary kiln, natural-gas fired lime recalcination facility to recycle dewatered lime. The lime kiln burns CaCO_3 and produces between 100 and 115 tons per day of calcium oxide (CaO), which is then slaked and returned for reuse in the lime softening process. The Hialeah WTP recalcination facility also treats the residuals generated at the John Preston WTP from accelerator units 1, 2, and 3. The released carbon dioxide (CO_2) is captured and used in the recarbonation process at the plant. An airveyor system is used to pneumatically transfer lime from the lime storage silos at the recalcination plant back to lime feed silo at the lime slurry feed plant.

In FY 2022, the Department identified various projects to rehabilitate and upgrade components of the residuals handling and disposal facilities of the Hialeah and John Preston WTPs as part of the Water Reset Program. The projects include lime kiln refurbishing, replacement of lime feed systems, and the evaluation of sludge disposal options. Some of the projects for these improvements are currently ongoing and others are scheduled to begin in 2024.

At the Alexander Orr WTP, a portion of the residuals generated in the lime softening process are stored and processed through a lime recalcination facility similar to the one at the Hialeah WTP. Any excess calcium carbonate from the treatment processes is sent to the sludge holding cells at the Southwest Wellfield or the cells at the Alexander Orr WTP. In FY 2022, the Department identified various projects to rehabilitate and upgrade the residuals handling and disposal facility of the Alexander Orr WTP as part of the Water Reset Program. The projects include lime plant HVAC improvement, replacement of the lime feed system, sludge disposal system upgrade, and dredging of the Southwest Wellfield South Lagoon. Some of the projects for these improvements are currently ongoing and others are scheduled to begin in 2024.

The new Hialeah RO WTP produces brine as the byproduct or residuals of the RO treatment process. The brine is disposed of through the use of an on-site deep injection well.

4.3.2.3 WTP Performance

The Water System treatment facilities appear to be operated and maintained in good working order, with exceptions noted. The WTP average daily flow data indicates the treatment facilities are operating at approximately 51% to 81% of permitted capacity, with higher flows during peak hours. Table 4-4 summarizes the plant capacities and actual flows from FY 2021 through FY 2023. Descriptions and details regarding the physical and operational condition of each WTP is provided in the sections below.

Table 4-4 Water Treatment Plant Capacities and Flows FY 2021 – FY2023

Characteristic	Facility			
	Hialeah/ John Preston	Alexander Orr	Hialeah RO	South Dade Water System ¹
Permitted Plant Capacity (MGD)	225.0 ²	214.74 ³	10.0 ⁴	14.19
Actual Flows in FY 2023 ⁵				
Average Daily (MGD)	141.7	174.4	6.8	7.2
Maximum Day (MGD)	155.6	202.2	8.8	8.6
Actual Flows in FY 2022 ⁶				
Average Daily (MGD)	136.3	178.6	6.1	6.8
Maximum Day (MGD)	141.4	216.6	9.8	8.4
Actual Flows in FY 2021 ⁷				
Average Daily (MGD)	130.3	181.6	6.7	7.0
Maximum Day (MGD)	144.7	194.8	8.5	8.5

¹ Represents five smaller WTPs in southern Miami-Dade County.

² Hialeah WTP permit capacity is 60 MGD and the John Preston WTP permit capacity is 165 MGD for a total of 225 MGD.

³ Alexander Orr WTP rated (design) capacity is 248 MGD but the permit is currently limited to 214.74 MGD, based on water allocation.

⁴ Approximately 50% of finished water produced by the Hialeah RO WTP services the City of Hialeah and 50% serves WASD's system. The Department currently does not operate the facility.

⁵ For the 12 months ending in September 2023.

⁶ For the 12 months ending in September 2022.

⁷ For the 12 months ending in September 2021.

4.3.2.3.1 Hialeah WTP

The Hialeah WTP was originally placed into operation in 1924 with a design capacity of 10 MGD. The facility has since undergone several modifications and expansions, which have increased the design capacity to 60 MGD. According to Monthly Operating Reports (MORs) for the 12-month period ending on September 30, 2023, the average daily flow was 38.6 MGD.

The primary components of the Hialeah WTP include sand traps and mix tanks, mechanical flocculators, clarifiers, re-carbonation basins, chlorine contact basins, sand filters, and packed tower air strippers. These components are used to provide potable water to the public through the following treatment processes: lime softening,

recarbonation, chlorination for primary disinfection, chloramination (ammonia addition) for secondary disinfection, fluoridation, filtration, and aeration. Prior to pumping treated water to the distribution system, the Hialeah WTP utilizes 20 air stripping towers for the removal of Volatile Organic Contaminants (VOCs) which naturally occur in the raw water supplied by the Hialeah and Miami Springs wellfields.

The Consultant previously inspected the Hialeah WTP to evaluate the overall physical and operational condition of structural, mechanical, and electrical assets, which were found to be generally in Fair condition. Key processes visited included sand traps and mixing tanks, mechanical flocculators, clarifiers, recarbonation basin, chlorine contact basin, settling basin, disinfection, dual media filtration, air stripping, and secondary disinfection. Additional processes and assets include the wash water return pumps, high service transfer pumps, sludge transfer pumps, lime building assets, as well as chemical treatment processes involving lime, silica, fluoride, sodium hexametaphosphate, and chlorine.

In FY 2022, the Department identified various projects to rehabilitate and upgrade the Hialeah WTP as part of the Water Reset Program. The projects include lime facilities refurbishing and upgrades, electrical upgrades, high service pumps improvements, increasing redundancy to the finished water distribution system, elevated tanks improvements, evaluation of sludge disposal options, structural rehabilitation, and process mechanical improvements. Some of the projects for these improvements are currently ongoing and others are scheduled to begin in 2024.

4.3.2.3.2 John Preston WTP

The John Preston WTP (Preston WTP) was originally placed into operation in 1968 with a design capacity of 60 MGD. Several additions to the treatment process have brought the current design capacity to 165 MGD. MORs for the John Preston WTP for the 12-month period ending on September 30, 2023, indicate that the average daily flow was 103.0 MGD.

The primary unit processes of the John Preston WTP include lime softening (ferric-enhanced) units (accelerators), recarbonation, dual media filtration, and disinfection using chloramination (chlorine combined with ammonia). The John Preston WTP also utilizes 44 air-stripping towers for the removal of vinyl chloride and Trihalomethanes (THMs) from the raw water.



John Preston WTP (Courtesy MDPA)

The Consultant previously inspected the John Preston WTP and raw water supply wells on the plant site to evaluate the overall physical and operational condition of structural, mechanical, and electrical assets, which were generally found to be in Fair condition. Key processes visited include the lime softening units, recarbonation processes, sand filters, chlorination and ammonization for disinfection, fluoridation, air stripping towers, and the high service pump station. Additional assets inspected include wash water return pumps, lime slakers, lime slurry pumps, sludge transfer pumps, fuel tanks, emergency diesel generators, electrical control rooms, and the chemical feed building.

In FY 2022, the Department identified various projects to rehabilitate the Preston WTP as part of the Water Reset Program. The projects include lime facilities refurbishing and upgrades, increase redundancy to the finished water distribution system, and electrical improvements. Some of the projects for these improvements are currently ongoing and others are scheduled to begin in 2024.



Alexander Orr WTP (Courtesy MDPA)

4.3.2.3 Alexander Orr, Jr. WTP

The Alexander Orr, Jr. WTP (Alexander Orr WTP) was placed into operation in 1954 and has since undergone several modifications and expansions. The plant has a design capacity of 256 MGD. MORs for the Alexander Orr WTP for the 12-month period ending on September 30, 2023 indicate that the average daily flow was 174.4 MGD.

The Alexander Orr WTP unit processes include lime softening, recarbonation, filtration, and disinfection (chlorination) to provide potable water to the public. Because of relatively low background levels of natural organic compounds in the source water supplied by the Biscayne Aquifer to the Alexander Orr WTP, the lime softening process is effective in “softening” the water and complying with disinfection byproducts (DBP) standards.

The Consultant previously inspected the Alexander Orr Jr. WTP and the raw water supply wells, co-located at the WTP site, to evaluate the overall physical and operational condition of structural, mechanical, and electrical assets, which were found to be generally in Fair condition. The original facility is approximately 69 years old. Key processes visited included the lime softening units, recarbonation processes, settling basins, chlorination and ammonization for disinfection, fluoridation, the dual-media filtration system, clear wells, storage reservoirs, and the East and West high service pump stations.

Additional areas inspected include the wash water return pumps, the ammonia and fluorosilicic acid area, the chlorination (chlorine gas) room, emergency diesel generators, control rooms and the lime recovery facility.

In FY 2022, the Department identified various projects to rehabilitate the Alexander Orr WTP as part of the Water Reset Program. The projects include lime feed facilities upgrades and component replacement, switchgear building replacement and expansion, high service pumps improvement, the installation of 48-inch finished water main, onsite wells and well buildings improvement, preliminary engineering evaluation of the alternate fuel supply line, and sludge disposal system upgrades. Some of the projects for these improvements are currently ongoing and others are scheduled to begin in 2024.

4.3.2.3.4 Hialeah RO WTP

The Hialeah RO WTP was brought online in November 2013 and is operated under a JPA between the County and the City of Hialeah. The plant was approved to operate at a capacity of 7.5 MGD with an additional 2.5 MGD capacity becoming available at a later date, for a total production capacity of 10 MGD, consistent with the operating agreement and the water use permit. The City of Hialeah and the operator have continued to work

towards achieving the 10 MGD planned capacity. The service agreement between the City of Hialeah and the Plant Operator was amended in FY 2016, which provided for the increase in daily capacity to 10 MGD once the completion of four additional supply wells has been achieved.

The construction of four additional Floridan Aquifer wells to increase the plant production capacity to 10 MGD was completed in FY 2019. However, the FPL connection and operational testing to bring the four new wells online has yet to be completed as of FY 2023. Therefore, the plant has yet to reach the 10 MGD production capacity. Average flows were approximately 6.8 MGD in FY 2023.



Hialeah RO WTP (Courtesy MDPA)

4.3.2.3.5 South Dade Water System

The South Dade Water System consists of five small WTPs: Leisure City, Everglades Labor Camp, Elevated Tank, Newton, and Naranja. Each plant that makes up the South Dade Water System utilizes an in-line disinfection process with bulk sodium hypochlorite and stabilization with the addition of sodium hexametaphosphate. The use of chlorine gas for disinfection was discontinued and bulk sodium hypochlorite is now used for disinfection. Biscayne raw water is pumped directly from onsite wells and sodium hypochlorite is injected into the stream. The five South Dade Water System plants were inspected previously to assess the overall physical and operational condition of their mechanical, electrical, and structural components and were found to be generally in Fair condition. The annual average daily flow from the South Dade Water System was 7.2 MGD for FY 2023.

4.4 Water Transmission and Distribution

4.4.1 Description

The water system serves approximately 462,214 retail customers in its service area. The potable water distribution network throughout the County consists of approximately 8,574 miles of pipe with sizes ranging from 2-inch service lines to 72-inch finished water transmission mains. Distribution of finished water throughout the service area is accomplished with the use of six remote finished water storage and pumping facilities as well as storage and pumping stations located at the water treatment facilities.

The Hialeah and John Preston water treatment facilities primarily serve the northern areas of Miami-Dade County, while the Alexander Orr and the South Dade systems serve the central area and most of the southern areas of Miami-Dade County, respectively. The water transmission facilities are also referred to as part of the Department's regional system. The regional system, the costs of which are allocated to all of the Department's water customers, serves the entire system, both retail and wholesale customers. However, the distribution system serves only retail customers.

4.4.1.1 Hialeah and John Preston Service Area

The Hialeah and John Preston WTP service area utilizes a combined network of high-pressure and low-pressure systems with remote storage and pumping capabilities to service the north and central-east portions of the County. The low-pressure system begins at the Hialeah WTP with a 42-inch main heading east along N.W. 62nd Street and 36-inch and 42-inch mains heading southeast along Okeechobee Road from the plant. A series of pump stations are used to form the low-pressure loop in the southeast area of the plant. The 42-inch main along N.W. 62nd Street connects with the 67th Street pumping station where the water is redirected south through a 30-inch diameter main. The 30-inch diameter main continues south where it connects to the N.W. 36th Street pump station and ultimately to the Golf Grounds pump station, completing the north and east ends of the triangular loop. The mains along Okeechobee Road connect with the 30th Avenue booster pump station, which discharges into two 36-inch mains that connect to the Golf Grounds pump station and complete the low-pressure loop.

The northern section of the Hialeah/Preston service area is serviced by a high-pressure system consisting of five in-plant high service pumps with a total pumping capacity of 228.9 MGD. A high-pressure loop begins at the John Preston WTP where a 60-inch main heads north along N.W. 57th Avenue to N.W. 191st Street, where it then heads east. The 48-inch line then turns south at N.E. 20th Avenue and connects to a 54-inch main that connects to the N.W. 67th Street pumping station. The City of Hialeah, a wholesale customer, receives water from the high-pressure system. The treated water reservoirs from John Preston and Hialeah are connected by an existing 60-inch interconnecting pipe. Currently, the John Preston WTP provides treated water that is delivered to the Hialeah WTP's finished water reservoir and is pumped to the low-pressure system.

The Hialeah WTP and portions of the John Preston WTP distribution network utilize a network of remote storage and pumping facilities to effectively transport water through the low-pressure system. The pumping stations serve in concert with the N.W. 20th Street (Golf Grounds) (three pumps), Carol City (four pumps), N.W. 30th Avenue (two pumps), N.W. 36th Street (two pumps), and N.W. 67th Street (five pumps) remote storage facilities to maintain the flow throughout the low-pressure system. The current available storage for the Hialeah/Preston WTPs is sufficient based on the current total plant capacity of the two plants. The criteria for storage are based on the ability to provide adequate fire flow, emergency storage, and equalization storage. The Hialeah/Preston WTPs utilize both on-site and remote storage facilities.

4.4.1.2 Alexander Orr Service Area

The Alexander Orr WTP delivers finished water at several entry points into the distribution system. These include three mains of 48, 60, and 72-inch diameter from the east pump room and two 72-inch mains from the west pump room. There are no remote storage/booster pump facilities within the area served by the Alexander Orr WTP. The onsite storage system for the Alexander Orr WTP consists of three ground storage tanks with a total capacity of 59 MG and a 1.6 MG clear well located at the WTP. With free chlorine as a primary disinfectant, none of the storage at the WTP has to be reserved for disinfection. The high service pumps at the plant have the capacity to pump 550 MGD, which maintains adequate pressure throughout the distribution network.

4.4.1.3 South Dade Water System Service Area

The service area covers much of the southernmost part of the County except for the Cities of Homestead and Florida City, which provide their own water service. The distribution system for the five small plants of the South Dade Water System consists primarily of small diameter water mains ranging from 4 to 16 inches. While all the WTPs have their own water main loops and service areas, the existing interconnectivity between the Leisure City,

Elevated Tank, and Naranja WTPs allows the plants to form one major loop around most of the service area. This major loop is bounded on the north by S.W. 248th Street, on the south by S.W. 304th Street, on the east by S.W. 117th Avenue, and on the west by S.W. 172nd Street.

4.4.2 Storage and Repumping

Storage is available at each of the WTPs as well as throughout the distribution system. Table 4-5 provides a summary of the available on- and off-site storage of the system and the repumping capacity of the system pump stations.

Table 4-5 Summary of Storage Facilities

Facility / Location	Description	Storage Capacity (MG)	Number of Pumps	Number of Tanks
On-Site Storage				
Hialeah WTP	Ground Storage	3.0	5	-
	Clear Well	1.7	-	-
John E. Preston WTP	Ground Storage Tank 1	9.0	6	1
	Ground Storage Tank 2	14.0	-	1
	Clear Well	1.1	-	-
Total On-site Hialeah-Preston		28.8		
Alexander Orr WTP	Ground Storage Tank 1	19.0	9	1
	Ground Storage Tank 2	20.0	-	1
	Ground Storage Tank 3	20.0	-	1
	Clear Well	1.6	-	-
Total On-site Alexander Orr		60.6		
Total On-site Storage		89.4		
Off-Site Storage				
NW 20th Street Storage Tanks	Ground Storage Tank	7.5	-	3
NW 36th Street	Ground Storage Tank	5.0	2	2
NW 67th	Ground Storage Tank	8.2	5	3
NW 30th Avenue	Ground Storage Tank	2.5	2	1
Golf Ground Pumping Station ¹	Pumping Station	-	3	-
Carol City	Ground Storage Tank	3.0	4	1
Total Off-site Storage		26.2		
Total System Storage		115.6		

¹ Note that water is pumped from the Golf Ground Pumping Station to the NW 20th Street Storage Tanks. Currently, there are no storage tanks located at the Golf Ground Pumping Station site.

The Consultant previously inspected the Department's remote booster pumping stations (Golf Ground) and storage facilities (Carol City, NW 67th Street, NW 36th Street, NW 30th Avenue, and NW 20th Street facilities) to evaluate the overall physical and operational condition of structural, mechanical, and electrical assets, which were found to be in Fair condition and meeting industry standard level of service requirements.

4.4.3 Physical and Operational Condition

The Water System distribution infrastructure appears to be operated and maintained in good working order, with exceptions noted. As with any water distribution system, the Department experiences main breaks, leaks, meter and valve issues, and many others, but has dedicated personnel and resources to continually monitor, maintain and effect repairs on the distribution components to maintain reliable operations. In addition, the Department continues to implement initiatives to improve the operations of the water distribution system. Examples of these initiatives are summarized below.

- Non-Revenue Water (NRW): The Department continues to work on efforts to improve the quantification of NRW within the distribution system and evaluate strategies to reduce water losses. Recent activities performed include replacing various wholesale meters to improve reading accuracy in Hialeah and Normandy Isles and continuing the replacement of the small meters based on age, size, and usage criteria. The Department is in the process of evaluating why the revenue is not increasing even if the apparent water losses in the system are decreasing. The Leak Detection Program to identify and repair leaks in the distribution system is ongoing.
- The Small Diameter Pipe Replacement Program is ongoing through 2027. The Department has completed Shenandoah Phases A and B and Leisure City. The design for atlas sheets W32, P16, Q16, V31, K3, F13, R26 and K17 began in FY 2023. These sheets have all gone through a complete pre-design phase to date, the complete designs are anticipated to be done for all sheets by July 2025, the construction phases for all are expected to be completed by April 2027.
- Opportunities to increase redundancy in the water system are ongoing. Construction activities for the 72-inch transmission main redundancy project by the Preston WTP began in FY 2022 and is currently in progress. The 54-in transmission main redundancy design build project was awarded and is currently under design.

4.5 Water Supply and Demand Statutory Requirements and Regulations

The Department's Water System is operated in accordance with numerous local, state, and federal regulations that dictate water supply quantity and water quality for treated water. These regulations also cover distribution and transmission systems, conservation, public communications, residuals management and treatment, and monitoring/reporting. Federal regulations are typically delegated to state level agencies for review and enforcement.

4.5.1 Water Use Permit

The SFWMD governs the use of the State's water resources in Southeast Florida through the water use permitting process. The existing Water Use Permit (WUP), renewed and issued in March 2022, has been

modified various times per the Department’s request to allow for conditions better suited for the utility. The permit modifications included:

- Water withdrawal from the aquifers
- Alternative water supply modifications
- Reclaimed water modifications
- Demand projections modifications
- Reporting requirements
- Water conservation and water losses modifications

Table 4-6 shows the limits of the Department’s withdrawals from the Biscayne and Floridan aquifers as included in the WUP.

Table 4-65 Annual Withdrawal Allocations (MG)

Effective Dates	Biscayne Aquifer Annual Limit (MG)	Floridan Aquifer Annual Limit (MG)
March 8, 2022 through December 27, 2065	127,567.50	4,855

In addition to the above-listed withdrawals, the WUP contains 57 Special Permit Conditions pertaining to topics such as wellfield protection, monitoring, and water conservation and reuse. These requirements reflect the high standards the Department is held to because of the size and extent of its systems. Some of the noteworthy requirements are provided below.

- Every ten years, the Department must submit a water use compliance report for review and approval by the SFWMD. The next compliance report is due in March 2032.
- The Department must develop alternative water supplies according to the schedule in the permit. These projects include 42.45 MGD total of Floridan Aquifer water at the Hialeah RO WTP, C-51 Reservoir, and South Miami Heights WTP Back-Up Phase 1 and Phase 2. Progress on these projects must be reported annually.
- The Water Conservation Plan submitted by the Department and approved by SFWMD must be implemented, as approved, and the Department must submit annual water conservation activity reports.
- The Department shall determine the water losses in the distribution system on a monthly basis and report the findings on an annual basis. If the losses reported exceed 10 percent of the treated water produced, the Department must include in the annual report a description of additional actions to be implemented in the following year(s) to reduce the losses to less than 10 percent.

The Department was issued an approved WUP modification permit from the SFWMD on March 8, 2022, to address long-term water supply requirements. The modification includes alternative water supply sources and optimization of the Department’s existing wellfields.

4.5.1.1 Alternative Water Supply, Water Reclamation, and Water Demands

The Department’s Alternative Water Supply (AWS) Program includes the projection of finished water demand, increases in supply, and actual demand. Originally, in 2007, the demand was projected to increase from 340 MGD in 2006 to approximately 410 MGD in 2030. However, demand dropped from 340 MGD to 305.7 MGD in 2012 for several reasons, including the following:

1. SFWMD water restrictions implemented in 2007.
2. The Department’s Water Use Efficiency Program.
3. The County’s Permanent Landscape Irrigation Restrictions Ordinance permanent irrigation restrictions and mandatory year-round two-day per week landscape irrigation conservation measures.
4. Less population growth than expected.
5. Decline in economic activity, and
6. Weather factors.

The approval of the 20-year WUP renewal was issued by the SFWMD in FY 2022. Error! Reference source not found. lists the proposed AWS Projects as approved by the SFWMD.

Table 4-7 Alternative Water Supply Project Development ¹

Project / Milestone	Average Finish Water Daily Flow	Milestone Completion Date
Hialeah Floridan Aquifer R. O. WTP, Phase 1-a	7.5 MGD	
Notice To Proceed Design / Permit		Completed
Notice To Proceed Construction		Completed
Turnover / Project Completion		Completed
Hialeah Floridan Aquifer R. O. WTP, Phase 1-b	2.5 MGD	
Notice To Proceed Design / Permit		Completed
Notice To Proceed Construction		Completed
Turnover / Project Completion		12/31/2022 ²
C-51 Reservoir	15 MGD	
Notice to Proceed Design/Permit		Completed
Notice to Proceed Construction		Completed
Turnover/Project Completion		6/30/2023
South Miami Heights WTP, Back-Up Phase 1 ³	12.45 MGD	
Notice To Proceed Design / Permit		Completed
Notice To Proceed Construction		12/31/2023
Turnover / Project Completion		12/31/2026
South Miami Heights WTP, Back-Up Phase 2	5.0 MGD	
Notice To Proceed Design / Permit		Completed

Project / Milestone	Average Finish Water Daily Flow	Milestone Completion Date
Notice To Proceed Construction		12/31/2030
Turnover / Project Completion		12/31/2033

¹ Represents updates to Exhibit 7 in the revised Water Use Permit No. 13-00017-W dated March 8, 2022.

² Construction of the four production wells to provide an additional 2.5 MGD capacity has been completed; however, the wells are not currently in operation.

³ The South Miami Heights WTP project has been placed on hold and is designated as an alternative backup water supply source based on future water demands.

4.5.1.1.1 Hialeah Reverse Osmosis (RO) WTP

This project was developed under a JPA between Miami-Dade County and the City of Hialeah to build a RO WTP and is currently operated by Inima USA Corporation. Construction of the treatment facility commenced in October 2011 and acceptance testing was completed on May 9, 2015, which initiated the 7.5 MGD operational phase of the project. In recent years, additional Floridan Aquifer wells were constructed, expanding the design capacity of the facility to 10 MGD. However, based on the reduced demand forecast for the regional water supply system which indicates adequate supplies beyond 2035. The current WUP does not propose a supply above 10 MGD.

4.5.1.1.2 C-51 Reservoir Collaborative Project

The C-51 Reservoir Phase 1 project is a regional alternative water supply initiative with a multi-stakeholder public-private partnership that provides various utilities in South Florida additional water. The project consists of the construction of a 14,000 acre-foot reservoir in Palm Beach County that will provide 35 MGD of water supply to utilities through rights to additional Biscayne Aquifer allocation in the WUPs. The reservoir will store and route water through canal systems to utility wellfields to provide aquifer recharge and offset withdrawals from the aquifer. The utilities participating in this initiative include Broward County Water and Wastewater Services, the City of Sunrise, the City of Lauderhill, the City of Dania Beach, and the Department.

With this project, the Department will be able to obtain 15 MGD of additional Biscayne Aquifer withdrawal rights. This water can be withdrawn from the existing wellfields and treated at the existing WTPs without additional capital investment. The project was completed in FY 2023.

4.5.1.1.3 West District Water Reclamation Plant

In 2008, when the Ocean Outfall Elimination Legislation (OOL), was initially promulgated, a new WWTP was proposed, the West District WWTP (WDWWTP). However, as a part of the OOL Compliance Plan submitted to FDEP in June 2013, the WDWWTP was determined to be cost prohibitive. Recently, the Department re-evaluated its 2035 projections, including average daily flows, peak hour flows (PHF), and influent solid loadings and found that wastewater flows have remained relatively flat for the past 15-years, due to the Department's continued water conservation efforts, combined with its Inflow and Infiltration Program, which have reduced the current and future need for system capacity and pushed the need for a new WDWWTP beyond 2025. However, the Department is retaining the WDWWTP in the 20-year planning horizon. The Department continues to assess the feasibility of Floridan aquifer recharge in the future, working closely with the FDEP and SFWMD to identify practical reuse options.

4.5.2 Water Use Efficiency Plan

The County implemented the Water Use Efficiency (WUE) Program in 2007 as part of the previous WUP, which included both indoor and outdoor Best Management Practices (BMPs) in order to reduce water use by Miami-Dade County residents and businesses. The implementation of the BMPs was a success, as it reduced finished water demand by 16 MGD since the 2007 plan inception, reduced per capita water use by County residents, and enabled the Department to defer construction of alternative water supply projects.

Currently, the County is in the first year of the WUE program, under the most recent WUP approved in 2022.

The Department continues to implement the original BMPs from the original WUE, described below:

- Implementation of the Permanent Landscape Irrigation Restrictions Ordinance establishing permanent irrigation restrictions and mandatory year-round two-day per week landscape irrigation. In May 2009, changes were made to the County's landscape ordinance, which affects new construction. Landscaping must meet regulations that follow Florida Friendly Principles and abide by stricter water efficiency guidelines for all private property and public rights-of-way.
- Enactment of Ordinance 09-35, adopted May 5, 2009, amending Miami-Dade County Landscape Ordinance (Chapter 18A) to supplement outdoor water conservation measures.
- Implementation of a tiered water rate structure which includes a surcharge for high water use to encourage water conservation.

Other water conservation efforts include:

- Water Loss Reduction including leak detection and repair
- Recycling of water used to backwash filters at treatment plants
- Use of reuse water at the WWTPs for process water, cleanup and landscape irrigation
- Ordinances establishing water-efficiency fixtures standards for new construction
- Ordinance establishing landscape standards
- Ordinances establishing permanent landscape irrigation restrictions limiting irrigation to two days a week
- Aquifer storage and recovery
- Implementation of a tiered water rate structure which includes a surcharge for high water use to encourage water conservation
- Public information and education efforts, including:
 - Direct customer outreach at events and workshops
 - Advertising via radio, television, print, transit bus benches, internet and movie theatres
 - Educational publications
 - A Children's Water Conservation Campaign including an annual Every Drop Counts Children's Poster Contest
 - Maintenance of a Water Conservation Webpage
 - Water, Energy and Learning and Behavior (WE-LAB) Workshops
 - Coordinating with other County departments on water conservation efforts i.e. Office of Resilience's BE305 initiative

- Water Conservation Incentives including:
 - Landscape Irrigation Evaluations and Rebates Program
 - Residential High Efficiency Fixture Rebate Program including toilets, showerheads, and faucets
 - Senior High Efficiency Toilet Rebate Program
 - Residential Showerhead Exchange Program
 - Multi-family Showerhead Distribution Program
 - Lodging High Efficiency Toilet Rebates Program
 - Lodging Showerhead Distribution Program
 - Institutional, Commercial and Industrial High Efficiency Toilet Rebate Program

Currently, the Department is in the process of approving changes to its permanent landscape irrigation ordinance, incorporating SFWMD rule elements that were not included in the initial ordinance.

4.6 Drinking Water Quality Regulations

4.6.1 Current Applicable Drinking Water Regulations

The Safe Drinking Water Act (SDWA), originally enacted in 1974, with major amendments in 1986 and 1996, gives the federal government, through the United States Environmental Protection Agency (USEPA), the authority to set standards for drinking water quality in water delivered by public water suppliers to protect public health. National Primary Drinking Water Regulations (NPDWRs) are enforceable primary standards, or maximum contaminant levels (MCLs), and treatment techniques (TTs, a required treatment process intended to reduce the level of contaminants in drinking water) that apply to public water systems. At present, NPDWRs have been established for over 90 contaminants and are outlined in the Code of Federal Regulations (CFR) at 40 CFR 141. The CFR can be accessed electronically through the following website: <http://www.ecfr.gov/>.

The Department is subject to the requirements of the SDWA and conducts over 150,000 analyses annually on drinking water samples collected from WTPs, water storage facilities, and the distribution system. As wells are the only current source of supply, the Department is only subject to requirements for groundwater (GW) systems. The Department's Regulatory Compliance and Monitoring Division staff tracks the development of regulations. The Department also conducts research (laboratory, pilot, and plant scale) to ensure the Department is positioned to meet future regulations.

The Department continuously monitors for various contaminants in the water supply system to meet all regulatory requirements, which includes monitoring for lead, copper, and other parameters at customers' taps. As illustrated by Table 4-8, the Department is in compliance or is substantially in compliance with all applicable water quality regulatory requirements.

Table 4-8 Regulatory Requirements

Regulatory Requirement	Summary of Requirement	Compliance Status
Lead and Copper Rule Revisions (LCRR)	<p>The Lead and Copper Rule was promulgated in June 1991. It addresses the control of copper and lead that may leach from home plumbing systems.</p> <p>90% of samples collected in a monitoring round must be below the action levels of 0.015 mg/L for lead and 1.3 mg/L for copper. Systems that exceed an action level may be triggered into additional monitoring, corrosion control treatment (CCT), lead service line replacement (LSLR), or public education.</p> <p>Systems serving more than 50,000 people are required to install CCT and must perform routine monitoring for a defined list of water quality parameters (WQPs).</p> <p>By October 16, 2024, systems must submit a lead service line (LSL) inventory, have it publicly available online (> 50,000 people), submit a LSL replacement plan, begin monitoring for school and childcare facilities and start with public education and notification requirements. Starting January 1, 2025, systems will have to begin monitoring under the new tap sampling protocol at new tier sites, and begin find and fix assessments where high lead levels are observed. The new trigger level (TL) for lead of 0.010 mg/L also takes effect.</p> <p>It is anticipated that EPA drafts and finalizes further revisions via the Lead and Copper Rule Improvements (LCRI) prior to the LCRR compliance date of October 16, 2024.</p>	Substantially in Compliance ¹
Revised Total Coliform Rule (RTCRR)	The Revised Total Coliform Rule requires water systems to conduct routine sampling for total coliforms at representative locations throughout the distribution system.	In Compliance
Groundwater Rule (GWR)	The Groundwater Rule (GWR) is designed to provide enhanced protection to users of groundwater from fecal contamination, which may arise from surface sources such as septic system or leaking sewage lines.	In Compliance

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Regulatory Requirement	Summary of Requirement	Compliance Status
Disinfectants and Disinfection Byproducts Rule (Stages 1 and 2)	This rule regulates levels of disinfectants and disinfection by-products.	In Compliance
Consumer Confidence Report (CCR) Rule	Requires the Department to issue an annual report on treated water quality to its consumers.	In Compliance
Filter Backwash Recycling Rule (FBRR)	The rule requires recycled flows to pass through all processes of the treatment plant in order to maintain removal credit for <i>Cryptosporidium</i> .	In Compliance
Source Water Assessment Program	The 1996 SDWA Amendments required each state to develop a Source Water Assessment Program, designed to stress protection of the source water prior to treatment.	In Compliance
Radionuclides Rule	The rule limits combined radium-226 and 228 and gross alpha and established a new limit for uranium.	In Compliance
Chemical Contaminants Rules	The Chemical Contaminant Rules regulate 65 contaminants in three categories: inorganic contaminants, volatile organic contaminants, and synthetic organic contaminants.	In Compliance
Unregulated Contaminant Monitoring Rule (UCMR)	The SDWA requires that once every five years the USEPA issue a new list of no more than 30 unregulated contaminants to be monitored by select public water systems.	In Compliance
Florida Administrative Code 62-550 and 62-555	Florida Administrative Codes (FAC) 62-550 and 62-555 contain the majority of FDEP regulations regarding drinking water standards, monitoring, and reporting, as well as public water system construction, operations, and maintenance.	In Compliance

Regulatory Requirement	Summary of Requirement	Compliance Status
Public Notification Rule (PNR)	The purpose of the PNR is to ensure that consumers are notified if there is a potential health risk from their drinking water. The PNR also requires a Consumer Confidence Report (CCR) to be provided to consumers annually.	In Compliance
Miami-Dade County Potable Water Standards	Miami-Dade County Department of Regulatory and Economic Resources administers compliance with Potable Water Standards for Miami-Dade County as per Section 24-43.3	In Compliance

¹ The Department is substantially in compliance with the LCRR currently and is working towards meeting requirements to be in compliance with the LCRR by the October 2024 deadline.

4.6.2 Lead and Copper Rule Revisions

The LCR was originally promulgated in 1991 and established AIs for lead and copper concentrations to reduce public exposure to lead and copper. The USEPA implemented revisions in 2000, 2004, and 2007 to streamline requirements, address implementation issues, provide additional clarity and guidance to utilities, and enhance customer notification. In January 2021, the USEPA published the final Lead and Copper Rule Revisions (LCRR), which became effective December 16, 2021 and focused on improving public health protection via a proactive and holistic approach by requiring earlier action and improved transparency and communication by utilities to reduce risks around lead in drinking water. The revisions include significant changes including a new lead “trigger level” (TL) of 10 µg/L, strengthened CCT requirements, more robust tap sampling requirements, development of a LSL inventory and LSLR plan, and increased requirements for public notification and outreach.

The Department has completed Phase 1 efforts evaluating the type and magnitude of available records to support the Lead Surface Line (LSL) inventory development, created an initial LSL inventory framework, identified the initial number of unknown service lines, and developed recommendations to address information gaps. Phase 1 efforts were intended to inform and focus efforts in subsequent phases until compliance with LCR Revisions has been achieved. Phase 2 efforts developed a Service Line Material Verification Plan, created a School and Childcare Facility testing plan, created content for public engagement and communications, and developed Customer Survey and Field Application Tools that will be deployed to assist WASD in identifying service lines with unknown material in a cost-efficient method. The Department is currently working in Phase 3. This phase will build on the efforts of Phases 1 and 2 and will prepare the inventory for public access, prepare, and finalize compliance deliverables, and submit to FDEP by the October 2024 deadline. The Department’s Lab Division is preparing for the additional expected workload associated with the LCR Revisions, by requesting additional positions and infrastructure investments for construction or expansion of labs. The Department is substantially in compliance with this rule.

4.6.3 PFAS National Primary Drinking Water Regulation

Throughout the years, the Department has continued to stay abreast of discussions relating to per- and polyfluoroalkyl substances (PFAS) and has taken proactive steps needed to address PFAS guidelines as they have been released by the USEPA. The Department commenced sampling for PFAS in 2015, and has

continuously tested quarterly since 2019, meeting the USEPA's then Health Advisory Levels for PFAS instituted in 2016.

On April 10, 2024, the USEPA finalized the National Primary Drinking Water Regulation (NPDWR) for six PFAS, which is the first federally enforceable drinking water regulation to address PFAS. The PFAS Maximum Contaminant Level (MCL) described in the NPDWR is 4 parts per trillion (ppt), which is currently the lowest level that science is currently able to detect, with compliance of this new limit required by 2029. The Department had conducted PFAS sampling in December 2023 at its three WTPs. The Alexander Orr and Preston WTPs both demonstrated that they would pass the new regulated requirements; however, the Hialeah WTP results indicated that the PFHxS requirement would be exceeded by 1 ppt.

Ultimate compliance with the new PFAS MCL could have a significant fiscal impact on the Department, as existing plant processes were not designed to remove these contaminants, so innovative approaches will be needed. The Department conducted a preliminary study in 2022, which included an evaluation of available technologies to address PFAS. The Department is in the process of initiating pilot programs to identify which PFAS treatment method works best at each of their WTPs and the South Dade water treatment system. Additionally, the Department is managing its raw water wellfields to limit the use of current wells with the highest concentration levels of PFAS substances. The USEPA has given utilities until 2027 to begin sampling and documenting results, and mandates compliance by 2029. During this interim period of compliance with the NPDWR, the Department will continue to conduct the required testing and subsequent reporting and has requested additional positions and infrastructure investments for construction or expansion of labs due to the increased water quality sampling.

5 Wastewater System

This section presents descriptions and assessments of the physical and operational condition of the Department's Wastewater System assets, as well as a discussion of applicable regulations and an evaluation of compliance status with current permits.

5.1 Overview

5.1.1 Facilities and Service Areas

The Department's Wastewater System service area covers approximately 375 square miles and includes three wastewater treatment facilities and associated transmission and disposal facilities, as well as an extensive collection system that includes more than 6,400 miles of gravity collection sewers and force mains, and more than 1,000 lift stations. The Department collects wastewater from its retail customers in the unincorporated areas of the County and receives the wastewater collected from its wholesale customers, which is treated at the Department's WWTPs. The system is subdivided into three interconnected districts (South, Central, and North), each served by a WWTP. The general locations of the WWTPs are provided on Figure 5-1.

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- 1 North District WWTP
- 2 Central District WWTP
- 3 South District WWTP
- Overall Service Area
- Sewer District Boundaries

Coordinate System: Florida State Plane
 Datum: NAD 83
 Unit: Miles

Miami-Dade County, FDEP, Esri, TomTom, Garmin, SafeGraph, FAO, METV
 NASA, USGS, EPA, NPS, USFWS

Figure 5-1 WWTP Locations and Service Areas Map

5.1.2 Condition of Wastewater System Assets

In accordance with the Master Bond Ordinance, the system is inspected in its entirety every three years to evaluate the condition and operational status of the wastewater facilities to ensure adequacy to continue achieving the proper level of service to the Department's customers. Inspections are typically conducted on an annual rotating basis to ensure all facilities are inspected at least once every three-year period, and asset condition is assessed based on a Good-Fair-Poor scale, which is outlined as follows:

- Good – Midterm service without notable measures of degradation (in the prime of its useful life).
- Fair – Long term service without notable measures of degradation (in the useful portion of its useful life).
- Poor – Assets may require replacement (approaching or past expected end of life)

Based on the overall results of the previous three years of inspections, review of available data and discussions with Department staff, the Wastewater System facilities are generally in Fair condition and meet industry level of service requirements for the Department's customers, with exceptions noted. The Department is consistently and frequently upgrading assets at the Wastewater System facilities through the Department's capital or R&R projects. Throughout the inspections, some assets were observed to be in Poor condition; however, these assets will be addressed through the Department's capital or R&R projects. As part of the annual inspections, the Consultant provides the results of the inspection findings, including information on assets found to be in Poor condition, for use in confirming that a capital or R&R project has been identified to address the issues observed and take the necessary actions if they are not.

5.2 Wastewater Collection

The Wastewater Collection and Transmission Division operates the three primary collection and transmission basins, which are identified as North, Central, and South. These basins contain over 6,400 miles of collection and force main pipelines of many material types, ranging in size from 4-inch diameter PVC lateral connections serving residential customers to 102-inch reinforced concrete force mains linking pump station flows to the headworks of the treatment facilities. The flow of sewage can be diverted across basins through numerous force main interconnections, thus allowing for flows to be diverted amongst the three WWTPs.

5.3 Pumping and Transmission System

5.3.1 Description

The Department owns and operates over 1,000 lift stations distributed over the four operational service areas in the North, Central East, Central West, and South sections of the County. Smaller lift stations receive raw sewage from local collection system subareas (typically covering a few city blocks and consisting of a few dozen manholes) and pump to larger regional lift station. The regional lift stations convey the large volume of collected raw sewage to the three WWTPs via force main transmission infrastructure.

SCADA capabilities in all pumping stations and the three regional WWTPs allow command center operators to remotely monitor and control the operation of the pumps and other operating systems while making adjustments, as needed, based upon the WWTP influent flows. The SCADA system also allows for the identification of alarm conditions and the real time monitoring of wet well levels, discharge pressures, and power conditions. At some selected sites, the SCADA system is used to monitor and report on rain gauges and groundwater levels. The pump stations range in size and function from regional stations that serve multiple collection basins to small collection lift stations that serve single collection basins.

The wastewater transmission facilities are also referred to as part of the Department's regional system. The regional system, the costs of which are allocated to all of the Department's customers, serves the entire Wastewater System, both retail and wholesale customers. The wastewater collection system serves only retail customers.

5.3.2 Physical and Operational Condition

Based on the previous three years of inspections, review of operational data, and discussions with Department staff, the Wastewater System distribution infrastructure appears to be operated and maintained in good working order, with exceptions noted. The majority of the observed pumping station assets were found to be in good process condition. The physical condition of the assets ranged from good to fair and only a few pump stations were found to be in poor condition. In general, the mechanical equipment (i.e., pumps, motors, valves, piping, etc.), electrical components (i.e., panels, VFDs, instrumentation, etc.), and structures (i.e., building, driveway, hoists) appeared to be adequately maintained. The Department typically assigns a painting crew to a pumping station after maintenance is performed to protect surfaces from corrosion. Also, Department staff previously noted that they drain, clean, and apply a protective coating on the interior of the wet wells (where necessary) for each pumping station.

5.4 Wastewater Treatment

5.4.1 WWTP Operations

As mentioned previously, the Wastewater System is subdivided into three interconnected districts (South, Central, and North), each served by a WWTP. The three treatment facilities have a combined permitted capacity of 376 MGD annual average daily flow (AADF). The annual average daily flows for FY 2023 of the SDWWTP, CDWWTP, and NDWWTP were approximately 118 MGD, 124 MGD, and 107 MGD, respectively, or 349 MGD in aggregate. The following subsections summarize the processes, capacities, and effluent characteristics specific to each WWTP.

5.4.2 WWTP Performance

Overall, the Wastewater System treatment facilities appear to be operated and maintained in good working order, with exceptions noted. The WWTP effluent data indicates the treatment facilities are operating at an average of approximately 84% to 90% of permitted capacity, with higher flows during peak hours. Table 5-1 summarizes the capacity and effluent characteristics of the South, Central, and North District WWTPs from FY 2021 through FY 2023. Descriptions and details regarding the physical and operational condition of each WWTP is provided in the sections below.

Table 5-1 WWTP Capacities and Characteristics

Characteristic	Facility			
	South District	Central District	North District	Total
Permit Parameters				
Average Daily Flow (MGD)	112.5	143	120	375.5
Effluent CBOD5 (mg/L) ¹	20	25	25/20 ²	
Effluent Suspended Solids (mg/L)	5 ⁴	30	30/20 ³	
Actual Flows 12-Month Average for FY 2023 (Oct 2022 – Sep 2023)				
Average Daily Flow (MGD)	118.1 ⁵	124.0	106.9	349.0
Effluent CBOD5 (mg/L)	4.3	15.7	9.5	
Effluent Suspended Solids (mg/L)	5.6	28.9	19.1	
Actual Flows 12-Month Average for FY 2022 (Oct 2021 – Sep 2022)				
Average Daily Flow (MGD)	102.2	117.0	97.3	316.5
Effluent CBOD5 (mg/L)	2.5	17.8	9.2	
Effluent Suspended Solids (mg/L)	2.6	29.5	15.4	
Actual Flows 12-Month Average for FY 2021 (Oct 2020 – Sep 2021)				
Average Daily Flow (MGD)	104.0	103.7	110.5	318.2
Effluent CBOD5 (mg/L)	1.3	11.9	10.9	
Effluent Suspended Solids (mg/L)	2.1	23.2	19.2	

¹ CBOD5 means 5 Day Chemical Biological Oxygen Demand; mg/L means milligrams per liter.

² 25 mg/L in secondary effluent going to the outfall; 20 mg/L in effluent going to the injection wells.

³ 30 mg/L in secondary effluent going to the outfall; 20 mg/L in effluent going to the injection wells.

⁴ 5 mg/L for the High-Level Disinfection (HLD) secondary effluent going to the injection wells.

⁵ SDWWTP is currently undergoing expansion to increase the current capacity of 112.5 MGD to 131 MGD.

5.4.2.1 South District WWTP

The SDWWTP, located at 8950 SW 232nd St, Miami, FL 33190, was placed into operation in 1983 and has since undergone several modifications and expansions to increase the permitted capacity. On September 19, 2017, the FDEP issued a new operating permit for the South District Wastewater Treatment Plant, with an effective date of December 10, 2017, which includes a schedule for completing improvements at the plant. The Department is substantially in compliance with the operating permit. The Department has made significant progress towards completing the construction of the South District Wastewater Treatment Plant Expansion Project. This will increase the average daily flow capacity from 112.5 to 131 MGD once completed. The expansion is currently anticipated to be completed in July 2025, and will allow for continued service area growth and increase the facility's resilience. The SDWWTP currently has 17 Class I injection wells in operation, and three newly constructed Class I injection wells that will be put into operation once the expansion improvements are completed.



South District WWTP (Courtesy MDPA)

The expansion is currently anticipated to be completed in July 2025, and will allow for continued service area growth and increase the facility's resilience. The SDWWTP currently has 17 Class I injection wells in operation, and three newly constructed Class I injection wells that will be put into operation once the expansion improvements are completed.

The Consultant previously inspected the SDWWTP to evaluate the overall physical and operational condition of its structural, mechanical, and electrical assets, which were found to be generally in Fair condition. Key processes inspected included pre-treatment (i.e., FOG and screen and grit facilities), generation and oxygenation tanks, secondary clarifiers, deep bed sand filtration, chlorine contact basins, transfer and effluent pump stations, and deep injection wells. Solids processing systems visited included return sludge pumping stations, sludge concentrators and digesters, and sludge dewatering. Additional systems visited included air scrubber buildings, polymer, oxygen, and sodium hypochlorite generation, methane storage and cogeneration facilities, emergency generators, and the main electrical switchgear facilities.

The treatment processes ranged in age from original and rehabilitated to new construction as a result of CD and OOL requirements. The SDWWTP follows a comprehensive preventative, corrective, and predictive maintenance using EAMS. The maintenance was provided by experienced personnel through an organized process of scheduled maintenance activities from the EAMS, which incorporates all mechanical, HVAC, electrical, instrumentation, and structural maintenance into a single program. The systems that appeared to be in poor condition are expected to be rehabilitated or upgraded through the forthcoming improvements to this facility as part of the OOL and the overall CD Master Plan for this facility. The only SDWWTP project not included in the Ocean Outfall Legislation or CD was the construction of a "Safe Room" to be utilized by plant personnel during a hurricane.

5.4.2.2 Central District WWTP

The CDWWTP, located on Virginia Key, was placed into operation in 1956 and has a current AADF permitted capacity of 143 MGD. The plant has undergone several upgrades and modifications since it was first constructed.

The plant is divided into two parallel process trains, Plant 1 and Plant 2, rated at 60 MGD and 83 MGD,



Central District WWTP (Courtesy MDPA)

respectively. The two trains are operated similarly but independently of each other and include influent screening, aerated grit chambers, oxygenation tanks (fed by pure oxygen), final settling tanks, and a chlorination system. Sewage is treated using a high purity oxygen activated sludge process. Mixed liquor from the oxygenation tanks is separated into an activated sludge and effluent overflow leading to rectangular final settling tanks. A chlorine solution is fed into the effluent to provide basic disinfection. Some of the chlorinated effluent is reused onsite as non-potable water and the remainder flows to an effluent pump station and then onto an ocean outfall either by gravity or pump flow depending on hydraulic conditions that vary based on plant flows and the tides. A

portion of the activated sludge is returned to the oxygenated tanks and the remaining waste activated sludge is treated using gravity thickening and anaerobic digestion, which is then dewatered. The Class B biosolids produced by this process are either used for agricultural purposes or disposed of at a landfill.

The Consultant previously inspected the CDWWTP to evaluate the overall physical and operational condition of its structural, mechanical, and electrical assets, which were found to be generally in Fair condition. Key processes were inspected including, but not limited to, sludge concentrators, sludge digesters, methane gas scrubbers, grit buildings and grit collectors, polymer feed building, return activated sludge pumping stations, flushing water pumps, oxygenation trains, oxygen plant compressors, distillation and cooling towers, settling basins and associated drive motors, chlorine storage areas, chlorinators and chlorine evaporators, effluent pumping stations, emergency power generators, and main electrical switchgears.

It should be noted that the Department has many capital projects planned and underway at the CDWWTP as part of the FDEP Consent Decree and OOL.

5.4.2.3 North District WWTP

The North District WWTP (NDWWTP), located at 2575 NE 156th St, North Miami Beach, FL 33160, was placed into service in 1979 and has a current AADF permitted capacity of 120 MGD. The treatment facility includes the following components:

- Influent bar screens,
- Six circular covered primary settling tanks,
- Three influent control chambers that distribute flow equally to the oxygenation tanks and manually bypass a portion of the primary effluent in times of extreme hydraulic conditions,
- Six oxygenation tank trains with four tanks per train,
- Oxygen generating facilities,
- Twelve circular covered secondary clarifiers,
- Five sludge pumping stations,
- One effluent pump station for the ocean outfall,
- Effluent filters for public access reuse, plant irrigation, and plant water,
- Four deep injection wells,
- One deep injection pump station.



North District WWTP (Courtesy MDPA)

Five additional deep injection wells were permitted as part of the OOL program improvements. The primary and secondary sludge are combined and pumped to the CDWWTP together with the scum from each settling tank collected in a scum pit by surface skimmers.

The NDWWTP main process flow begins at the headworks where raw sewage is pumped into the plant through three large diameter force mains that send the influent through coarse screening to remove debris. The raw influent then flows through the primary clarifiers, into the pure oxygen activated sludge treatment, and on to the secondary clarifiers, where the solids collect and settle. The effluent from the secondary clarifiers flows into one of two pump stations. The outfall pump station discharges into the 90-inch ocean outfall located in the Atlantic Ocean approximately three miles offshore. The second effluent pump station at the NDWWTP discharges into four deep injection wells.

The Consultant previously inspected the NDWWTP to evaluate the overall physical and operational condition of its structural, mechanical, and electrical assets, which was found to be generally in Fair condition. Key processes were inspected including, but not limited to, the pre-treatment and sludge transfer building, aerated grit/screening (AGS) building, air scrubber building, maintenance building, primary clarifiers, primary sludge distribution chambers, oxygen plants, cooling towers, oxygen storage facility, oxygenation trains, secondary clarifiers, return sludge pumping stations, secondary distribution chambers, water reuse filters, main electrical switchgear building, emergency generators, fuel storage tanks, on-site chlorination, and non-potable pumping building, screen chambers, injection wells, injection well pumping station, ocean effluent pumping station, and reuse water storage tanks.

5.4.3 Effluent Reuse and Disposal

Municipal wastewater reuse has been successfully utilized in several applications including agricultural irrigation, landscape irrigation, industrial recycling, and groundwater recharge. Wastewater treatment processes that use potable water were converted to allow for the use of reuse water. Reuse water at the South District, Central District, and NDWWTPs is utilized for in-plant process purposes.

The CDWWTP has an existing 7.88 MGD AADF permitted capacity industrial reuse system sending reclaimed water to plant water. The reuse system at the NDWWTP consisting of 1.5 MGD AADF permitted capacity for public access irrigation at the Biscayne Campus of the Florida International University is inactive. The SDWWTP has a permitted industrial reuse system also for reuse water to be used for in-plant purposes and irrigation.

As part of the OOL Program, the Department entered into an agreement with FPL to supply 15 MGD of reuse water to the Turkey Point facility for supplemental cooling water. Compliance with the reuse goals will be reached through the continued work toward efficiently using reuse water in the context of future regional water supply demands and ongoing coordination with FPL and other stakeholders to advance feasible reuse opportunities.

5.4.4 Residuals Handling and Disposal

Historically, residuals handling practices at the CDWWTP consisted of placing the sludge on onsite drying beds, and then hauling the air-dried sludge to landfills or land application sites. In 1997, following a settlement agreement between the Department and neighboring residents of Fisher Island, bed drying was abandoned, Plant 1 was upgraded from open aeration tanks to covered oxygen tanks, and odor control was implemented. Currently, Class B biosolids produced at this facility are either used for agricultural purposes or disposed of at a landfill.

The NDWWTP pumps the sludge to the CDWWTP for further processing prior to disposal, whereas the SDWWTP handles its sludge onsite. The SDWWTP sends the sludge through gravity thickening, anaerobic digestion, and dewatering by centrifuges to produce a stabilized sludge that is then dried in onsite drying beds. Dried residuals are temporarily stored in large piles before being hauled to agricultural users or landfills.

Through the drying processes, the SDWWTP is able to increase the solids content from 25 percent (for dewatered solids) to 65 to 70 percent (for dried cake solids), in favorable weather. Reduction of moisture by dewatering centrifuges and air-drying has several benefits, including lowering the cost of trucking sludge to disposal sites and facilitating residuals handling.

5.5 Regulatory Compliance Review

The Department's wastewater system is operated in accordance with numerous local, state, and federal regulations that dictate water quality for treated wastewater. These regulations also cover sewage collection, pumping and transmission systems, public communications, residuals management and treatment, and monitoring/reporting. Federal regulations are typically delegated to state level agencies for review and enforcement.

The operations encompassed by the NDWWTP, CDWWTP, and SDWWTP are regulated by the USEPA, FDEP, and Miami-Dade RER. Together these agencies work to ensure that practices are safe for both humans and the environment through rigorous permitting and compliance procedures.

The general operations and functions of the WWTPs, including in-plant reuse, interconnects, effluent quality, biosolids management and disposal, and treatment processes, are regulated by FDEP. Monitoring data collected in accordance with the permit must be submitted to the area FDEP office in the form of Discharge Monitoring Reports (DMRs) no later than the 28th day of the succeeding month.

5.5.1 Permits

The National Pollutant Discharge Elimination System (NPDES) permit program controls municipal facility discharges into “waters of the United States” and establishes monitoring and reporting requirements and other stipulations to ensure that the discharge does not harm water quality or public health. The permit addresses the general requirements of the Clean Water Act including detailed conditions for discharging pollutants.

The CDWWTP, NDWWTP, and SDWWTP, under provisions of Florida Statutes and Florida Administrative Code, must hold permits to operate. The permits outline the conditions that must be met and are outlined as follows:

- Reuse water and effluent limitations and monitoring requirements
- Residuals management requirements
- Groundwater requirements
- Additional reuse and land application requirements
- Operation and maintenance requirements
- Schedules
- Industrial pretreatment program requirements
- Other specific conditions
- General conditions

The Air Emissions Annual Operating Permit, Domestic Wastewater Annual Operating Permit, and Industrial Waste Annual Operating Permit are issued by RER and FDEP. The Department is also required to submit monthly reports for the sewer collection system and pump stations.

On May 27, 2021, the FDEP issued an operating permit for the CDWWTP effective until December 31, 2025. The operating permit for the NDWWTP has an effective date of May 29, 2019, with an expiration date of February 19, 2022. The Department started permit renewal negotiations with the FDEP in May 2021 and the process is ongoing through FY 2024. The SDWWTP operating permit has an effective date of December 9, 2017, and an expiration date of December 8, 2022. The Department started permit renewal negotiations with the FDEP in August 2022 and the process is also ongoing through FY 2024.

The three WWTPs have operation permits from the FDEP to operate effluent deep injection wells (DIWs). The Department continues to renew the effluent injection well permits every 5 years.

5.5.2 Florida Ocean Outfall Legislation (OOL)

The Florida Legislature approved the Ocean Outfall Legislation in 2008, which prohibited the construction of new ocean outfall discharges from domestic WWTPs as well as the use of existing ocean outfall for the disposal of average flows by 2025. The law was amended in 2013 to provide additional flexibility for the affected utilities to manage peak flows and fulfill the mandated wastewater reuse requirements. The law requires that the Department (i) submit a plan by July 1, 2013, to meet the requirements of the legislation (see below for the

description of the Department's submitted plan); and (ii) meet the provisions of the advanced wastewater treatment and management requirements by December 31, 2018, either by (a) provision of advanced wastewater treatment to all ocean outfall flows, or (b) reducing the volume of wastewater effluent disposed of through ocean outfall flows between December 31, 2008, and December 31, 2025, respectively, so that the reduction in nutrients discharged would be the same as with advanced wastewater treatment, or (c) use of a combination of advanced wastewater treatment and diversion of ocean outfall flows to meet the nutrient reduction level required on December 31, 2018.

After 2025, ocean outfalls can only be used for peak flow discharges, not to exceed five percent of annual flows. By December 31, 2025, for Miami-Dade, Broward, and Palm Beach counties, a "functioning reuse system" must be installed using a minimum of 60 percent of the ocean outfall flows for irrigation, groundwater replenishment, industrial cooling, or other acceptable forms of reuse water. The statute limits the required reuse to projects that are "environmentally, economically, and technically feasible".

The Department continues to update its OOL Compliance Plan on a regular basis as mandated by FDEP. The Department submitted the 2023 OOL progress report in July 2023; details associated with this latest OOL Compliance Plan are described in the subsection below.

5.5.2.1 Ocean Outfall Legislation Compliance Plan and Status Report

The Department submitted the Ocean Outfall Legislation Compliance Plan to the Secretary of FDEP on June 28, 2013. This was a comprehensive plan which also included the wastewater facilities upgrades needed to meet future demands through the year 2035. Since 2013, when the Compliance Plan was presented to FDEP, wastewater flows have been reassessed with more current data. The data shows lower future demands than originally anticipated. An update to the 2013 Compliance Plan was developed and issued to the FDEP in December 2019. The 2019 Compliance Plan focused on the required upgrades to the two existing wastewater treatment plants with ocean outfalls, Central District and North District, to comply with the legislation requirements.

5.5.2.2 Reuse Water Projects

The OOL requires the Department to implement up to 117.5 mgd of reuse water capacity, which represents 60% of the baseline outfall flows, from the CDWWTP and NDWWTP, if technically, environmentally, and economically feasible. The Department is moving towards accomplishing this requirement, through the below reuse water projects, when completed will result in the reuse of 145.5 MGD, becoming the largest reuse utility in the East Coast.

5.5.2.2.1 FPL Turkey Point Plant Reuse Water Project – Clean Water Recovery Center

On July 20, 2010, the Miami-Dade County BCC approved a resolution approving the execution of a JPA with FPL for the development of a reclaimed water project to supply FPL's Turkey Point power generation facility with needed cooling water for two new cooling towers. The intent of the project was to help the Department meet the minimum reuse water required by the OOL. However, due to significant changes in the energy market, FPL reconsidered the immediate construction of the two proposed nuclear reactor units and associated cooling towers. FPL indicated that the construction of the new reactors has been delayed past the year 2030. As a result, the Department's initial reuse strategy and the project with FPL were reassessed. In FY 2018 and FY 2019, the Department and FPL coordinated the scope of a new project to supply a substantial amount of reclaimed water to

Turkey Point. The project was intended to provide FPL with additional water resources to meet immediate water demands at the Turkey Point plant. This included supplying water for cooling the existing power generating units and the cooling canal system.

On June 16, 2020, the Miami-Dade BCC passed Resolution R-579-50 approving the Reclaimed Water Services Agreement between the Department and FPL for the delivery of reclaimed water from the SDWWTP to the FPL facilities at Turkey Point. Under this Agreement, up to 15 MGD of reclaimed water from the SDWWTP will be conveyed to Turkey Point. FPL is responsible for designing and constructing both the pipeline from the SDWWTP to the FPL facilities at Turkey Point, and the advanced treatment system, currently known as the Clean Water Recovery Center, at Turkey Point, to further treat the reclaimed water for use in the cooling towers. FPL will also develop additional pumping facilities at the South District plant should it be determined that additional capacity is required. Permits for the construction of the pipeline from the SDWWTP to the Turkey Point facility were submitted in 2021, construction began in 2022, and the reuse project is anticipated to be finished in late 2024.

5.5.2.2 Effluent Energy Recovery System

In order to meet the 117.5 MGD reuse water requirement of the OOL, the Department is also moving forward with a project to increase industrial reuse within the Wastewater Treatment Plants. The new water reuse strategy is based on the use of Effluent Energy Recovery Systems (EERS) to provide cooling to buildings and energy-intensive processes at the WWTPs. This industrial reuse approach utilizes the low temperature of the WWTP effluent to cool plant processes using centralized heat exchangers and will cease the use of electrically powered cooling towers. Implementation of this system will result in an approximately 115 MGD of industrial reuse.

5.5.2.3 Nutrient Reduction by AWT

The Department plans on meeting the advanced wastewater treatment and management requirements of the OOL necessary to comply with the December 31, 2025, objective.

During Fys 2020, 2021 and 2022, the Department continued to maximize the use of the wells to meet the nutrient reduction goals. The nutrient loads diverted are dependent on the influent concentrations and process improvements generated from the CD projects, specifically the increase in aeration capacity. The nutrient diversion projections indicate that about 4.0 million pounds of Total Phosphorous (TP) and 54.8 million pounds of Total Nitrogen (TN) will be diverted before the end of 2025. If recently observed effluent concentrations hold steady over the next three years, the TN projection is under the target by about 5.1 million pounds. It is possible that additional pounds of TN could be diverted prior to December 31, 2025. The Department no longer accepts septage and fats, oil, and grease loads at CDWWTP in an attempt to minimize the TN loads.

5.5.3 Consent Decree Case: No. 1:12-cv-24400-FAM

On May 21, 2013, the negotiated CD (Case: No. 1:12-cv-24400-FAM) was approved by the Miami-Dade BCC and executed by the Mayor to provide for improvements to the Department's wastewater collection and treatment system. The CD was then lodged by the Department of Justice with the United States District Court for the Southeastern District of Florida (Court) on June 6, 2013, and became effective on December 6, 2013. On April 9, 2014, the CD was approved by the Court of the United States of America, FDEP, and the State of Florida.

The CD requires the Department to upgrade its collection, transmission, and treatment facilities by completing 81 system improvements throughout the Miami-Dade County wastewater system. The cost of these upgrades is

valued at an estimated \$2.01 billion. In FY 2023, the Department was in Year 10 of the CD duration. The projects included as part of the CD are as follows:

- Continuation of the capacity maintenance program.
- Enforcement of the 10-hour criterion at pump stations.
- Expansion of the pump station remote monitoring program (SCADA system).
- Maintenance and application of the wastewater collection and transmission system model.
- Development of a spare parts program for inventory management.
- Flow down of the CD requirements to wholesale customers through the Volume Sewer Customer Ordinance administered by Miami-Dade RER.
- Expansion of the Fats, Oils, and Grease (FOG) control program.
- Enhancement of the information management system and the sewer system asset management program.
- Assessment of force mains.
- Assessment of gravity sewers.
- Enhancement of the pump station maintenance and operations program.
- Enhancement of the WWTP operations and maintenance program.
- A financial analysis program to support the completion of all CD deliverables on schedule.

As of December 31, 2023, 61 capital improvement projects, with an approximate total cost of \$910 million, reached substantial completion, with 15 projects currently in the construction phase, with an approximate total cost of \$884 million, and five projects, estimated at \$214 million, in the planning, design, permitting, and/or procurement phases.

All CD requirements were met during the 2023 calendar year, except for meeting the final deadlines associated with the CIP projects summarized below.

On December 28, 2022, the Department submitted to EPA and FDEP a Request for Time Extension and Project Status Updates for the below six CD projects, which experienced several delays throughout its execution, and requested a time extension beyond January 6, 2023 for CIP projects 1.6 and 1.8, and January 13, 2023, for CIP projects 2.12, 2.13, 2.16, and 2.18.

1. CIP 1.6 SDWWTP Gravity Sludge Thickening Facility
2. CIP 1.8 SDWWTP Dewatering Facility
3. CIP 2.12 CDWWTP Gravity Sludge Thickening Plant 1,
4. CIP 2.13 CDWWTP Gravity Sludge Thickening Plant 2,
5. CIP 2.16 CDWWTP Dewatering Facility, and
6. CIP 2.18 CDWWTP Odor Control Systems.

On June 16, 2023, the Department notified EPA and FDEP for a Request for Time Extension and Project Status Update for CIP 2.15 Digester Plant 2 at CDWWTP due to unforeseen and complex delays during construction, and start-up and commissioning. The compliance date for this project was June 18, 2023.

On October 20, 2023, the County submitted a Force Majeure Delay Notification and Request for Time Extension Letter to EPA and FDEP due to project delays experienced during the start-up and commissioning of the Cluster No. 1 Digesters and Acid-Phase Reactors at SDWWTP. A Revised Force Majeure Delay Notification and Request

for Time Extension Letter was subsequently submitted on October 31, 2023. The compliance date for this project was November 21, 2023.

Section V of the CD requires the Department to develop a Public Document Repository (PDR) and make available a copy of each deliverable in the PDR. The Department’s website PDR website is <https://consentdecreepdr.azurewebsites.net/>. Copies of all deliverables and reports required by the CD and submitted to the USEPA and FDEP are available in the PDR. Table 5-2 Table 5-2 identifies the major reporting requirements of the CD.

Table 5-2 Consent Decree Reporting Requirements and Status

Line	Requirement	Description	Status
1	Quarterly Reports	Includes information on SSOs occurring in the quarter.	The requirement has been met.
2	Semi-Annual Reports	Includes description of projects and activities completed, milestones achieved, and stated compliance with the requirements of the CD.	The requirement has been met.
		Also includes a summary of significant projects and activities to be performed the remainder of the calendar year.	
3	Annual Reports	Includes a narrative summary of progress made, key accomplishments, and activities under the CMOM Programs implemented or modified for the calendar year.	The requirement has been met.
		Includes a trends analysis of the number, volume, duration, and cause of SSOs in the past two calendar years.	
4	Violation Reporting	The Department must notify USEPA and FDEP regarding any event or violation that may pose an immediate threat to public health or the environment.	The requirement has been met.

The Department continues to utilize third-party resources as needed to assist with the management and implementation of its CD Program. Table 5-3 Table 5-3 outlines major activities and programs implemented to date.

Table 5-3 Consent Decree Implementation Progress

Line	Item	Progress
1	Continuing CMOM Programs	The Adequate Pumping, Transmission, and Treatment Capacity Program is ongoing and remains in compliance with the requirements of the CD and Section 24-42.3 of the Code of Ordinances, Miami-Dade County.
		Through the Pump Station Remote Monitoring Program, the Department continues to implement operation software improvements at their facilities. Data Review & Data Configuration sections of the project plan have been completed. The Department is currently completing reporting components for the WWTP/WTP Custom Monthly Regulatory Reports. Configuration of the Pump Station data mapping is ongoing, as is sensor importing for Rain Vieux data, USGS data, and NOAA data.

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Line	Item	Progress
		<p>Through the Spare Parts Inventory Management Program, the Department continues to maintain inventory for spare parts. Work on this program is ongoing and the program will be enhanced as new CMOM Programs are implemented, which will continue beyond 2023.</p> <p>The Wastewater Collection and Transmission System (WCTS) Model incorporated all the changes to the system provided in the last quarter of FY 2021. The effective hydraulic model was updated to include field information captured from CDWWTP and PS0001, elevation survey data for interceptors to PS0001, and results from extensive analyses evaluating the capacity of PS0001 interceptors in order to plan for developments and growth.</p> <p>Modifications to the Model were made, calibration of Model networks were incorporated into the latest effective model version. The Effective Model version represents existing conditions of the system. This version of the model is validated recurrently with observed flow data for distribution at the wastewater treatment plants. In addition, based on findings from calibration and the latest Effective Model, the CD PMCM updated the model networks corresponding to planning horizons (2020, 2025, and 2035).</p> <p>The Volume Sewer Customer Ordinance (VSCO) Program is ongoing and on track to meet CMOM requirements.</p>
2	Consent Decree Reporting	See Table 5-2 of this report.
3	New CMOM Programs	<p>The Fats, Oils, and Grease (FOG) Control Program is ongoing and is on track to meet CMOM requirements. On June 30, 2023, the County submitted the Sixth Annual FOG Control Program Review Report.</p> <p>The Sewer Overflow Response Plan (SORP) is ongoing and is on track to meet CMOM requirements.</p> <p>The Information Management System (IMS) Program is ongoing and is on track to meet CMOM requirements.</p> <p>The Geographic Information Systems (GIS) Program is ongoing and is on track to meet CMOM requirements.</p> <p>The Sewer System Asset Management Program (SSAMP) is ongoing and is on track to meet CMOM requirements.</p> <p>The Gravity Sewer System Operations and Maintenance Program (GSSOMP) is ongoing and is on track to meet CMOM requirements. The Department continued to deploy Smart Covers to "hot spots" to closely monitor and prevent SSOs. The CCTV contract to inspect gravity sewer mains for Pump Station 0002 is pending NTP. CCTV inspection for all Wellfield Protection Ordinance (WPO) stations is pending NTP. WPO identified defects are in process of repair. Wastewater AMI for Volume Sewer Customers has been integrated into SCADA.</p> <p>The Pump Station Operations and Preventative Maintenance Program (PSOPMP) is ongoing and is on track to meet CMOM requirements.</p> <p>The Force Main Operations, Preventative Maintenance, and Assessment/Rehabilitation Program is ongoing and is on track to meet CMOM requirements.</p> <p>The Force Main Rehabilitation/Replacement Program is ongoing and is on track to meet CMOM requirements.</p> <p>The WWTP Operations and Maintenance Program is ongoing and is on track to meet CMOM requirements. Continued random collection of hauled waste as a standard practice. RER-DERM/WASD Coordination Meetings were held via Microsoft Teams on August 11, 2022 and on November 2, 2022 to discuss Hauled Waste Program and any issues or concerns related to illicit hauled waste or discharges to the plant or collection system. The ratio of unplanned (49%) to planned (53%) maintenance continues to improve. Work Order aging is also reducing.</p>

Line	Item	Progress
		The Financial Analysis Program (FAP) was approved by the USEPA/FDEP on October 17, 2017. Work on the program is ongoing and the Department submitted required Financial Analysis Program Reports to EPA and FDEP for FY 2023.
4	Capital Improvement Projects ¹	The Department continues to be fully engaged with the successful implementation of capital improvement projects at NDWWTP, CDWWTP, and SDWWTPs; and the wastewater collection and transmission system including lift stations.
5	Sanitary Sewer Overflow Analysis	The Department must notify USEPA and FDEP regarding any event or violation that may pose an immediate threat to public health or the environment. SSO event information can be found in the CD 2023 Annual Reports.
6	Supplemental Environment Project (SEP)	The construction of the SEP reached completion on December 26, 2018, ahead of the CD Compliance deadline of November 18, 2019. The Department installed 7,660 linear feet of new gravity sewer mains within an industrial area that had no access to sanitary sewers and relied on septic systems. After being impacted by the Pandemic, RER-DERM has reinitiated enforcement actions for SEP property owners with overdue Notice of Required Connection (NORC).

¹ Capital Improvement Projects updates may be found in the CD Annual Reports.

5.5.3.1 Sanitary Sewer Overflows

The Department continues to address SSOs, identify the cause of these events and gather important data, such as time of occurrence, duration, estimated volume, and the receiving body of water, if applicable. In 2023, the Department experienced 120 SSOs, which represents a 1% increase from 2022 (119), and a 26% increase from 2021 (89). Since reporting of SSOs began in 2014, 2023 was the third highest year on record for SSOs, with the highest occurring in 2020 (145 SSOs), and second highest occurring in 2017 (138 SSOs).

Some of the SSOs experienced in 2023 can be attributed to significantly higher than average rainfall. The average rainfall for Miami-Dade County is approximately 60 inches annually. However, in 2023, annual cumulative rainfall totaled over 72 inches, and heavy rain events occurred outside of the traditional wet season. In order to address SSO events caused by higher than average rainfall, the Department continues to identify, address, and repair inflow and infiltration issues. The number of Building Backups (BBUs) in the system increased in 2023, with three events occurring, one more than in 2022. However, 2023 represents the second lowest occurrence of BBUs since record keeping began in 2014.

To address SSO issues during 2023, Division of Environmental Resources Management (DERM) implemented a pilot program that added 192 SmartCover units in the Department’s sanitary sewer systems. The intent of the SmartCover is to detect and prevent SSOs from occurring, through remote monitoring, and to continually alert the Department of variations in sewer levels. Initial results from this pilot program have indicated success in preventing SSO occurrences. However, SSO events continue to be an issue for the Department. To help address the SSO occurrences and the need for routine inspection and reinspection, additional field and engineering staff positions have been added to the Department’s SSO Response and Prevention Program.

5.5.3.2 North District WWTP Administrative Order No. AO-06-002-DW-13-SED

The Department has complied with the long and interim reporting requirements associated with the OOL, as noted in the below subsections.

5.5.3.2.1 Five-Year Status Reports

The Department is required every five years to summarize the remaining and proposed actions required to meet the requirements of Section 403.086(9)(f), Florida Statutes. These five year status reports have been issued to FDEP since the inception in 2009, and in five year increments thereafter, in 2014 and 2019. The next five year plan is due to the FDEP in December 2024.

5.5.3.2.2 Plan for Compliance with Ocean Outfall Legislation

A Compliance Plan is also required to detail advanced wastewater treatment and management requirements, installation of functioning reuse and ceasing of discharge of domestic wastewater through ocean outfalls. The Department has developed and issued updates to the OOL Compliance Plan in accordance with Section 403.086(9)(f), Florida Statutes.

5.5.3.2.3 Reduction of Cumulative Outfall Loadings

The Department is required to submit annual reports on the status of compliance for reducing the cumulative outfall loadings of total nitrogen and total phosphorus between December 31, 2008, and December 31, 2025. FDEP requested more information and a potential adjustment to the load reduction estimate provided by the Department. The Department implemented outfall reductions by diverting wastewater flow to deep injection well facilities, which is described further in the Reduction of Cumulative Outfall Loadings sections of the Annual Compliance Status Reports submitted by the Department to FDEP on March 31, 2023.

5.5.3.2.4 Effluent Monitoring and Sampling

The Department submitted an Effluent Monitoring and Sampling Plan of Study to FDEP for review on May 19, 2012. Initial comments were received in January 2013 and were responded to in February 2013. A final Plan of Study was submitted on June 10, 2015, and was approved by FDEP on September 15, 2016. The new AO has incorporated the Plan of Study and amended it to add three parameters. The requirements of this effort required sampling to commence no later than six months from the date of the issuance (August 2017) and a final report to be submitted no later than two years later (August 2019). This additional monitoring began on schedule with sampling beginning in August 2017. Following a review of the minimum 12 sampling events required of the AO, additional sampling events were recommended by Department staff for reasonable assurance in the preparation of the draft report. The additional sampling events were performed, and the Department is in the process of finalizing the draft report to include any proposed changes to the pretreatment program procedures and implementation schedule.

5.5.3.2.5 Administrative Order Status of Compliance Reporting

Annual reporting on the status of compliance with the AO is required by July 31 each year beginning in 2012. The Department has submitted Annual Compliance Status Reports from 2012 to present.

5.5.3.3 Central District WWTP Administrative Order No. AO-09-008-DW-13-SED

The Department has complied with the long and interim reporting requirements associated with the OOL, as noted in the below subsections.

5.5.3.3.1 Five-Year Status Reports

The Department is required every five years to summarize the remaining and proposed actions required to meet the requirements of Section 403.086(9)(f), Florida Statutes. These five year status reports have been issued to FDEP since the inception in 2009, and in five year increments thereafter, in 2014 and 2019. The next five year plan is due to the FDEP in December 2024.

5.5.3.3.2 Plan for Compliance with Ocean Outfall Legislation

A Compliance Plan is also required to detail advanced wastewater treatment and management requirements, installation of functioning reuse, and ceasing of discharge of domestic wastewater through ocean outfalls. The original Compliance Plan was due on July 1, 2013, and was submitted by the Department on June 28, 2013. Correspondence between FDEP and the Department took place between February 2014 and June 2015 addressing requests for additional information, including the request that future reports provide specific information on the discharge loading estimates. The Compliance Plan 2016 Update was delivered to FDEP on July 1, 2016. On January 9, 2017, the FDEP responded with a letter acknowledging receipt but expressed concerns about the reuse program, as the initial OOL reuse provisions are outdated given the changed conditions that have occurred since the implementation of the 2013 OOL. FDEP also requested another update to the Compliance Plan which was submitted on July 1, 2017. The Department provided this update as requested.

A Compliance Plan 2022 Update was submitted to FDEP on July 1, 2022. This 2022 Update to the Compliance Plan provided details on the Department's revised plan to meet the OOL requirements:

- The existing AADF treatment capacity at the two WWTPs with ocean outfalls would be adequate to treat projected wastewater flows through 2035.
- Given the relatively constant wastewater flows, conveyance system capacity increases were also not required prior to the end of 2025.
- The proposed West District (WDWWTP) would be deferred, as it is not needed to comply with the legislation, nor will it be needed by 2025.

5.5.3.3.3 Reduction of Cumulative Outfall Loadings

The Department is required to submit annual reports on the status of compliance for reducing the cumulative outfall loadings of total nitrogen and total phosphorus between December 31, 2008, and December 31, 2025. On February 17, 2014, FDEP requested more information and a potential adjustment to the load reduction estimate provided by the Department. The Department implemented outfall reductions by diverting wastewater flow to deep injection well facilities, which is described further in the Annual Status of Compliance Report Reducing Cumulative Outfall Loadings of Total Nitrogen and Total Phosphorus submitted to the FDEP on an annual basis. The most recent Report was submitted to FDEP in March 2023.

5.5.3.3.4 Administrative Order Status of Compliance Reporting

Annual reporting on the status of compliance with the AO is required by July 31 each year beginning in 2012. The Department has submitted Annual Compliance Status Reports from 2012 to present.

5.5.3.3.5 Disinfection and Toxicity Study

The Department is required to conduct a study to assess disinfection and toxicity. The draft Plan of Study was submitted to FDEP on January 19, 2018, for initial review and resubmitted on August 20, 2020. The resubmittal plan indicated that the proposed test will not be valid until after the flows to the ocean outfall are reduced to 5.74 MGD on a 5-year average as part of the OOL activities in 2025. FDEP wants to test a few samples with 5.74 MGD flows before the resolution of this study. The Department is preparing a response to FDEP to address their comments.

5.5.3.3.6 Pretreatment Program – Expanding Effluent Testing Data

The draft report to evaluate the effluent testing data was submitted to FDEP on January 12, 2018, as required in the AOA. On March 30, 2020, the Department received comments from the FDEP and continued to update the report with additional sampling data (through March 2020) which were included in the Expanded Effluent Testing Data Section 3.A.14 in the permit renewal application submitted to FDEP on July 20, 2020. On December 21, 2020, FDEP issued a notice of draft permit that includes the AO-20-006-DW-13-SED for the CDWWTP which included requirements for the evaluation of local limits for the Pretreatment Program.

5.5.4 Future Statutory and Regulatory Considerations

5.5.4.1 Eliminating Nonbeneficial Surface Water Discharge (Senate Bill 64)

Florida Senate (F.S.) Bill 64 requires domestic wastewater utilities that dispose of effluent, reclaimed water, or reuse water by surface water discharge to:

- Submit a plan to FDEP by November 1, 2021, to eliminate nonbeneficial surface water discharges by Jan 1, 2032; and
- If no plan is timely submitted or approved, eliminate surface water discharges by January 1, 2028.

The bill required FDEP to submit a report to the Legislature providing the average gallons per day that discharges are reduced, the average gallons per day of discharges that will continue, the level of treatment discharged water receives, and any modified or new plans submitted by a utility since the last report.

FDEP must approve a plan that includes all the required information and results in:

- Eliminating the surface water discharge.
- Meeting the requirements of section 403.086(10), F.S.
- Meeting at least one of the below allowable statutory surface water discharge provisions.
 - Discharges associated with an indirect potable reuse project;
 - Permitted wet weather discharge;
 - Discharges into a stormwater management system, which are subsequently withdrawn for irrigation purposes;
 - Utilities that operate domestic wastewater treatment facilities with reuse systems that reuse at least 90 percent of a facility's annual average flow; or
 - Discharges that provide direct ecological or public water supply benefits.

The bill also specifies that potable reuse is an alternative water supply, for purposes of making reuse projects eligible for alternative water supply funding; incentivizes the development of potable reuse projects; incentivizes

residential developments that use graywater technologies; and specifies the total dissolved solids allowable in aquifer storage and recovery in certain circumstances.

The Department submitted a plan to FDEP to eliminate nonbeneficial surface water discharge at the NDWWTP and CDWWTP ocean outfalls. The plan was reviewed by FDEP and the Department continues to submit annual status updates on its OOL program.

6 Multi-Year Capital Improvement Plan

The Department has a formal capital planning and budgeting process led by the Capital Planning and Coordination Section. The plan includes projects for the renewal and replacement of existing infrastructure, expansion projects to accommodate growth in the System, projects resulting from changes in regulatory requirements, and construction of new infrastructure as part of the long-term master plan.

The Department develops a Multi-Year Capital Improvement Plan, or MYCIP, that is reviewed and updated annually. Cost estimates are prepared along with a review of anticipated funding sources and uses for near-term projects.

6.1 Summary of Department Multi-Year Capital Improvement Plan

The full MYCIP plan, shown in Tables 6-1 and 6-2, totals \$1.2 billion for water projects and \$3.4 billion for wastewater projects from FY 2024 through FY 2029. Funding sources for these projects are anticipated to include bond proceeds in addition to revenue sources such as rate revenue and impact fees. These projects represent strategic long-term planning efforts to sustain the existing infrastructure and system expansion to accommodate growth.

As part of the overall budgeting process, the Department updates the MYCIP annually. Staff reviews progress of ongoing projects and refines budgets as needed. Additional projects arising from identified short-term needs and long-term plans are compiled, and project budgets are reviewed with the relevant departments and project managers. A review of regulatory requirements and any projects required as a result of regulations is also completed and budgeted. These efforts enable the creation of the full MYCIP, which staff reviews to determine the funding sources, which may include available balances, rate revenue or impact fees, or future debt issuance. The Department then estimates the schedule of debt financing for near- and long-term purposes. Tables 6-1 and 6-2 present the FY 2024 through FY 2029 MYCIP by project and funding source, respectively.

Table 6-1 Summary of Multi-Year Capital Improvement Plan by Project (\$ in Millions)

Project Number	Project Description	Fiscal Year						Total
		2024	2025	2026	2027	2028	2029	
Water System Projects								
1050	Water Treatment Plant - Hialeah / Preston Improvements	\$15.2	\$20.8	\$21.3	\$10.0	\$9.3	\$15.4	\$91.9
1051	Water Treatment Plant - Alexander Orr, Jr. Expansion	5.7	20.9	25.3	29.7	22.0	40.4	143.9
1053	North Miami-Dade Water Transmission Main Improvements	9.0	10.1	16.3	20.5	16.4	10.1	82.5
1054	Central Miami-Dade Water Transmission Main Improvements	0.3	2.2	3.5	2.4	2.0	0.0	10.4
1055	South Miami-Dade Water Transmission Main Improvements	1.6	3.3	2.9	4.3	2.7	0.0	14.8
1056	Water Main Extension	0.2	0.2	0.2	0.2	0.2	0.2	1.2

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Project Number	Project Description	Fiscal Year						Total
		2024	2025	2026	2027	2028	2029	
1059	Water General Maintenance and Office Facilities	0.7	1.0	7.6	13.1	12.5	20.8	55.8
1060	Water Distribution System Extension Enhancements	17.3	14.8	15.3	13.7	13.3	13.3	87.7
1063	Water System Fire Hydrant Installation	2.6	2.8	2.9	2.9	2.9	2.9	17.0
1064	Water Equipment and Vehicles	14.0	25.0	23.8	28.8	38.0	65.0	194.5
1066	Water Treatment Plants Replacement and Renovations	13.5	12.4	7.0	7.0	7.0	7.0	54.0
1067	Water System Maintenance and Upgrades	23.9	23.6	15.0	15.0	15.0	15.0	107.5
1075	Safe Drinking Water Act Modifications - SWT Rule and D-DBP	7.9	15.4	11.5	10.9	9.2	2.0	57.0
1078	Water Telemetry System Enhancements	0.3	1.0	0.5	0.5	0.5	0.5	3.3
1080	Water Treatment Plant - Floridian Reverse Osmosis	0.2	0.0	0.0	0.0	0.0	0.0	0.2
1082	Water - Pipes and Infrastructure Projects	10.0	8.5	5.0	3.0	3.0	3.0	32.5
1084	Small Diameter Water Main Replacement Program	17.5	28.7	37.2	40.3	63.1	73.4	260.2
1085	Small Diameter Water Main Replacement Program	0.8	2.4	3.1	4.6	7.8	15.0	33.7
Total Water System Projects		\$140.8	\$193.2	\$198.4	\$206.8	\$225.0	\$284.0	\$1,248.1
Wastewater System Projects								
1002	North District Upgrades - Wastewater Treatment Plant	\$6.5	\$34.6	\$73.1	\$83.1	\$42.0	\$20.0	\$259.3
1003	Central District Upgrades - Wastewater Treatment Plant	12.6	20.4	37.2	74.8	62.4	32.7	240.1
1006	South District Wastewater Treatment plant Expansion - Phase 3	4.0	3.5	2.0	0.0	0.0	0.0	9.5
1007	South District Upgrades - Wastewater Treatment Plant	12.5	25.0	20.2	11.1	9.3	3.8	81.8
1008	North Miami-Dade Wastewater Transmission Mains and Pump Station Improvements	42.5	37.6	42.6	31.2	3.0	0.0	156.8
1009	Central Miami-Dade Wastewater Transmission Mains and Pump Station Improvements	7.5	9.5	15.5	17.5	19.5	13.6	83.0
1010	South District Wastewater Transmission Mains and Pump Station Improvements	9.9	18.5	23.1	28.3	25.0	12.5	117.3
1011	Gravity Sewer Renovations	15.8	15.8	14.7	11.7	11.8	11.8	81.7
1012	Sanitary Sewer System Improvements	0.2	0.2	0.2	0.2	0.2	0.2	1.2
1013	Wastewater General Maintenance and Office Facilities	2.6	3.3	26.7	24.2	22.5	41.0	120.3
1015	Pump Station Improvement Program	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1018	Peak Flow Management Studies	6.7	6.1	3.8	1.9	1.0	1.0	20.5
1019	Sanitary Sewer System Extension	19.9	10.0	5.0	5.0	5.0	5.0	49.9

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Project Number	Project Description	Fiscal Year						Total
		2024	2025	2026	2027	2028	2029	
1021	Pump Station Generators and Miscellaneous Upgrades	4.3	7.1	9.5	3.4	2.7	0.0	26.9
1023	Wastewater Telemetry System	0.6	1.5	0.5	0.5	0.5	0.5	4.1
1024	Wastewater System Maintenance and Upgrades	25.6	22.2	20.0	20.0	20.0	20.0	127.8
1025	Lift Station Upgrades and Structural Maintenance Improvements	0.2	0.4	0.4	0.4	0.4	0.4	2.0
1027	Wastewater Equipment and Vehicles	14.1	21.5	9.0	9.0	9.0	9.0	71.6
1029	Wastewater Treatment Plants Replacement and Renovation	17.8	22.6	17.2	17.2	17.2	17.2	109.0
1032	Wastewater Treatment Plants Miscellaneous Upgrades	2.5	0.0	0.0	0.0	0.0	0.0	2.5
1040	Outfall Legislation Summary Description	80.0	70.3	93.5	114.9	221.8	220.4	800.9
1041	General Obligation Bond (GOB)	5.0	0.0	0.0	0.0	0.0	0.0	5.0
1042	Wastewater - Pipes and Infrastructure	3.0	3.0	3.0	3.0	3.0	3.0	18.0
1044	Wastewater Treatment Plants Consent Decree Projects	112.9	66.7	63.5	34.4	30.3	24.0	331.9
1045	Wastewater Collection and Transmission Lines Consent Decree Projects	1.2	1.7	0.0	0.0	0.0	0.0	3.0
1046	Sewer Pump Station Systems Consent Decree Projects	0.3	0.1	0.0	0.0	0.0	0.0	0.4
1047	Wastewater Commercial Corridor Economic Development	23.0	23.5	22.6	13.9	4.1	0.0	87.0
1048	Biscayne Basin Improvements	169.6	130.2	27.5	21.2	15.0	15.0	378.5
1049	Sewer Pump Stations	34.5	38.9	66.8	51.9	24.5	24.8	241.4
Total Wastewater System Projects		\$635.4	\$594.2	\$597.3	\$578.7	\$550.2	\$475.7	\$3,431.5
Total Water and Wastewater		\$776.1	\$787.4	\$795.7	\$785.5	\$775.2	\$759.7	\$4,679.6

SOURCE: Information obtained from the Adopted FY2024-2029 Multi-Year Capital Improvement Plan.

Note: Totals and subtotals may vary due to rounding.

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Table 6-2 Summary of Multi-Year Capital Improvement Plan by Funding Source (\$ in Millions)

Fund Number	Fund Description	Fiscal Year						Total
		2024	2025	2026	2027	2028	2029	
Water System Projects								
2023W	2023 Bond Sale*	\$64.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$64.4
2024W	2024 Bond Sale	0.0	114.9	0.0	0.0	0.0	0.0	114.9
2025W	2025 Bond Sale	0.0	0.0	146.8	0.0	0.0	0.0	146.8
2026W	2026 Bond Sale	0.0	0.0	0.0	155.4	0.0	0.0	155.4
2027W	2027 Bond Sale	0.0	0.0	0.0	0.0	175.1	0.0	175.1
2028W	2028 Bond Sale	0.0	0.0	0.0	0.0	0.0	234.1	234.1
EW221	Water Renewal & Replacement	66.6	71.0	45.0	45.0	45.0	45.0	317.7
EW223	Plant Expansion	4.8	2.5	1.7	1.5	0.0	0.0	10.5
EW224	Special Construction Fund	0.7	0.7	0.7	0.7	0.7	0.7	4.2
EW226	Fire Hydrant Fund	4.2	4.1	4.2	4.2	4.2	4.2	25.1
Total Water System Projects		\$140.8	\$193.2	\$198.4	\$206.8	\$225.0	\$284.0	\$1,248.1
2023S	2023 Bond Sale*	\$261.1	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$261.1
2024S	2024 Bond Sale	0.0	272.5	0.0	0.0	0.0	0.0	272.5
2025S	2025 Bond Sale	0.0	0.0	333.5	0.0	0.0	0.0	333.5
2026S	2026 Bond Sale	0.0	0.0	0.0	239.7	0.0	0.0	239.7
2027S	2027 Bond Sale	0.0	0.0	0.0	0.0	165.5	0.0	165.5
2028S	2028 Bond Sale	0.0	0.0	0.0	0.0	0.0	139.2	139.2
EW621	Wastewater Renewal & Replacement	81.2	81.1	55.0	55.0	55.0	55.0	382.3
EW623	Plant Expansion (Connection Charges)	16.6	5.8	4.9	0.0	0.0	0.0	27.4
EW624	Special Construction Fund	11.1	15.8	8.9	5.2	3.8	2.8	47.5
EW627	WIFIA 1	3.6	0.0	0.0	0.0	0.0	0.0	3.6
EW628	WIFIA 2	8.8	86.5	121.0	45.6	15.0	15.0	291.9
EW629	WIFIA 3	96.7	92.6	20.8	13.5	5.1	0.0	228.7
EW630	WIFIA 4	3.5	14.0	29.1	50.7	106.2	108.6	312.0
EW631	OJUS	4.5	0.9	0.0	0.0	0.0	0.0	5.4
EW647	G.O. Bonds	28.0	23.5	22.6	13.9	4.1	0.0	92.0
EW668	2021 Subordinate Debt	120.3	0.0	0.0	0.0	0.0	0.0	120.3
Total Wastewater System Projects		\$635.4	\$594.2	\$597.3	\$578.7	\$550.2	\$475.7	\$3,431.5

SOURCE: *Information obtained from the Adopted FY2024-2029 Multi-Year Capital Improvement Plan.

Note: Totals and subtotals may vary due to rounding.

6.2 Summary of Multi-Year Capital Improvement Plan Funded with Senior Series 2024A Bonds

The adopted MYCIP includes 9 water projects and 10 wastewater projects for a total of 19 projects which are planned to be funded using Series 2024A bond proceeds for a total amount of approximately \$344 million. The Series 2024A Bonds will be used to fund the water projects shown in Table 6-3 and the wastewater projects shown in Table 6-4. Each project may include subprojects or phases to be executed over multiple years. Table 6-3 and Table 6-4 summarize the water and wastewater projects and provide a brief description of each project. Completion of some projects will require additional future funds, which are anticipated to be provided through a combination of future debt issuance and other available sources.

6.3 Water Projects – Senior Series 2024A Bond Issue

The Series 2024A Bonds will fund 9 water projects involving WTP and wellfield improvements, transmission system improvements and extensions, general plant and system improvements, and improvements due to regulatory requirements. Total planned financing, from the Series 2024A bonds for these water projects, is approximately \$83 million. Figure 6-1 provides a graphical summary of the water projects, by function. The majority of the planned water projects are related to wellfield, WTP, and transmission system improvements.

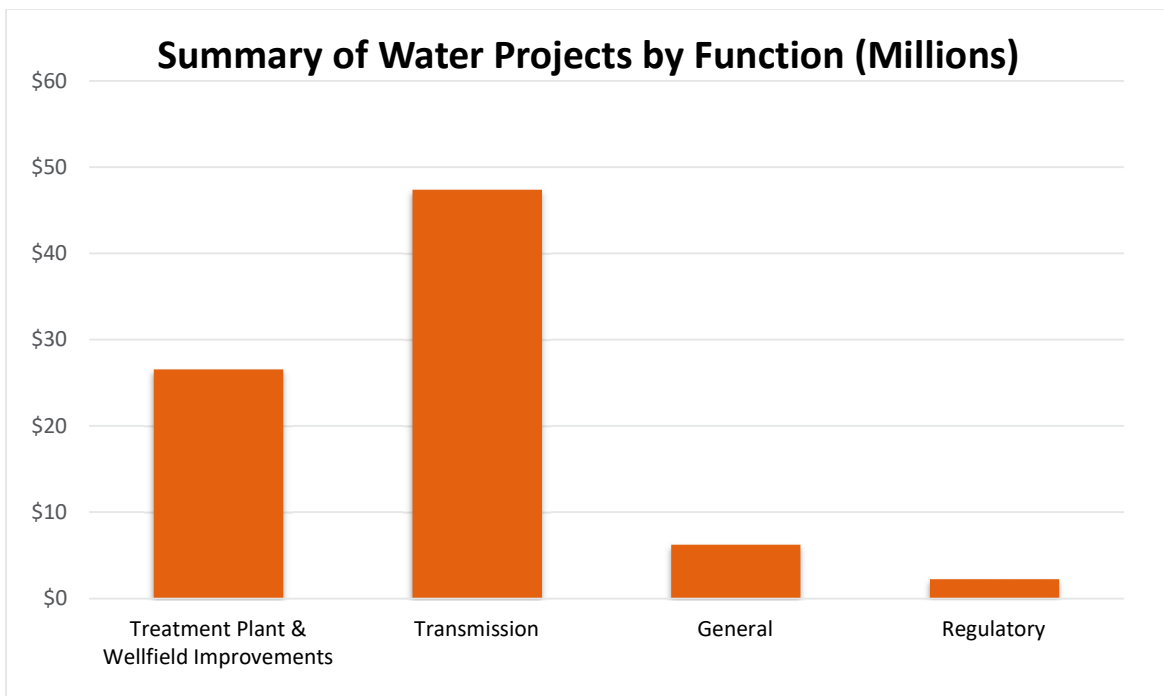


Figure 6-1 Summary of Water projects by Function (Millions)

SOURCE: Information obtained from the Adopted FY2024-2029 Multi-Year Capital Improvement Plan.

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Table 6-3 Summary of Multi-Year Capital Improvement Plan Water Projects Funded in part with Series 2024A Bonds (\$ in millions)

Project Number	Project Name	Project Description	Planned Financing	Function
Water Projects - \$ (Millions)				
1050	Hialeah / Preston Water Treatment Plant Improvements	Emergency generators, transmission main, pump station, 5 MG elevated remote storage, chlorine conversion, plant upgrades, chemical house and filter backwash, and plant accelerators	\$12.8	Treatment Plant & Wellfield Improvements
1051	Alexander Orr, Jr Water Treatment Plant Expansion	Finished water pipeline, Gen. #5 and #6 high service pumps, chlorine conversion, switchgear building and transformer, plant upgrades for remote storage, diesel fuel storage tanks, lime slakers, lime plant rehabilitation, high service pump and motor improvements, hydrotreator drives assemblies and motors, and plant wash and tank repair	\$11.5	Treatment Plant & Wellfield Improvements
1053	North Miami-Dade Water Transmission Mains Improvements	Water mains, ground storage tank and pump stations	\$13.0	Transmission
1059	Water General Maintenance and Office Facilities	South Miami Height Maintenance Facility- Water portion	\$0.8	General
1064	Water Equipment and Vehicles	Acquire vehicles, equipment, and associated Water System capital support materials	\$5.5	General
1075	Safe Drinking Water Act Modifications - Swt Rule And D-Dbp	Preston improvement to filters, plant modifications, South Dade chlorine conversion, and NWWF high service pump stations	\$2.3	Regulatory
1082	Water - Pipes and Infrastructure Projects	Pipes and Infrastructure Projects	\$13.7	Transmission
1084	Small Diameter Water Mains Replacement Program	Design, construct, and replace undersized water mains to improve fire flows, pressure to homes and quality of water	\$20.8	Transmission
1085	Water Reset Program	Water plant infrastructure	\$2.3	Treatment Plant & Wellfield Improvements
Total			\$82.5	

SOURCE: Information obtained from the Adopted FY2024-2029 Multi-Year Capital Improvement Plan.
 Note: Totals may vary due to rounding

6.4 Wastewater Projects – Series 2024A Bond Issue

Ten wastewater capital projects are planned to be funded using the Series 2024A Bonds proceeds. These projects include treatment plant improvements, piping and collection system improvements, and improvements due to regulatory requirements. The regulatory projects include projects required by the Consent Decree. Figure 6-2 provides a graphical summary of the wastewater projects, by function. Table 6-4 provides a brief project description and shows the applicable planned financing amounts for each project funded from the Series 2024A Bonds which total approximately \$262 million, with additional project costs funded by future sources. The planned wastewater projects and associated funding amounts are for treatment plant improvements, piping and collection projects, and regulatory projects.

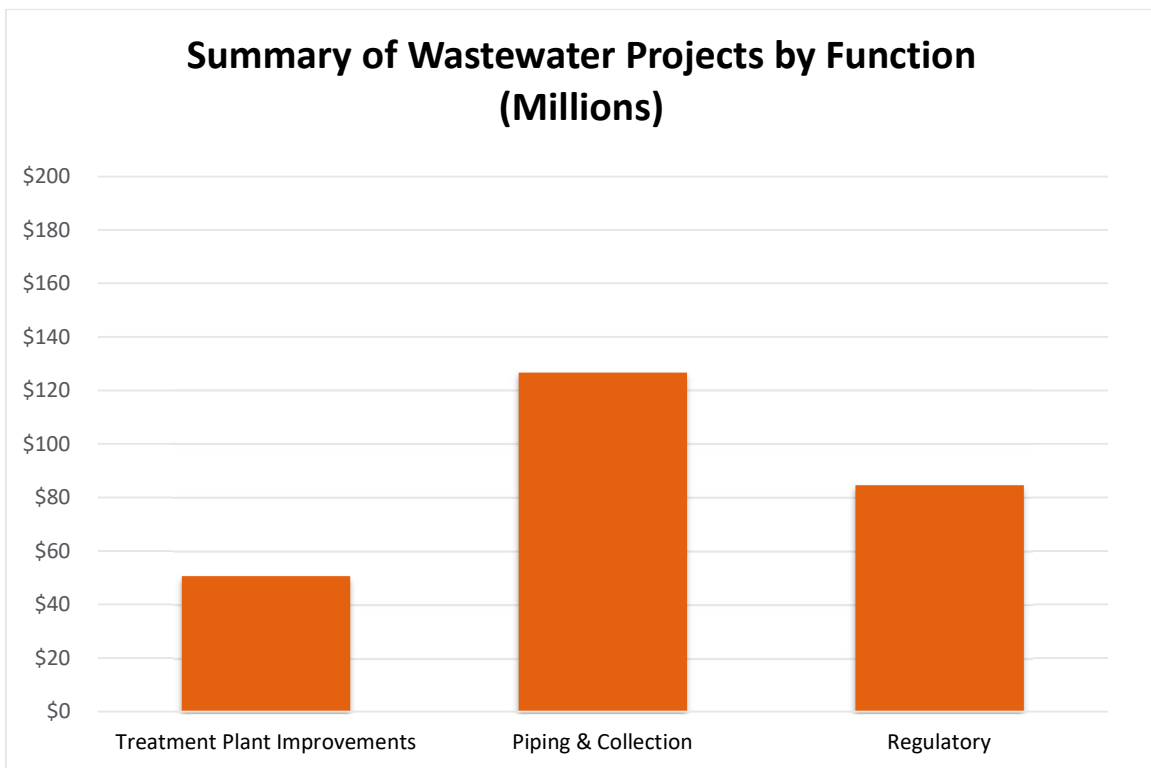


Figure 6-2 Summary of Wastewater Projects by Function (Millions)

SOURCE: Information obtained from the Adopted FY2024-2029 Multi-Year Capital Improvement Plan.

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Table 6-4 Summary of Multi-Year Capital Improvement Plan Wastewater Projects Funded in Part with Series 2024A Bonds (\$ in millions)

Project Number	Project Name	Project Description	Planned Financing	Function
Wastewater Projects - \$ (Millions)				
1002	North District Upgrades - Wastewater Treatment Plant	Chlorine improvement process, injection wells upgrades, upgrades and rehabilitation of WWTP, replace switchgear, pretreatment building upgrades, oxygen plant electrical upgrades, effluent pump station wet well rehabilitation, generator and electrical building flood mitigation, fire protection, primary clarifier rehabilitation, yard piping rehabilitation, odor control rehabilitation, effluent pump station pumps replacement, injection well pumps, plant process electric consumption metering, high efficiency mixer system, high efficiency transformers and motors and electrical equipment, and monitoring wells	\$7.0	Treatment Plant Improvements
1003	Central District Upgrades - Wastewater Treatment Plant	Digester improvements, outfall rehabilitation, sludge handling facility, dewatering building improvements, dewatering switchgear, pump stations at plant, administration building, headworks/grit building improvements, cogeneration system improvements, emergency generators, plant process controls, fire alarm system, centrifuge controls, pump station replacement, plant process controls, electrical consumption metering, high efficiency mixer system, high efficiency transformers and motors, replace digesters, pump station electrical upgrade, hypochlorite facility, biosolid processing facilities, centrate treatment process, carbon dioxide sequestering, struvite control process implementation, membrane biological reactor	\$22.0	Treatment Plant Improvements
1007	South District Upgrades - Wastewater Treatment Plant	Sludge treatment facility, dewatering centrifuge, compressor for oxygen plant, cogeneration units #'s 1 through 5, effluent pumps, odor control, digester gas recirculation, electrical consumption metering, fire alarm system, centrifuge controls, oxygen compressor #4, high efficiency mixer system, high efficiency transformers and motors, replace power transfer control system, advanced digestion thermal, plant expansion, centrate treatment process, struvite control process, and carbon dioxide sequestering with effluent reuse	\$21.5	Treatment Plant Improvements
1008	North Miami-Dade Wastewater Transmission Mains and Pump Station Improvements	New force mains, pipeline interconnections, and force main upgrades	\$59.0	Piping & Collection
1009	Central Miami-Dade Wastewater Transmission Mains and Pump Station	Force main Fisher Island to CDWWTP, force main rehabilitation and replacement, switchgear replacement, odor control, transmission main and pumpstation improvements, reclaimed water pipeline, and booster/wet well pump station	\$17.0	Piping & Collection

Project Number	Project Name	Project Description	Planned Financing	Function
	Improvements (Government Cut Phase 3)			
1010	South District Wastewater Transmission Mains and Pumps Stations Improvements	Construct piping improvements to pump station number 536 and force main upgrade in SW 117 Ave	\$10.9	Piping & Collection
1011	Gravity Sewer Renovations	Rehabilitation of sewer mains due to inflow and infiltration	\$7.8	Piping & Collection
1044	Wastewater Treatment Plants- Consent Decree Projects	Design, construct, and rehabilitate infrastructure at wastewater treatment plants to comply with EPA Consent Decree	\$83.4	Regulatory
1046	Sewer Pump Station Systems- Consent Decree Projects	Design, construct, and rehabilitate pump stations infrastructure systems to comply with EPA Consent Decree	\$1.2	Regulatory
1049	Sewer Pump Stations	Design for installation, install of new pump, upgrades	\$32.0	Piping & Collection
Total			\$261.8	

SOURCE: Information obtained from the Adopted FY2024-2029 Multi-Year Capital Improvement Plan.

Note: Totals may vary due to rounding.

6.5 Summary of Renewal and Replacement Projects (R&R)

Certain projects contained in the MYCIP involve the ongoing R&R of existing assets in the System. For FY 2024 through FY 2029, the total water and wastewater budget for R&R projects is \$700 million. These projects are funded through a combination of funds on hand, revenue from operations, and fees collected. Table 6-5 provides a summary of planned R&R projects. Projects shown in Table 6-5 are a subset of the total MYCIP illustrated in Table 6-1.

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Table 6-5 Summary of Renewal and Replacement Projects

Project Number	Project Description	Sub-Project Name	Fiscal Year						Total
			2024	2025	2026	2027	2028	2029	
Water System R&R Projects									
1060	Water Distribution System Extension Enhancements	Water Distribution System Extension	\$14.4	\$11.5	\$11.5	\$11.5	\$11.5	\$11.5	\$71.9
1064	Water Equipment and Vehicles	Miscellaneous Tools And Equipment	11.5	17.5	8.0	8.0	8.0	8.0	61.0
1066	Water Treatment Plants Replacement and Renovations	Water Plants Rehabilitation	13.5	12.4	7.0	7.0	7.0	7.0	54.0
1067	Water System Maintenance and Upgrades	Water System Upgrades	23.9	23.6	15.0	15.0	15.0	15.0	107.5
1078	Water Telemetry System Enhancements	Telemetry System - Water	0.3	1.0	0.5	0.5	0.5	0.5	3.3
1082	Water - Pipes and Infrastructure Projects	Water - Pipes And Infrastructure Projects	3.0	5.0	3.0	3.0	3.0	3.0	20.0
Total Water System Projects			\$66.6	\$71.0	\$45.0	\$45.0	\$45.0	\$45.0	\$317.7
Wastewater System R&R Projects									
1019	Sanitary Sewer System Extension	Sanitary Sewer System Extension	\$19.9	\$10.0	\$5.0	\$5.0	\$5.0	\$5.0	\$49.9
1023	Wastewater Telemetry System	Telemetry System - Wastewater	0.6	1.5	0.5	0.5	0.5	0.5	4.1
1024	Wastewater System Maintenance and Upgrades	Wastewater System Upgrades	25.6	22.2	20.0	20.0	20.0	20.0	127.8
1025	Lift Station Upgrades and Structural Maintenance Improvements	Lift Station Structural Maintenance & Upgrades	0.2	0.4	0.4	0.4	0.4	0.4	2.0
1027	Wastewater Equipment and Vehicles	Miscellaneous Tools And Equipment	14.1	21.5	9.0	9.0	9.0	9.0	71.6
1029	Wastewater Treatment Plants Replacement and Renovation	Wastewater Treatment Plants Rehabilitation	17.8	22.6	17.2	17.2	17.2	17.2	109.0
1042	Wastewater - Pipes and Infrastructure	Wastewater - Pipes And Infrastructure Projects	3.0	3.0	3.0	3.0	3.0	3.0	18.0
Total Wastewater System Projects			\$81.2	\$81.1	\$55.0	\$55.0	\$55.0	\$55.0	\$382.3

SOURCE: Adopted FY2024-2029 Multi-Year Capital Improvement Plan
 Note: Totals and subtotals may vary due to rounding.

7 Customers and Rates

7.1 Customers

The Department sells water and provides wastewater services to both retail and wholesale customers. The Department has 15 water and 13 wastewater wholesale customers. As of the end of FY 2023, the Department had approximately 462,214 retail water customers and approximately 377,496 retail wastewater customers. Table 7-1 shows the water and wastewater flows and sales to retail customers and each of the wholesale customers.

Table 7-1 shows that, for FY 2023, 27.97 percent of the water pumped, and 27.83 percent of the wastewater pumped were unbilled. Virtually all of the unbilled wastewater is associated with retail customers because wholesale customer flows are metered and include any infiltration and inflow that occurs in the wholesale customers' service areas. For billing purposes, the amount of wastewater from retail customers is calculated based on water sales to each customer (individual customer wastewater flows cannot reasonably be metered), and a portion of water sales to retail customers is used for irrigation and other functions that divert the flow from the Wastewater System. The Department has in place infiltration/exfiltration/inflow reduction programs to reduce the amount of groundwater infiltration, and to minimize potential leakage of raw sewage from defective sewers. While this has reduced the amount of unbilled wastewater, the program has not yet fully achieved the desired results.

Wholesale customers represent the Department's largest water and wastewater customers except for five retail customers, Florida Power & Light (FP&L), Miami International Airport, University of Miami, Jackson Memorial Hospital, and the Florida Department of Corrections. Most of these retail customers are included in Table 7-2, which shows the top 10 customers by revenue for the Department.

The Department's retail customers reside within the Department's service area and, by County ordinance, are required to obtain water and wastewater service from the Department. The Department has entered into agreements with all the wholesale customers. Tables 7-3 and 7-4 show contract expiration dates for wholesale water and sewer agreements. The Department's wholesale water and wastewater agreements vary in duration, with the longest agreement expiring in 2042.

Five of the Department's wholesale water customers, North Miami, North Miami Beach, Florida City, Hialeah and Homestead operate their own water treatment plants. The Department is currently the only source of water and wastewater service in Miami-Dade County other than these municipalities.

There are no known plans for any future water or wastewater treatment facilities in Miami-Dade County other than those to be developed by the Department. Permitting of any water and wastewater treatment facilities, including water supply permits, other than by the Department is not considered feasible at this time. Therefore, no significant change in the Department's water and wastewater customer base is anticipated.

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Table 7-1 Miami-Dade WASD Water and Wastewater Treated and Sales Fiscal Year 2023, Units thousand gallons

Water System		Wastewater System	
Plant/Customer	Water Treated/Sales	Plant/Customer	Wastewater Treated/Sales
Water Pumped by Water Treatment Plant		Wastewater Flows by Plant	
Alexander Orr, Jr.	63,629,000	North District Plant	39,006,000
John E. Preston	37,609,000	Central District Plant	33,244,000
Hialeah	15,354,000	South District Plant	43,104,000
Interim Plants	2,620,000		
Purchased from Other	94,000		
Total Water Pumped	119,306,000	Total Wastewater Plant Flows	115,354,000
Water Sold by Customer		Wastewater Treated by Customer	
Wholesale Customers		Wholesale Customers	
City of Hialeah	6,140,000	City of Hialeah	13,903,000
City of Miami Beach	8,568,000	City of Miami Beach	8,459,000
City of North Miami Beach	6,000	City of North Miami	3,545,000
City of North Miami	2,758,000	City of Coral Gables	1,344,000
City of Opa-Locka	747,000	City of North Miami Beach	1,277,000
Hialeah Gardens	801,000	City of Opa-Locka	899,000
Bal Harbour	457,000	City of Medley	568,000
City of Medley	501,000	Florida City	572,000
North Bay Village	371,000	Homestead Air Force Base	63,000
Bay Harbor Islands	299,000	West Miami	238,000
Surfside	277,000	Hialeah Gardens	725,000
West Miami	364,000	North Bay Village	354,000
Indian Creek Village	235,000	City of Homestead	1,689,000
City of Homestead	877,000		
Virginia Gardens	84,000		
Total Wholesale	22,485,000	Total Wholesale	33,636,000
Retail	63,456,000	Retail	49,620,000

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Water System		Wastewater System	
Total Water Sold	85,941,000	Total Wastewater Sales	83,256,000
Unbilled Water	33,365,000	Unbilled Wastewater Flow	32,098,000
Unbilled Water as Percentage of Total Water Treated	27.97%	Percent Unbilled Wastewater Flow as Percentage of Total Wastewater Treated	27.83%

SOURCE: Miami-Dade Water and Sewer Department financial results for Fiscal Year 2023 Draft ACFR

Table 7-2 Miami-Dade WASD 10 Largest Customers by Invoiced Amount – Fiscal Year ending September 30, 2023 Units \$1000

Water System			Wastewater System		
Customer	Invoiced Amount ¹	Percent of System Revenues	Customer	Invoiced Amount ¹	Percent of System Revenues
City of Miami Beach*	\$15,807	3.8%	City of Hialeah*	\$51,265	10.0%
Miami Int'l Airport	\$12,487	2.9%	City of Miami Beach*	\$31,767	6.1%
City of Hialeah*	\$11,249	2.8%	City of North Miami*	\$13,330	2.7%
City of North Miami*	\$5,109	1.2%	City of Homestead*	\$6,558	1.3%
Florida Dept. of Corrections	\$2,607	0.6%	City of Coral Gables*	\$5,072	1.0%
City of Homestead	\$1,608	0.4%	City of North Miami Beach*	\$4,829	0.9%
FPL Turkey Point	\$1,578	0.4%	Miami Int'l Airport	\$3,732	0.7%
University of Miami	\$1,575	0.4%	City of Opa-Locka*	\$3,377	0.6%
City of Hialeah Gardens*	\$1,471	0.4%	City of Hialeah Gardens*	\$2,739	0.5%
City of Opa-Locka*	\$1,367	0.3%	Florida Dept. of Corrections	\$2,194	0.4%
Total Water System Revenues	\$430,466	100%	Total Wastewater System Revenues	\$523,932	100%

¹ Invoiced amount is prior to adjustment for true-up.

*Indicates wholesale customer.

SOURCE: Miami-Dade Water and Sewer Department financial results for Fiscal Year 2023 - Draft

Table 7-3 Miami-Dade WASD Volume Water Customers and Contract Expiration Dates

Volume Water Customer	Contract Expiration Date
Bal Harbor Village/Bay Harbor Islands/Indian Creek	July 26, 2027
City of Hialeah	July 27, 2028
City of Hialeah Gardens	May 4, 2027
Town of Medley	May 4, 2027
City of Miami Beach	July 29, 2028
City of North Bay Village	June 14, 2027
City of North Miami	July 26, 2027
City of North Miami Beach	Finalizing new agreement
City of Opa-Locka	May 4, 2027
Town of Surfside	July 26, 2027
Village of Virginia Gardens	June 14, 2027
City of West Miami	June 14, 2027
City of Homestead	July 10, 2030

Table 7-4 Miami-Dade WASD Volume Sewer Customers and Contract Expiration Dates

Volume Sewer Customer	Contract Expiration Date
City of Coral Gables	December 22, 2030
Florida City	February 22, 2042
City of Hialeah	September 19, 2031
City of Hialeah Gardens	November 3, 2029
City of Homestead	February 23, 2037
Town of Medley	February 23, 2037
City of North Bay Village	October 13, 2030
City of Miami Beach	December 17, 2034
City of North Miami	March 11, 2030
City of North Miami Beach	October 13, 2033
City of Opa-Locka	August 4, 2037
City of West Miami	February 18, 2029

Volume Sewer Customer	Contract Expiration Date
Homestead Reserve Air Force Base	No contract expiration date- can be terminated by customer with 30 days' notice

7.2 Rates and Charges

The Department’s water and wastewater rates are set annually as a part of the County’s budgeting process. Each year, the Department prepares a budget that includes estimated water and wastewater flows, expenses, revenues, and rates necessary for the Department to meet its cash flow and debt service requirements under the Master Bond Ordinance. Following requirements of Section 602, the Department’s bond engineering consultant evaluates the adequacy of rates and charges included in the Department’s budget. This report is issued prior to September 1 of each year. The BCC then acts on the proposed budget and rates. Once the BCC’s action is taken, the rates become final and the Department modifies its billing system to accommodate the approved rates. The rates are published on the County’s web site.

7.2.1 Wholesale Customers

Wholesale customers are charged a fixed amount per 1,000 gallons based on the Department’s budgeted costs and estimated water and wastewater flows for the coming year and an adjustment to take into account any difference between the budgeted amount and the Department’s actual expenses two fiscal years earlier. That is, after the Department’s audited financial results are available for the second prior year, the charges due from wholesale customers for the upcoming budget year are adjusted to reflect any over or under payment from the second prior year. This process, commonly referred to as a true-up, ensures that any difference between budgeted expenses and estimated flows compared to actual is reflected in the charges paid by wholesale customers. In addition, effective October 1, 2023, the wholesale water rate increased by \$0.1857, from \$1.9273 to \$2.1130 per thousand gallons; the wastewater wholesale rate increased by \$0.1992 to \$3.9414 from \$3.7422 per thousand gallons.

7.2.2 Retail Customers

Retail customers are classified as Residential, Multi-Family, Mixed-Use, or Non-Residential. Each retail customer’s rate has two parts, a meter (water) or base facility (wastewater) charge and a volume charge. The meter and base facility charge for Residential, Multi-Family and Mixed-Use is based on the size of the meter plus 2,244 gallons of fixed usage and is intended to reflect the Department’s costs for providing capacity needed to serve each customer. The volume charge is designed to reflect the cost of producing water or treating wastewater as well as to encourage conservation. The water conservation objective is accomplished through an increasing block rate with two blocks for water rates. Each customer is charged more per gallon of water used where the flow exceeds the amount allowable for each tier. Non-Residential meter and base facility charge are based on the size of the meter and is intended to reflect the Department’s costs for providing capacity needed to serve each customer. The volume charge is designed to reflect the cost of producing water or treating wastewater as well as to encourage conservation.

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In addition to the basic retail customer water and wastewater charges, during any period in which the SFWMD imposes water restrictions in the County or as a result of permanent water restrictions, the Department increases the water rate in the second block-the highest rate charged per individual meter based on a given level of consumption. In April 2009, the BCC approved the Permanent Landscape Irrigation Restrictions Ordinance establishing permanent irrigation restrictions and the mandatory year-round two days a week landscape irrigation conservation measure. The restrictions remain in effect.

For Non-Residential customers, the amount of water allowable and charged in each block is adjusted according to the size of each customer’s water meter. Customers with larger meters are afforded more flow per rate block than customers with smaller meters, which considers the basic water and wastewater requirements of each particular customer and its respective ability to conserve water.

However, as noted above, customers with larger meters pay a higher water meter and base facility charge.

For FY 2023, rate structures for all tiers of Residential, Multi-Family and Non-Residential customers were increased as the Department implemented the approach that results in a rate that is reflective of actual usage combined with the consideration of mandated capital investments.

The FY 2024 Adopted Budget includes a 4.00 percent increase to retail customers that is evenly applied to each tier that includes Residential, Multi-Family, Mixed-Use buildings and Non-Residential, as the Department continued its same approach to develop a rate reflective of actual usage while considering needed capital investments.

The schedule of FY 2024 rates for water and wastewater is provided in the following tables.

Table 7-5 FY 2024 Water Rates

FY 2024 Water Rates				
Customer Class	Residential	Multi-Family	Mixed-Use	Non-Residential
Meter Size	Meter Charge (plus 3ccf)*			
5/8"	\$4.61	\$4.61 (5/8" to 16")	\$10.78	\$3.63
1"	\$15.01			\$15.42
1.5"	\$29.02			\$30.84
2"	\$45.82		\$13.20	\$49.32
3"	\$90.67		\$21.10	\$98.65
4" to 6"			\$22.90	4" \$154.14 6" \$308.24
8"			\$24.71	\$493.20
10"			\$25.62	\$708.98

FY 2024 Water Rates				
Greater than 10"				12" \$1,325.48 14" \$2,465.99 16" \$3,390.74 20" \$5,290.16 24" \$11,891.16
Meter Size	Volumetric Charge			
5/8"	4ccf to 17ccf - \$3.7367	\$4.7964 (4ccf and over)	\$4.7964 (4ccf and over)	ccf Tier 1: \$0.4657 ccf Tier 2: \$4.0234 ccf Tier 3: \$5.4009 ccf Tier 4: \$9.5068 ccf tiers vary by meter size
1"				
1.5"				
2"	18 ccf and over - \$9.0386			
3"				
4" to 6"				
8"				
10"				
Greater than 10"				

Note* - The Non Residential meter charge does not include the first 3 ccf as used in the other customer class structures

Table 7-6 FY 2024 Wastewater Rates

FY 2024 Wastewater Rates					
Customer Class	Residential	Multi-Family	Mixed-Use	Non-Residential	
Meter Size	Meter Charge (plus 3ccf)*				
5/8"	\$7.85	\$7.85 (5/8" to 16")		\$5.72	
1"	\$21.46			\$12.31	\$21.26
1.5"	\$40.79				\$45.52
2"	\$63.98		\$14.80	\$68.04	
3"	\$125.80		\$22.66	\$136.03	
4" to 6"			\$24.49	4" \$212.57 6" 425.16	
8"			\$26.34	\$680.24	

FY 2024 Wastewater Rates				
10"			\$27.26	\$977.84
Greater than 10"				12" \$1,828.15 14" \$3,401.22 16" \$4,676.68 20" \$7,296.46 24" \$10,512.21
Meter Size	Volumetric Charge			
5/8"	\$7.4444 (4ccf and over)	\$7.4444 (4ccf and over)	\$7.4444 (4ccf and over)	0 to 3ccf \$1.6091 4ccf and over \$7.6187
1"				
1.5"				
2"				
3"				
4" to 6"				
8"				
10"				
Greater than 10"				

7.2.3 Comparison of Miami-Dade Water and Sewer Department Residential Charges to Charges of other Large Utilities

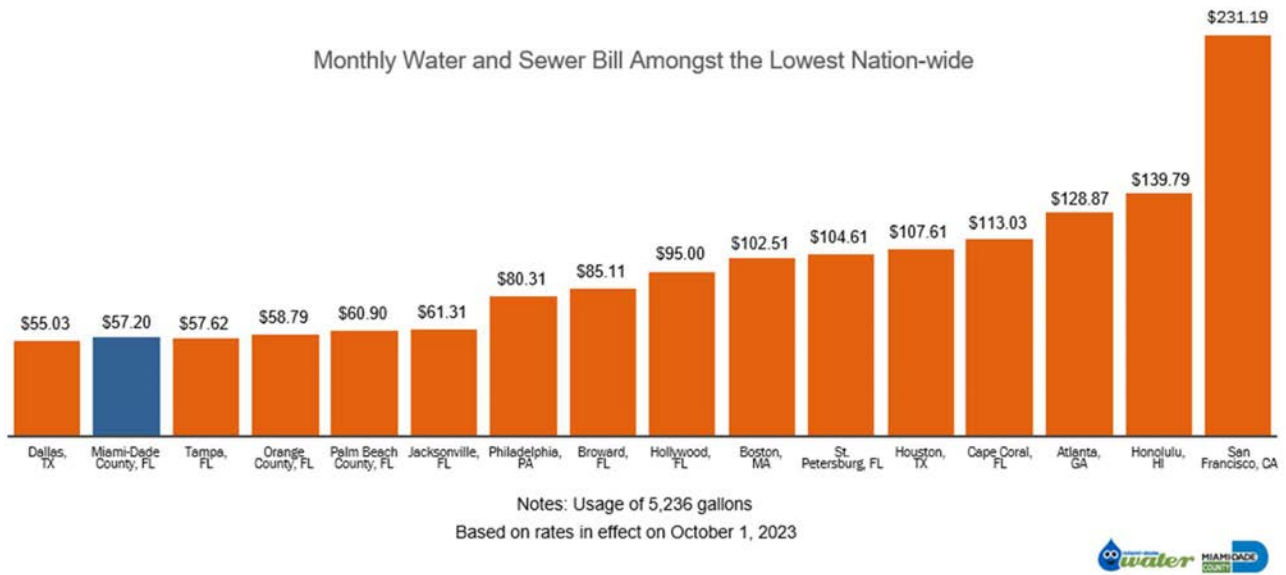
The Department’s monthly water and wastewater charges for a typical residential customer, using 5,236 gallons based on the rates effective October 1, 2023, total \$57.20. Both residential and commercial customers with larger meters or those that use substantially more water service are charged more per gallon, sometimes substantially, due to the Department’s increasing tier rate structure. Figure 7-1 shows a comparison between the Department’s combined water and wastewater residential charges for a median residential customer using 5,236 gallons per month and the charges by a sample of other Florida and large out-of-state utilities. The figure illustrates that the Department’s charges for median residential customers, using 5,236 gallons per month, are the lowest among the Florida utilities depicted in the figure and second lowest when considering other similar sized utilities around the country. The fact that the Department’s rates are currently lower than other utilities utilized in the comparison suggests that the future rate increases that will be needed to fund major improvements will bring the Department’s rates closer to parity with other large water and wastewater utilities in the United States. The projected rate increases are further addressed in Section 8 – Financial Conditions.

It is important to note that the amounts shown in Figure 7-1 do not include a number of charges that are collected by the County on each customer’s water and wastewater bill, including a Utility Service Fee and a stormwater

charge. These charges are collected by the Department on behalf of other County departments to support groundwater protection and stormwater management projects. The charges may add more than 10 percent to the average residential water and wastewater charge.

WASD RESIDENTIAL BILLS COMPARATIVE

FLORIDA MUNICIPALITIES AND MAJOR CITIES



Source: Data provided Miami-Dade Water and Sewer Department

Figure 7-1 Combined Water & Sewer Bills Florida Municipalities/Counties and US Cities for the Median Residential Customer

8 Financial Conditions

This section presents the procedures followed in, and results from, the financial analysis. These include the Department's policies and procedures to manage assets and historical and projected operating revenues and expenses and debt service coverage. This section also includes projections of the revenue increases that will be necessary to meet expenses and financial obligations of the Department's bond covenants relating to debt service coverage. It also explains the assumptions used in the development of the financial projections.

The financial projections developed for this analysis cover the County's Fiscal Years 2024 through 2029. For Additional Bonds, the County's Master Bond Ordinance requires, in Section 208 (d) (ii) that the Department's bond engineering consultant develop ". . . estimates of Net Operating Revenue for each of the three Fiscal Years following the Fiscal Year in which the Improvements will be placed in operation..." The Master Bond Ordinance provides that the estimates of Net Operating Revenues take into account any "revised rates and charges that shall become effective prior to or during such Fiscal Year" in which any additional bonds are issued.

Section 208 (d) (iii) of the Master Bond Ordinance requires the Consultant to state that after allowable adjustments in the Net Operating Revenues, the Adjusted Net Operating Revenues will be sufficient to meet the requirements of the Master Bond Ordinance for senior debt service coverage as well as for Subordinate Obligations. Terms that are capitalized in this section are those that are defined in the Master Bond Ordinance. The Department's specific debt service coverage requirements are defined in the following subsection.

Financial results for Fiscal Year 2022 are taken from the Department's Annual Comprehensive Financial Report. Information for Fiscal Year 2023 is taken from the Department's unaudited financial results. The financial projections are based on information provided by the Department and analyses conducted by the Consultant.

The section is divided into the following subsections:

1. The Department's financial policies and operations, including bond covenants stated in the Master Bond Ordinance.
2. Operating revenues and expenses, including operating revenue increases needed to meet the Additional Bonds Test of the Master Bond Ordinance and future debt service coverage requirements for senior and subordinate debt, including the State Revolving Fund Loan Program and the WIFIA Loan Agreements.
3. Senior (revenue bond) debt service.
4. Subordinate debt service, including, the Subordinate Series 2021 Bonds (State Revolving Fund Loan Program debt) and the WIFIA Loan Agreements.
5. Debt service coverage for senior and subordinate debt, including the Subordinate Series 2021 Bonds (State Revolving Fund Loan Program debt) and the WIFIA Loan Agreements.
6. Principal assumptions applied in the development of the financial projections.

8.1 The Department's Financial Policies and Operations

The Department operates as an enterprise fund of the County. As such, funding is solely through user fees in the form of rates and charges, and no funding is received from ad valorem taxes levied by the County. The Department prepares an annual budget to ensure that budgeted revenues are sufficient for budgeted expenses

associated with operating, maintaining, and improving the system, debt service obligations, and renewing and replacing water and wastewater facilities.

As specified in the Master Bond Ordinance, the Department's financial accounting is based on Generally Accepted Accounting Principles (GAAP) that are applied by businesses and utilities throughout the United States. Internal accounting controls are an integral part of the Department's management systems and are designed to provide reasonable assurance that assets are safeguarded from unauthorized use or disposition, and that records used for preparing financial statements and maintaining asset accountability are reliable.

The BCC annually approves the Department's budget, including rates and charges, expenses, and capital outlays. The Department controls most expenses at the division level. Division chiefs are accountable for budgetary items that are controllable at their level. The Department's operations and budgets are divided into two groups, water and wastewater. Financial reporting and calculation of debt service coverage are based on the consolidation of actual fiscal year results.

The Department pools all cash and investments, with the exception of those that are required to be held in trust and escrow accounts under the terms of the Master Bond Ordinance, loan agreements, and other County policies. The County manages the investment of pooled funds pursuant to Florida Statutes and resolutions of the BCC. Investments include U.S. government securities, commercial paper, and other appropriate securities, and are competitively bid among banks and investment brokers, ensuring that the Department obtains the best interest rates available in the market.

Under the Master Bond Ordinance, the Department is required to annually meet two debt service coverage requirements. The primary requirement is debt service coverage for revenue bonds, also referred to as senior debt. The second requirement addresses subordinate debt, which for the Department consists of loans from the State of Florida's Revolving Fund (SRF) Loan program, administered by the FDEP, and other loans and notes that the Department may have from time to time. In addition, independent of the Master Bond Ordinance, the Department must meet certain debt service coverage requirements stipulated in the WIFIA Loan Agreements.

The principal financial requirements of the Master Bond Ordinance that relate to debt service coverage are the following:

Under Section 602 of the Master Bond Ordinance, annual Net Operating Revenues must annually be at least 125 percent of debt service on all outstanding Senior Debt, plus 100 percent of reserve requirements. For Subordinate Obligations, annual Net Operating Revenues, after deduction of the maximum debt service requirement on all outstanding Senior Debt, must be at least 100 percent of all debt service and reserve requirements on Subordinate Obligations.

Section 208 of the Master Bond Ordinance includes additional requirements for the issuance of Additional Bonds. Adjusted Net Operating Revenues must be at least 110 percent of the future Maximum Principal and Interest on Senior Debt for the three fiscal years following the fiscal year when the project will be placed in operation. For purposes of this project, the three fiscal year period is Fiscal Year 2027 through 2029. Also, for Additional Bonds, Adjusted Net Operating Revenues during four of the six quarters preceding issuance of new Senior Debt, adjusted to take into account additional revenues that would be generated from any rate adjustment in effect prior to debt issuance, must be at least 110 percent of the Maximum Future Principal and Interest on existing bonds and the new bond issue, plus 100 percent of the required deposit to the Reserve Account. For Subordinate Debt, the Adjusted Net Operating Revenues, less Maximum Future Senior Debt Principal and Interest, must be at least 100 percent of the Maximum Future Principal and Interest on existing bonds and the new bond issue, plus 100 percent of the required deposit to the Reserve Account.

The SRF Loan program requires that the Department's Net Operating Revenue after payment of debt service on revenue bonds be at least 115 percent of the debt service for the SRF Loan amount.

In March 2019, the Department signed a loan agreement with the USEPA in the amount of \$99.7 million for the Ocean Outfall Discharge Reduction and Resiliency Enhancement Project (WIFIA – N17129FL). The loan was authorized by the WIFIA Loan Agreement, as amended by Section 5008 of the Water Infrastructure Improvement for the Nation Act of 2016 and by Section 4201 of America's Water Infrastructure Act of 2018. The program was authorized by Ordinance No. 19-09, enacted by the BCC on February 5, 2019.

In May 2020, the Department signed a second loan agreement with USEPA in the amount of \$326.2 million for the design and construction of five new electrical distribution buildings at three wastewater treatment plants (WIFIA – N18151FL). The loan was authorized by the WIFIA Loan Agreement as amended by Section 5008 of the Water Infrastructure Improvement for the Nation Act of 2016 and by Section 4201 of America's Water Infrastructure Act of 2016. The program was authorized by Ordinance 19-09, which authorized applying for WIFIA Loans for an amount not to exceed \$900,000,000. On December 17, 2019, the BCC adopted Ordinance 20-1 which authorizes the issuance of Water and Sewer System Subordinate Obligations in an amount not to exceed \$1,500,000,000.

On July 2020, the Department signed a third loan agreement with USEPA in the amount of \$235.2 million for the South District Wastewater Treatment Plan Expansion and North and Central District Injection Wells Project (WIFIA – N19146FL). The loan was authorized by the WIFIA Loan Agreement as amended by Section 5008 of the Water Infrastructure Improvement for the Nation Act of 2016 and by Section 4201 of America's Water Infrastructure Act of 2018. The program was authorized also under Ordinance 19-09.

On September 2021, the Department signed a fourth loan agreement with USEPA in the amount of \$424.2 million for the North District and Central District Wastewater Treatment plans upgrades within Ocean Outfall Legislation projects. The WIFIA Note and Loan Agreement was authorized by Ordinance No. 20-1 on January 22, 2020, and Resolution No. R-530-21 adopted by the Board on June 2, 2021.

The WIFIA Loan Agreements include an Additional Bonds Test that includes (i) compliance with the conditions provided in Section 208 of the Master Ordinance; and (ii) Net Operating Revenues, as adjusted for pursuant to Section 208(c), for 4 of the 6 consecutive quarters prior to the issuance of the proposed issue shall be sufficient to equal or exceed 110 percent of Maximum Annual Debt Service for Senior and Subordinate Debt, including WIFIA Loan Agreement payments.

The WIFIA Loan Agreements also include a rate covenant that requires (1) that Net Operating Revenues in each Fiscal Year be no less than Senior Obligation Debt Service Coverage Ratio of 1.25 and 100 percent of all deposits required to be made to the Senior Obligation Reserve Account; and (2) that Net Operating Revenues in each Fiscal Year be no less than Total Obligations Debt Service Coverage Ratio of 1.10, and 100 percent of all deposits required to be made to any Pari Passu Obligation Reserve Account, if established. The interest rate with respect to the Outstanding WIFIA Loan Balance is fixed at 2.89 percent for Loan #1, 1.38 percent for Loan #2, 1.27 percent for Loan #3, and 1.84 percent for Loan #4 per year. Interest will accrue and be computed on the Outstanding loan balance. No payment of the principal or interest on the loans is required during the Capitalized Interest Period. The first WIFIA debt service payment is due March 1, 2028.

There are a number of specific and effective financial policies that have been established and are complied with by the Department, most of which are mandated by the Master Bond Ordinance. The following paragraphs highlight the principal financial policies.

8.1.1 Rate Covenant

Section 602 of the Master Bond Ordinance requires that the Department maintain sufficient rates and charges to meet the stipulated debt service coverage requirements and adhere to several policies relating to the application of those rates and charges. This requirement is separately addressed in an annual report prepared by the Department's bond engineering consultant that evaluates the adequacy of rates and charges included in the Department's budget. Issued prior to September 1 of each year, the report provides a conclusion concerning the adequacy of the Department's budgeted rates and charges to meet debt service coverage requirements in the following fiscal year. The rates are annually approved by the BCC and are published in Implementing Order 4-110, which can be accessed on the County's web site.

8.1.2 Deposit to the Renewal and Replacement Fund

Section 607 of the Master Bond Ordinance requires that the Department employ a Consultant to provide recommendations regarding the amount that should be deposited during the next Fiscal Year to the credit of the Renewal and Replacement (R&R) Fund for the purpose of paying the cost of unusual or extraordinary maintenance or repairs, the cost of R&R, the cost of acquiring, installing or replacing equipment and acquiring and constructing additions, extensions and improvements and engineering, legal and administrative expenses relating to those projects, and the cost of providing a local share of moneys required to entitle the Department to receive federal or state grants or participate in federal or state assistance programs related to the Utility. The Consultant's recommendations on the adequacy of budgeted deposits to the Renewal and Replacement Fund are annually presented in a report to the Department.

8.1.3 Rate Stabilization Fund

The Department has established a Rate Stabilization Fund and makes deposits into or withdrawals from the fund at its discretion. This Fund is designed to shield the Department from financial effects of extraordinary circumstances that would require sharp increases in rates and charges. The Master Bond Ordinance also allows withdrawals from the Rate Stabilization Fund to be used for meeting debt service requirements.

8.1.4 Mandatory Connections

Section 611 of the Master Bond Ordinance requires that whenever the Department makes water or wastewater service available to a property, the property owner must connect to its System within 90 days. The Department enforces this provision by officially notifying landowners of any service extension and requiring their connection within the prescribed period. Provisions for such connections are described in the Department's Rules and Regulations for Water and Wastewater Service.

This section of the Master Bond Ordinance also allows for another utility, such as a municipality, to provide water or wastewater service within the Department's service area if the Department finds that it is economically preferable or where service can be provided in a more timely fashion by another utility. Whenever a developer requests that service to a new development be provided by another utility, the Department performs an evaluation to confirm that it would be appropriate to transfer the service area. The Department also engages an outside consultant to determine whether it is feasible for the Department to serve the development, whether or not the development would be better served by another utility, and whether or not allowing another utility to serve the development would have an adverse effect on the Department's water or wastewater rates to its customers. Only

in those cases where all three conditions favor having another utility provide service to a development will the Department grant the other utility a franchise to provide the requested service.

8.1.5 No Free Service

Section 613 of the Master Bond Ordinance requires that the Department may not provide service to any entity, including other County departments, without collecting the water and sewer fees charged to all customers, and that preferential rates are prohibited. The Department enforces this provision by metering all retail water customers and all wholesale water and wastewater customers, imposing uniform rates and charges, and terminating service for failure to pay bills on time in accordance with the Department's Rules and Regulations for Water and Wastewater Service.

8.1.6 Failure to Pay for Services

Section 614 of the Master Bond Ordinance requires that the Department cease providing water or wastewater service to any property where the customer has failed to pay for services for a period in excess of 90 days. The Department enforces this policy through its service termination rule. However, under this rule, the Department may "grant payment arrangements to customers who have exhibited good faith in the payment of their bills, and have provided evidence of need, or unusual circumstances." In such cases, the payment arrangement is a signed, written agreement between the customer and the Department.

8.1.7 Enforcement of Collections

Section 615 of the Master Bond Ordinance requires the Department diligently enforce and collect rates, and that the monies collected be applied as operating revenues of the Department. It implements this provision through a late payment reminder notice program and the severance of service after any account becomes delinquent for 90 days.

8.1.8 Insurance

Section 609 of the Master Bond Ordinance requires the Department maintain insurance against the loss of facilities and liability for bodily injury and property damage. This section also requires that insurance policies be provided by a responsible insurance company satisfactory to the County Mayor and authorized to conduct business by the State of Florida, with the provision that the County may self-insure as long as the premiums are developed on an actuarially sound basis and the premiums are paid annually. The Department is insured against loss to facilities under its own property insurance program, subject to policy terms and conditions. The program covers real and personal property damage, including coverage for boiler and machinery, flood, and terrorism, as well as engineering property loss prevention inspections at the primary facilities. The properties include treatment facilities, maintenance facilities, pump stations, water storage facilities, ocean outfalls, buildings and leased properties. The current schedule of values for all the Department's assets is approximately \$1.8 billion.

The Department has purchased an all-risk insurance policy on real and personal property that covers most of its properties. As of September 30, 2023, the program has a limit of \$200 million for any one occurrence, for most incidents, with a deductible of \$1 million per occurrence, including terrorism. Terrorism coverage is provided for both certified and non-certified acts. For damage from named windstorms, the policy has a \$35 million deductible per occurrence and a boiler & machinery deductible of \$1,000,000 per accident. The Department also purchases

75+ individual NFIP (National Flood Insurance Program) policies for buildings located in the Special Flood Hazard Areas. The property program includes an additional \$5 million in coverage excess over what is available through NFIP and 5.0% of Total Insured Values for each item involved in a loss, for values not eligible for NFIP, all subject to a \$1,000,000 any one occurrence minimum.

The Department continues to carry commercial insurance for all other risks of loss. Settled claims resulting from these risks have not exceeded commercial insurance coverage in any of the past three fiscal years.

The Department is covered under the County's self-insurance program administered by the Risk Management Division of the General Services Department in accordance with Section 768.28, Florida Statutes as amended. F.S. §768.28 provides that tort claims against municipal governments are limited to \$200,000 per claim and \$300,000 in aggregate for any event or occurrence without a specific act of the Florida Legislature. This limitation applies to most of the liability claims that arise against the County or any local government in Florida, although certain liability claims such as claims under civil rights statutes, are not subject to these limitations.

8.1.9 Covenant as to Maintenance, Repair, and Operation

Section 606 states that the Department will establish and enforce reasonable rules and regulations governing the use of the water and wastewater utility and its operations, that it will operate the System in an efficient and economical manner, and that it will maintain the utility in good repair and in sound operating condition and will make all necessary repairs, renewals, and replacements, and comply with all regulations and orders applicable to the water and wastewater utility.

8.2 Operating Revenues and Expenses

The Department's primary source of revenue is from operations, the sale of water and wastewater services to its retail and wholesale customers. In addition to operating revenue, the Department's main sources of non-operating revenue are connection charges received from new customers and interest income. Revenue from connection charges may not be considered in the analysis of revenues applicable to meeting financial bond covenants because these revenues are deposited into a fund dedicated to expansion of the Water and Wastewater System. Interest income from sources other than bond proceeds, which are deposited into the Department's Construction Fund, may be used in the calculation of Adjusted Net Operating Revenue and subsequently used in the calculation of debt service coverage. Interest earnings on bond proceeds are deposited into the Department's Construction Fund and are not included in Net Adjusted Operating Revenue.

Table 8-1 shows the Department's historic and projected operating revenues and expenses and net operating revenues. It is important to note that the analysis does not contemplate any future debt, except the Senior Series 2024A Bonds. Operating revenues and expenses are aggregated separately for the Water and Wastewater Systems. Because of the rate setting process, the Department is required to identify Water and Wastewater System revenues and expenses since some customers, both retail and wholesale, receive only water or wastewater service from the Department. Also, each of the Department's wholesale customer agreements stipulates that wholesale customer charges must be based on the cost of providing each specific service, water or wastewater, requiring that the Department account for each operating, as well as non-operating, expense separately for each System.

8.2.1 Operating Revenues

Table 8-1 shows operating revenues in two parts:

Water and wastewater revenues based on rates effective October 1, 2023.

Additional revenue from rate increases required to meet financial obligations for existing and the Senior Series 2024A Bonds.

8.2.1.1 Water and Wastewater Revenues

The Department is projecting both water and wastewater volumetric sales to rise very little throughout the projection period. This projection is based on no significant growth in the customer base. While there has been some increase in utility sales in FY 2023, the amount of water sold during the last four years has remained level. As such, the projections do not include any significant change in water and wastewater volumetric sales.

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Table 8-1 Historical and Projected Combined Water and Wastewater System Operating Revenues, Expenses, and Net Revenues Fiscal Years 2022 through 2029

Revenue/Expense Item	Fiscal Year							
	Actual	Unaudited	Projected					
	2022	2023	2024	2025	2026	2027	2028	2029
Operating Revenue								
Water								
Retail Customers	\$346,854,326	\$368,376,000	\$383,110,000	\$402,266,013	\$422,379,314	\$443,498,280	\$470,108,176	\$498,314,667
Wholesale Customers	\$38,291,626	\$41,475,000	\$50,177,000	\$47,542,500	\$47,542,500	\$47,542,500	\$47,542,500	\$47,542,500
Other	\$12,729,401	\$20,616,284	\$18,116,284	\$14,759,907	\$14,821,706	\$14,883,803	\$14,946,198	\$14,949,207
Subtotal Water Operating Revenues	\$397,875,353	\$430,467,284	\$451,403,284	\$464,568,420	\$484,743,520	\$505,924,582	\$532,596,874	\$560,806,374
Wastewater								
Retail Customers	\$356,895,250	\$379,627,000	\$394,812,000	\$414,552,833	\$435,280,474	\$457,044,498	\$484,467,168	\$513,535,198
Wholesale Customers	\$102,362,164	\$124,315,000	\$143,607,000	\$129,320,989	\$131,907,569	\$134,545,776	\$134,545,776	\$134,545,776
Other	\$13,801,082	\$19,988,812	\$19,988,812	\$15,289,704	\$15,366,153	\$15,442,984	\$15,520,198	\$15,520,198
Subtotal Wastewater Operating Revenues	\$473,058,496	\$523,930,812	\$558,407,812	\$559,163,526	\$582,554,196	\$607,033,258	\$634,533,142	\$663,601,172
Subtotal Water and Wastewater Operating Revenue	\$870,933,849	\$954,398,096	\$1,009,811,096	\$1,023,731,946	\$1,067,297,716	\$1,112,957,840	\$1,167,130,016	\$1,224,407,546
Percent Revenue Increase			5.81%	1.38%	4.26%	4.28%	4.87%	4.91%
Total Operation Revenues	\$870,933,849	\$954,398,096	\$1,009,811,096	\$1,023,731,946	\$1,067,297,716	\$1,112,957,840	\$1,167,130,016	\$1,224,407,546
Operating Expenses								
Water								
Water Operating Expenses	\$215,950,000	\$244,287,935	\$272,190,770	\$284,782,148	\$297,541,451	\$310,875,335	\$324,891,395	\$339,544,852
Wastewater								
Wastewater Operation Expenses	\$293,563,000	\$338,195,513	\$301,802,168	\$315,754,326	\$329,901,655	\$344,686,780	\$360,225,177	\$376,470,257
Total Operating Expenses	\$509,513,000	\$582,483,448	\$573,992,938	\$600,536,474	\$627,443,106	\$655,562,115	\$685,116,572	\$716,015,109
Net Operating Revenues	\$361,420,849	\$371,914,648	\$435,818,158	\$423,195,472	\$439,854,610	\$457,395,725	\$482,013,444	\$508,392,437

Notes: Data for Fiscal Year 2022 is from the Water and Sewer Department Annual Comprehensive Financial Report. Data for Fiscal Year 2023 represent year-end unaudited results and 2024 is from Department's projections; revenue projections and expense projections based on Water and Sewer Department five-year financial projections dated February 2, 2024. Total Operating Expenses includes additional expenses for new facilities.

Entries are rounded, and totals and subtotals use formulas that may yield insignificant differences.

Actual results may vary from those values budgeted and projected because of events and circumstances different from those assumed. Such differences could materially affect the debt service coverage estimated.

Water sales, by volume, have remained fairly level for the following reasons:

- The Department's customer base growth has been flat; and
- The Department has actively promoted water conservation.

In FY 2023, total billed flows are consistent with the 5-year historic average. Flows within the Department's customer classes show a slight shift in consumption between commercial and residential customers, presumably driven by work from home programs as a result of the pandemic.

Wastewater System operating revenue from retail customers is tied to metered water use. Therefore, retail customer wastewater revenues closely track retail customer water revenue, recognizing that wastewater rates are significantly higher than water rates and are projected to rise faster due to the need for major improvements in the wastewater System. Wholesale customer revenues, both water and wastewater, are based on metered flows and the applicable charge per 1000 gallons.

8.2.1.2 Additional Revenue from Rate Increases

Table 8-1 shows additional revenue from rate increases for FYs 2025 through 2029. This calculated value is based on the following factors:

The Department must satisfy the Additional Bonds test stipulated in the Master Bond Ordinance, which requires water and wastewater rates, approved prior to the issuance of additional bonds and in effect during the fiscal year in which the bonds are issued, allow the Department to meet specific debt service coverage tests in each of the three fiscal years following completion of the projects funded through the bond issue (per Section 208 of the Master Bond Ordinance). The Additional Bonds Test will be applied for the Series 2024A Bonds.

The Department must satisfy the Additional Bonds test stipulated in the WIFIA Loan Agreements that includes (i) compliance with the conditions provided in Section 208 of the Master Ordinance; and (ii) Net Operating Revenues for 4 of the 6 consecutive quarters prior to the issuance of the proposed issue shall be sufficient to equal or exceed 110 percent of Maximum Annual Debt Service for Senior and Subordinate Debt, including WIFIA Loan Agreement payments. The Additional Bonds Test in the WIFIA Loan Agreements will be applied for the Senior Series 2024A Bonds.

The Department must meet its debt service coverage requirements for existing and anticipated future senior debt as well as subordinate debt, including requirements in the WIFIA Loan Agreements.

The rate covenant required senior debt service coverage ratio is 1.25, and for subordinate debt, the rate covenant required debt service coverage ratio is 1.00 (per Section 602 of the Master Bond Ordinance). For purposes of this analysis, additional revenue from rate increases was set to achieve the required debt service coverage for senior and subordinate debt.

The WIFIA Loan Agreements also provide for a rate covenant that requires (1) that Net Operating Revenues in each Fiscal Year be no less than Senior Obligation Debt Service Coverage Ratio of 1.25 and 100 percent of all deposits required to be made to the Senior Obligation Reserve Account; and (2) that Net Operating Revenues in each Fiscal Year be no less than Total Obligations Debt Service Coverage Ratio of 1.10, and 100 percent of all deposits required to be made to any Pari Passu Obligation Reserve Account, if established. The interest rate with respect to the Outstanding WIFIA Loan Balance is fixed at 2.89 percent for Loan #1, 1.38 percent for Loan #2, 1.27 percent for Loan #3, and 1.84 percent for Loan #4 per year. Interest will accrue and be computed on the Outstanding loan balances. No payment of the principal or interest on the loan is required during the Capitalized Interest Period.

The Department will generate sufficient revenue in each projection year to fund its non-operating expenses, including an annual deposit to the Renewal and Replacement Fund to maintain existing assets, a contribution to the County's Fire Hydrant Fund, and increases in the Department's required 60-day operating reserve. These non-operating expenses will be partially offset by certain non-operating revenues.

With projected revenues exceeding total expenses in the next few years, the Department may increase its General Reserve balance over the projection period and/or increase its Rate Stabilization Reserve balance. These assumptions were applied recognizing that the Department often adjusts these reserve balances during its budgeting process. Alternatively, the Department may spend the additional revenue on asset renewal and replacement or fund new capital projects.

The additional revenue from rate increases shown in Table 8-1 will be derived from two sources:

- Revenues from wholesale customers that are based on the actual expenses incurred by the Department to provide water and wastewater service.
- Revenue from retail customers that are based on retail customer rates and set by the BCC.

Because wholesale customer rates are based solely on the cost of service, with certain adjustments to account for historical over or under payment, wholesale customer charges increase as the Department's expenses increase, subject to approval by the BCC.

Retail customer rates are established by the BCC. Historically, the BCC has approved necessary rate increases to meet the Department's cash flow and debt service coverage requirements.

For purposes of this analysis, the additional revenue from future rate increases is shown in Table 8-1 as one annual value for both retail and wholesale customers. The Department must annually develop separate revenue requirements and rates for the Water and Wastewater Systems and set retail and wholesale customer rates that will allow the Department to continue to meet its cash flow and debt service coverage requirements.

8.2.1.3 Fiscal Year 2024 Retail Customer Rates and the Additional Bonds Test

The additional revenue from rate increases shown in Table 8-1 is the estimated additional revenue needed in each year during the projection period above the amount that would be derived from the Department's current rates, to meet the target debt service coverage ratios indicated above, fund non-operating expenses, maintain adequate reserves, and meet the Additional Bonds test.

The Adopted Budget for FY 2024 includes a four percent increase to retail customers that is evenly applied to each tier including residential, multi-family, mixed-use buildings and non-residential. Effective October 1, 2023, the adopted wholesale water rate increased by \$0.1857 from \$1.9273 to \$2.1130 per thousand gallons; the adopted wastewater wholesale rate increased by \$0.1992 from \$3.7422 to \$3.9414 per thousand gallons; wholesale customers' bills include a true-up adjustment to recover actual cost for FY 2021-2022.

The rate modifications in FY 2024 can reasonably be expected to generate the Department's revenue requirements. These rates are reasonable and supported by the fact that the Department's water and wastewater residential rates are overall low compared to other water and wastewater utilities, which further limits customer response to rate increases.

Under the contracts between the Department and the wholesale customers, any revenues raised for purposes other than meeting expenses, such as meeting a debt service coverage requirement, may be raised only from retail customers. However, the rate increase will apply to wholesale customers if the additional funds are

budgeted and invested in asset renewal and replacement, most of which benefits retail and wholesale customers alike.

8.2.2 Operating Expenses

Table 8-1 shows the operating expenses incurred for both the Water and Wastewater Systems. These projected expenses recognize rising cost of labor and materials, as well as any costs associated with new facilities coming online.

The expenses shown on Table 8-1 do not include deposits to the Department's Renewal and Replacement Fund because deposits into this Fund are classified as non-operating.

8.2.3 Net Operating Expenses

The Net Operating Revenues shown in Table 8-1 are the difference between Operating Revenues and Operating Expenses. As noted above, the values shown for the projection years include additional revenues from rate increases needed for the Department to meet its cash flow and debt service coverage requirements.

8.3 Senior Debt Service

The estimated additional revenues described above enable the Department to meet its planning-level senior debt service coverage. The calculations are based on the debt service figures shown in Table 8-2. The table shows the debt service schedule for the Department's outstanding bond issues through FY2029 and the estimated debt service for the Senior Series 2024A Bonds.

While there is some uncertainty in the amount of future bond issues as well as the associated debt service, the debt service figures shown in Table 8-2 are based on currently available information on the Department's capital plan, schedule, and cost estimates and do not reflect future Additional Bonds shown in Table 6-2, beyond those for the current Senior Series 2024A Bond issue. Therefore, projections for debt service coverage and the Additional Bonds test do not take into account any future debt service issues beyond the Senior Series 2024A Bond issue.

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Table 8-2 Historical and Projected Senior (Revenue Bond) Debt Service Fiscal Years 2022 through 2029

Bonds	Fiscal Year							
	Actual	Unaudited	Projected					
	2022	2023	2024	2025	2026	2027	2028	2029
Existing Bond Issues¹								
Series 2008A and 2008B	\$58,480,088	\$58,471,063	\$-	\$-	\$-	\$-	\$-	\$-
Series 2015	\$45,479,050	\$45,471,625	\$102,323,875	\$102,144,000	\$102,220,875	\$101,126,500	\$-	\$-
Series 2017 A	\$15,705,869	\$15,705,869	\$15,705,869	\$15,705,869	\$15,705,869	\$15,705,869	\$15,705,869	\$15,705,869
Series 2017 B	\$26,884,619	\$26,874,144	\$26,885,769	\$26,883,769	\$26,878,144	\$26,873,519	\$52,502,144	\$52,465,644
Series 2019	\$11,223,850	\$11,223,850	\$11,223,850	\$11,223,850	\$11,223,850	\$11,223,850	\$11,223,850	\$11,223,850
Series 2019 B	\$26,584,900	\$26,584,900	\$26,584,900	\$26,584,900	\$26,584,900	\$26,584,900	\$26,584,900	\$26,584,900
Series 2019 C	\$17,285,515	\$17,285,515	\$17,285,515	\$17,285,515	\$17,285,515	\$17,285,515	\$64,739,587	\$64,542,580
Series 2021	\$22,202,605	\$23,439,700	\$23,439,700	\$23,439,700	\$23,439,700	\$23,439,700	\$23,439,700	\$23,439,700
Total existing bond issues	\$223,846,495	\$225,056,665	\$223,449,478	\$223,267,603	\$223,338,853	\$222,239,853	\$194,196,050	\$193,962,543
Projected 2024 Bond Issue²								
Series 2024A Senior	\$0	\$0	\$0	\$5,721,240	\$15,966,250	\$15,966,250	\$15,966,250	\$15,966,250
Total - existing, and projected 2024A bond issue	\$223,846,495	\$225,056,665	\$223,449,478	\$228,988,842	\$239,305,103	\$238,206,103	\$210,162,300	\$209,928,793
Maximum future senior debt service	\$225,056,665	\$225,056,665	\$239,305,103	\$239,305,103	\$239,305,103	\$238,206,103	\$212,223,616	\$212,223,616

¹ The debt service amounts for existing bond issues obtained from Schedule of Semiannual Debt Service Cash and Funding Requirements for Revenue Bonds, cash basis, as of February 2, 2024

² The debt service on the Series 2024 Bonds is based on preliminary estimates prepared by the Department's Financial Advisor, recognizing that actual debt service will be determined through market pricing, principal and interest scheduling, and other factors.

Note: Entries are rounded, and totals and subtotals use formulas that may yield insignificant differences.

8.4 Subordinate Debt

Table 8-3 shows the Department's current subordinate debt service schedule, most of which is associated with the Florida State Revolving Loan Fund program. Subordinate Series 2021 Bonds debt payment are included in Table 8-3.

WIFIA Loan Agreement debt service for Loans #1, #2, #3 and #4 are shown FY 2028 and FY 2029 when payments on the WIFIA Loan Agreements start. The Note Amortization Schedule is Attachment A of the WIFIA Loan Agreements. For Loan #1, payments begin on April 1, 2028, and end on April 1, 2058. Both Loan #2 and Loan #3 begin on April 1, 2029 and end on April 1, 2059, while Loan #4 begins on October 1, 2028 and end on October 1, 2058. Each loan has semi-annual debt service payments.

Table 8-3 Historical and Projected Subordinate Debt Service Fiscal Years 2022 through 2029

System/Loan Number	Fiscal Year							
	Actual	Unaudited	Projected					
	2022	2023	2024	2025	2026	2027	2028	2029
Water SRF								
DW1300010	\$2,815,859	\$-	\$-	\$-	\$-	\$-	\$-	\$-
DW130230	\$1,190,982	\$1,011,236	\$1,011,236	\$1,011,236	\$1,011,236	\$1,011,236	\$1,011,236	\$1,011,236
DW130200	\$12,991	\$12,991	\$12,991	\$12,991	\$12,991	\$12,991	\$12,991	\$12,991
DW130201	\$6,555	\$6,555	\$6,555	\$6,555	\$6,555	\$6,555	\$6,555	\$6,555
DW130260	\$2,156,792	\$2,156,792	\$2,156,792	\$2,156,792	\$2,156,792	\$2,156,792	\$2,156,792	\$2,156,792
Subtotal	\$6,183,180	\$2,785,757	\$2,785,757	\$2,785,757	\$2,785,757	\$2,785,757	\$2,785,757	\$2,785,757
Wastewater SRF								
CS120377860	\$249,236	\$124,618	\$-	\$-	\$-	\$-	\$-	\$-
CS120377870	\$321,739	\$160,869	\$-	\$-	\$-	\$-	\$-	\$-
CS12037788P	\$240,034	\$240,034	\$240,034	\$-	\$-	\$-	\$-	\$-
WW37789A	\$56,796	\$56,796	\$56,796	\$-	\$-	\$-	\$-	\$-
WW37789L	\$111,316	\$111,316	\$111,316	\$-	\$-	\$-	\$-	\$-
WW377900	\$7,956,025	\$7,956,025	\$7,956,025	\$7,956,025	\$7,956,025	\$7,956,025	\$7,956,025	\$7,956,025
WW130240	\$1,068,411	\$1,068,411	\$1,068,411	\$1,068,411	\$1,068,411	\$1,068,411	\$1,068,411	\$1,068,411
WW1302AO	\$-	\$-	\$-	\$2,209,844	\$4,419,688	\$4,419,688	\$4,419,688	\$4,419,688
Subtotal	\$10,003,557	\$9,718,069	\$9,432,582	\$11,234,280	\$13,444,124	\$13,444,124	\$13,444,124	\$13,444,124
Total water and wastewater SRF	\$16,186,736	\$12,503,827	\$12,218,339	\$14,020,037	\$16,229,881	\$16,229,881	\$16,229,881	\$16,229,881
Series 2021 Subordinate								
Series 2021 Subordinate Bonds	\$7,695,526	\$10,533,800	\$10,533,800	\$10,533,800	\$10,533,800	\$10,533,800	\$35,883,800	\$21,421,300
WIFIA								
WIFIA #1	\$-	\$-	\$-	\$-	\$-	\$-	\$37,793	\$75,585

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WIFIA #2	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$7,123,199
WIFIA #3	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$5,068,206
WIFIA #4	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$9,498,479
Total WIFIA	\$-	\$-	\$-	\$-	\$-	\$-	\$37,793	\$21,765,469
Combined Total	\$23,882,263	\$23,037,627	\$22,752,139	\$24,553,837	\$26,763,681	\$26,763,681	\$52,151,474	\$59,416,650

¹Debt service amounts for State Revolving Fund Loan Program from Miami-Dade Water and Sewer Department Debt Service Funding Requirements report - cash basis, as of February 2, 2024.

Note: Entries are rounded, and totals and subtotals use formulas that may yield insignificant differences.

8.5 Debt Service Coverage

Table 8-4 shows historical and projected debt service coverage for Senior and Subordinate obligations, calculated in accordance with provisions of the Master Bond Ordinance. The table also shows debt service coverage based on provisions of the Department's agreement with the State of Florida for its State Revolving Loan program debt, which is not addressed in the Master Bond Ordinance. Please note that any additional bonds planned to be issued during the study period, beyond the Series 2024A Bonds, are not included in these calculations.

The Master Bond Ordinance requires the Department to maintain and budget to achieve a debt service coverage ratio on senior debt of 1.25, calculated by dividing Net Operating Revenues by senior debt service. Net Operating Revenues include interest income from sources other than the Construction Fund (the repository of Revenue Bond proceeds) and any transfers from the Rate Stabilization Reserve.

Eligible interest income has been estimated by the Department including projected growth in the required 60-day operating expense reserve and other funds. The analysis is based on transfers into the General Reserve in any year where revenues exceed expenses. However, as noted above, the Department may elect to invest greater amounts in asset renewal and replacement than currently projected, which would reduce growth in reserves.

Table 8-4 shows that based on the projected revenues and expenses, including necessary rate increases, the Department may reasonably be expected to achieve the planning senior debt service coverage ratio of 1.25 throughout the projection period.

The debt service coverage ratio required for Subordinate obligations is 1.00, calculated by dividing the difference between Adjusted Net Operating Revenue and the maximum annual future debt service on outstanding revenue bonds by the Subordinate obligation's debt service. Table 8-4 shows that the projected revenues, including the additional revenues from necessary revenue increases, can reasonably be expected to achieve a subordinate debt service coverage ratio well above the required level of 1.00.

The revenue increases shown in Table 8-4 are projected to also be sufficient to enable the Department to fund its non-operating as well as operating expenses each year during the projection period. The table shows that Operating Revenues are projected to be sufficient to cover Operating and Non-Operating Expenses throughout the projection period. Revenues in excess of expenses are assumed to be available to augment the Department's general reserve.

Series 2024 Bond Feasibility Report

Table 8-4 Historical and Projected Revenues, Expenses and Debt Service Coverage Fiscal Years 2022 through 2029

Revenue/Expense/ Coverage Item	Fiscal Year							
	Actual	Unaudited	Projected					
	2022	2023	2024	2025	2026	2027	2028	2029
Operating Revenues and Expenses								
Operating Revenues								
Retail water	\$346,854,326	\$368,376,000	\$383,110,000	\$402,266,013	\$422,379,314	\$443,498,280	\$470,108,176	\$498,314,667
Wholesale water	\$38,291,626	\$41,475,000	\$50,177,000	\$47,542,500	\$47,542,500	\$47,542,500	\$47,542,500	\$47,542,500
Other water	\$12,729,401	\$20,616,284	\$18,116,284	\$14,759,907	\$14,821,706	\$14,883,803	\$14,946,198	\$14,949,207
Retail wastewater	\$356,895,250	\$379,627,000	\$394,812,000	\$414,562,833	\$435,280,474	\$457,044,498	\$484,467,168	\$513,535,198
Wholesale wastewater	\$102,362,164	\$124,315,000	\$143,607,000	\$129,320,989	\$131,907,569	\$134,545,776	\$134,545,776	\$134,545,776
Other wastewater	\$13,801,082	\$19,988,812	\$19,988,812	\$15,289,704	\$15,366,153	\$15,442,984	\$15,520,198	\$15,520,198
Annual percent revenue increase			5.81%	1.38%	4.26%	4.28%	4.87%	4.91%
Subtotal Operating Revenue with rate increases	\$870,933,849	\$954,398,096	\$1,009,811,096	\$1,023,731,946	\$1,067,297,716	\$1,112,957,840	\$1,167,130,016	\$1,224,407,546
Operating Expenses								
Water System	\$215,950,000	\$244,287,935	\$272,190,770	\$284,782,148	\$297,541,451	\$310,875,335	\$324,891,395	\$339,544,852
Wastewater System	\$293,563,000	\$338,195,513	\$301,802,168	\$315,754,326	\$329,901,655	\$344,686,780	\$360,225,177	\$376,470,257
Subtotal Operating Expenses	\$509,513,000	\$582,483,448	\$573,992,938	\$600,536,474	\$627,443,106	\$655,562,115	\$685,116,572	\$716,015,109
Net Operating Revenues	\$361,420,849	\$371,914,648	\$435,818,158	\$423,195,472	\$439,854,610	\$457,395,725	\$482,013,444	\$508,392,437
Adjusted Net Operating Revenues								
Plus interest income other than from Construction Fund	\$3,784,480	\$30,789,447	\$7,947,408	\$8,344,778	\$8,762,017	\$9,200,118	\$9,660,124	\$10,143,130
Less transfers to (from) Rate Stabilization Fund	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Adjusted Net Operating Revenue	\$365,205,329	\$402,704,095	\$443,765,566	\$431,540,250	\$448,616,627	\$466,595,843	\$491,673,568	\$518,535,567
Senior Debt Service Coverage - Required Ratio 1.25¹								
Revenue Bond debt service - existing debt	\$223,846,495	\$225,056,665	\$223,449,478	\$223,267,603	\$223,338,853	\$222,239,853	\$194,196,050	\$193,962,543
Projected Series 2024A revenue bonds debt service	\$-	\$-	\$-	\$5,721,240	\$15,966,250	\$15,966,250	\$15,966,250	\$15,966,250
Total existing and future bonds debt service	\$223,846,495	\$225,056,665	\$223,449,478	\$228,988,843	\$239,305,103	\$238,206,103	\$210,162,300	\$209,928,793
Senior debt service coverage ratio	1.63	1.79	1.99	1.88	1.87	1.96	2.34	2.47
Subordinate debt service coverage - Required Ratio 1.00²								
Adjusted Net Operating Revenue	\$365,205,329	\$402,704,095	\$443,765,566	\$431,540,250	\$448,616,627	\$466,595,843	\$491,673,568	\$518,535,567
Maximum Principal and Interest - existing	\$225,056,665	\$225,056,665	\$223,449,478	\$223,338,853	\$223,338,853	\$222,239,853	\$196,257,366	\$196,257,366
Maximum Principal and Interest - existing and future bonds	\$225,056,665	\$225,056,665	\$239,305,103	\$239,305,103	\$239,305,103	\$238,206,103	\$212,223,616	\$212,223,616

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Revenue/Expense/ Coverage Item	Fiscal Year								
	Actual	Unaudited	Projected						
	2022	2023	2024	2025	2026	2027	2028	2029	
Adjusted Net Operating Revenue less Maximum Principal and Interest	\$140,148,664	\$177,647,430	\$204,460,463	\$192,235,147	\$209,311,524	\$228,389,740	\$279,449,953	\$306,311,952	
Subordinate debt service - State SRF, Subordinate Series 2021 Bonds and WIFIA	\$23,882,263	\$23,037,627	\$22,752,139	\$24,553,837	\$26,763,681	\$26,763,681	\$52,151,474	\$59,416,650	
Subordinate debt service coverage ratio	5.87	7.71	8.99	7.83	7.82	8.53	5.36	5.16	
State Revolving Fund Loan Debt Service Coverage - Required Ratio 1.15³									
Adjusted Net Operating Revenue	\$365,205,329	\$402,704,095	\$443,765,566	\$431,540,250	\$448,616,627	\$466,595,843	\$491,673,568	\$518,535,567	
Less 125% of Revenue Bond debt service	\$(279,808,119)	\$(281,320,831)	\$(279,311,847)	\$(286,236,053)	\$(299,131,378)	\$(297,757,628)	\$(262,702,874)	\$(262,410,991)	
Net Operating Revenue less 110% Revenue Bond debt service	\$85,397,211	\$121,383,264	\$164,453,719	\$145,304,197	\$149,485,249	\$168,838,215	\$228,970,694	\$256,124,577	
Debt service on current SRF loans, Subordinate Series 2021 Bonds, and WIFIA	\$23,882,263	\$23,037,627	\$22,752,139	\$24,553,837	\$26,763,681	\$26,763,681	\$52,151,474	\$59,416,650	
State of Florida Revolving Fund loan debt service coverage ratio	3.58	5.27	7.23	5.92	5.59	6.31	4.39	4.31	

¹Debt Service Coverage Requirements for Senior Debt is calculated by year as Adjusted Net Operating Revenue divided by Senior Debt Service on cash basis and must be at least 1.25.

²Debt Service Coverage Requirements for Subordinate debt is calculated as Adjusted Net Operating Revenues, less Maximum Principal and Interest requirement on all bonds, and must be at least 100 percent of debt service and reserve requirements.

³Debt Service Coverage requirements on the State Revolving Fund debt service is calculated as Adjusted Net Operating Revenue less 125 percent of senior debt service and must be at least 115 percent of State Revolving Fund debt service.

Notes: Total Existing and Future Bonds debt service and Maximum Principal and Interest (P&I) – Future Bonds includes existing debt service and projected Series 2024A Revenue Bond debt service, but no other debt service from future revenue bond issues

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Section 208 of the Master Bond Ordinance requires that for issuance of Additional Bonds, among other requirements, the Department’s Adjusted Net Operating Revenues must be at least 110 percent of future Maximum Principal and Interest on senior debt during the Computation Period, FY 2027 through FY 2029.

Table 8-5 shows the Additional Bonds Test calculated in accordance with provisions of the Master Bond Ordinance. Based on projected revenues and projected expenses and debt service schedule for the Senior Series 2024A Bonds, the Department meets target debt service coverage ratios outlined for the Additional Bonds Test in Section 208 of the Master Bond Ordinance.

Table 8-5 shows that with the revenue increase in effect October 1, 2023, the projected revenues will enable the Department to meet this provision of the Master Bond Ordinance.

Table 8-5 Additional Bonds Test – Master Bond Ordinance

Revenue/Expense/ Coverage Item ¹	Fiscal Year						
	Unaudited	Projected					
	2023	2024	2025	2026	2027	2028	2029
Additional Bonds Test							
Revenue Bonds - Required Ratio 1.10							
Operating Revenues Fiscal Year 2023 - no revenue increase	\$954,398,096				\$954,398,096	\$954,398,096	\$954,398,096
Additional Operating Revenue from revenue increase in FY 2024					\$55,413,000	\$55,413,000	\$55,413,000
Operating Revenues Fiscal Year 2023 - with rate increase effective FY 2024					\$1,009,811,096	\$1,009,811,096	\$1,009,811,096
Interest income available for debt service coverage - projected for 2024					\$7,947,408	\$7,947,408	\$7,947,408
Less deposits to Reserve Account					\$-	\$-	\$-
Adjusted Net Operating Revenue					\$1,017,758,504	\$1,017,758,504	\$1,017,758,504
Operating Expenses					\$655,562,115	\$685,116,572	\$716,015,109
Adjusted Net Operating Revenues - FY 2023 adjusted for revenue increases approved prior to issuance of Series 2024A Bonds and deposits to Reserve Account					\$362,196,389	\$332,641,932	\$301,743,395
Maximum Principal and Interest - only for existing bonds and the Series 2024A Bonds					\$238,206,103	\$212,223,616	\$212,223,616

Series 2024 Bond Feasibility Report

Revenue/Expense/ Coverage Item ¹	Fiscal Year						
	Unaudited	Projected					
	2023	2024	2025	2026	2027	2028	2029
Additional Bonds coverage ratio					1.52	1.57	1.42
Subordinate Debt - Required Ratio 1.00							
Net Operating Revenues - less Maximum Principal and Interest on Senior Debt					\$123,990,286	\$120,418,316	\$89,519,779
Subordinate Debt - SRF					\$16,229,881	\$16,229,881	\$16,229,881
Subordinate debt service - Series FY 21 Subordinate Debt					\$10,533,800	\$35,883,800	\$21,421,300
WIFIA Loans						\$37,793	\$21,765,469
Additional Subordinate Bonds coverage ratio					4.63	2.31	1.51

¹For Additional Bonds, Adjusted Net Operating Revenues during four of the six quarters preceding issuance of new Senior Debt, adjusted to take into account additional revenues that would be generated from any rate adjustment in effect prior to debt issuance must be at least 110% of the Maximum Future Principal and Interest on existing bonds and the new bond issue, plus 100% of the required deposit to the Reserve Account. For Subordinate Debt, the Adjusted Net Operating Revenues, less Maximum Future Principal and Interest, must be at least 100 percent of Subordinate Debt and any required reserve account deposits. The Maximum Future Principal and Interest does not include debt service on bonds issued subsequently to the Senior Series 2024A.

SOURCES: Data for Fiscal Year 2023 represents unaudited year end results, and 2024 from the Department's projections. Data for used in calculating projections for fiscal year 2024 through 2029 are based on operating expenses in the Department's 5-year financial projections dated February 2, 2024. Debt service schedules are from the County's financial advisor. Additional operating revenue requirements are based on meeting all expenses and achieving planning level debt service coverage ratios.

Series 2024 Bond Feasibility Report

The WIFIA Loan Agreements require that for the issuance of Additional Bonds the Department complies with the Additional Senior Obligation Test, which provides that the Department meet the conditions outlined in Section 208 of the Master Ordinance; and following issuance of the proposed Additional Senior Obligations, the Net Operating Revenues for 4 of the 6 consecutive quarters prior to the issuance of the proposed issue will be at least 110 percent of Maximum Annual Debt Service. Table 8-6 shows the Additional Bonds Test calculated in accordance with provisions in the WIFIA Loan Agreements.

Table 8-6 Additional Senior Obligation Test Fiscal Years 2023 – WIFIA Loan Agreements

Revenue Expense Coverage	Year End Estimate FY 2023	Projected FY 2024
Additional Bonds Test¹		
Required Ratio 1.10		
Operating Revenues Fiscal Year 2023 - no revenue increase	\$954,398,096	\$954,398,096
Additional Operating Revenue from revenue increase in FY 2024		\$55,413,000
Operating Revenues FY 2023 - with rate increase effective FY 2024		\$1,009,811,096
Interest income available for debt service coverage - projected for 2024		\$7,947,408
Less deposits to Reserve Account		\$-
Adjusted Net Operating Revenue		\$1,017,758,504
Operating Expenses		\$573,992,938
Adjusted Net Operating Revenues - FY 2023 adjusted for revenue increases approved prior to issuance of Series 2024A Bonds and deposits to Reserve Account		\$443,765,566
Maximum Annual Debt Service for Senior and Subordinate Debt, Including WIFIA ²		\$364,247,477
Additional Bonds Coverage Ratio		122%

¹Additional Senior Obligation Test requires (i) that conditions in Section 208 of the Master Ordinance are satisfied; and (ii) following issuance of the proposed additional bonds, Net Operating Revenues, as adjusted in accordance with Section 208c of the Master Ordinance, for any four consecutive quarters within the six quarters immediately preceding the proposed issue date, be no less than 110 percent of Maximum Annual Debt Service.

² Maximum Annual Debt Service includes debt service payments for all existing senior and subordinate debt. Debt payments include WIFIA Loan Agreement payments.

Notes: Data from Water and Sewer Department 5-year Financial Plan dated February 2, 2024, Bond Debt Service from Financial Advisor, and Note of Amortization Schedule from the WIFIA Loan Agreements. Entries are rounded, and totals and subtotals use formulas that may yield insignificant differences.

Table 8-7 shows Historical and Projected Cash Flow and Fund balances for the Rate Stabilization Fund and General Reserve. It is important to note that the table also shows information on planned deposits to the Renewal and Replacement Fund, changes in the 60-day requirement, and Fire Hydrant Fund Contributions, among other items.

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Table 8-7 Historical and Projected Cash Flow and Fund Balances

Cash Flow and Fund Balances	Fiscal Year							
	Actual	Unaudited	Projected					
	2022	2023	2024	2025	2026	2027	2028	2029
Net Operating Revenues less Debt Service	\$113,692,092	\$123,820,357	\$189,616,542	\$169,652,792	\$173,785,826	\$192,425,941	\$219,699,671	\$239,046,995
Non-Operating Expenses (Revenues) excluding debt service								
Renewal and Replacement Fund Deposit	\$100,000,000	\$120,000,000	\$115,000,000	\$110,000,000	\$110,000,000	\$110,000,000	\$110,000,000	\$110,000,000
Special Construction Fund	\$19,000,000	\$52,873,000	\$55,000,000	\$21,000,000	\$11,685,000	\$10,602,000	\$20,616,000	\$3,021,000
Fire Hydrant Fund Contribution	\$2,652,000	\$2,543,000	\$2,600,000	\$2,798,000	\$2,856,000	\$2,856,000	\$2,884,560	\$2,884,560
Swap receipts	\$-	\$-	\$-	\$-	\$-	\$-	\$-	\$-
Interest income - net of interest from the Construction Fund	\$(3,784,480)	\$(30,789,447)	\$(7,947,408)	\$(8,344,778)	\$(8,762,017)	\$(9,200,118)	\$(9,660,124)	\$(10,143,130)
Change in 60-Day Reserve Requirement	\$3,639,474	\$2,983,944	\$9,781,401	\$4,423,923	\$4,484,439	\$4,686,502	\$4,925,743	\$5,149,756
Transfer to (from) General Reserve Fund	\$1,653,000	\$5,000,000	\$6,691,000	\$10,000,000	\$10,000,000	\$10,000,000	\$19,000,000	\$-
Transfer to (from) Rate Stabilization Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Series 2024 Bond Feasibility Report

Cash Flow and Fund Balances	Fiscal Year							
	Actual	Unaudited	Projected					
	2022	2023	2024	2025	2026	2027	2028	2029
Total Non-Operating Expenses excluding debt service	\$123,159,994	\$152,610,497	\$181,124,993	\$139,877,144	\$130,263,421	\$128,944,383	\$147,766,179	\$110,912,186
Total operating and non-operating expenses and debt service	\$880,401,752	\$983,188,236	\$1,001,319,547	\$993,956,297	\$1,023,775,311	\$1,049,476,282	\$1,095,196,524	\$1,096,272,737
Remaining Cash After Operating and Non-Operating Expenses	\$(9,467,903)	\$(28,790,140)	\$8,491,549	\$29,775,648	\$43,522,405	\$63,481,558	\$71,933,492	\$128,134,809
Reserve Fund Balances¹								
Rate Stabilization Fund	\$30,534,000	\$30,534,000	\$30,534,000	\$30,534,000	\$30,534,000	\$30,534,000	\$30,534,000	\$30,534,000
General Reserve	\$81,362,388	\$86,362,388	\$93,054,388	\$103,054,388	\$113,054,388	\$123,054,388	\$142,054,388	\$142,054,388
60-Day Operating Reserve	\$82,900,145	\$85,884,089	\$95,665,490	\$100,089,412	\$104,573,851	\$109,260,353	\$114,186,095	\$119,335,852

¹ Reserve Fund Balances do not include debt service reserve funds.

SOURCES: Data for Fiscal Year 2022 from Water and Sewer Department Annual Comprehensive Financial Report; data for Fiscal Year 2024 represent end-of-year projections. Data used in calculating projections for fiscal year 2024 through 2029 are based on operating expenses in the Department's 5-year financial projections dated February 2, 2024. Debt service schedules for Series 2024A Bonds are from the County's Financial Advisor. Additional operating revenue requirements are based on meeting all expenses and achieving planning level debt service coverage ratios (not including debt service reserve).

Note: Entries are rounded, and totals and subtotals use formulas that may yield insignificant differences.

Actual results may vary from those values budgeted and projected because of events and circumstances different from those assumed. Such differences could materially affect the debt service coverage estimates.

Table 8-7 shows the projected year-end balances for each of the Department's three reserves, Rate Stabilization Reserve, General Reserve, and 60-Day Operating Reserve. The table shows that the General Reserve is projected to grow, although this growth could be offset if the Department instead invests the additional revenue in asset renewal and replacement. As noted above, investing the funds in renewal and replacement would extend the effective rate increase to wholesale customers, rather than just retail customers. The 60-Day Operating Reserve is projected to increase in proportion to projected operating expenses.

It is important to note that actual results may vary from the values budgeted and projected because of events and circumstances different from those assumed. Such differences could materially affect the debt service coverage estimates and conclusions.

8.6 Principal Assumptions and Considerations Applied in the Development of the Financial Projections

In conducting the analyses and in forming an opinion of the projection of future operations summarized in this report, several important assumptions were made with respect to conditions, events, and circumstances that may occur in the future. The methodology utilized in performing the analysis follows generally accepted practices for such projections. While the assumptions are considered reasonable and appropriate, and the projection methodology valid, actual results may differ materially from those projected, as influenced by the conditions, events, and circumstances that actually occur that are unknown at this time.

The following are the principal assumptions and considerations applied in developing the projections of operating revenues and expenses, senior debt service, subordinate debt service, Adjusted Net Operating Revenue, senior debt service coverage, and subordinate debt service coverage:

The Department has no contingent liabilities, including pending litigation, other than those reported in the FY 2023 Annual Comprehensive Financial Report.

The Department's budgeted operating revenues for FY 2024 are reasonably accurate and serve as an acceptable starting point for the revenue projections.

Projected operating revenues after FY 2024 include revenue increases needed to meet required operation and financial requirements.

The WIFIA Loan Agreements require that Net Operating Revenues in each Fiscal Year be no less than (a) Senior Debt Service Coverage Ratio of 1.25 and 100 percent of all deposits required to be made to the Senior Obligation Reserve Account and (b) Total Obligations Debt Service Coverage Ratio of 1.10 plus 100 percent of all deposits required to be made into any Pari Passu Obligation Reserve Account.

Target debt service levels for senior and subordinate debt, including the WIFIA Loan Agreements, served as the basis for calculating the additional revenues from rate increases needed for the Department to meet its debt service coverage requirements. The rate increases shown do not include any potential future rate increases needed to meet future Additional Bonds Tests, due to the numerous uncertainties relating to future financing requirements and timing, interest rates, financing procedures and cost, capital improvement program, revenues, and expenses.

The projections of water and wastewater customers and the associated water and wastewater flows are assumed to remain flat through FY 2029, consistent with recent trends and the County's policy of encouraging water conservation and reducing wastewater inflow and infiltration.

The Department will not be required by County government to contribute to the County's general fund, either through direct transfer or through any type of loan agreement during the study period.

The Department will not be required by County government to contribute to the County's Emergency Contingency Fund during the study period.

The only payments to the County during the study period will be for services provided to the Department by the County, intended to reimburse County government for services provided by other County departments to the Water and Sewer Department.

The projected Adjusted Net Operating Revenue figures are based on projected operating revenues and expenses and interest income other than from the Construction Fund. For purposes of this analysis, interest income other than from the Construction Fund was estimated by the Department based on projected growth in various funds.

Projected senior debt service is based on the debt service schedules for outstanding debt and the estimated debt service for the Senior Series 2024A Bonds. The estimated debt service, including the Series 2024A bonds, was based on securing funding for capital projects expected to be required by the Department to meet statutory and regulatory requirements as well as to allow the Department to continue meeting the required levels of service for the Water and Wastewater Systems. Debt service on the Senior Series 2024A Bonds was provided by the County's Financial Advisor. In this analysis, the debt service was based on a cash basis, not accrual.

The projected senior and subordinate debt service coverage ratios are based on the projected Adjusted Net Operating Revenue values, including revenue increases required to generate the additional revenue needed to achieve the target debt service coverage ratios. The projected additional revenue from rate increases is based on the adopted rate increases for both retail and wholesale customers effective October 1, 2023.

Projected funding for renewal and replacement includes projects funded by the Series 2024A Bonds.

Subject to the limitations set forth herein, this report was prepared for the Department and is based on certain information that the Consultant cannot verify. The Consultant was not requested to make an independent analysis, to verify the information provided to it, or to render an independent judgment of the validity of the information provided by others. As such, the Consultant cannot, and does not, guarantee the accuracy of the information presented herein.

This Report was prepared solely for the benefit of and use by the Department for the discrete purposes set forth herein. The Department did not request the Consultant to provide, and the Consultant does not offer to provide, nor did or will it provide, any services constituting the services of a "municipal advisor" as defined by the Securities Exchange Act of 1934, as amended by the Dodd-Frank Wall Street Reform and Consumer Protection Act (Pub.L. 111-203, H.R. 4173) and regulations promulgated thereunder, or any successor statute or provisions thereto. Accordingly, the Consultant is not a municipal advisor registered with the U.S. Securities and Exchange Commission (SEC).

The Consultant is required to make disclosures stating the limitations of the work contained within the document and its use. In accordance with the Securities Exchange Act of 1934, the following disclosure statements are incorporated into this Report prepared by the Consultant:

In the performance of its services on behalf of the Department, the Consultant is (a) not recommending any action on behalf of the Department to municipal financial products or the issuance of municipal securities; (b) is not acting as a municipal advisor to the Department, and does not owe a fiduciary duty to the Department pursuant to Section 15B of the Securities Exchange Act of 1934, as amended by the Dodd-Frank Wall Street Reform and Consumer Protection Act, with respect to the information and material prepared in connection with this scope of work; and (c) acting for its own interests. The Department shall engage a registered municipal advisor and shall

discuss any information and material prepared in connection with this Report with any and all internal and external registered municipal advisors and other financial advisors and experts whom the Department deems appropriate before acting on this information and material.

The Department acknowledges that: (a) it shall retain, and has retained, the services of an independent registered municipal advisor, who, during the past two years, was not associated with the Consultant, and that (b) Arcadis is required to comply with the requirements set forth in the federal Exchange Act, Municipal Advisor Rule (17 CFR 200, 240, 249), which requires that the Consultant (i) receive from the municipal entity a representation in writing that it is represented by, and will rely on the advice of, an independent registered municipal advisor; (ii) provide written disclosure to the municipal entity that the Consultant is not serving as a municipal advisor and, with respect to the municipal entity, is not subject to the statutory fiduciary duty applicable to municipal advisors under the federal Exchange Act, and (iii) provide a copy of such disclosure to the municipal entity's independent registered municipal advisor. The Consultant does not provide opinions on or advocates for using a financial product (issuing debt) or the choice of financial products employed.

In the performance of its services on behalf of the Department, the Consultant did not intend to create, and hereby expressly denies the creation of, any right on the part of any third party to rely upon this document. Except as otherwise provided by statute not subject to waiver, the Department is not permitted to distribute copies of this Report to third parties without the prior written consent of the Consultant and, further, any such distribution of this Report is for only informational purposes, and third parties have no right to rely hereon. Use of this document should not, and does not, absolve the third party from using due diligence in verifying the Report's contents.

The Consultant's effort in the construction and preparation of this Report is consistent with (i) the degree of care and skill ordinarily exercised by members of the same profession currently practicing under same or similar circumstances and (ii) the time and budget available for its work in its endeavor to ensure that the data contained in the Report is accurate as of the date of its preparation. This analysis was based on estimates, assumptions and other information developed by the Consultant from its independent research effort, general knowledge of the industry, and information provided by, and consultations with, the Department and its agents, representatives, and consultants. The Consultant assumes no responsibility or liability for inaccuracies in Reporting and data provided by the Department and its agents, representatives and consultants, or in any third-party data source used in preparing or presenting this study.

The Consultant did not independently verify the accuracy of the information provided by the Department and others in creating this Report; however, the Consultant's opinion is based upon the supposition that such sources are reliable and the information obtained therefrom is appropriate for the analysis undertaken and the conclusions reached. While we believe such sources are reliable, and the information obtained to be accurate and appropriate for the analysis undertaken and the conclusions reached herein, as is often the case, there may be differences between actual and projected results. Accordingly, some of the estimates used in this Report will not be realized, and unanticipated events and circumstances may occur. To the extent the information provided to the Consultant by the Department and others is not accurate, or not inclusive of all details, the conclusions and recommendations contained in this Report may vary and are subject to change. Moreover, there are likely to be differences between the data and results projected in this Report and actual results achieved, and those differences may be material. Accordingly, the Consultant assumes no responsibility for inaccuracies in Reporting by the Department or any third-party data source used in preparing such opinion.

Additionally, the Consultant relied on assumptions, forecasts, data and statistics provided by the Department and others. Forward-looking statements included in this Report, which may be identified by the use of words like

“anticipate”, “believe”, “estimate”, “expect”, “intend”, “may”, “plan”, “project”, “will”, “should”, “seek”, and similar expressions, refer to the Consultant’s ’ views and assumptions with respect to future events as of the date of this document, and are subject to future economic conditions, results, and other risks and uncertainties. Actual and future results and trends could differ materially from those set forth in such statements due to various factors, including, without limitation, those mentioned in this Report. These factors are beyond the Consultant’s ability to control or predict. Accordingly, the Consultant makes no warranty or representation that any of the projected values or results contained in this Report will actually be achieved.

The Consultant’s findings represent its professional judgment. Neither the Consultant, nor its parent corporation, or their respective subsidiaries and affiliates, makes any warranty, expressed or implied, with respect to any information or methods disclosed in this Report. No recipient of the Report shall have any claim against the Consultant, its parent corporation, and/or its and their subsidiaries and affiliates, for any liability for direct, indirect, consequential, or special loss or damage arising out of its receipt and use of this document whether arising in contract, warranty (express or implied), tort or otherwise, and irrespective of fault, negligence and strict liability.

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This Report is qualified in its entirety by, and should be considered in light of, these limitations, conditions and considerations.

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**GENERAL INFORMATION RELATIVE TO
MIAMI-DADE COUNTY, FLORIDA**

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GENERAL INFORMATION RELATIVE TO MIAMI-DADE COUNTY, FLORIDA

Set forth below is certain general information concerning County government and certain governmental services provided by the County.

History

Miami-Dade County, Florida (the “County”), is the largest county in the southeastern United States in terms of population. The County is located in the southeastern corner of the State of Florida (the “State”), covers 2,209 square miles, and includes, among other municipalities, the cities of Miami, Miami Beach, Coral Gables and Hialeah. In 2020, the U.S. Census estimated the County’s population at over 2.7 million.

The County was created on January 18, 1836, under the Territorial Act of the United States. It included the land area now forming Palm Beach and Broward Counties, together with the land area of the present County. In 1909, Palm Beach County was established from the northern portion of what was then Dade County. In 1915, Palm Beach County and the County contributed nearly equal portions of land to create what is now Broward County. There have been no significant boundary changes to the County since 1915.

County Government

The State Legislature in 1955 approved and submitted to a general election a constitutional amendment designed to give a new form of government to the County. The amendment was approved in a statewide general election in November 1956. A Dade County Charter Board was constituted and, in April 1957, completed a draft charter for the County. The proposed charter (the “Charter”) was adopted in a countywide election in May 1957 and became effective on July 20, 1957. The electors of the County were granted power to revise and amend the Charter from time to time by countywide vote.

Since 2007, the electors have amended the County Charter to change materially how the County is governed. Previously, the County was governed by a Board of County Commissioners (“Board”) with all administrative matters handled by a County Manager who reported to the Board. Under this form of government, the elected Mayor had limited powers. As a result of three Charter amendments, the electors have established a “strong mayor” form of government. All administrative matters were transferred from the County Manager to the Mayor on November 4, 2008, and the office of County Manager was eliminated as a charter office on November 14, 2012. The Mayor has authority over all departments including the appointment of each director.

The County has home rule powers, subject only to the limitations of the Constitution and general laws of the State. The County, in effect, is both (1) a county government with certain powers effective throughout the entire County, including 34 municipalities, and (2) a municipal government for the unincorporated area of the County. The County does not displace or replace the cities, but supplements them. The County can take over particular activities of a city’s operations if the services fall below minimum standards set by the Board or with the consent of the governing body of a particular city.

The County has assumed responsibility on a countywide basis for an increasing number of functions and services, including the following:

- (a) Countywide police services, complementing the municipal police services within the cities and providing full-service police protection for the unincorporated areas of the County, with direct access to the National Crime Information Center in Washington, D.C. and the Florida Crime Information Center.
- (b) Uniform system of fire protection, complementing the municipal fire protection services within five municipalities and providing full-service fire protection for the Miami-Dade Fire and Rescue Service District, which includes the unincorporated area of the County and the 29 municipalities that have consolidated their fire departments within the Miami-Dade Fire and Rescue Department. The Miami-Dade Fire and Rescue Department also provides emergency medical services by responding to and providing on-site treatment to the seriously sick and injured.

(c) Certain expenses of the State’s consolidated two-tier court system (pursuant to Florida Statutes §29.008). The two-tier court system consists of the higher Circuit Court and the lower County Court. The Circuit Court handles domestic relations, felonies, probate, civil cases where the amount in dispute is \$15,000 or more, juvenile cases, and appeals from the County Court. The County Court handles violations of municipal ordinances, misdemeanors, and civil cases where the amount in dispute is less than \$15,000.

(d) Countywide water and sewer system operated by the Water and Sewer Department.

(e) Jackson Memorial Hospital (“JMH”), which is operated, maintained, and governed by an independent governing body called the Public Health Trust (the “Trust”). Based on the number of admissions to a single facility, JMH is one of the nation’s busiest medical centers. The Board appoints members of the Board of Trustees for the Trust and also approves the budget of the Trust. The County continues to subsidize treatment of indigent patients on a contractual basis with the Trust.

(f) Unified transit system, consisting of various surface public transportation systems, a 24.8-mile-long rapid transit system, the Metromover component of the rapid rail transit system with 4.4 miles of an elevated double-loop system, and Metrobus operating an estimated 27.1 million annualized revenue miles, under Fiscal Year 2022 pandemic recovery effort conditions and constraints.

(g) The Miami Dade Public Library System (“MDPLS”) is the eighth largest (based on population served) public library system in the United States. It serves a population of 2.7 million residents, including the reciprocal borrowers from the cities of Hialeah, North Miami, North Miami Beach, and Homestead, as well as visitors to the County. The Library consists of a Main Library, five regional branches, 43 neighborhood branches, four YOUmedia Miami locations, two Youmake Miami locations, three bookmobiles, one Technobus, and a Health and Wellness Information Center, offering education, information, recreation and technology-based materials and programs. In addition to its robust physical collection of nearly 2 million items and vast home technology lending options, MDPLS offers over 1.1 million downloadable eBooks and streaming eAudio, 4,521 recurring downloadable digital magazines and millions of downloadable and streaming songs and music videos, all in a variety of formats and languages 24 hours per day, seven days per week through its website and mobile app.

(h) Property appraisal services, performed by the County’s Property Appraiser’s office, and tax collection services, performed by the County’s Tax Collector. All collected taxes are distributed directly to each governmental entity, according to its respective tax levy. The municipalities, the Board of Public Instruction and several State agencies use data furnished to them by the County Tax Collector for the purpose of budget preparations and for their governmental operations.

(i) Enforcing minimum standards throughout the County in areas such as environmental resources management, building and zoning, consumer protection, health, housing, and welfare.

(j) Collecting and disposing of solid waste from households within the unincorporated area and certain municipalities of the County. In Fiscal Year 2022, the Solid Waste Management Department collected and disposed of garbage and trash from approximately 348,626 household units.

(k) Owning and operating the Dante B. Fascell Port of Miami (the “Port”) through the County’s Seaport Department. As of September 2022, the Port is ranked among one of the top container cargo ports in the world.

(l) The following airport facilities: (i) the Miami International Airport, the principal commercial airport serving South Florida; (ii) the Opa-locka Executive Airport, a 1,810 acre facility; (iii) the Opa-locka West Airport, a 420 acre facility that has been decommissioned; (iv) the Miami Executive Airport, a 1,380-acre facility; (v) the Homestead General Aviation Airport, a 960-acre facility; and (vi) the Training and Transition Airport, a facility of approximately 24,300 acres located in Collier and Miami-Dade Counties. All of these facilities are County-owned and operated by the Miami-Dade Aviation Department.

(m) Several miscellaneous services, including mosquito and animal control.

Economy

The County's economy has transitioned from mixed service and industrial in the 1970s to a knowledge-based economy. The shift to knowledge-based sectors, such as life sciences, aviation, financial services and IT/Telecom has diversified the local economy. Other important sectors include international trade, health services and the tourism industry, which remains one of the largest sectors in the local economy. Wholesale and retail trades are strong economic forces in the local economy and are projected to continue as such, which is reflective of the County's position as a wholesale center in Southeast Florida, serving a large international market. The diversification of the economy creates a more stable economic base.

The Miami-Dade Beacon Council (the "Beacon Council"), a public-private partnership, is the official economic development organization for the County. The organization was founded in 1985 as an outgrowth of the Greater Miami Chamber of Commerce to focus on business recruitment, expansion and retention, and facilitates business growth and expansion locally, nationally and internationally. The Beacon Council is the steward for the countywide economic development plan, One Community One Goal, to strengthen and diversify the economy with high paying jobs.

International Commerce

Approximately 1,400 multinational corporations are established in South Florida. Its proximity to the Caribbean, Mexico, and Central and South America makes it a natural center for trade to and from North America. In addition, the international background of many of its residents is an important labor force characteristic for multinational companies that operate across language and cultural differences.

Trade with Latin America, Europe and Caribbean countries has generated substantial growth in the number of financial institutions conducting business in the County. The large Spanish-speaking labor force and the County's proximity to Latin America have also contributed to the growth of the banking industry in the County. According to the Federal Reserve Bank of Atlanta, as of September 30, 2022, there were 25 Edge Act Banks throughout the United States; two of which were located in the County with a combined \$8.5 billion on deposit. Edge Act Banks are federally chartered organizations offering a wide range of banking services but limited to international transactions only. The Edge Act Banks located in the County are Banco Itau International and Banco Santander International.

Corporate Expansion

The favorable geographic location of the County, a well-trained labor force and the favorable transportation infrastructure have allowed the economic base of the County to expand by attracting and retaining many national and international firms doing business with Latin America, the Caribbean, the United States and the rest of the world. Among these corporations with world and/or national headquarters in the County are Carnival Cruise Lines, Royal Caribbean Cruises, and Lennar. Those corporations with Latin American regional headquarters include Exxon, AIG, Microsoft, Visa International and Wal-Mart.

Industrial Development

The role of the Miami-Dade County Industrial Development Authority (the "IDA") is the development and management of the Tax-Exempt Industrial Development Revenue Bond Program, which serves as a financial incentive to support private sector business and industry expansion and location. Programs developed are consistent with the IDA's legal status and compatible with the economic development goals established by the Board and other economic development organizations operating in the County. Between 1979 and the creation of the Beacon Council in 1985, the IDA provided expansion and location assistance to 195 private sector businesses, accounting for a capital investment of \$695 million and the creation of over 11,286 new jobs.

The IDA's principal program, the Tax-Exempt Industrial Development Revenue Bond Program, has generated 492 applications through September 30, 2022. From 1986 to September 2022, bonds for 268 company projects have been issued in an aggregate principal amount in excess of \$2.9 billion under the Tax-Exempt Industrial Development Revenue Bond Program. Approximately 13,975 new jobs have been generated by these projects. The

IDA continues to manage approximately 43 outstanding Industrial Development Revenue Bond Issues, equating to approximately \$1 billion in capital investment.

Other Developmental Activities

In October 1979, the Miami-Dade County Health Facilities Authority (the “Health Authority”) was formed to assist local not-for-profit health care corporations to acquire, construct, improve or refinance health care projects located in the County through the issuance of tax-exempt bonds or notes. As of September 2022, the total amount of revenue and revenue refunding bonds issued by the Health Authority was over \$2.35 billion.

In October 1969, the Board created the Miami-Dade County Educational Facilities Authority (the “EFA”) to give institutions of higher learning within the County an additional means to finance facilities and structures needed to maintain and expand learning opportunities and intellectual development. As of September 2022, the EFA had issued 54 series of bonds totaling over \$2.51 billion.

In December 1978, the Housing Finance Authority of Miami-Dade County (the “HFA”) was formed to issue bonds to provide the HFA with moneys to purchase mortgage loans secured by mortgages on single-family residential real property owned by low and moderate income persons residing in the County. Since its inception the HFA has generated \$1.213 billion in mortgage funds through the issuance of revenue bonds under the Single Family Mortgage Revenue Bond Program. As of September 2022, under the HFA’s Multi-Family Mortgage Revenue Bond Program, revenue bonds aggregating approximately \$2.883 billion had been issued for new construction or rehabilitation of 29,998 multi-family units.

The bonds issued by the foregoing authorities and the IDA are not debts or obligations of the County or the State or any political subdivision thereof but are payable solely from the revenues provided by the respective private activity borrower as security therefor.

Film Industry

The entertainment industry substantially contributes to the County’s local economy and makes up roughly 80% of all film, television and digital content in the State of Florida. The Miami-Dade Office of Film and Entertainment, branded as FilMiami, is a full-service film commission providing location and logistics assistance, film/photo permitting for the County and multiple municipalities, a government liaison, production information, and referral sources. The office attracts motion media production crews (including movies, television, and commercials) to film in the County and offers support so that productions can accomplish their work smoothly. The office approves all film permits on behalf of the County and works with all county departments, state and federal agencies including the private sector to streamline projects. The office also markets and promotes Miami-Dade County as a premier destination for television/film/photo/digital media, while also nurturing the local content creators that continue to develop a creative film and entertainment community. The Office also manages film incentives and issues grants.

The industry continues to grow as the entertainment sector expands with the advent of new technologies such as virtual production and artificial intelligence that are driving the creation of more content. The County continues to be a world-class production hub for film, television, and digital media. It is home to many production companies, soundstages and recording studios, Spanish-language production facilities, and many businesses that support motion pictures, videos, digital, and still shoots. The film, television, and digital industry supports direct and indirect jobs for the local creative sector and is home to some of the best-known actors, celebrities, and musical artists globally.

In late 2017, the Board of County Commissioners approved a performance-based local incentive program that was created to attract more entertainment production. The County’s TV, Film, and Entertainment Production Incentive Program awards projects that spend \$1,000,000 locally (Tier 1) and \$500,000 (Tier 2) a 10% rebate on productions that meet the criteria of the program. In Fiscal Year 2022 over \$204 million was spent into the local economy from projects permitted through FilMiami’s permitting system and accounted for over 12,000 jobs created. Notable

productions from HBO, Amazon, Warner Brothers, Apple TV, Netflix, Hulu and NBC Universal all filmed projects in Miami-Dade County.

Looking forward to Fiscal Year 2023, the County will continue to be at the forefront of the film & entertainment industry's list of top global locations. The County will also be revising its current *TV, Film, and Entertainment Production Incentive Program* as well as creating a new *High Impact Film Fund Program* with the intention of attracting larger sized television series and major motion picture projects that will significantly impact the local economy in terms of production spend and job creation. The County recognizes that film incentives are an integral component of modern film financing and is also in discussions with major studios on projects that would invest millions of dollars in Miami-Dade County.

The Apple/TV Warner Brothers television series "Bad Monkey" is expected to return to Miami-Dade for season two and another large project from Amazon Studios is in the works. Other notable projects that have been filmed in Miami-Dade in FY23 include Warner Brothers "Blue Beetle", "A Missed Connection", "Learning to Love" and "The Best Woman" all from Brand New Movies LLC. There were several significant commercials filmed in Miami-Dade that include a Remy Martin Superbowl commercial, and commercials from Hyundai, Google Pixel, Home Depot, L'Oréal, Wayfair and Nike. Notable music videos include content from Future, Menudo, Maluma and others. Major still photography projects include TJ Maxx, Frontgate, Marshalls, Tommy Hilfiger, Nike, Elle Magazine France, Macys, Amazon, and Tommy Bahama.

The film and television industry is a highly effective source for economic development with high-wage jobs and immediate cash infusion for small businesses. So far, the local spend for FY22-23 is over \$81.6 million for projects permitted through FilMiami and created over 7,793 jobs. We are poised to be in a great position to attract more film and entertainment projects that will make significant impact to the local economy. We expect to not only exceed last year's numbers but continue to attract large-scale projects to the County for the foreseeable future.

Surface Transportation

The County owns and operates through its Transit Department a unified multi-modal public transportation system. Operating in a fully integrated configuration, the County's Transit Department provides public transportation services through: (i) Metrorail - a 24.8-mile, 23-station elevated electric rail line connecting South Miami-Dade and the City of Hialeah with the Downtown and Civic Center areas and Miami International Airport providing over 11.4 million passenger trips annually, under Fiscal Year 2022 pandemic recovery effort conditions and constraints ; (ii) Metromover - a fully automated, driverless, 4.4-mile elevated electric double-loop people-mover system interfaced with Metrorail and completing nearly 5.5 million passenger trips annually, under Fiscal Year 2022 pandemic conditions and constraints, throughout nominally 21 stations (please note: Freedom Tower Station has been closed over a year for renovations, bringing the operating number down to 20) in the central business district and south to the Brickell international banking area and north to the Omni area; and (iii) Metrobus, including both directly operated and contracted conventional urban bus service, operating an estimated 27.1 million annualized revenue miles, interconnecting with all Metrorail stations and key Metromover stations, and providing over 37.5 million passenger trips annually, under Fiscal Year 2022 pandemic recovery effort conditions and constraints.

The County also provides para-transit service to qualified elderly and handicapped riders through its Special Transportation Service, which supplies nearly 1.33 million passenger trips per year in a demand-response environment, Fiscal Year 2022 pandemic recovery effort conditions and constraints.

The Department of Transportation and Public Work's ridership has been continuing to increase since the height of the pandemic's first wave (April 2020), reflecting the expected subsequent and still ongoing recovery.

Additionally, the County's Transit Department is operating the Bus Rapid Transit (BRT) on the South Miami-Dade Busway, a dedicated-use BRT corridor that runs parallel to US1/South Dixie Highway. The South Miami-Dade Busway, which began operating in 1997 and was extended in December 2007, traverses over twenty miles, connecting Florida City (SW 344th Street) with the Metrorail system, with connection to downtown Miami.

Airport

The County owns and operates the Miami International Airport (the “Airport”), the principal commercial airport serving Southeast Florida. During Fiscal Year 2022, the Airport handled 49,733,342 passengers and 2,807,140 tons of airfreight. The Airport is classified by the Federal Aviation Administration as a large hub airport, the highest classification given by that organization.

The Airport is also one of the principal maintenance and overhaul bases, as well as a principal training center, for the airline industry in the United States, Central and South America, and the Caribbean.

Passengers and Cargo Handled by Airport 2018 - 2022

Fiscal Year	Passengers (in thousands)	Cargo Tonnage (in millions)	Total Landed Weight (million lbs.)
2018	44,938	2.37	37,457
2019	45,812	2.35	37,858
2020	25,382	2.30	27,681
2021	30,219	2.65	32,460
2022	49,733	2.81	41,894

SOURCE: Miami-Dade County Aviation Department

Seaport

The Port is an island port, which covers 520 acres of land, operated by the Seaport Department. It is the world’s largest multi-day cruise port. For Fiscal Year 2022, embarkations and debarkations totaled 4,022,544 passengers and containerized cargo movements at the Port amounted to approximately 1,197,664 TEUs (twenty-foot equivalent units). The following table sets forth a five-year summary of both cruise passengers served and cargo handled:

Passengers and Cargo Handled by Port 2018- 2022

Fiscal Year	Cruise Passengers (including Ferry Service) (in thousands)	Cargo TEUs (Twenty-Foot Equivalent Units) (in thousands)
2018	5,597	1,084
2019	6,824	1,121
2020	3,478	1,067
2021	252	1,254
2022	4,022	1,198

SOURCE: Miami-Dade County Seaport Department

Tourism

The County is a leading center for tourism in the State of Florida and the State’s principal port of entry for international air travelers and the Airport has the highest international passenger traffic.

Riding on the coattails of 2021, in many ways 2022 was another record year. In 2022, 19.2 million overnight visitors and an additional 7.3 million day visitors totaling 26.5 million traveled to the area, resulting in a year over year net gain of over 2 million people. With this increase in volume of visitors came additional spending, which also exceeded the prior year. Tourist spent an estimated \$20.8 billion, an increase of 8% over 2021.

The momentum that built during 2021 carried over into 2022, with continued demand at levels never seen before. Miami International Airport (MIA) added more flights and recently welcomed low-cost carriers, which included Southwest, JetBlue, and Spirit, all of which contributed to the influx of travelers. Additionally, the cruise industry experienced a surge in passenger volume starting in the summer and by the end of the year, returned to pre-pandemic levels.

Domestic visitation still made up much of the overall deficit created by a lack of visitors from traditional international markets, nevertheless the overall international recovery was strong. The primary purpose of visits for tourist continued to be leisure-driven. However, similar to trends in the latter half of 2021, many visitors came to the area to visit friends and relatives, as well as to shop and take part in outside leisure activities. Florida has been one of the fastest growing states in the U.S., and this helped fuel both domestic and international visitation to Greater Miami & Miami Beach.

While much of the overall tourism momentum was driven by domestic visitation, traditional international visitor markets also began to return. By year end, Canadians were returning in numbers equal to pre-pandemic levels. Brazilians, despite many travel related barriers rose to the #2 ranking of top international overnight visitor markets. Both the United Kingdom and Spain, which were largely absent in 2021, returned in force and resulted in ranking #5 and #6 top international overnight markets, respectively. Latin American markets, for the most part, continued to flourish and Colombia, the #1 ranking international overnight market in 2021, held on to the #1 ranking for 2022. All told, international visitation increased by 13% year over year.

The following is a five-year schedule of domestic and international visitors, including a further breakdown of international visitors by region of origin, and the estimated economic impact produced by those visitors:

**Visitors and Their Estimated Economic Impact
2018-2022**

	Visitors (in thousands)			Estimated Economic Impact (in millions)		
	<u>Domestic</u>	<u>Int'l</u>	<u>Total</u>	<u>Domestic</u>	<u>Int'l</u>	<u>Total</u>
2018	15,560	7,692	23,252	8,330	9,558	17,888
2019	17,263	6,905	24,168	9,482	8,378	17,860
2020	9,139	2,455	11,594	5,415	2,501	7,916
2021	19,031	5,189	24,220	12,727	6,495	19,222
2022	20,657	5,843	26,500	14,733	6,058	20,792

SOURCE: Greater Miami Convention and Visitors Bureau Annual Report
Note: As of 2018, amounts for visitors include both day trippers and overnight visitors

**International Visitors by Region
2018-2022
(in thousands)**

<u>Year</u>	<u>European</u>	<u>Caribbean</u>	<u>Central and South America</u>	<u>Canada /Other</u>	<u>Total</u>
2018	1,817	583	4,459	833	7,692
2019	1,772	553	2,220	838	5,383
2020	288	342	859	353	1,842
2021	202	791	2,529	225	3,747
2022	650	1,037	2,417	639	4,743

SOURCE: Greater Miami Convention and Visitors Bureau Annual Report

Employment

The following table illustrates the economic diversity of the County's employment base. No single industry dominates the County's employment market, and there have not been any significant decreases within the industry classifications displayed for the latest years for which information is available:

**ESTIMATED EMPLOYMENT
IN NON-AGRICULTURAL ESTABLISHMENTS
2018-2022**

	<u>Sept. 2018</u>	<u>Percent</u>	<u>Sept. 2019</u>	<u>Percent</u>	<u>Sept. 2020</u>	<u>Percent</u>	<u>Sept. 2021</u>	<u>Percent</u>	<u>Sept. 2022</u>	<u>Percent</u>
Goods Producing Sector										
Construction	53,000	4.4	54,300	4.5	52,600	4.7	51,900	4.4	55,000	4.4
Manufacturing	42,000	3.5	42,400	3.5	40,100	3.6	40,900	3.4	43,300	3.4
Mining & Natural Resources	500	0.0	500	0.0	500	0.0	600	0.1	500	0.0
Total Goods-Producing Sector	95,500	8.0	97,200	8.0	93,200	8.4	93,400	7.9	98,800	7.8
Service Providing Sector										
Transportation, Warehousing, and Utilities	81,100	6.8	88,300	7.3	81,500	7.3	85,200	7.2	92,000	7.3
Wholesale Trade	73,800	6.2	73,800	6.1	69,400	6.3	73,900	6.2	77,400	6.1
Retail Trade	144,600	12.1	142,200	11.7	131,100	11.8	135,900	11.4	142,300	11.3
Information	19,800	1.7	20,600	1.7	18,400	1.7	20,900	1.8	24,200	1.9
Finance Activities	80,800	6.7	81,300	6.7	80,400	7.2	85,500	7.2	91,000	7.2
Professional and Business Services	177,400	14.8	181,500	14.9	172,600	15.5	187,300	15.8	206,000	16.3
Education and Health Services	187,200	15.6	191,700	15.8	183,900	16.6	195,000	16.4	205,500	16.3
Leisure and Hospitality	142,200	11.9	144,300	11.9	93,900	8.5	126,700	10.7	139,600	11.0
Other Services	51,200	4.3	50,100	4.1	44,700	4.0	46,100	3.9	47,100	3.7
Government	144,700	12.1	145,600	12.0	140,900	12.7	138,800	11.7	139,600	11.0
Total Service Providing Sector	1,102,800	92.0	1,119,400	92.0	1,016,800	91.6	1,095,300	92.1	1,164,700	92.2
Total Non-Agricultural Employment	1,198,300	100	1,216,600	100	1,110,000	100	1,188,700	100	1,263,500	100

SOURCE: U.S. Bureau of Statistic, Current Employment Statistics. Prepared by Miami-Dade County, Department of Regulatory and Economic Resources, Planning Research and Economic Analysis Section, May, 2023.

The following tables set forth the leading public and private County employers for 2016⁽¹⁾:

Ten Largest Public Employers

Employer's Name	Number of Employees
Miami-Dade County Public Schools	31,000
Miami-Dade County	24,692
Federal Government	19,300
Florida State Government	19,200
Jackson Health System	8,163
Florida International University	4,951
City of Miami	3,820
Homestead AFB	2,810
Miami Dade College	2,572
Miami VA Healthcare System	2,500

Ten Largest Private Employers

Employer's Name	Number of Employees
University of Miami	13,864
Baptist Health South Florida	13,369
American Airlines	11,773
Carnival Cruise Lines	3,500
Miami Children's Hospital	3,500
Mount Sinai Medical Center	3,321
Florida Power & Light Company	3,011
Royal Caribbean International/Celebrity Cruises	2,989
Wells Fargo	2,050
Bank of America Merrill Lynch	2,000

SOURCE: The Beacon Council/Miami-Dade County, Florida

⁽¹⁾ Information is based on data from calendar year 2016, which was the latest data available as of the date of this report.

The following table sets forth the unemployment rates for the last five years and for the United States, the State of Florida and the County.

**UNEMPLOYMENT RATES
2015- 2022**

Area	<u>2018*</u>	<u>2019*</u>	<u>2020*</u>	<u>2021*</u>	<u>2022*</u>
USA	3.9%	3.7%	8.1%	5.3%	3.6%
Florida	3.6	3.2	8.1	4.6	2.9
Miami-Dade County	3.7	2.9	8.2	5.5	2.6

SOURCE: U.S. Bureau of Labor Statistics, Labor Market Statistics LAUS Program. Miami-Dade County, Regulatory and Environmental Resources Department, Planning Research and Economic Analysis Section, 2023. *State and County data were subject to revision on March 1,2023.

The following table sets forth the Per Capita Personal Income for the last five years for the United States, the Southeastern region, the State of Florida and the County.

**Per Capita Personal Income
2016 - 2021**

<u>Year</u>	<u>United States**</u>	<u>Southeastern**</u>	<u>Florida**</u>	<u>Miami-Dade*</u>
2016	\$ 49,613	\$ 43,951	\$ 46,454	\$ 44,479
2017	51,573	45,748	49,020	48,755
2018	53,817	47,633	51,444	52,942
2019	55,724	49,414	53,375	54,316
2020	59,147	52,213	56,096	57,213
2021	63,444	56,118	60,761	Unavailable

(*) Note that this table contains the most current information available as of the date of this Report.

Source: U.S. Department of Commerce, Economic and Statistic Administration. Bureau of Economic Analysis/Regional Economic Information System; Online, March, 2022

*Last updated: November 16, 2021-- new statistics for 2020; revised statistics for 2010-2019.

**Last updated: March 23, 2022-- preliminary statistics for 2021; revised statistics 2010-2020.

Note: All dollar estimates are in thousands of current dollars (not adjusted for inflation).

County Demographics

**Miami-Dade County
Estimates of Population by Age
2000 to 2030**

<u>Age Group</u>	<u>2000</u>	<u>2010</u>	<u>2015</u>	<u>2020</u>	<u>2025</u>	<u>2030</u>
Under 16	495,375	479,211	485,889	484,001	483,740	484,806
16-64	1,457,435	1,665,211	1,730,279	1,768,243	1,815,266	1,871,051
65 & Over	300,552	352,013	402,468	449,523	501,479	558,927
Total	2,253,362	2,496,435	2,618,636	2,701,767	2,800,485	2,914,784

SOURCE: U.S. Census Bureau, Decennial Census, 2000, 2010, 2020, American Community Survey 2019-1 year estimate. Intercensal Estimates and Projections (2015-2030) provided by Miami-Dade County Department of Regulatory and Economic Resources, Planning Research and Economic Analysis Section, 2022.

**Trend and Forecasts, Population in
Incorporated and Unincorporated Area
1960-2022**

<u>Year</u>	<u>Population in Incorporated Areas</u>	<u>Population in Unincorporated Areas</u>	<u>Total</u>	<u>Percentage Growth in Population</u>
<u>Trends:</u>				
1960	582,713	352,334	935,047	N/A
1970	730,425	537,367	1,267,792	35.6 %
1980	829,881	795,900	1,625,781	28.2
1990	909,371	1,027,723	1,937,094	19.1
2000	1,049,074	1,204,288	2,253,362	16.3
2010	1,386,864	1,109,571	2,496,435	10.8
2020	1,514,817	1,186,950	2,701,767	8.2
2021	1,523,917	1,191,592	2,715,509	0.5
<u>Forecasts:</u>				
2022	1,534,468	1,197,341	2,731,809	0.6

SOURCE: U.S. Census Bureau, Decennial Census Reports for 1960-2010. Projections (2020 - 2022) provided by Miami-Dade County Department of Regulatory and Economic Resources, Planning Research and Economic Analysis Section, 2022.

Miami-Dade County
Population By Race and Ethnic Group⁽¹⁾
1980 - 2020
(in thousands)

<u>Year</u>	<u>Total⁽²⁾</u>	<u>Hispanic⁽¹⁾</u>	<u>Black⁽¹⁾</u>	<u>Non-Hispanic Whites and Others</u>
1980	1,626	581	284	773
1985	1,771	768	367	656
1990	1,967	968	409	618
1995	2,084	1,155	446	519
2000	2,253	1,292	457	534
2005	2,403	1,455	461	497
2010	2,496	1,624	496	449
2015	2,617	1,741	476	458
2020	2,701	1,857	457	466

(In Percentages)

1980 ⁽²⁾	100	36	17	48
1985 ⁽²⁾	100	43	21	37
1990 ⁽²⁾	100	49	21	31
1995 ⁽²⁾	100	55	21	25
2000 ⁽²⁾	100	57	20	24
2005 ⁽²⁾	100	61	21	20
2010 ⁽²⁾	100	65	20	18
2015 ⁽²⁾	100	67	18	18
2020 ⁽²⁾	100	69	17	17

SOURCE: U.S. Census Bureau, Census of Population Reports for 1980-2010. Projections (2015 and 2020) provided by Miami-Dade County Department of Regulatory and Economic Resources, Planning Research and Economic Analysis Section, May 2022.

⁽¹⁾ Persons of Hispanic origin may be of any race. Hispanic Blacks are counted as both Hispanic and Black. Other Non-Hispanics are grouped with Non-Hispanic White category. Sum of components exceeds total.

⁽²⁾ Numbers may not add due to rounding

**FINANCIAL REPORT OF THE
MIAMI-DADE WATER AND SEWER DEPARTMENT
FOR FISCAL YEAR ENDED SEPTEMBER 30, 2023**

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MIAMI-DADE WATER AND SEWER DEPARTMENT

A DEPARTMENT OF MIAMI-DADE COUNTY, FL

ANNUAL COMPREHENSIVE FINANCIAL REPORT

FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 2023





The cover's design is an aerial view of the Central District Wastewater Treatment Plant.

MIAMI-DADE WATER AND SEWER DEPARTMENT

A DEPARTMENT OF MIAMI-DADE COUNTY, FL

ANNUAL COMPREHENSIVE FINANCIAL REPORT

FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 2023

PREPARED BY: CONTROLLER DIVISION AND PUBLIC INFORMATION OFFICE

VISION STATEMENT

A model utility of excellence in reliability, resilience and environmental stewardship, recognized as an essential partner in the protection of public health and an employer of choice in Miami-Dade County.

MISSION STATEMENT

We deliver high-quality, safe, and reliable drinking water and wastewater service in Miami-Dade County where customers know the value of every drop, employees take pride in their contribution, and the pursuit for efficiency and community resilience drives every business decision.



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Miami-Dade Water and Sewer Department
 A DEPARTMENT OF MIAMI-DADE COUNTY, FL
Annual Comprehensive Financial Report

FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 2023
 PREPARED BY: CONTROLLER DIVISION AND PUBLIC INFORMATION OFFICE

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MIAMI-DADE COUNTY

Daniella Levine Cava

Mayor



BOARD OF COUNTY COMMISSIONERS

Oliver G. Gilbert III

Chairman

Anthony Rodriguez

Vice Chairman

Oliver G. Gilbert, III

District 1

Marleine Bastien

District 2

Keon Hardemon

District 3

Micky Steinberg

District 4

Eileen Higgins

District 5

Kevin M. Cabrera

District 6

Raquel A. Regalado

District 7

Danielle Cohen Higgins

District 8

Kionne L. McGhee

District 9

Anthony Rodriguez

District 10

Roberto J. Gonzalez

District 11

Juan Carlos Bermudez

District 12

René García

District 13

Juan Fernandez-Barquin

Clerk of the Court and Comptroller

Pedro J. Garcia

Property Appraiser

Geri Bonzon-Keenan

County Attorney



Water and Sewer
P.O. Box 330316
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April 2, 2024

Honorable Daniella Levine Cava, Mayor
Honorable Oliver G. Gilbert III, Chairman and Members of the Board of County Commissioners
Honorable Juan Fernandez-Barquin, Clerk of the Court and Comptroller
Pedro J. Garcia, Property Appraiser
Geri Bonzon-Keenan, County Attorney
Residents of Miami-Dade County, Florida

Ladies and Gentlemen:

We are pleased to present the Annual Comprehensive Financial Report of the Miami-Dade Water and Sewer Department (the Department, a.k.a. WASD) for the fiscal year ended September 30, 2023 (FY 2023). This report presents a full set of financial statements prepared in conformity with U.S. Generally Accepted Accounting Principles (GAAP) as promulgated by the Governmental Accounting Standards Board (GASB) and audited by a firm of independent certified public accountants retained by the Department.

Management has established a comprehensive framework of internal controls to provide a reasonable basis for asserting the financial statements are fairly presented. The objective is to provide reasonable, rather than absolute assurance, that the financial statements are free of any material misstatement and therefore the cost of a control is considered to ensure it does not exceed the benefits to be derived. While the independent auditor has expressed an opinion on the financial statements contained in this report, management is responsible, in all material respects, for both the completeness and reliability of the information contained in this report. For the fiscal year ended September 30, 2023, the Department received an unmodified opinion from its independent auditors.

This report may be accessed via the Internet at http://www.miami-dade.gov/wasd/reports_financial.asp.

The financial section of the Annual Comprehensive Financial Report encompasses the Management's Discussion and Analysis (MD&A), financial statements, notes to the financial statements, and Required Supplementary Information (RSI) and supplementary financial data. Immediately following the independent auditors' report is the MD&A, which provides a narrative introduction, detail overview and analysis of the Department's financial activities for FY 2023. The MD&A complements this Letter of Transmittal and should be read in conjunction with it.

PROFILE OF GOVERNMENT

In December 1972, the Board of County Commissioners (Board) of Miami-Dade County, Florida (County) created the Miami-Dade Water and Sewer Authority (Authority) for the purpose of establishing an agency responsible for providing water and wastewater services throughout the County. In 1973, all properties of the water and wastewater systems of the City of Miami and of the County were put under the control of the Authority. The Board changed the status of the Authority to that of a County Department effective November 1, 1983, under the provisions of Miami-Dade County Ordinance 83-92, establishing the “Miami-Dade Water and Sewer Authority Department.” On October 19, 1993, the Department changed its name to the Miami-Dade Water and Sewer Department. The Miami-Dade Water and Sewer Department is the largest water and sewer utility in the southeastern United States, serving more than 2.8 million people every day.

The Department’s water system, considered the largest water utility in the Southeast United States, serving approximately 462,214 retail customers and 15 municipal wholesale customers within Miami-Dade County. Water is drawn primarily from the surficial Biscayne Aquifer, a non-artesian (or near surface) aquifer, which underlies an area of about 3,200 square miles in Miami-Dade, Broward, and Palm Beach counties.

The water system consists of three regional water treatment plants (WTP), the shared Hialeah reverse osmosis water treatment plant, and five small auxiliary treatment facilities that service the southernmost area of the County. The three regional plants are John E. Preston, Hialeah and Alexander Orr, Jr. water treatment plants. The total combined capacity of the three regional WTPs is 439 MGD (million gallons per day). There are fourteen wellfields comprised of 95 production wells, 10 Floridian Aquifer wells and five aquifer storage and recovery wells. These wells supply untreated water to the treatment plants.

Most of the water distribution throughout the 400 square miles service area is performed by pumping from the regional treatment facilities and boosted by four remote pumping stations with eight (total) finished water storage tanks. The system consists of more than 8,574 miles of water mains ranging in size from 2 inches to 72 inches in diameter.

The wastewater system serves approximately 377,496 retail customers and 13 wholesale customers, consisting of 12 municipal customers and the Homestead Air Reserve Base. It consists of three regional wastewater treatment plants (WWTP), over 1,000 sewage pump stations and nearly 6,400 miles of collection and transmission pipelines, manholes, lift stations and force mains. The service area of the system covers approximately 375 square miles. The three WWTPs are the South District, Central District and North District WWTPs. The disposal of the by-products of the treatment process (sludge and effluent or treated wastewater) is an important part of the Department’s plan to improve and expand its sewer system.

Disposal of treated wastewater at the North District Plant and the Central District Plant is accomplished by discharge into the Atlantic Ocean. A portion of the treated effluent at the North District Plant is also disposed via deep injection wells. Environmental studies conducted by the Environmental Protection Agency (EPA) and examinations by the State and the Department conducted in 1994 have shown “no irreparable harm” and “no unreasonable degradation” to the environment because of the discharge of effluent from the North District Plant and the Central District Plant into the Atlantic Ocean. The State revised this policy when, during 2008, legislation was passed mandating a phase out of ocean outfall discharges.

The South District Wastewater Treatment Plant disposes of its effluent through deep injection wells to the lower Floridan Aquifer at a depth below 2,400 feet. In 1995, the Department completed construction of five additional deep injection wells as part of its 112.5 million gallons per day (MGD) plant expansion project. In FY 2014, the Department finalized operational permit for all the South District’s 17 injection wells, which are now fully operational.

The Department continues to plan, and design reclaimed water facilities. Currently, in FY 2023 the Department reused 13 MGD of treated wastewater. The Department is implementing an innovative effluent energy recovery system which will result in the reuse of approximately 115 MGD. When combined with the existing in-plant reuse and the FPL collaboration agreement, the Department will reuse 145.5 MGD and become the largest reuse utility in the East Coast.

ECONOMIC CONDITION AND OUTLOOK

This report, Economic Conditions and Outlook, reviews the level of economic activity throughout Fiscal Year (FY) 2023 and forecasts the area's economic outlook for the next fiscal year.

One year ago, in the year-end outlook for the local economy, it was stated that the strong fundamentals inherited from FY 2021 and FY 2022 would fuel the continued growth despite the headwinds from the loss of fiscal stimulus and tightening of monetary policy during FY 2023. Prospects for growth of the United States' economy were thought to decelerate to somewhere between -2 and +1.8 percent in calendar year 2023, after growing almost 2 percent in calendar year 2022, according to the International Monetary Fund (IMF), the Organization for Economic Co-operation and Development (OECD) and the Congressional Budget Office.

Economic activity in Latin America, after experiencing a 3.5 percent increase in 2022, was expected to expand by 1.7 percent in 2023. The similar rates of expansion in the US and Latin American economies were expected to result in a continuation of the existing trading patterns between the regions reflected in the trade flowing through Miami-Dade ports.

Real estate and construction activity in FY 2023 were expected to continue to soften due to the unprecedented price appreciation of FY 2021 and 2022 as well as the rise in mortgage rates brought about by the Federal Reserve's monetary tightening policy.

Tourism indicators, after a blockbuster FY 2022, were also expected to continue growing at a much-reduced pace, with visitors, airline passengers and hotel occupancy gaining slightly from their very robust FY 2022 levels and with cruise ship passenger numbers increasing from their FY 2021 levels and possibly surpassing pre pandemic levels.

Miami-Dade's employment was forecasted to continue to expand albeit at a slower pace as workers become harder to find given the low unemployment rate prevalent at the beginning of the fiscal year.

This forecast of FY 2023 turned out to be a fair assessment of the year to come, even though a "loss of fiscal stimulus" did not end up taking place.

The national economy in FY 2023, indeed slowed compared to FY 2022. Real gross domestic product (GDP) increased at an annual rate of 1.9 percent, a deceleration from the 3.1 percent of the prior year. The deceleration in economic growth was brought about by a slower growth in personal consumption that decelerated from 4.0 percent in FY 2022 to 1.8 percent in FY 2023, combined with a contraction of the investment component that went from growing by 7.6 percent in FY 2022 to contracting by 2.2 percent in FY 2023. Inflation pressures continued to be elevated in FY 2023, although moderating from the prior year level. As a result of the Federal Reserve continuing to increase its key interest rate during the fiscal year, inflation for the fiscal year ended at 5.1 percent, an improvement from the 7.9 percent recorded in FY 2022. This reduction in the level of inflation was accompanied by a drop in the headline unemployment rate of 20 basis points to 3.6 percent.

At the county level, FY 2023 was a year of moderation in which most variables returned to more sustainable and 'normal' levels after FY 2021 characterized by a red-hot residential real estate market, and FY 2022 marked by an unprecedented tourism boom. For FY 2023, the county's unemployment rate decreased, as employment rose. The residential real estate market continued to cool, as it did in FY 2022 and the tourism sector grew modestly throughout.

What follows is an overview of the economic conditions that prevailed in the county throughout the past year and a brief discussion about the trends associated with the area's key economic drivers.

EMPLOYMENT

During FY 2023, nonagricultural wage, and salary employment (annual average) recorded an overall gain of approximately 52,900 jobs. This increase of 4.3 percent left total employment at 1,291,700 according to non-seasonally adjusted data from the Bureau of Labor Statistics. This gain in employment represented a deceleration from the prior year when there was an increase of 6.8 percent. This employment gain resulted in a decrease in the unemployment rate. The average annual unemployment rate for the year was down to 2 percent, compared to 2.9 percent a year earlier.

After deep losses in employment in almost all sectors in FY 2020 and 2021 all sectors recorded gains in FY 2022 except for government. The rebound continued in FY 2023 with only the construction sector recording a contraction in employment, with a loss of 1,800 jobs or 3.6 percent. The sector that gained the most employment, both in absolute and relative terms, was professional and business services, adding 13,000 jobs, or 6.5 percent. The second sector in terms of jobs gains was education and health services with an increase of 10,900 jobs or 5.4 percent, followed by leisure and hospitality with a gain of 7,100 jobs or 5.2 percent. Rounding out the top 5 industries by job gains are, retail trade with a gain of 5,000 jobs or 3.6 percent; and government with a gain of 4,100 jobs or 3 percent.

REAL ESTATE MARKET'

Traditionally, the real estate sector in Miami-Dade County is viewed as one of the most important measures of the county's economic health. After FY 2021 aided by record low mortgage rates, increases in work from home policies, government stimulus and increased inflation expectations that resulted in a red-hot housing market, FY 2022 displayed signs of a moderating real estate market. This moderating trend continued into FY 2023 and can be seen in fewer single-family home and condominium sales as well as in a slowing of the increase in home sales prices.

During FY 2023 sales of existing single-family homes decreased 22 percent from the prior year, from 13,589 to 10,555 homes sold. Sales of condominiums decreased by an even bigger margin, down 36 percent over the prior year to 13,900 units sold. Cash sales accounted for just over 52 percent of all condo sales in FY 2023, up from a 46 percent share in FY2021.

In terms of valuation, housing price appreciation moderated in FY 2023. The median sales price for single family homes rose by 7.6 percent in FY 2023, down from 13 percent in FY 2022 and 24 percent in FY 2021. The median sales price for existing condominiums rose by 6.9 percent in FY 2023 after increasing by 23 percent in FY 2022 and 20 percent in FY 2021.

Roughly midway through FY 2020, the United States Federal Housing Authority announced a foreclosure and eviction moratorium on qualifying residential properties that lasted throughout FY 2021. As a result, data from the Clerk of the Court shows new foreclosure filings plummeted from 5,445 new filings in FY 2019 to just under 3,000 in FY 2020. In FY 2021, with the moratorium still in place, and helped by the strong housing market, new filings dropped even further to 1,933. In FY 2022, with the federal foreclosure moratorium no longer in place, new foreclosure filings increased once again to 2,882 and rose some more in FY 2023 to 3,281.

In terms of new residential construction, following a 25 percent increase for residential units permitted in FY 2021, and a 14 percent in FY 2022 the number of units permitted increase by an additional 4 percent in FY 2023 to 14,295.

The commercial/industrial components of the real estate market remained mostly stable in FY 2023, with the exception of a notable increase in industrial rent prices. Office vacancies decreased from 9.2 to 9 percent, with no change in the average rental rate per square foot. The retail vacancy rate decreased from close to 3.1 to 2.9 percent. Average lease rates for retail in shopping centers fell by 4 percent to \$34.41 per square foot while average lease rates for stand-alone retail declined by 1.2 percent. The industrial market saw vacancy rates drop from 2.6 percent in FY 2022 to 2.1 percent in FY 2023. Average lease rates for industrial space increased by 13.5 percent to \$14.68 per square foot.

SALES INDICATORS

Taxable sales in Miami-Dade County, after reaching their highest level to date in FY 2022 receded slightly in FY 2023. After a 12.5 percent expansion in FY 2022, taxable sales dropped by an inflation adjusted 1.7 percent in FY 2023 to just over \$75 billion.

All categories contracted in FY 2023 except for business investment that saw an increase of 1.6 percent. Autos & accessories, tourism & recreation, consumer durables and non-durables decrease by single digits, while construction declined by 10.3 percent (down \$351 million) and other was down 24.4 percent (or \$26 million).

INTERNATIONAL TRADE AND COMMERCE

International trade and commerce is another key component of Miami-Dade's economy. Trade measured by value passing through the Miami-Dade County's seaport and airport rose 16.5 percent since the Covid-19 pandemic first erupted in 2020 to \$105.7 billion (2023 inflation adjusted dollars). However, from FY 2022, merchandise trade decreased 4.1 percent in FY 2023 from \$110.1 billion from consumer demand dropping over the year as inflation rose.

In contrast to the recurring merchandise trade deficits that the United States maintains year after year, Miami-Dade ports traditionally export more than they import, resulting in a trade surplus over the years. This year, this surplus narrowed as the county trade exports decreased 5.1 percent, while imports decreased 2.9 percent over FY 2023. Most of the Miami-Dade export markets are in South America, Central America, and the Caribbean, and, together with Europe, account for more than 89% of total trade. Most of total U.S. imported perishables from South America and Central America and the Caribbean continue to pass through the Miami-Dade ports.

Two of Miami-Dade County's barometers of trade activity are the freight tonnage moving through Miami International Airport (MIA) and PortMiami. At the former, overall air freight tonnage decreased 1.7 percent in FY 2023 after increasing 13.2 percent the preceding year. At PortMiami, cargo tonnage figures were up by 0.9 percent after decreasing 35.1 percent in the prior fiscal year. PortMiami accounts for nearly 75 percent of total county trade measured by weight, while high-value trade through MIA means the airport accounts for 69 percent of total trade measured by value.

TOURISM

After two years of post-COVID-19 sharp increases in the number of visitors to the state of Florida of 20 percent in FY 2021 and 24 percent in FY 2022, with a more modest increase of 1.7 in percent FY 2023, the state reached 138.1 million overnight visitors, the highest number ever recorded.

In tandem with the rest of the state, after post covid sharp increases in FY 2021 and FY 2022 visitors to the Miami area were flat in FY 2023 at just over 20.5 million overnight visitors, well above the 16.2 million registered in pre-pandemic FY 2019.

Consistent with the trend in overnight visitors, MIA passenger levels stabilized in FY 2023, increasing by a relatively modest 3.7 percent to a record level of 51.6 million passengers, after having increased by 65 percent in FY 2022 and 19 percent in FY 2021. Part of the increase in MIA passengers not translating into overnight visitors is reflected in cruise ship passenger numbers.

After being the hardest hit component of the tourism sector with a complete shutdown, cruise ship passenger levels continued to recuperate the ground loss during the pandemic. In FY 2024, passenger levels increased by over 50 percent during FY 2023 to 6.27 million passengers, closing in on the pre pandemic level of FY 2019 when 6.82 cruise passengers passed through Port Miami.

The modest change in overnight visitors was reflected in a decrease in the hotel occupancy rate from 73.5 percent in FY 2022 to 72.1 percent in FY 2023. This decrease in the occupancy rate was coupled with a decrease in the average daily room rate from \$236 dollars in FY 2022 to \$223 dollars in FY 2023.

FUTURE OUTLOOK

FY 2021 and 2022 were characterized by strong growth and adjustments of various kinds as the economy recuperated from the pandemic and digested the stimulus and policies put in place during and post pandemic. FY 2023 displayed a more normal pattern of growth with less obvious influence from the pandemic and/or pandemic era policies.

FY 2024 should continue in the same vein as FY 2023, displaying moderate growth as well as moderate inflation, with most, if not all, variables changing in normal, single-digit percentage terms.

Because of its location and economic trade and tourism ties, Miami-Dade's economy is influenced by developments in both the broader US and Latin American and Caribbean economies.

On the domestic front, the overall United States economy is expected to continue growing, albeit at a slower pace. After a strong showing in FY 2021, and a moderating pace in FY 2022 and 2023, it is expected that the U.S. growth will continue to slow in FY 2024.

All major institutional forecasts of the United States' economy at the time of this writing predict GDP growth rate for calendar year 2024 of 1.5 percent with the exception of Fannie Mae which forecasts a drop of 0.3 percent. S&P Global, the International Monetary Fund (IMF), the Organization for Economic Co-operation and Development (OECD) and the Congressional Budget Office all agree on a 1.5 percent growth rate.

Economic activity in Latin America, after experiencing a 2.3 percent increase in 2023, is expected to expand by 2.3 percent again in 2024. The higher rate of expansion in Latin America vis-a-vis the US is likely to result in a contraction of the trade surplus flowing through Miami-Dade ports.

Real estate and construction activity in FY 2024 is expected to display a similar trend as FY 2023 as mortgage rates continue at their current elevated levels locking in current homeowners and deterring would be buyers.

Tourism indicators will also continue at their elevated FY 2023 levels, meaning that growth will be moderate, with visitors, airline passengers and hotel occupancy gaining slightly from their very robust FY 2023 levels. The exception will be cruise ship passengers, expanding robustly with the introduction of more and bigger ships to the market resulting in passenger counts easily beating their pre-pandemic levels.

Employment should continue to expand overall, but at a slow rate, and most likely not be as broad based as it was in FY 2022 and 2023. This should result in a more normal pattern in which some industries expand, and others contract their level of employment.

In conclusion, evaluating all the likely developments in major areas of the economy leads to a forecast that the Miami-Dade economy appears poised for continued growth in FY 2024 at a slower pace. While inflation appears to be slowing there remains a lot of uncertainty due to the instability in the Middle East and the potential for the conflict to expand. This could have an impact on trade routes and specifically on the price of oil that could trigger repercussions through economies worldwide.

Water System

Water Reset

The Water Reset Program was developed by the Miami-Dade Water and Sewer Department to address existing and emerging needs within the water treatment facilities and the water distribution system. The program includes a comprehensive prioritization of previous condition assessment reports, the American

Water Infrastructure Act (AWIA) Risk and Resilience Assessment (RRA), and other critical projects that address aging infrastructure, redundancy, future regulations, capacity, and modernization.

To prioritize and implement these improvements, the department developed criteria to establish a capital plan prioritization. These criteria include:

- Life, Health, and Safety
- Legal and Current Regulatory Compliance
- Future Regulatory Compliance
- Essential Improvements
- Strategic Alignment
- Infrastructure Risk Management and Resilience
- Financial and Operational Benefits
- Shovel Ready Status

The water reset program is comprised of approximately 100 projects that include generator replacements to ensure continued reliability during severe weather events, filter overhauls to address aging infrastructure and capacity constraints, redundant raw water transmission mains to fortify system reliability, and lead and copper assessments that ensure safe drinking water.

The program endeavors to address future needs by accounting for forthcoming regulatory compliance and modernization projects. These projects include the evaluation of the effects of Polyfluoroalkyl Substances (PFAS) on the department's wells, automating the controls at the treatment facilities, and implementing Advanced Metering Infrastructure (AMI) across all retail and volume accounts.

Water-Use Efficiency Plan

The Water Use Efficiency Plan (Plan) is a component of Miami Dade County's (County) Water Use Permit (WUP) issued by the South Florida Water Management District (SFWMD) and approved by the County's Board of County Commissioners. The Plan has been in effect since 2007 and consists of both indoor and outdoor water conservation Best Management Practices (BMPs) that are measured through a quantifiable process affording accountability of water saved through the Plan. Indoor BMPs include rebates for installing high-efficiency fixtures including toilets, faucets, and showerheads in properties located throughout the County. Outdoor BMPs include rebates for retrofits and upgrades to properties that have functioning, in-ground automatic irrigation systems located in the County. Non-BMP measures in the Plan include the adoption of a permanent two day per week landscape irrigation rule, mandating the installation of water-efficient fixtures in new construction, promoting the use of Florida Friendly methods and landscaping, educational outreach campaigns to residents and businesses and utility water loss reduction efforts. These initiatives have reduced finished water demand by 24 MGD as of December 31, 2022 (year most recent data available), compared to finished water demands in 2006 the year prior to Plan implementation. The County's conservation efforts have also reduced residents' average per capita water use rate used in calculating the annual allocation of water provided in the WUP. This outcome reduces the utility's operating expenses, defers construction of expensive alternative water supply projects to meet future water needs and fulfills the County's efforts to ensure the efficient use of water confirming that water conservation is the least expensive form of alternative water supply.

The overall Plan's objective is to improve water use efficiency, reduce loss and waste, and comply with Florida's legislative criteria and water conservation initiatives.

The following are a list of current indoor and outdoor BMPs implemented by Miami Dade County:

- High-efficiency fixture rebates including toilets, faucets, and showerheads for single-family and multi-family properties
- Senior high-efficiency toilet rebates
- High-efficiency rebates for commercial and lodging facilities
- Free high-efficiency showerhead exchange program for single-family and multi-family properties

- Free high-efficiency showerhead exchange program for lodging facilities
- Landscape irrigation evaluation rebates for residential and commercial properties
- Landscape ordinance requiring the use of Florida Friendly principles
- Implementation of a county-wide permanent two day a week landscape irrigation ordinance
- Tiered rate conservation structure that charges more for increasing water use
- Construction standards effective January 1, 2009, that codify high efficiency plumbing fixtures in new residential, industrial, commercial, and institutional properties
- Comprehensive outreach campaigns to county residents and students
- Continuation of a leak detection survey and repair of the entire water distribution system on an annual basis.

In 2023, the County updated its permanent landscape irrigation ordinance incorporating all SFWMD's rule elements that were not included in the initial ordinance or had been formulated since that time.

Small Watermain Replacement Program

The Miami-Dade Water Distribution system is divided into square mile areas, with each one corresponding to an atlas sheet within the water distribution network map. There are 455 atlas sheets that comprise the water distribution system. To proactively upgrade aging infrastructure, the department has developed the Small Watermain Replacement Program (SWRP) to comprehensively upgrade the water distribution system in each square mile area. The program prioritizes replacements using parameters such as pipe diameter, age, and location of existing water mains.

Each project consists of the programmatic replacement of undersized water mains, rehabilitation, or replacement of water mains with excessive leakage, and the replacement of water mains located in rear easements of private properties with water mains located on the frontage street. The program also includes rear to front service line conversions for properties where the water main was removed from a backyard easement. The SWRP improves water quality concerns and addresses critical fire protection issues in these areas.

Water Reuse

Reclaimed water is highly treated, filtered, and disinfected wastewater that is reused for a variety of purposes. Reclaimed water can replace or supplement groundwater supplies for certain types of use. Currently, the Department has been able to replace potable water used for process water at its wastewater treatment plants with reclaimed water. Valuable drinking water is thus conserved by using reclaimed water in several wastewater treatment plant processes. The Department also signed an agreement with Florida Power and Light (FPL) to provide up to 15 million gallons per day (mgd) of treated effluent from the South District Wastewater Treatment Plant, which will be further treated at an Advanced Reclaimed Water Plant to be built by FPL to convert it into process water and used for cooling towers at the Turkey Point complex. The Advanced Reclaimed Water Plant also known as the FPL Miami-Dade Clean Water Recovery Center is expected to be operational in 2025. The Department also continues to evaluate opportunities for cost-effective use of reclaimed water that can reduce demands for potable water and meet the need for additional water for restoration and enhancement of the environment, cooling water, scrubber water, irrigate certain landscaping, and serve industrial water demands for electrical production and air conditioning. Additional opportunities are being explored.

Water and Wastewater Transmission System Computer Models

The Department maintains Water and Wastewater Transmission System Computer Models, which operate with the Geographic Information System (GIS) data on the respective systems. These models are critical for planning and evaluating the availability of system capacity for new developments and system upgrades. The models are also used for the identification of long-range improvements to transmission system facilities, including pumping stations and pipelines as part of Water, Wastewater, and Reuse Water Integrated planning. WASD's Planning Division develops forecasts for water and sewer demands to ensure that all future needs can be met.

Water Rights

Along with WASD's work to maintain, harden, and expand water and wastewater infrastructure, legislative solutions are being forged to ensure a sustainable supply of top-quality water to meet the future needs of our growing community. Miami-Dade County has recently approved legislation authorizing the execution of a Capacity allocation Agreement in Phase 1 of the C-51 Reservoir, which provides the Department with 15 million gallon per day allocation of alternative water supplies through at least 2065.

Wastewater System

Consent Decree Program

The County negotiated a Consent Decree with the United States Environmental Protection Agency (EPA) and the Florida Department of Environmental Protection (FDEP), which was lodged with the US District Court on June 6, 2013, and entered on April 9, 2014. This Consent Decree is designed to build on the successes achieved by the Department under previous Consent Decree programs. The overarching goal of the Consent Decree is to reduce sanitary sewer overflows and to meet effluent limit requirements of the Clean Water Act from the County's wastewater system.

The Consent Decree requires the Department to upgrade its collection, transmission, and treatment facilities by completing 80 capital improvement projects throughout the wastewater system. It also requires the County to implement Capacity, Management, Operations and Maintenance (CMOM) Programs for the continued improvement of its systems and to eliminate, reduce, prevent, or otherwise control sanitary sewer overflows (SSOs).

As of September 30, 2023, the County's Consent Decree Program has completed sixty-one (61) of its capital improvement projects with an approximate total cost of \$911 million. Fifteen (15) projects with a cost of \$865 million are in the construction phase, and four (4) projects with a cost of \$207 million are in the pre-construction phases of planning and procurement.

During FY 2023 the Consent Decree Program completed an additional 5 projects, met the projected total program fiscal expenditures of \$64 million, and reached a total expenditure of \$ 1.53 billion since inception.

Regarding the CMOM Program, the County developed ten (10) Capacity, Management, Operations and Maintenance Plans with the objective of incorporating standard operation and maintenance activities with a new set of information management requirements. All these plans have been approved by EPA/FDEP. In addition, the County remains in compliance with five additional plans that are a continuation from previous Consent Decrees.

Implementation of the Consent Decree is underway, and the County remains fully committed in completing the mandated Consent Decree Capital Improvement Projects by 2028.

Ocean Outfall Legislation Program (OOL)

In 2008, the Florida Legislature approved, and the Governor signed a law requiring all wastewater utilities in southeast Florida utilizing ocean outfalls (OOL) for disposal of treated wastewater to reduce nutrient discharges by implementing advanced wastewater treatment by 2018 or equivalent, cease using the outfalls by 2025 and reuse 60 percent of the wastewater flows by 2025. In 2013, the statute was amended to provide greater flexibility to meet reuse requirements and to allow use of the ocean outfalls for peak flows management, not to exceed 5 percent of the annual baseline flows. Because of this law, the Department has analyzed several compliance options. Each option includes additional projected capacity to meet future average daily and peak flow demands. After considering several options, the Department's recommended option includes upgrades to both the Central and North District wastewater treatment plants (WWTP). The upgrades will include the addition of deep injection wells at the Central and North District Wastewater Treatment Plants (WWTP) to eliminate the normal use of the ocean outfalls for disposal of treated wastewater. These upgrades include 14 projects, of which 2 are completed, 4 are under construction, and 8 are in design/permitting.

As part of the Department's normal planning activities, Water and Sewer conducted a thorough re-evaluation of its 2035 projections, including average daily flows, peak hour flows (PHF), and influent solid loadings. Through the Department's continued water conservation efforts, combined with its Inflow and Infiltration Program, wastewater flows have remained relatively flat for the past fifteen years, reducing the current and future need for system capacity. The updated projections have pushed the need for a new plant beyond the initial 2025 target. Therefore, the addition of a proposed West District WWTP, which was part of the Department's 2013 Ocean Outfall Legislation Compliance Plan, will not be needed to comply with the legislation, nor will it be needed by 2025 as originally planned, for capacity purposes. Nevertheless, the facility is still included within the 20-year planning horizon.

The Department selected to implement the equivalent to that which would have been achieved by Advanced Wastewater Technology (AWT) if the requirements were fully implemented beginning December 31, 2018 and continued through December 31, 2025. This is being accomplished by reducing the nutrients (total nitrogen and total phosphorus) being disposed of through the ocean outfall and maximizing the quantity of flow being sent to the existing wells. Since 2008, the Department has been using the existing deep injection wells at the North District WWTP to reduce flow going out to the outfall. In addition, the Department has completed construction of two (2) industrial deep injection wells at the Central District WWTP, which will reduce nutrient loading by removing the waste stream from the centrate process, the gas scrubbers, and the treated effluent from the ocean outfall discharge. The industrial deep injection wells are in operational testing as of November 2019. These wells will enable the Department to divert approximately 30 million gallons per day (MGD) of treated wastewater from Central's ocean outfall.

The Department is implementing an innovative effluent energy recovery system which will result in the reuse of approximately 115 MGD. When combined with the existing in-plant reuse and the FPL collaboration agreement, the Department will reuse 145.5 MGD and become the largest reuse utility in the East Coast.

South District Plant Expansion Program

The South District Wastewater Treatment Plant (SDWWTP) is one of three regional wastewater treatment facilities operated by WASD and serves the southern portion of Miami-Dade County. Since the SDWWTP's service area continues to increase in population due to growth and redevelopment, the Department has prioritized expanding the Plant's capacity to address future projected needs of the community.

The Department has identified eight (8) critical infrastructure projects necessary to increase the permitted capacity of SDWWTP from 112.5 to 131 MGD and increase the peak flow capacity of the Plant from 285 to 305 MGD. Currently, two (2) of the eight (8) projects have been completed with the remaining six (6) projects are under construction. These projects include: the construction of a state-of-the-art electrical distribution building #3, a new Headworks 3 building, new Oxygenation Trains 9 & 10, new electrical substation 57 & 58, new clarifier #12, and various other ancillary treatment process improvements critical to expanding the Plant's capacity. The total capital investment in construction for the South District Plant Expansion Program is approximately \$531 million. The wastewater conveyance system to the three wastewater plants is interconnected so the flow can be directed between wastewater treatment plants to allow for operational flexibility, therefore these expansion projects are part of a regional solution for the wastewater treatment system of the County to meet future flows and loads. These projects will also result in a more robust and resilient facility designed to meet WASD's facility hardening criteria which allow for the continuous operation of the wastewater treatment system during severe climatological events, which are frequent in the South Florida area.

Connect 2 Protect Program

Miami-Dade County's Connect 2 Protect is a multi-year, countywide program that provides sanitary sewer service to residents with septic tank systems. Approximately 9,000 septic systems are vulnerable to compromise or failure under current groundwater conditions. As sea-level rise increases, this number will grow to approximately 13,500 by 2040. Compromised and failing septic systems can cause negative impacts on private properties, pose public health risks, and have negative impacts on our natural resources including Biscayne Bay.

The Little River community is one of the first areas for Connect 2 Protect implementation based on its designation as an Adaptation Action Area, a designation that focuses on those communities most vulnerable to sea-level rise and flooding. Much of the Little River area is low-lying and prone to flooding. Residents report that septic tank systems are failing during heavy rain and high tide events, which has resulted in sewage backing up into homes and the ponding of floodwater on lawns and roadways. In addition to the Little River project, WASD is currently working on the design of laterals for 2,000 parcels across the County that are designated as vulnerable.

The Pump Station Rehabilitation Program

Miami-Dade Water and Sewer has embarked in a Pump Station Rehabilitation Program (PSRP) to address renewal and replacement, capacity, and climate related needs proactively and programmatically across its more than 1,000 sanitary sewer pump stations.

As part of the program, the department is performing on-site field assessment of the mechanical, electrical, instrumentation, and structural components of all sanitary sewer pump station. These assessments, along with capacity and regulatory needs, will direct project prioritization within the PSRP.

During Fiscal Year 2023 there were a combined 51 pump station projects development, one of which were completed. These projects included rehabilitation projects to update aging infrastructure, upgrades to address capacity needs, and relocation projects to site the pump stations to locations better suited for its use, operation, and maintenance. Included in the 51 projects, are climate resilience improvements that elevate critical components above the base flood elevation or ensure that the pump station is wet proofed to withstand storm events. Three projects were specifically intended to address hardening components of pump stations through the Hazard Mitigation Grant Program (HMGP).

Infiltration and Inflow (I & I) Reduction Program

WASD established a Flow Reduction Program (FRP) Division to improve the service of the sanitary sewer system by reducing and mitigating adverse impacts resulting from potential inflow/infiltration (I/I) sources. The reduction of I/I flow will allow for enhanced operational performance, the reduction of treatment and pumping costs, and overall effective service delivery. The FRP aims to significantly and cost-effectively reduce average and peak flows in the sewer system. In addition, this reduction of flow into the conveyance system provides an opportunity to reduce the required capacity improvement infrastructure projects, thereby offering additional savings to the Department and ratepayers. The objective of the FRP is to develop a cost-effective solution that reduces I/I while prioritizing repairs and quantifying savings.

The Department continues to perform sanitary sewer evaluation surveys on the approximate 6,500 miles of sewage collection mains and laterals. During Fiscal Year 2023, more than 2,833 repairs were performed to the gravity system. Resulting in 1,748 digital manhole inspections, 141,810 lineal feet of gravity sewer mains cleaned and inspected via CCTV, 416 total manhole rehabilitations, 41,521 square feet, and 488 installed cured-in-place liners in service laterals and mainline segments. These activities help reduce miscellaneous water entering the wastewater collection system through defects in existing pipe systems. This, in turn, reduces the cost associated with wastewater treatment and disposal.

Supervisory Control and Data Acquisition System (SCADA)

Essential to the Department's daily operations is the ability to monitor and control its water and wastewater functions from a remote location. The Department's SCADA system is at the heart of this capability and is one of the largest of its kind in the country. The SCADA system, which is particularly important in cases of emergency operations and as a tool in meeting requirements of the Consent Decree/Settlement Management (CD/SA) program, has allowed workers in the Department's 24-hour emergency call center to continuously oversee the operations at its pump stations. It has also allowed water and wastewater treatment plant operators to manage plant functions from remote SCADA terminals, providing an increased level of efficiency. To-date, all pump stations owned and operated by the Department have SCADA installed. The Department's three regional water and three regional wastewater treatment plants also have SCADA installed and operational. All water wellfields are monitored and controlled by SCADA, and all 95 production wells have flow meters installed with SCADA monitoring for compliance with SFWMD regulations. Upgrades

to the SCADA system are being planned as part of the overall infrastructure upgrades to improve real time management and operational monitoring/control of treatment systems and the distribution and collection systems.

Performance Improvement

The Miami-Dade Water and Sewer Department participates annually in national and state benchmarking surveys including those administered by the American Water Works Association and the Florida Benchmarking Consortium. This process allows for a comparison to other like agencies in the state and across the country through the review of internal key performance indicators.

The business plan is prepared in accordance with the process prescribed by the County's Office of Management and Budget. The plan identifies key issues and priority initiatives, in keeping with the County's Strategic Plan and in furtherance of the Department's mission.

Performance measures are developed and aligned with each division's key priorities and associated resources, to allow the Department to meet the defined objectives. The business plan is currently being updated.

Rate Increase

On September 20, 2022, the Board of County commissioners adopted County Budget Ordinance Number 22-117, effective October 1, 2022, authorizing a 5% rate increase to the Department's retail tiered-based structure that will generate revenues to support costs including fiscal requirements related to capital investments. In addition, effective October 1, 2022, the County Budget Ordinance increased the water wholesale rate by \$0.0629 per thousand gallons from \$1.8644 to \$1.9273 and the wastewater wholesale rate by \$0.2681 from \$3.4741 to \$3.7422 per thousand gallons.

WIFIA Loan

In 2014, the federal Water Infrastructure Finance and Innovation Act (WIFIA) program was established by Congress assist in the financing of the Nation's aging utility infrastructure. It provides low interest loans with flexible terms and up to a 40-year payback period to water and sewer utilities seeking to upgrade or expand their infrastructure.

The adoption of Ordinance 18-7 and subsequently Ordinance 19-09 authorized the County Mayor or County Mayor's designee to enter and execute the related loan agreements. WASD was the first department nationwide to receive four consecutive low interest loans.

WIFIA Offering Date	Funded Project Summary	Total Project Costs	WIFIA Loan Amount (49%)	Estimated Interest Expense savings	Estimated Direct Jobs
WIFIA 2017	Wastewater Injection Wells	\$203.5M	\$99.7M	\$25.6M	95
WIFIA 2018	Wastewater Electrical Distribution Buildings	\$665.8M	\$326.2M	\$103.8M	266
WIFIA 2019	Upgrades: South District Wastewater Treatment Plant and Additional Injection Wells	\$480.0M	\$235.2M	\$80.2M	173
WIFIA 2020	Upgrades: Central and North District Wastewater treatment Plants	\$865.8M	\$424.2M	\$88.0M	226

To date, the Department has been awarded a total of \$1.1 billion in WIFIA funding. These loans will help to finance approximately \$2.2 billion worth of projects with the department's multi-billion-dollar CIP, create 760 direct jobs and save ratepayers \$297.6 million in interest for the life of these loans when compared to other financing options.

Building Better Communities General Obligation Bonds (GOB)

In November 2004, Miami-Dade County voters approved a \$2.9 billion bond program allowing the County to issue long-term bonds to fund numerous neighborhood and regional capital projects. The General Obligation Bonds (GOB) are legally backed by the full faith and credit of the County which has committed future taxes during the next 40 years to repay the bonds. GOBs typically are the least expensive type of debt available to government. Among the GOB funded capital projects are several current and future water and wastewater infrastructure needs.

On June 3, 2014, the Board of County Commissioners adopted Resolution R-537-14, allocating \$126 Million funding for "Extension of Sewer System to Developed Commercial and Industrial Corridors of the County," aka The Commercial Corridor Project. It is the largest single GOB project under WASD's management. It encompasses the expansion of the sanitary sewer system to remove commercial septic tank systems. The commercial corridor on Bird Road and the Industrial Park Area are being addressed by two Low Pressure Sewer System projects. Also, Basis of Design Report for ten (10) areas within the commercial corridor began in FY2016. The projects identified from these reports include 35 overall projects that will result in the installation of approximately 225,000 linear feet of new wastewater infrastructure and 11 new pump stations. The Adopted 2023-2024 Fiscal Year GOB budget is \$28 million.

GROWING WITH INFORMATION TECHNOLOGY

Technology remains a cornerstone of WASD's operations, driving efficiency enhancements across various areas such as budget and accounting, customer information management, geographic information systems, enterprise asset management, project tracking, billing and metering processes and construction initiatives of the utility. The Department continues to leverage advanced and innovative technology solutions to ensure fulfillment of operational objectives and meeting the evolving requirements of customers.

Systems Infrastructure

The upgrade of WASD computing and technology infrastructure is an ongoing effort. This includes upgrades to servers, storage, network switches, Wi-Fi upgrades, and replacement of obsolete computers (desktop and laptops) to include, the deployment of Windows 11 and Office 365 with accompanying applications: OneDrive, Adobe, and Teams. These applications assist with better management of documents, emails, and audio/video conferencing needs, especially when working in a hybrid environment (remote/on-premises).

Big Data / Business Intelligence

Enhancement rollouts of BI solutions with digital dashboards to enable analysis and documentation of business processes within key business areas for the purpose of reporting and process improvement. New dashboards/reports were developed for Retail Customer Division and New Business Division that included:

- Meter Analysis
- Data Warehousing Auditing Reports
- Report Portal
- SCADA Actuals (Supervisory Control and Data Acquisition)
- MWM Task Scheduling (Mobile Workforce Management)
- Executive Dashboard rebuild from Pyramid and other Pyramid report conversion
- Pump Station Performance
- Consumption Reports
- Retail Customer Division Activity Log Report

Staff continues to improve connectivity to historical and archived SCADA data to leverage the cloud platform providing high availability, advanced security, dynamic environment, and providing the foundation for analytical reporting. Working with all divisions on providing a standard reporting platform for widely used datasets throughout the department and the creation of interfaces to existing data lake for external systems to digest existing data.

Phase 1 of the new Modern Data Architecture (MDA) was completed. This architecture enhances and improves existing cloud data warehousing functionality by providing additional performance and lays the foundation for predictive analytics. Initial phase uses the latest technologies for better performance, development maintainability and advanced storage capabilities. Subsequent phases will include additional datasets from operational systems including Financials, SCADA, EAMS (Enterprise Asset Management System), and supporting systems.

SharePoint/Intranets

All WASD Intranet sites have been converted to SharePoint Online. This cloud-based environment provides a robust, user-friendly ecosystem that allows users to share and collaborate information within the WASD department. Information is available from anywhere on any type of device with a web browser that is connected to the County network. It provides a rich user experience for sharing files and storing documents and provides users flexibility and freedom to manage their own lists and document libraries. In addition, it provides a development platform for specialized applications within the same framework when needed.

We continue to expand Divisional Team sites hosted on WaterHub as they are requested and enhance existing sites with advanced functionality. Several areas are starting to use SharePoint for task tracking with enhanced workflow functionality to keep track of department tasks with automated notifications and updates.

In-house Development

Our commitment to supporting the existing application portfolio remains steadfast. This involves the modernization and consolidation of existing applications and the sunsetting of legacy applications that are no longer supported or meet current security standards. In FY 2023, significant headway was made in various ongoing projects, notably the Lenel Access Control & Badging system, the modernization of Front Desk Customer application and the modernization of the WASD Application Paving System (WPDS). Furthermore, we continue to provide support for all legacy applications within our portfolio and implementing new enhancements and updating existing features.

Meter to Cash

WASD Internet Self-Service application (SSA) continued to expand. New features such as the Historical Meter Consumption were developed. This feature allows a customer to download historical consumption data by meter, which they can use to update EPA Energy Star website or other uses. Another enhancement was the migration from Universal Google Analytics (UGA) to Google Analytics 4 (GA4), which has resulted in improved SSA analytics. Automated Customer Satisfaction Surveys were also implemented for Customer Service and Comm Center respectively. On-going projects include new Self-Service feature called Start Services, upgrade of Customer Care and Billing (CCB) system to the Customer Cloud Service (CCS) and the migration of all CCB Cognos reports to the Meter to Cash Data Warehouse using Power BI as reporting tool.

Enterprise Resource Planning (ERP) Financials

In FY 2023, the Department was primarily focused on three projects:

- Device selection for the annual physical inventory process
- The AP Invoice Automation Project
- Upgrade of the Peoplesoft Financial system

The Device selection project was completed and rolled out to the users in the 2nd quarter of FY 2023. The new device (Samsung Galaxy XCover6 Pro) along with the new architecture for barcode scanning (Samsung Knox Capture app) has resulted in substantial savings to WASD as compared to the previous solution. The physical inventory process with the new device was completed successfully with no major issues.

All development activities were completed during the FY 2023 for the Invoice Automation project. The system test and user acceptance testing will begin in the 1st quarter of FY 2024 with a go live early in the 2nd quarter of FY 2024. This project will result in substantial productivity gains for the WASD finance department.

The upgrade of the Peoplesoft Financial system from 8.57.04/PUM31 to 8.60.07/PUM48 is in progress. Custom objects were retrofitted, and system tested. Two rounds of user acceptance testing will begin in 1st quarter of FY 2024, and with go live in the 2nd quarter of FY 2024. The updated system will allow for management reporting and will create visual dashboards for its users.

Enterprise Asset Management System (EAMS)

In FY 2023, there were significant implementations developed that included adding the Safety and Collections divisions in EAMS. Other implementations included the development of the Emergency Alert Notification system by adding the Microsoft Teams alerts, and including a mobile dashboard which allows management to be alerted on major disruptions in the water/ sewer operations for the department. Additionally, the Damage Investigation Unit (DIU) was completed in EAMS. With these new implementations, 178 new tablets were deployed for staff. A multitude of enhancements requested by the division to mitigate bugs and improve functionality was prioritized and completed. The team also has modernized major support elements of the software system, that included improving the underlining integration components, and middleware for communication with ERP. The team also completed a significant upgrade of the software from version 11.4 to 11.7 in November 2022, which improved and added new features for WASD EAMS users. To minimize upgrade issues moving forward, the upgrade also included reprogramming various integration applications.

eBuilder Implementation

In FY 2023, data and document migration efforts for the contracts and agreements related to the Capital Improvement Program (CIP) projects were completed. In total, over 4,000 migration events were performed associated with over 300 projects, as well as 200K documents were migrated. Access to the Proliance legacy system was removed for most users, except compliance staff. CIP projects and related contract transactions are now performed in eBuilder. Pending is the final decommissioning of the Proliance system scheduled for December 2023.

Geographic Information System (GIS) Solutions

GIS/EAMS Retirement Assets Automation batch process was developed to provide EAMS team with a catalog of retired GIS assets information. This process runs on a monthly schedule and notifies EAMS team members via email. The EAMS team will then be able to use the list to retire assets no longer in GIS infrastructure but are still active in EAMS. GraniteNet CCTV Inspections system used for tracking and maintaining gravity main and manhole video inspections was migrated in FY2023 to version 5.4.2. The migration process included databases, desktops, and field truck computers. Additionally, a new Web Office and Web Sync server was installed, which enables automatic field truck inspection updates.

Well and Septic to Sewer Solution was developed to facilitate the analysis of potential vulnerability of septic tanks and wells within parcel areas throughout the County. Completed web viewer migration to a new platform for FY2023 with additional staff training in the works. The WASD Field Survey Maintenance web application was completed which enables the Chief Surveyor's team and the WASD GIS maintenance staff to seamlessly collaborate with ongoing field activity pertaining to WASD infrastructure assets. As part of the enhanced process, WASD survey teams can upload documents and pictures of the area for clarifying existing issues or creating additional information. AutoCAD to GIS Solution phase 2 was initiated using ESRI ArcGIS for AutoCAD extension to facilitate and standardized all electronic as-builts submitted to WASD. The template will incorporate all required features that are currently in WASD's Enterprise GIS, thus enabling a seamless process for integrating as-builts CAD data to GIS. Schema template revisions were completed to support newer AutoCAD versions.

The expedited as-built to GIS process which allows GIS Data Maintenance to use judgement calls based on previous experience and best practices continues to improve the productivity metrics of the unit. While the average hours per task completion remained steady at an average 33 hours, the number of projects completed increased 13% from the previous fiscal year.

The number of assets digitized also saw an increase of 21% for feet of pipes added/modified and a 17% increase for number of above ground assets added/modified.

MyWASD Utility Coordination process continues as WASD and the Geospatial Utility Solutions (GUS) group coordinate to incorporate additional Municipalities to the County wide process for utility coordination of roadway construction projects. This year, the City of Coral Gables finalized their data submittal process and schema. Additionally, there are ongoing efforts with other municipalities to ensure future updates and support for this solution.

COMMUNITY OUTREACH

The department's Office of Public Engagement is (OPE) tasked with communicating and marketing the activities, programs and services of the Miami-Dade Water and Sewer Department to customers, the media, local governments, and other stakeholders including educating the public on the quality of its drinking water, its operations, under-utilized customer services, water conservation and the department's on-going Multi-Year Capital Improvement Program.

WASD provides direct customer outreach and advertising via radio, television, print, transit bus benches, movie theatres, publications, and the Internet about water quality, conservation programs, and customer service programs and services. In addition to traditional forms of media such as newspapers, television, and radio talk shows, the OPE also utilizes Facebook, Twitter, Instagram and YouTube to capture a wider and more diverse audience.

On behalf of the department, OPE also entered into a collaborative partnership with the University of Miami Hurricanes football team to increase audience reach and leveraging their brand popularity to promote the department's services. WASD received a video, social media spots, football game promotions and activations as part of the FY22-23 contract.

For the second consecutive year, OPE's efforts on behalf of the department's communications was ranked number one for large water utility for the South region of the United States as part of the JD Power rankings in 2023. This was also the second consecutive year the department was recognized as number one in overall Customer Satisfaction. OPE coordinated a media and employee event when the JD Power trophy was presented to the department. The department was also ranked number one for price, conservation, billing and payment, and quality and reliability.

OPE has also planned and executed numerous high profile and well attended public/media events in FY 22-23. To support the department's ongoing commitment of the Connect 2 Protect, septic to sewer conversion program, staff planned and managed the groundbreaking event for the District 1 project that garnered positive press coverage of bringing County sewer services to areas previously not served, which mitigates environmental impacts to Biscayne Bay caused by failing septic tank systems and improves economic opportunities.

OPE also planned and managed the South District Wastewater Treatment Plant Expansion groundbreaking to promote the \$600 million investment at the plant which will increase capacity, future-proof the infrastructure and provide an overall regional solution for the system to meet future demand. The event also announced the department's new innovative strategy for Industrial Water Reuse, which when fully implemented, will make the department the number one utility in Florida and the East coast, for industrial water reuse.

Staff coordinated an employee event to celebrate a partnership between the department and AFSCME Local 121 on a gainsharing initiative resulting in a total cost savings of more than \$250,000, for a Consent Decree project at the Central District Wastewater Treatment Plant.

Partnering with Mayor Daniella Levine Cava's office and other County agencies, OPE staff provided outreach support during the Imagine a Day without Water Community Festival at the Deering Estate in October 2022. Through a collaboration with the Veterans Administration Hospital in Miami, OPE staff coordinated the delivery of more than 1,500 reusable water bottles to their staff who distributed it to homeless veterans so this underserved community can always have an opportunity to stay hydrated.

OPE promoted the Low Income Housing Water Assistance Program through numerous press releases, web articles and social media posts to ensure eligible customers could benefit from the federal funding the state of Florida was administering to assist qualified individuals pay their water and sewer bills. Nearly 5,000 customers will benefit from approximately \$12.1 million in financial assistance.

OTHER INFORMATION

INDEPENDENT AUDIT

The accompanying financial statements have been audited by the Department's independent auditors and their report on the financial statements resulting from their audit is included in the financial section of this report.

AWARDS

Certificate of Achievement for Excellence in Financial Reporting

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Department for its Annual Comprehensive Financial Report for the fiscal year ended September 30, 2022. The Certificate of Achievement is a prestigious national award that recognizes conformance with the highest standards for preparation of state and local government financial reports. To be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized annual comprehensive financial report, whose contents conform to program standards. Such report must satisfy both generally accepted accounting principles and applicable legal requirements. A Certificate of Achievement is valid for a period of one year only. The Department has received a Certificate of Achievement for the past 40 fiscal years. We believe our current report continues to conform to the Certificate of Achievement program requirements and are submitting it to the GFOA.

ACKNOWLEDGMENTS

We would like to thank all the Department's employees for their hard work and dedication during the past fiscal year. We would also like to thank the Department's Controller Division and the Office of Public Engagement (OPE), and the County's Internal Services Department's Printing and CCED Creative & Branding Services, for their tireless efforts and professionalism in preparing this report, as well as our external auditors for their invaluable assistance. Finally, a special acknowledgement is extended to the Mayor and Board of County Commissioners for their continued leadership in enabling the Department to fulfill its role.



Roy Coley
Director



Frances G. Morris
Deputy Director, Chief Financial Officer



Government Finance Officers Association

Certificate of
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Presented to

**Miami-Dade Water and Sewer Department
Florida**

For its Annual Comprehensive
Financial Report
For the Fiscal Year Ended

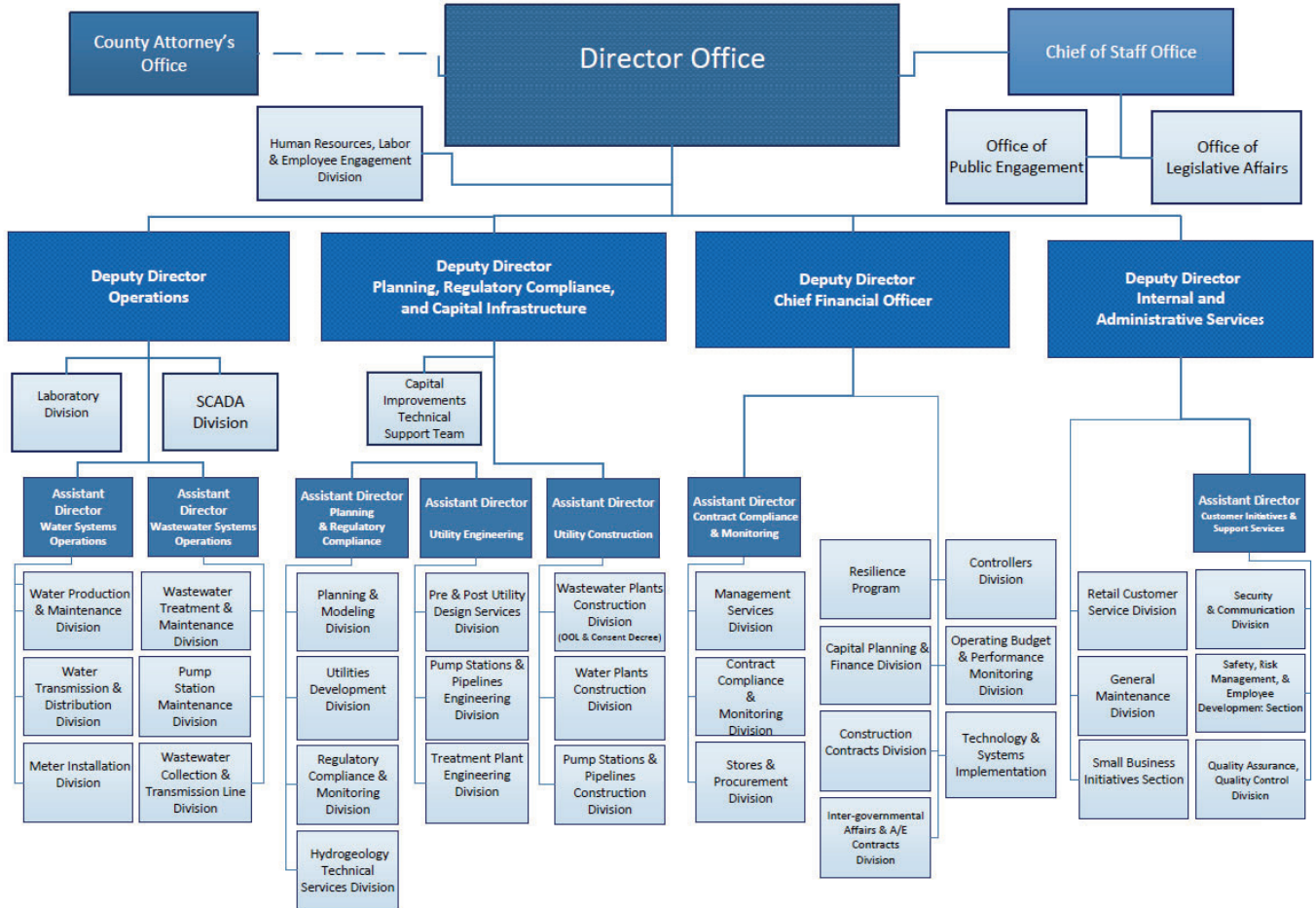
September 30, 2022

Christopher P. Morill

Executive Director/CEO

ORGANIZATIONAL CHART

Miami-Dade Water and Sewer Department



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Financial Section



INDEPENDENT AUDITORS' REPORT

To the Honorable Daniella Levine Cava, Mayor, and
Honorable Chairperson and Members of the
Board of County Commissioners
Miami-Dade County, Florida

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of the Miami-Dade Water and Sewer Department, a department of Miami-Dade County, Florida (the "Department"), as of and for the fiscal year ended September 30, 2023, and the related notes to the financial statements, which collectively comprise the Department's basic financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the respective financial position of the Department as of September 30, 2023, and the respective changes in financial position, and its cash flows thereof for the fiscal year then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinions

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States (*Government Auditing Standards*). Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Department and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Financial Statements

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

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

Auditors' Responsibilities for the Audit of the Financial Statements

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

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

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Department's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Department's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control—related matters that we identified during the audit.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 30-33, and the schedule of changes in total OPEB liability and related ratios, the schedules of the Department's proportionate share of the net pension liability and the schedule of the Department's contributions on pages 68-70 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the 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.

Supplementary Information

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

Other Information

Management is responsible for the other information included in the annual report. The other information comprises the introductory and statistical sections but does not include the financial statements and our auditors' report thereon. Our opinions on the basic financial statements do not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit of the basic financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the basic financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated April 2, 2024, on our consideration of the Department's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Department's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering Department's internal control over financial reporting and compliance.

Marcum LLP

Miami, Florida
April 2, 2024

Management's Discussion & Analysis

OVERVIEW

The following Management's Discussion and Analysis (MD&A) serves as an introduction to the financial statements of the Miami-Dade Water and Sewer Department (the Department) for the fiscal year ended September 30, 2023. The MD&A presents management's examination and analysis of the Department's financial condition and performance. It should be read in conjunction with the financial information in the transmittal letter in the introductory section and the financial statements in the financial section of this report. The basic financial statements include the statement of net position; statement of revenues, expenses, and changes in net position; statement of cash flows; and notes to the financial statements.

The statement of net position presents the financial position of the Department as of a specific date. It provides information about the nature and amount of resources (assets and deferred outflows) and obligations (liabilities and deferred inflows), with net position being the difference between assets and deferred outflows and liabilities and deferred inflows. Increases or decreases in net position may serve as a useful indicator of whether the financial position of the Department is improving or deteriorating.

The statement of revenues, expenses and changes in net position present information showing how the Department's net position changed during the fiscal year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs which may not coincide with the timing of the related cash flows.

The statement of cash flows presents the cash activities of the Department segregated in the following four major categories: operating, non-capital, capital and related financing, and investing. This statement also presents the changes in cash and cash equivalents of the Department. The notes to the financial statements provide required disclosures and other information that are essential to the full understanding of data provided in the statements.

FINANCIAL POSITION

A summary of the Department's net position and related changes for the fiscal years ended September 30, 2023 and 2022 is shown on the following page. The unrestricted portion of net position (available to meet ongoing and future obligations of the Department) increased by \$9.1 million, or 5.7% in 2023.

Total expenses increased by \$71.7 million, or by 8.0%, in 2023. The increase is primarily due to bad debt expense, pension expense, chemical and administrative support charges and improvements in the water purification process.

Total net position as of September 30, 2023 is approximately \$2.9 billion. The Department's total net position increased by \$132 million, or by 4.81%.

Management's Discussion & Analysis

	(In thousands)	
	2023	2022
SUMMARY OF NET POSITION		
Current and other assets	\$ 1,543,353	\$ 1,777,810
Capital assets, net	6,063,549	5,649,519
Total assets	7,606,902	7,427,329
Deferred outflows of resources	195,901	206,053
Total assets and deferred outflows of resources	7,802,803	7,633,382
Current liabilities	454,595	385,479
Long-term liabilities	4,455,250	4,485,875
Total liabilities	4,909,845	4,871,354
Deferred inflows of resources	14,079	15,281
Total liabilities and deferred inflows of resources	4,923,924	4,886,635
Net position		
Net investment in capital assets	2,120,422	1,841,503
Restricted	589,321	745,174
Unrestricted	169,136	160,071
Total net position	\$ 2,878,879	\$ 2,746,748
SUMMARY OF CHANGES IN NET POSITION		
Water operating revenues	\$ 430,476	\$ 397,875
Wastewater operating revenues	523,936	473,058
Investment income (loss)	60,925	(9,349)
Disaster revenue	1,541	896
Customer connection fees	38,729	39,620
Insurance proceeds	8	—
Other revenues	3,562	9,235
Total revenues	1,059,177	911,335
Water source of supply	17,140	15,462
Water power and pumping	2,212	2,139
Water purification	90,212	83,524
Water transmission and distribution	49,186	44,619
Wastewater collection system	39,252	36,064
Wastewater pumping	64,514	56,337
Wastewater treatment	137,878	124,869
Customer accounting	(5,654)	15,681
Customer service	28,844	27,502
General and administrative	158,574	103,316
Depreciation and amortization	241,630	234,800
Interest expense	133,581	140,947
Other nonoperating expenses	10,466	10,893
Total expenses	967,835	896,153
Income (loss) before contributions	91,342	15,180
Capital contributions	40,789	31,808
Increase in net position	132,131	46,988
Net position at beginning of year	2,746,748	2,699,760
Net position at end of year	\$ 2,878,879	\$ 2,746,748

Management's Discussion & Analysis

CAPITAL ASSETS

The following table summarizes the Department's capital assets, net of accumulated depreciation and amortization, for the fiscal years ended September 30, 2023 and 2022 (in thousands). Total Capital Asset increased by \$414.0 million, or 7.3%. This increase was due to an increase in capital additions, net of plant retirements and reclassifications of \$631.8 million, offset by \$218 million net increase in depreciation / amortization . Additional information on changes in capital assets can be found in Note 6 to the financial statements.

	(In thousands)	
	2023	2022
Land	\$ 84,872	\$ 80,571
Building and building improvements	22,431	23,474
Structures and improvements	3,386,715	3,306,232
Equipment	494,728	435,514
Intangible Asset - C51-Water Rights	68,179	—
Lease (Right-To-Use)	539	—
SBITA (Right-To-Use)	14,763	900
Construction work in progress	1,991,322	1,803,728
Total capital assets, net	\$ 6,063,549	\$ 5,650,419

This year's major expenditures in capital assets included:

Water projects:

- Transmission mains, meters, and services (\$63 million)
- Treatment facilities and equipment (\$25 million)
- General Plant Buildings (\$6 million)
- Wells (\$70 million)
- Construction equipment (\$4 million)

Wastewater projects:

- Treatment facilities (\$318 million)
- Force mains (\$31 million)
- Pump stations (\$26 million)
- Inflow/infiltration/exfiltration (\$8 million)
- Gravity mains and services (\$21 million)

Budgeted capital expenditures for fiscal year 2023 amount to \$783 million and include \$208 million in water projects and \$575 million in wastewater projects.

LONG-TERM DEBT

Long-term debt outstanding (including current portion) at September 30, 2023 and 2022 is presented in the following table. FY 2023 shows a decrease of \$112.9 million from FY 2022.

	(In thousands)	
	2023	2022
Revenue bonds	\$ 3,943,732	\$ 4,046,347
State loan obligations	194,488	204,830
Notes payable	1,360	1,321
Total long-term debt	\$ 4,139,580	\$ 4,252,498

Management's Discussion & Analysis

The Department is required to maintain rates and charges sufficient to meet three tiers of debt service coverage requirements. First, adjusted annual net operating revenues must equal or exceed 1.25 percent of the debt service on senior lien revenue bonds. The Department met the primary debt coverage for the year with a ratio of 1.79 percent. Second, adjusted net operating revenues, after payment of revenue bond debt service, must be at least equal to 9.73 percent of the debt service for the subordinate state loan obligations. The Department met the third debt service coverage with a ratio of 7.73 percent.

In September of 2023, the Department entered into a \$69.0 million Capacity Allocation Agreement, for 15 mgd of water capacity shares, between Miami-Dade County and Palm Beach Aggregates, LLC (PBA). The agreement gives the Department the right to utilize a 15 million gallon per day (MGD) allocation of alternative water supplies through at least the year of 2065. The Department recognized an intangible asset for the acquisition of the water capacity shares rights. The asset is being amortized over 42 years in an amount equal to the scheduled amortization of the original note issued to purchase the rights. As of September 30, 2023, the net balance of the intangible asset was \$69.0 million.

REQUEST FOR INFORMATION

Questions concerning this report or request for additional information should be directed to Frances G. Morris, Chief Financial Officer at 786-552-8104 or, at her office address at 3071 SW 38th Avenue, Miami, Florida 33146.

Statement of Net Position

September 30, 2023

(In thousands)

ASSETS

CURRENT ASSETS:

Cash and cash equivalents	\$	85,797
Investments		128,685
Accounts receivable (net of allowance for uncollectible accounts of \$52.0 million)		219,714
Inventory of materials and supplies		54,664
Other current assets		1,845
Restricted cash and cash equivalents		277,805
Total current assets		768,510

NONCURRENT RESTRICTED ASSETS:

Restricted cash and cash equivalents		40,995
Investments		731,752
Long-term receivable		2,096
Total restricted assets		774,843

CAPITAL ASSETS:

Land		84,872
Construction work in progress		1,991,322
Building and building improvements		41,624
Structures and improvements		6,381,006
Equipment		1,604,977
Intangible lease asset-equipment		660
SBITA's		15,483
Intangible assets- C51 Water Rights		69,000
Less accumulated depreciation		(4,123,733)
Less accumulated amortization		(1,662)
Total capital assets		6,063,549
Total noncurrent assets		6,838,392
Total assets		7,606,902

DEFERRED OUTFLOWS OF RESOURCES:

Loss on refundings		130,370
Outflow related to pension		53,119
Outflow related to post-employment benefits		12,412
Total deferred outflows of resources		195,901
Total assets and deferred outflows of resources	\$	7,802,803

(Continued)

Statement of Net Position

(Continued)	September 30,	2023
		(In thousands)
LIABILITIES		
<i>CURRENT LIABILITIES (PAYABLE FROM UNRESTRICTED CURRENT ASSETS):</i>		
Accounts payable and accrued expenses	\$	141,202
Customer and developer deposits		18,961
Current portion of lease/SBITA liability		2,288
Liability for compensated absences		13,200
Other liabilities		1,139
Total current liabilities (payable from unrestricted current assets)		176,790
<i>CURRENT LIABILITIES (PAYABLE FROM RESTRICTED CURRENT ASSETS):</i>		
Accounts payable and accrued expenses		61,234
Retainage payable		40,923
Current portion of long-term debt		99,718
Accrued interest payable		74,738
Liability for self insurance		1,192
Total current liabilities (payable from restricted current assets)		277,805
Total current liabilities		454,595
<i>NONCURRENT LIABILITIES:</i>		
Revenue bonds payable, net		3,854,392
State loan obligations, net		184,110
Notes payable		1,360
Liability for self-insurance		3,600
Liability for compensated absences		59,609
Liability for post-employment benefits		58,402
Net pension liability		255,163
Other Non-Current Liabilities - Restricted		16,509
Lease/SBITA liability		13,555
Unearned revenues (LIHWAP)		8,550
Total noncurrent liabilities		4,455,250
Total liabilities		4,909,845
<i>DEFERRED INFLOWS OF RESOURCES:</i>		
Inflow related to pension		6,607
Inflow related to post-employment benefits		7,472
Total deferred inflows of resources		14,079
Total liabilities and deferred inflows of resources		4,923,924
NET POSITION		
Net investment in capital assets		2,120,422
Restricted for:		
Capital projects		325,990
Debt service		263,331
Unrestricted		169,136
Total net position		2,878,879
Total liabilities, deferred inflows of resources and net position	\$	7,802,803

The accompanying notes to financial statements are an integral part of this statement.

Statement of Revenues, Expenses and Changes in Net Position

For the fiscal year ended September 30,

	2023
	(In thousands)
<i>OPERATING REVENUES:</i>	
Water	\$ 430,476
Wastewater	523,936
Total operating revenues	954,412
<i>OPERATING AND MAINTENANCE EXPENSES:</i>	
Water source of supply	17,140
Water power and pumping	2,212
Water purification	90,212
Water transmission and distribution	49,186
Wastewater collection system	39,252
Wastewater pumping	64,514
Wastewater treatment	137,878
Customer accounting	(5,654)
Customer service	28,844
General and administrative	158,574
Total operating and maintenance expenses	582,158
Operating income before depreciation/amortization	372,254
<i>DEPRECIATION AND AMORTIZATION EXPENSE</i>	
Operating income	241,630
<i>NON-OPERATING REVENUES (EXPENSES):</i>	
Investment income	60,925
Interest expense	(133,581)
Amortization of issuance costs	(7,623)
Disaster revenue	1,541
Customer connection fees	38,729
Insurance Proceeds	8
Other revenues	3,562
Other expenses	(2,843)
Income before contributions	91,342
Capital contributions	40,789
Increase in net position	132,131
Net position at beginning of year	2,746,748
Net position at end of year	\$ 2,878,879

The accompanying notes to financial statements are an integral part of this statement.

Statement of Cash Flows

For the fiscal year ended September 30,

2023

(In thousands)

CASH FLOWS FROM OPERATING ACTIVITIES:

Cash received from customers	\$ 1,015,039
Cash paid to suppliers for goods and services	(233,776)
Cash paid to employees for services	(259,004)
Net cash provided by operating activities	522,259

CASH FLOWS FROM NON-CAPITAL FINANCING ACTIVITIES:

Third party meter installation and replacement costs	(2,500)
Long term receivable	404
Net cash used by non-capital financing activities	(2,096)

CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:

Proceeds from bond issues, loan agreements and notes	182
Principal payments - bond, loans	(96,996)
Principal payments - Lease/SBITA	(300)
Bond premium and issue costs	(20)
Interest paid	(151,832)
Acquisition and construction of capital assets	(577,969)
Net cash used by capital and related financing activities	(826,935)

CASH FLOWS FROM INVESTING ACTIVITIES:

Purchase of investment securities	(1,619,880)
Proceeds from sale and maturity of investment securities	1,597,949
Interest on investments	266,171
Net cash provided by investing activities	244,240

Net decrease in cash and cash equivalents, and restricted cash and cash equivalents	(62,534)
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Cash and cash equivalents, including restricted cash and cash equivalents, at beginning of year	467,131
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Cash and cash equivalents, including restricted cash and cash equivalents, at end of year	\$ 404,597
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Statement of Cash Flows

(Continued)	For the fiscal year ended September 30,	<u>2023</u>
		(In thousands)
<i>RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES:</i>		
Operating income		\$ 130,624
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation and amortization		241,630
Provision for uncollectible accounts		(14,636)
Non-operating other, net		66,760
(Increase) decrease in assets and deferred outflows:		
Accounts receivable		18,342
Inventory of materials and supplies		(4,670)
Other current assets		(9)
Contracts/Grants receivable		227
Deferred outflows related to pension and OPEB		2,528
Increase (decrease) in liabilities and deferred inflows:		
Accounts payable and accrued expenses		59,083
Customer and developer deposits		(1,782)
Accrued interest payable		(2,148)
Liability for compensated absences		6,453
Other liabilities		(27,958)
Liability for other post-employment benefits		4,936
Liability for self-insurance		403
Net pension liability		43,678
Deferred Inflows related to pension and OPEB		(1,201)
		<u>\$ 522,259</u>
 <i>NONCASH INVESTING, CAPITAL AND FINANCING ACTIVITIES</i>		
Property, plant and equipment contributions were received in amounts of \$40.8 million in fiscal year 2023.		
The change in the fair value of investments was a \$17.3 million increase in fiscal year 2023.		
The Lease (right-of-use asset) initiation amount was \$660 thousand in fiscal year 2023.		
The SBITA (right-of-use asset) initiation amount was \$15.4 million in fiscal year 2023.		
 <i>RECONCILIATION OF CASH AND CASH EQUIVALENTS AT END OF YEAR</i>		
Unrestricted current cash and cash equivalents		\$ 85,797
Restricted current cash and cash equivalents		277,805
Restricted noncurrent cash and cash equivalents		40,995
Total cash and cash equivalents at end of year		<u>\$ 404,597</u>

The accompanying notes to financial statements are an integral part of this statement.

Notes to Financial Statements

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

REPORTING ENTITY

The Miami-Dade Water and Sewer Department (the Department) functions as a self-supporting governmental enterprise fund of Miami-Dade County, Florida (the County). An enterprise fund is used to account for providing services to the general public on a continuing basis with costs recovered primarily through user charges. Accordingly, its financial statements have been prepared on the accrual basis of accounting. The Department issues a separate annual comprehensive financial report and its financial statements are combined in the County's annual comprehensive financial report.

The accompanying financial statements combine the accounts of both the Water and Wastewater Systems to provide meaningful information with respect to the Department, with all transactions of the Department accounted for as one enterprise fund. All significant intersystem accounts and transactions have been eliminated.

BASIS OF ACCOUNTING

The financial statements are prepared in conformity with generally accepted accounting principles established by the Governmental Accounting Standards Board (GASB).

OPERATING/NONOPERATING REVENUES AND EXPENSES

Operating revenues and expenses are those that result from providing water and wastewater services. Non-operating revenues and expenses include capital, financing, investing and other activities either not related to or incidental to the provision of water and wastewater services.

REVENUE RECOGNITION

All water and wastewater revenues are recognized when the related services are provided. Unbilled receivables have been estimated and accrued as revenue from the date of the last reading of the meters based on the billing cycle. Unbilled accounts receivable for fiscal year 2023 were approximately \$57.4 million.

CAPITAL ASSETS

Property acquired with an initial individual cost of \$1,000 or more and an estimated useful life in excess of one year is capitalized at cost. Major outlays for construction of capital assets and improvements are capitalized at cost. Expenses for maintenance and repairs are expensed as incurred. Property contributions received from municipalities are recorded as capital assets by the Department at the acquisition cost to the municipality. Property contributed in aid of construction is capitalized at its acquisition value on the date received.

Only those intangible assets valued at more than \$200,000 are recorded as an asset (threshold determinations are based on aggregate cost).

Annualized depreciation and amortization expense, expressed as a percent of depreciable/amortizable capital assets, was 3.0% for fiscal year ended September 30, 2023. The Department utilizes the single-unit straight-line depreciation/amortization method with normal retirements charged to accumulated depreciation/amortization and a gain or loss is recognized on retirements. Assets with a change in estimated life are depreciated/amortized based on net book value over the remaining life of the asset. Estimated useful lives of capital assets in service are as follows:

Notes to Financial Statements

	Water System	Wastewater System
	(Years)	
Structures and improvements	25-45	25-45
Building and Building Improvements	40	40
Machinery and Equipment	3-20	3-20
Lease (Right-To-Use)	Through lease maturity	Through lease maturity
SBITA	Through subscription maturity	Through subscription maturity
Intangible Asset - C51 Water Rights	42	42

Total depreciation and amortization expense for the fiscal year ended September 30, 2023 was \$241.6 million.

CASH, CASH EQUIVALENTS AND INVESTMENTS

Cash includes cash on hand, amounts in demand deposits, and positions in investment pools that can be deposited or withdrawn without notice or penalty. Cash equivalents are short-term, highly liquid securities with known fair values and maturities, when acquired, of less than three months.

The Department has opted to report money market and non-participating investments, with remaining maturities of one year or less at the time of purchase, at amortized cost.

Investments are carried at fair value. Fair Value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The net increase or decrease in the fair value of investments is included as part of investment income in the accompanying statement of revenues, expenses, and changes in net position.

The Department categorizes its fair value measurements within the fair value hierarchy established by accounting principles generally accepted in the United States (GAAP). The hierarchy is based on the valuation input used to measure the fair value of the asset with Level 1 assets being those where quoted prices in an active market for identical assets can be readily obtained, and Level 2 assets value using a matrix pricing technique of quoted prices for similar assets or liabilities in active markets.

INVENTORY

Materials and supplies inventories are stated at weighted average cost.

INTEREST ON INDEBTEDNESS

The Department expenses interest as incurred.

BOND DISCOUNT AND PREMIUM

Discounts and premiums on bonds are amortized using the straight-line method over the life of the related bond issuances. Discounts and premiums are presented net of the related debt.

CAPITAL CONTRIBUTIONS

The Department records external capital contributions as revenues.

GRANTS FROM GOVERNMENT AGENCIES

The Department records grants when all applicable eligibility requirements have been met. This normally occurs as amounts are expended and become reimbursable from the granting agency.

Notes to Financial Statements

IMPLEMENTATION OF NEW ACCOUNTING STANDARDS

In May 2019, the GASB issued Statement No. 91, *Conduit Debt Obligations*, which became effective for fiscal year ended June 30, 2023. This standard will provide a single method of reporting conduit debt obligations by issuers and eliminate diversity in practice associated with (1) commitments extended by issuers, (2) arrangements associated with conduit debt obligations(3) related note disclosures. This statement achieves those objectives by clarifying the existing definition of a conduit debt obligation; establishing that a conduit debt obligation is not a liability of the issuer; establishing standards for accounting and financial reporting of additional commitments and voluntary commitments extended by issuers and arrangements associated with conduit debt obligations; and improving required note disclosures. This standard did not have an impact on the Department's financial statements.

In March 2020, the GASB issued Statement No. 94, *Public-Private and Public-Public Partnerships and Availability Payment Arrangements*, effective for reporting periods beginning after June 15, 2022. The objective of this statement is to address issues related to public-private and public-public partnerships (PPP) and provides guidance for accounting and financial reporting for availability payment arrangements (APA). The Statement provides specific guidance on the accounting and financial reporting for PPP and APA transactions. This Statement has no impact on the Department for the fiscal year ending September 30, 2023.

In May 2020, the GASB issued Statement No. 96, *Subscription-Based Information Technology Arrangements*, effective for reporting periods beginning after June 15, 2022. The objective of this statement is to improve financial reporting by establishing a definition for subscription-based information technology arrangements (SBITA) and providing uniform guidance for accounting and financial reporting for transactions that meet that definition.

In April 2022, the GASB issued Statement No. 99, *Omnibus 2022*, which became effective, in part, for fiscal year ended June 30, 2023. The objectives of this statement are to enhance comparability in accounting and financial reporting and to improve the consistency of authoritative literature by addressing (1) practice issues that have been identified during implementation and application of certain GASB Statements and (2) accounting and financial reporting for financial guarantees.

COMPENSATED ABSENCES

The Department accounts for compensated absences by accruing a liability for employees' compensation for future absences.

COST ALLOCATION

Certain overhead and other common costs are generally allocated to capital projects and operating expenses using standard rates developed by independent consultants. The rate is based on various allocation bases which bear reasonable relationship with the type of allocable expenditure.

USE OF ESTIMATES

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, deferred outflow of resources, liabilities and deferred inflow of resources 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.

2. CASH, CASH EQUIVALENTS AND INVESTMENTS

The County is authorized through the Florida Statutes §218.415, Ordinance No. 84-47, Resolution R-31-09 and its Investment Policy to make certain investments. The County's Investment Policy objectives are, in order of priority, the safety of principal, liquidity of funds and maximizing investment income.

The Department pools all cash, cash equivalents and investments, except for certain amounts which are required to be held in trust and escrow accounts under the terms of bond ordinances and loan agreements.

Notes to Financial Statements

Various self-balancing accounts are participants in such pooling, sharing on a pro-rata basis in the pooled earnings, according to their respective average monthly balances.

DEPOSITS

The bank balances at local depositories were \$21.7 million, consisting of demand deposit accounts only. All deposits are fully insured by Federal Depository Insurance and a multiple financial institution collateral pool required by Chapter 280 Florida Statutes, "Florida Security for Public Deposits Act". Under the Act, all qualified public depositories are required to pledge eligible collateral having a market value equal to or greater than the average daily or monthly balance of all public deposits, times the depository's collateral pledging level. The pledging level may range from 50% to 125% depending upon the depository's financial condition and establishment period. All collateral must be deposited with a State-approved financial institution. Any losses to public depositors are covered by applicable deposit insurance, sale of securities pledged as collateral and, if necessary, assessments against other qualified public depositories of the same type as the depository in default.

As a rule, the County intends to hold all purchased securities until their final maturity date. There may be occasional exceptions, including, but not limited to the need to sell securities to meet unexpected liquidity needs.

Cash on hand and cash held by other parties as of September 30, 2023 was approximately \$0.2 million.

INVESTMENTS

The below hierarchy is based on the valuation input used to measure the fair value of the asset with Level 1 assets being those where quoted prices in an active market for identical assets can be readily obtained, and Level 2 assets valued using a matrix pricing technique of quoted prices for similar assets or liabilities in active markets. Level 3 is for assets that have unobservable valuation inputs and should only be used when Level 1 and Level 2 inputs are unavailable. The County does not have any Level 1 or Level 3 inputs.

The Department's carrying value of cash equivalents and investments include the following as of September 30, 2023:

Investments Level 2	Fair Value 2023
Commercial Paper	\$ 323,791
Federal Home Loan Bank	663,786
Federal Home Loan Mortgage Corporation	47,813
Federal Farm Credit Bank	37,777
Federal National Mortgage Association	35,958
Treasury Notes	119,009
Jubilee Issue Bonds	3,081
Total Investments	<u>\$ 1,231,215</u>
Cash Equivalents	
Interest Bearing	37,530
Total Investments and Cash Equivalents	<u>\$ 1,268,745</u>

CREDIT RISK

The Policy, minimizes credit risk by restricting authorized investments to: Local Government Surplus Funds Trust Fund, or any intergovernmental investment pool authorized pursuant to the Florida Interlocal Cooperation Act; Securities and Exchange Commission (SEC) registered money market funds with the highest credit rating from a nationally recognized rating agency; interest bearing time deposits or saving accounts in qualified public depositories, pursuant to Florida Statutes §280.02, which are defined as banks, savings banks, or savings associations organized under the laws of the United States with an office in this

Notes to Financial Statements

state that is authorized to receive deposits, and has deposit insurance under the provisions of the Federal Deposit Insurance Act; direct obligations of the United States Treasury; federal agencies and instrumentalities; securities of, or other interests in, and open-end or closed-end management-type investment company or investment trust registered under the Investment Company Act of 1940, provided that the portfolio is limited to the obligations of the United States government or any agency or instrumentality thereof and fully collateralized by such United States government obligations, and provided that such investment company or investment trust takes delivery of such collateral either directly or through an authorized custodian; commercial paper of prime quality with a stated maturity of 270 days or less from the date of its issuance, which has the highest letter and numerical rating as provided for by at least two nationally recognized rating services; banker acceptances which have a stated maturity of 180 days or less from the date of issuance, and have the highest letter and numerical rating as provided for by at least two nationally recognized rating services, and are drawn on and accepted by commercial banks and which are eligible for purchase by the Federal Reserve Bank, investments in repurchase agreements (“Repos”) collateralized by securities authorized by this policy. All Repos shall be governed by a standard SIFMA Master Repurchase Agreement; municipal securities issued by U.S., state or local governments, having at time of purchase, a stand-alone credit rating of AA or better assigned by two or more recognized credit rating agencies or a short-term rating of A1/P1 or equivalent from one or more recognized credit rating agencies. Securities lending, securities or investments purchased or held under the provisions of this section, may be loaned to securities dealers or financial institutions provided the loan is collateralized by cash or securities having a market value of at least 102 percent of the market value of the securities loan upon initiation of the transaction.

The following table summarizes the investments by type and credit ratings at September 30, 2023:

	Credit Ratings 2023
Federal Home Loan Mortgage Corporation	AA+/Aaa/AAA
Federal Home Loan Bank	AA+/Aaa/N/A
Federal Farm Credit Bank	AA+/Aaa/AAA
Federal National Mortgage Association	AA+/Aaa/AAA
Treasury Notes	AA+u/Aaa/P-1/A
Commercial Paper	A-1+/P-1/F1+
Jubilee Issue Bonds	AA-/A1/A+
Interest Bearing	AAAm/Aaa-mf/ AAAmf

CUSTODIAL CREDIT RISK

The Policy requires that bank deposits be secured per Chapter 280, Florida Statutes. This requires local governments to deposit funds only in financial institutions designated as qualified public depositories by the Chief Financial Officer of the State of Florida and creates the Public Deposits Trust Fund, a multiple financial institution pool with the ability to assess its member financial institutions for collateral shortfalls if a default or insolvency has occurred. At September 30, 2023, all the County’s bank deposits were in qualified public depositories.

The Policy requires the execution of a Custodial Safekeeping Agreement (CSA) for all purchased securities which shall be held for credit of the County in an account separate and apart from the assets of the financial institution.

CONCENTRATION OF CREDIT RISK

The Policy establishes limitations on portfolio composition by investment type and by issuer to limit its exposure to concentration of credit risk. The Policy provides that a maximum of 50% of the portfolio may be invested in the State of Florida Local Government Surplus Funds Trust Fund (“Pool”); however, the bond proceeds may be temporarily deposited in the Pool until alternative investments have been purchased. Prior

Notes to Financial Statements

to any investment in the Pool, approval must be received from the Board of County Commissioners. A maximum of 30% of the portfolio may be invested in SEC registered money market funds with no more than 10% to any single money market fund; a maximum of 20% of the portfolio may be invested in non-negotiable interest-bearing time certificates of deposit and savings account with no more than 5% deposited with any one insurer. There is no limit on the percent of the total portfolio that may be invested in direct obligations of the U.S. Treasury or federal agencies and instrumentalities; with no limits on individual issuers (investment in agencies containing call options shall be limited to a maximum of 25% of total portfolio). A maximum of 5% of the portfolio may be invested in open-end or closed-end funds; a maximum of 50% of the portfolio may be invested in prime commercial paper with a maximum of 5% with any one issuer; a maximum of 25% of the portfolio may be invested in banker's acceptances with a maximum of 10% with any one issuer, but a maximum of 60% of the portfolio may be invested in both commercial paper and banker's acceptances. A maximum of 20% of the portfolio may be invested in repurchase agreements with the exception of one (1) business day agreements, with a maximum of 10% of the portfolio with any one institution or dealer with the exception of one (1) business day agreements. A maximum of 25% of the portfolio may be directly invested in municipal obligations, up to 5% with any one municipal issuer.

As of September 30, 2023, the following issuers held 5% or more of the investment portfolio:

	% of Portfolio 2023
Commercial Paper	25.52
Federal Home Loan Bank	52.32
Treasury Notes	9.38

The schedule excludes investments issued or explicitly guaranteed by the U.S. government.

INTEREST RATE RISK

The Policy limits interest rate risk by requiring the matching of known cash needs and anticipated net cash outflow requirements; following historical spread relationships between different security types and issuers; evaluating both interest rate forecasts and maturity dates to consider short-term market expectations. The Policy requires that investments made with current operating funds shall maintain a weighted average of no longer than one year. Investments for bond reserves, construction funds and other non-operating funds shall have a term appropriate to the need for funds and in accordance with debt covenants. The Policy limits the maturity of an investment to a maximum of five years.

As of September 30, 2023, the Department had the following investments with the weighted average maturity in years.

	Weighted Average in Years 2023
Federal Home Loan Mortgage Corporation	3.33
Federal Home Loan Bank	1.07
Federal Farm Credit Bank	1.33
Federal National Mortgage Association	2.32
Treasury Notes	.43
Commercial Paper	.49
Jubilee Issue Bonds	1.27

FOREIGN CURRENCY RISK

The Policy limits the County's foreign currency risk by excluding foreign investments as an investment option.

Notes to Financial Statements

3. RECEIVABLES

Receivables for fiscal year ended September 30, 2023 was as follows (in thousands):

	2023
Trade accounts	\$ 244,871
Non-retail accounts	26,521
Grants & contracts	2,096
Other county funds	368
Gross receivables	273,856
Less: allowance for doubtful accounts	(52,046)
Net receivables	\$ 221,810

The allowance for doubtful accounts is determined principally on the basis of past collection experience as well as consideration of current economic conditions and customer collection trends. Allowance for doubtful accounts was approximately \$52 million and \$66 million, as of September 30, 2023 and 2022, respectively.

4. OTHER CURRENT ASSETS

Other current assets activity for fiscal year ended September 30, 2023 was as follows (in thousands):

	2023
Beginning balance	\$ 1,836
Prepaid expenses	(11)
Prepaid property insurance	20
Ending balance	\$ 1,845

The County entered into an agreement with the City of Hialeah (City) to construct a 10 MGD reverse osmosis water treatment plant. The City and the County shall have equal 50% ownership of a reverse osmosis water treatment plant (WTP), inclusive of land, structures, facilities, and appurtenances to be situated in the Annexation Area of the City. The City shall contribute and pay for 50% of the planning, design, construction, and construction management (design and construction) cost for the WTP and the County shall contribute 50% of the design and construction cost for the WTP. In Fall of 2013, the Plant began production capable of 7.5 MGD, with County and City each receiving 50% of the production. In fiscal year 2023, no monies were contributed to the City and the Department incurred \$3.1 million in operating expenses. As of September 30, 2023, the Department contributed approximately \$55.9 million towards the construction of the WTP.

5. RESTRICTED ASSETS

Certain bond ordinances and loan agreements require the Department to establish accounts to be used in accounting for proceeds and collateral pledged because of the various issues of debt. In many cases, the applicable ordinances refer to the restricted accounts as "funds". Such accounts are not "funds" as defined by the National Council of Governmental Accounting (NCGA) *Statement No. 1: Governmental Accounting and Financial Reporting Principles* and, therefore, are not funds for financial reporting purposes, but are maintained as separate accounts. Restricted assets for fiscal year ended September 30, 2023 is represented in the following table (in thousands):

Notes to Financial Statements

	2023
Debt service	\$ 347,936
Construction	344,499
Other	118,993
Plant expansion	52,563
Renewal and replacement	180,765
Self-insurance	7,892
Total restricted assets	\$ 1,052,648

6. CAPITAL ASSETS

Capital asset activity during fiscal year 2023 was as follows (in thousands):

	Balance 9/30/2022	2023		Balance 9/30/2023
	Additions	Deletions		
Capital assets, not being depreciated/ amortized:				
Land	\$ 80,571	\$ 4,471	\$ (170)	\$ 84,872
Construction work in progress	1,803,728	610,650	(423,056)	1,991,322
Total capital assets, not being depreciated / amortized	1,884,299	615,121	(423,226)	2,076,194
Capital assets, being depreciated / amortized:				
Buildings and building improvements	41,624	—	—	41,624
Structures and improvements	6,132,107	254,639	(5,740)	6,381,006
Machinery and Equipment	1,499,047	124,508	(18,578)	1,604,977
Right-To-Use Lease Assets	—	660	—	660
Right-To-Use SBITA Assets ¹	900	14,583	—	15,483
Intangible Asset -C51 Water Rights	—	69,000	—	69,000
Total capital assets, being depreciated / amortized	7,673,678	463,390	(24,318)	8,112,750
Less accumulated depreciation / amortization for:				
Buildings and building improvements	(18,150)	(1,043)	—	(19,193)
Structures and improvements	(2,825,875)	(175,305)	6,889	(2,994,291)
Machinery and Equipment	(1,063,533)	(64,769)	18,053	(1,110,249)
Right-To Use Lease Assets	—	(121)	—	(121)
Right-To-Use SBITA Assets	—	(720)	—	(720)
Intangible Asset Accum Amort - C51 Water Rights	—	(821)	—	(821)
Total accumulated depreciation / amortization	(3,907,558)	(242,779)	24,942	(4,125,395)
Total capital assets, being depreciated / amortized, net	3,766,120	220,611	624	3,987,355
Total capital assets, net	\$ 5,650,419	\$ 835,732	\$ (422,602)	\$ 6,063,549

¹ Beginning balance was adjusted to consider proper amounts related to the implementation of GASB Statement No. 96.

Notes to Financial Statements

7. LEASES

For fiscal year ending September 30, 2023 the Department did not have any lessor leases that met the Department's \$200,000 lease threshold. The Department, however is a lessee for noncancellable leases of multi-functional devices provided by outside suppliers.

The summary of the Departments lease asset activity for the multi-functional devices as of September 30, 2023 is as follows (in thousands):

LEASE ASSETS:

Fiscal Year Ended September 30,	2023
Beginning Balance:	\$ —
Leases initiated during the fiscal year:	660
Less amortization expense:	(121)
Lease assets, net:	<u>\$ 539</u>

LEASE LIABILITY:

The following table presents the Department's lease obligation for the multi-functional equipment payable in future years as of September 30, 2023.

Year Ending September 30 (in thousands)	Principal	Interest
2024	\$ 131	\$ 4
2025	132	3
2026	133	2
2027	135	1
2028	10	—
Total	<u>\$ 541</u>	<u>\$ 10</u>

8. SUBSCRIPTION-BASED INFORMATION TECHNOLOGY ARRANGEMENT (SBITA)

The Department has recorded several subscription-based information technology arrangement (SBITA) assets and liabilities as a result of implementing GASB Statement No. 96. The SBITA assets are initially measured at an amount equal to the initial measurement of the related SBITA liability plus any SBITA payments made prior to the subscription term, less SBITA incentives, plus any ancillary charges necessary to place the SBITA into service. The SBITA assets are amortized on a straight-line basis over the life of the related contract.

The cost of normal maintenance and repairs that do not add to the value of the assets or materially extend the asset lives are not capitalized and are expensed as incurred.

The Department monitors changes in circumstances that would require a remeasurement of its SBITA and will do so if certain changes occur that would be expected to significantly affect the amount of the SBITA liability. SBITA assets are recorded with other capital assets and SBITA liabilities are reported with long-term debt on the statement of net position (See Notes 6,9).

The Department has recorded several SBITAs totaling \$15.5 million. The Department has discounted the future minimum payments using its incremental borrowing rate of 3.9 percent.

Notes to Financial Statements

The summary of the Departments SBITA activity as of September 30, 2023 is as follows (in thousands):

SBITA ASSETS:

Fiscal Year Ended September 30,	2023
Beginning Balance:	\$ 900
SBITA initiated during the fiscal year:	14,583
Less amortization expense:	(720)
SBITA assets, net:	<u>\$ 14,763</u>

SBITA LIABILITIES:

Future minimum SBITA payments and the present value of the minimum SBITA payments as of September 30, 2023 are as follows (in thousands):

Year Ending September 30 (in thousands)	Principal	Interest
2024	\$ 2,157	\$ 502
2025	1,390	451
2026	1,441	399
2027	1,282	350
2028	1,360	303
2029-2033	7,672	664
Total	<u>\$ 15,302</u>	<u>\$ 2,669</u>

9. LONG-TERM DEBT

Long-term debt includes various bonds and loans which have been issued or approved by the County for the improvement of the Department's water and wastewater infrastructure, and defeasance of outstanding debt. General covenants, along with debt service requirements, are disclosed on page 50. See Note 5, Restricted Assets, for a discussion of the accounts used in accounting for proceeds and collateral pledged as a result of the issuance of the various forms of debt.

The Department's debt instruments contain various covenants and restrictions, which among other things, (1) prohibit the Department from taking any action that could jeopardize its tax-exempt status, and (2) require the Department to meet certain financial tests. Management believes that the Department followed all such covenants and restrictions as of and for the year ended September 30, 2023.

Notes to Financial Statements

CHANGES IN LONG-TERM LIABILITIES

A summary of long-term liability activity during fiscal year 2023 is presented in the following table (in thousands):

Description	Outstanding Rate	Balance 9/30/2022	2023		Balance 9/30/2023	Due in 2024
			Additions	Deletions		
Dade County Revenue Bonds						
Series 2008A & B	3.25%-5.25%	\$ 57,005	\$ —	\$ 57,005	\$ —	\$ —
Series 2015	4.00%-5.00%	396,095	—	26,325	369,770	85,985
Series 2017A	4.00%-5.00%	381,355	—	—	381,355	—
Series 2017B	3.00%-5.00%	544,960	—	3,180	541,780	3,355
Series 2019	5.00%	233,305	—	—	233,305	—
Series 2019B	3.00%-4.00%	663,860	—	—	663,860	—
Series 2019C	2.5%-3.00%	548,090	—	—	548,090	—
Series 2021	3.00%-5.00%	605,600	—	—	605,600	—
Sub Series 2021	4.00%-5.00%	236,135	—	—	236,135	—
Plus: unamortized premium		379,942	—	16,105	363,837	—
Total revenue bonds		<u>\$4,046,347</u>	<u>\$ —</u>	<u>\$ 102,615</u>	<u>\$3,943,732</u>	<u>\$ 89,340</u>
State Loan Obligations						
State revolving fund	2.56%-4.17%	\$ 204,830	\$ 144	\$ 10,486	\$ 194,488	\$ 10,378
Total state revolving funds		<u>\$ 204,830</u>	<u>\$ 144</u>	<u>\$ 10,486</u>	<u>\$ 194,488</u>	<u>\$ 10,378</u>
Notes Payable						
WIFIA loan program	2.89%	\$ 1,321	\$ 39	\$ —	\$ 1,360	\$ —
Total notes payable		<u>\$ 1,321</u>	<u>\$ 39</u>	<u>\$ —</u>	<u>\$ 1,360</u>	<u>\$ —</u>
Total long-term debt		<u>\$4,252,498</u>	<u>\$ 183</u>	<u>\$ 113,101</u>	<u>\$4,139,580</u>	<u>\$ 99,718</u>
Other Liabilities:						
Compensated absences		\$ 66,355	\$ 7,715	\$ 1,261	\$ 72,809	\$ 13,200
Self-insurance		4,389	672	269	4,792	1,192
Other post-employment benefits		53,466	7,031	2,095	58,402	—
Net pension liability		211,485	43,678	—	255,163	—
Lease liability		—	574	33	541	131
SBITA liability ¹		900	14,583	181	15,302	2,157
Other Non-Current Liabilities-						
Restricted		9,098	11,000	3,589	16,509	—
Unrestricted		—	8,550	—	8,550	—
Total long-term liabilities		<u>\$4,598,191</u>	<u>\$ 93,986</u>	<u>\$ 120,529</u>	<u>\$4,571,648</u>	<u>\$ 116,398</u>

¹ Beginning balance was adjusted to consider proper amounts related to the implementation of GASB Statement No. 96.

Notes to Financial Statements

DEBT SERVICE REQUIREMENTS

As of September 30, 2023, the Department's debt service requirements to maturity for their term were as follows (in thousands):

Maturing in Fiscal Year	Revenue Bonds		State Loans		Notes Payable		Total		Debt Service Requirement
	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	
2024	\$ 89,340	\$ 144,643	\$ 10,378	\$ 1,840	\$ —	\$ —	\$ 99,718	\$ 146,483	\$ 246,201
2025	93,735	140,066	11,713	1,776	—	—	105,448	141,842	247,290
2026	98,615	135,258	13,463	1,703	—	—	112,078	136,961	249,039
2027	102,545	130,229	13,627	1,537	—	—	116,172	131,766	247,938
2028	104,425	125,655	13,778	1,385	76	—	118,279	127,040	245,319
2029 - 2033	457,270	573,076	71,394	4,342	236	167	528,900	577,585	1,106,485
2034 - 2038	570,045	464,374	37,122	1,158	209	140	607,376	465,672	1,073,048
2039 - 2043	716,610	339,192	18,064	320	241	107	734,915	339,619	1,074,534
2044 - 2048	892,260	179,253	4,949	22	278	71	897,487	179,346	1,076,833
2049 - 2052	455,050	25,307	—	—	320	28	455,370	25,335	480,705
	<u>3,579,895</u>	<u>2,257,053</u>	<u>194,488</u>	<u>14,083</u>	<u>1,360</u>	<u>513</u>	<u>3,775,743</u>	<u>2,271,649</u>	<u>6,047,392</u>
Unamortized Discount & Premium Amounts	363,837	—	—	—	—	—	363,837	—	363,837
Total	<u>\$ 3,943,732</u>	<u>\$ 2,257,053</u>	<u>\$ 194,488</u>	<u>\$ 14,083</u>	<u>\$ 1,360</u>	<u>\$ 513</u>	<u>\$ 4,139,580</u>	<u>\$ 2,271,649</u>	<u>\$ 6,411,229</u>

MIAMI-DADE COUNTY WATER AND SEWER SYSTEM REVENUE BONDS, SERIES 2008A

On July 15, 2009, the County issued \$68.3 million of Miami-Dade County Water and Sewer System Revenue Bonds, Series 2008A to pay the costs of terminating the AIG Financial Products Corporation interest rate swap associated with the variable rate Dade County Water and Sewer System Revenue Bonds, Series 1994 and to pay issuance costs.

The Series 2008A Revenue Bonds are collateralized by the net operating revenues of the Department and are due serially October 1 starting in 2009 through fiscal year 2023 with semi-annual interest due on April 1 and October 1 of each year. Net revenue requirements of at least 1.25 times the current year's debt service requirements were met in fiscal year

MIAMI-DADE COUNTY WATER AND SEWER SYSTEM REVENUE REFUNDING BONDS, SERIES 2008B

In July 15, 2008, \$374.6 million of Miami-Dade County Water and Sewer System Revenue Refunding Bonds, Series 2008B were issued to redeem all the County's Water and Sewer System Revenue Bonds, Series 1994 and to pay issuance and surety costs.

The Series 2008B Refunding Bonds are collateralized by the net operating revenues of the Department and are due serially on October 1 starting in 2009 through fiscal year 2023 with semi-annual interest due on April 1 and October 1 of each year. Net revenue requirements of at least 1.25 times the current year's debt service requirements were met in fiscal year 2023.

MIAMI-DADE COUNTY WATER AND SEWER SYSTEM REVENUE REFUNDING BONDS, SERIES 2015

On June 3, 2015, the County issued \$481.2 million of Miami-Dade County Water and Sewer System Revenue Refunding Bonds, Series 2015 to advance refund the \$244.4 million aggregate principal of the Miami-Dade County Revenue Bonds, Series 2007, \$255.7 million aggregate principal of Miami-Dade County Water and Sewer System Revenue Refunding Bonds, Series 2008C and pay the costs of issuance.

The Series 2015 Bonds are collateralized by the net operating revenues of the Department and are due serially on October 1 through the year 2027 with semi-annual interest due on April 1 and October 1 of each year. Net revenue requirements of at least 1.25 times the current year's debt service requirements were met in fiscal year 2023.

Notes to Financial Statements

MIAMI-DADE COUNTY WATER AND SEWER SYSTEM REVENUE REFUNDING BONDS, SERIES 2017A
On December 7, 2017, the County issued \$381.3 million of Miami-Dade County Water and Sewer System Revenue Bonds, Series 2017A. The Series 2017A Bonds refunded all outstanding Commercial Paper Notes - Series A-1 and Series B-1, made a deposit to the Reserve Account and paid the costs of issuance of the Series 2017A Bonds.

The Series 2017A Bonds are collateralized by the net operating revenues of the Department and are due serially on October 1 through the year 2047 with semi-annual interest due on April 1 and October 1 of each year. Net revenue requirements of at least 1.25 times the current year's debt service requirements were met in fiscal year 2023.

MIAMI-DADE COUNTY WATER AND SEWER SYSTEM REVENUE REFUNDING BONDS, SERIES 2017B
On December 7, 2017, the Department issued \$548.0 million of Miami-Dade County Water and Sewer System Revenue Refunding Bonds, Series 2017B. The Series 2017B Bonds refunded \$567.6 million principal outstanding for the Miami-Dade County, Florida Water and Sewer System Revenue Bonds, Series 2010 and paid the costs of issuance of the Series 2017B Bonds.

The Series 2017B Bonds are collateralized by the net operating revenues of the Department and are due serially on October 1 through the year 2039 with semi-annual interest due on April 1 and October 1 of each year. Net revenue requirements of at least 1.25 times the current year's debt service requirements were met in fiscal year 2023.

MIAMI-DADE COUNTY WATER AND SEWER SYSTEM REVENUE BONDS, SERIES 2019
On January 31, 2019, the Department issued Miami-Dade County Water and Sewer System Revenue Bonds, Series 2019 for \$233.3 million. The Series 2019 Bonds are refunding all of the outstanding Miami-Dade County, Florida Water and Sewer System Commercial Paper Notes, Series A-1 and all of the outstanding Miami-Dade County, Florida Water and Sewer System Commercial Paper Notes, Series B-1, make a deposit to the Reserve Account and pay the costs of issuance of the Series 2019 Bonds.

The Series 2019 Bonds are collateralized by the net operating revenues of the Department and are due serially on October 1 starting in 2020 through the year 2049 with semi-annual interest due on April 1 and October 1 of each year. Net revenues requirements of at least 1.25 times the current year's debt service requirement were met in fiscal year 2023.

MIAMI-DADE COUNTY WATER AND SEWER SYSTEM REVENUE BONDS, SERIES 2019B
On November 9, 2019, \$663.8 million of Miami-Dade County Water and Sewer System Revenue Bonds, Series 2019B were issued to refund all of the outstanding Miami-Dade County, Florida Water and Sewer System Commercial Paper Notes, Series A-1 and all of the outstanding Miami-Dade County, Florida Water and Sewer System Commercial Paper Notes, Series B-1 and the costs of issuance of the Series 2019B Bonds.

The Series 2019B Revenue Bonds are collateralized by the net operating revenues of the Department and are due serially on October 1 starting in 2020 through the year 2049 with semi-annual interest due on April 1 and October 1 of each year. Net revenues requirements of at least 1.25 times the current year's debt service requirement were met in fiscal year.

Notes to Financial Statements

MIAMI-DADE COUNTY WATER AND SEWER SYSTEM REVENUE REFUNDING BONDS, SERIES 2019C

On November 9, 2019, the County issued \$548.1 million of Miami-Dade County Water and Sewer System Revenue Refunding Bonds, Series 2019C. The Series 2019C Bonds refunded \$340 million principal outstanding for the Miami-Dade County, Florida Water and Sewer System Revenue Bonds, Series 2013A and all of the \$152.4M outstanding principal amount of Miami-Dade County, Florida Water and Sewer System Revenue Refunding Bonds, Series 2013B, and pay the costs of issuance of the Series 2019C Bonds. The difference between the cash flows required to service the old debt and the new debt is \$52.8 million. The economic gain resulting from the refunding transaction calculated on a present value basis is \$49.5 million.

The Series 2019C Bonds are collateralized by the net operating revenues of the Department and are due serially on October 1 starting in 2020 through the year 2049 with semi-annual interest due on April 1 and October 1 of each year. Net revenues requirements of at least 1.25 times the current year's debt service requirement were met in fiscal year 2023.

MIAMI-DADE COUNTY WATER AND SEWER SYSTEM REVENUE BONDS, SERIES 2021

On April 20, 2021, the County issued \$605.6 million of Miami-Dade County Water and Sewer System Revenue Bonds, Series 2021. The Series 2021 Bonds pay the cost of the Series 2021 Project, make a deposit to the Reserve Account, and pay the costs of issuance of the Series 2021 Bonds. The Series 2021 Bonds are collateralized by the net operating revenues of the Department and are due serially on October 1 starting in 2021 through the year 2051 with semi-annual interest due on April 1 and October 1 of each year. Net revenues requirements of at least 1.25 times the current year's debt service requirement were met in fiscal year 2023.

MIAMI-DADE COUNTY WATER AND SEWER SYSTEM SUBORDINATE REVENUE BONDS, SERIES 2021

On July 8, 2021, the County issued \$236.1 million of Miami-Dade County Subordinate Water and Sewer System Revenue Bonds, Series 2021. The proceeds of the Series 2021 Subordinate Bonds are used to pay the costs of the Series 2021 Project and pay the costs of issuance of the Series 2021 Subordinate Bonds. Payment terms are due serially starting in 2021 through 2052 with semi-annual interest due on April 1 and October 1 of each year. Net revenues requirements of at least 1.0 times the current year's debt service requirement were met in fiscal year 2023.

MIAMI-DADE COUNTY REVENUE BONDS- REMEDIES

Upon an event of default as described in the Master Ordinance, a trustee or Bondholder acting for the Holders of all Bonds made by suit, action, mandamus or other judicial proceedings, protect and enforce any and all rights, including the right to the appointment of a receiver, existing under and to the extent permitted by the laws of the State of Florida, or granted and contained in the Master Ordinance, and may enforce and compel the performance of all duties required in the Master Ordinance or by any applicable statutes to be performed by the County or by an officer thereof.

Notes to Financial Statements

STATE REVOLVING FUND

Under the State Revolving Fund program, the Department has received various loan commitments for the construction of water and wastewater treatment facilities. Draws to date against committed loans as of September 30, 2023, are detailed in the following table (in thousands):

Loan #	Draws	Close Out Date
37788P	\$ 235	09/27/2004
37789A	56	11/15/2006
37789L	109	11/22/2006
377900	75,533	09/05/2014
130200	82	08/08/2016
130201	44	08/08/2016
130230	13,597	Active
130240	14,470	Active
130260	25,868	Active
1302A0	64,494	Active
	<u>\$ 194,488</u>	

Related payments of principal and interest are due through the fiscal year 2045. No further draws will be made against closed loans.

The Department has agreed to maintain rates, together with other pledged revenues, sufficient to provide "net revenues" equal to at least 1.15 times the annual loan payments after meeting the primary debt service requirements. Reserve and debt service funding requirements, as required by the agreements, were met in fiscal year 2023.

Default in payment of principal and interest on any of the loans described above or any future loans could cause an acceleration of the entire amount of such loans.

NOTES PAYABLE

The Department closed on \$99.7 million in WIFIA funding at an interest rate of 2.89% on March 22, 2019 for its Ocean Outfall Reduction and Resiliency Enhancement Project. WIFIA will fund up to 49% of the project estimate on a reimbursement basis, or \$99.7 million of this project's costs, the remainder of which is being funded through the State Revolving Fund Loan Program and Department cash on hand. This WIFIA loan will partially fund projects to meet compliance with the Ocean Outfall Legislation (OOL). As of fiscal year end September 30, 2023, the Department has a notes payable outstanding of approximately \$1.3 million. The first WIFIA payment is due five years after the completion of the project and will be paid semi-annually on April 1 and October 1.

Whenever any event of default has occurred as per the WIFIA funding agreement, the lender is entitled to institute any actions or proceedings at law or in equity for the collection of any sums due and unpaid under the WIFIA Note and may prosecute any such judgment and final decree against the Department and collect in the manner provided by law. Additionally, the WIFIA funding agreement calls for a default rate set as a fluctuating interest rate per annum equal to the sum of the base rate from time to time in effect plus four percent (4%).

The notes are issued for the purpose of providing temporary funding for a portion of the Department's Capital Improvement Program, financing the payment of the principal of and interest on any maturing notes or obligations and paying certain costs of issuance.

Notes to Financial Statements

10. PAYABLES

Accounts payables and accrued expenses for fiscal year ended September 30, 2023 were as follows (in thousands):

	2023
Other county funds	\$ 23,638
Vendors	85,281
Other governments	22,050
Salaries and benefits	13,709
Contractors	57,638
Other	120
Total payables	\$ 202,436

11. PENSION PLAN

The Department, as an agency of the County, participates in the Florida Retirement System (the FRS). The FRS was created in Chapter 121, Florida Statutes, to provide a defined benefit pension plan for participating public employees. The FRS was amended in 1998 to add the Deferred Retirement Option Program (DROP) under the defined benefit plan and amended in 2000 to provide a defined contribution plan alternative to the defined benefit plan for FRS members effective October 1, 2002. This integrated defined contribution pension plan is the FRS Investment Plan. Chapter 112, Florida Statutes, established the Retiree Health Insurance Subsidy (HIS) Program, a cost-sharing multiple-employer defined benefit pension plan, to assist retired members of any state-administered retirement system in paying the costs of health insurance.

Essentially all regular employees of the Department are eligible to enroll as members of the State-administered FRS. Provisions relating to the FRS are established by Chapters 121 and 122, Florida Statutes; Chapter 112, Part IV, Florida Statutes; Chapter 238, Florida Statutes; and FRS Rules, Chapter 60S, Florida Administrative Code; wherein eligibility, contributions, and benefits are defined and described in detail. Such provisions may be amended at any time by further action from the Florida Legislature.

The FRS is a single retirement system administered by the Florida Department of Management Services, Division of Retirement, and consists of the two cost-sharing, multiple-employer defined benefit plans and other nonintegrated programs. An annual comprehensive financial report of the FRS, which includes its financial statements, required supplementary information, actuarial report, and other relevant information, is available from the Florida Department of Management Services' Web site: (http://www.dms.myflorida.com/workforce_operations/retirement/publications).

FRS PENSION PLAN DESCRIPTION

The FRS Pension Plan (Plan) is a cost-sharing multiple-employer defined benefit pension plan, with DROP for eligible employees.

Employees enrolled in the Plan prior to July 1, 2011, vest at 6 years of creditable service and employees enrolled in the Plan on or after July 1, 2011, vest at 8 years of creditable service. All vested members enrolled prior to July 1, 2011 are eligible for normal retirement benefits at age 62 or at any age after 30 years of service (except for members classified as special risk who are eligible for normal retirement benefits at age 55 or at any age after 25 years of service). All members enrolled in the Plan on or after July 1, 2011, once vested, are eligible for normal retirement benefits at age 65 or any time after 33 years of creditable service (except for members classified as special risk who are eligible for normal retirement benefits at age 60 or at any age after 30 years of service). Members of the Plan may include up to 4 years of credit for military service toward creditable service.

The Plan also includes an early retirement provision; however, there is a 5 percent benefit reduction for each year a member retires before his or her normal retirement date. The Plan provides retirement, disability, death benefits, and annual cost-of-living adjustments to eligible participants.

Notes to Financial Statements

DROP, subject to provisions of Section 121.091, Florida Statutes, permits employees eligible for normal retirement under the Plan to defer receipt of monthly benefit payments while continuing employment with an FRS employer. An employee may participate in DROP for a period not to exceed 96 months after electing to participate, except that certain instructional personnel may participate for up to 96 months. During the period of DROP participation, deferred monthly benefits are held in the FRS Trust Fund and accrue interest. The net pension liability does not include amounts for DROP participants, as these members are considered retired and are not accruing additional pension benefits.

BENEFITS PROVIDED

Benefits under the Plan are computed on the basis of age and/or years of service, average final compensation, and service credit. Credit for each year of service is expressed as a percentage of the average final compensation. For members initially enrolled before July 1, 2011, the average final compensation is the average of the five highest fiscal years' earnings; for members initially enrolled on or after July 1, 2011, the average final compensation is the average of the eight highest fiscal years' earnings. The total percentage value of the benefit received is determined by calculating the total value of all service, which is based on the retirement class to which the member belonged when the service credit was earned. Members are eligible for in-line-of-duty or regular disability and survivors' benefits.

As provided in Section 121.101, Florida Statutes, if the member is initially enrolled in FRS before July 1, 2011, and all service credit was accrued before July 1, 2011, the annual cost-of-living adjustment is 3 percent per year. If the member is initially enrolled before July 1, 2011, and has service credit on or after July 1, 2011, there is an individually calculated cost-of-living adjustment. The annual cost-of-living adjustment is a proportion of 3 percent determined by dividing the sum of the pre-July 2011 service credit by the total service credit at retirement multiplied by 3 percent. Plan members initially enrolled on or after July 1, 2011, will not have a cost-of-living adjustment after retirement.

Notes to Financial Statements

CONTRIBUTIONS

The Florida Legislature establishes contribution rates for participating employers and employees. Contributions rates in effect from July 1, 2022 through June 30, 2023 were as follows:

Class	Effective July 1, 2022 through June 30, 2023		Effective July 1, 2023 through June 30, 2024	
	Percentage of Gross Salary		Percentage of Gross Salary	
	Employee	Employer ¹	Employee	Employer ¹
FRS, Regular	3.00	11.91	3.00	13.57
FRS, Elected County Officers	3.00	57.00	3.00	58.68
FRS, Senior Management Service	3.00	31.57	3.00	34.52
FRS, Special Risk Regular	3.00	27.83	3.00	32.67
DROP - Applicable to members from all of the above classes	N/A	18.60	N/A	21.13

¹ Employer rates include 1.66% for the postemployment health insurance subsidy, and employer rates, other than for DROP participants, include 0.06% for administrative costs.

The Department's contributions for FRS totaled \$24.6 million and employee contributions totaled \$4.9 million for the fiscal year ended September 30, 2023.

PENSION LIABILITIES, PENSION EXPENSE, AND DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS

At September 30, 2023, the Department reported a liability of \$191.5 million for its proportionate share of the Plan's net pension liability. The net pension liability was measured as of June 30, 2023, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of July 1, 2023.

For the fiscal year ended September 30, 2023, the Department recognized pension expense/(income) of \$21.0 million related to the Plan. In addition, the Department reported, deferred outflows of resources and deferred inflows of resources related to pensions from the following sources (in thousands):

Description	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 17,984	\$ —
Change of assumptions	12,484	—
Net difference between projected and actual earnings on FRS pension plan investments	7,999	—
Changes in proportion and differences between the Department FRS contributions and proportionate share of contributions	3,348	(841)
The Department contributions subsequent to measurement date	5,922	—
Total	<u>\$ 47,737</u>	<u>\$ (841)</u>

For fiscal year ended September 30, 2023, the deferred outflows of resources related to pensions of approximately \$5.9 million, resulting from the Department's contributions to the Plan subsequent to the measurement date, will be recognized as a reduction of the net pension liability in the fiscal year ended September 30, 2023. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows (in thousands):

Notes to Financial Statements

Fiscal Year Ending September 30,	Deferred Outflows/(Inflows), Net
2024	\$ 5,942
2025	(1,540)
2026	32,026
2027	3,572
2028	974
Total	\$ 40,974

ACTUARIAL ASSUMPTIONS

The FRS pension actuarial assumptions that determined the total pension liability as of June 30, 2023, were based on the results of an actuarial experience study for the period July 1, 2013 – June 30, 2018.

Inflation	2.40
Salary increases	3.25% average, including inflation
Investment rate of return	6.70% net of pension plan investment expense
Discount rate	6.70%

Mortality rates were based on the Generational PUB-2010 with Projection Scale MP-2018.

LONG-TERM EXPECTED RATE OF RETURN

For fiscal year ended September 30, 2023, the long-term expected rate of return on the Plan investments was not based on historical returns, but instead was based on a capital market economic model. The allocation policy's description of each asset class was used to map the target allocation to the asset classes shown below. Each asset class assumption is based on a consistent set of underlying assumptions and includes an adjustment for the inflation assumption. For fiscal year ended September 30, 2023, the target allocation and best estimates of arithmetic and geometric real rates of return for each major asset class are summarized in the following table:

Asset Class	Target Allocation ¹	Annual Arithmetic Return	Compound Annual (Geometric) Return	Standard Deviation
Cash	1.0%	2.9	2.9	1.1%
Fixed income	19.8%	4.5	4.4	3.4%
Global equity	54.0%	8.7	7.1	18.1%
Real estate	10.3%	7.6	6.6	14.8%
Private equity	11.1%	11.9	8.8	26.3%
Strategic investments	3.8%	6.3	6.1	7.7%
	100.0%			
Assumed Inflation - Mean			2.4%	1.4 %

¹ As outlined in the FRS Pension Plan's investment policy.

DISCOUNT RATE

For fiscal year ended September 30, 2023, the discount rate used to measure the net pension liability of the Plan was 6.70 percent. The Pension Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the discount rate for calculating the total pension liability is equal to the long-term expected rate of return.

Notes to Financial Statements

SENSITIVITY OF THE DEPARTMENT'S PROPORTIONATE SHARE OF THE NET PENSION LIABILITY TO CHANGES IN THE DISCOUNT RATE

For fiscal year ended September 30, 2023, the following represents the Department's proportionate share of the net pension liability calculated using the discount rate of 6.70 percent; as well as what the Department's proportionate share of the net pension liability would be if it is calculated using a discount rate that is one percentage point lower (5.70 percent) or one percentage point higher (7.70 percent) than the current rate (in thousands):

	1% Decrease (5.70%)	Current Discount Rate (6.70%)	1% Increase (7.70%)
Miami Dade County's proportionate share of net pension liability allocated to the Department	\$ 327,170	\$ 191,529	\$ 78,048

PENSION PLAN FIDUCIARY NET POSITION

Detailed information about the Plan's fiduciary net position is available in the separately issued FRS Pension Plan and Other State-Administered Systems Annual Comprehensive Financial Report.

DEPARTMENT'S ALLOCATION

The Department's proportionate share of the FRS Plan's net pension liability, deferred outflow of resources and deferred inflow of resources, and pension expense/(income) adjustment for the fiscal year ended September 30, 2023 were allocated as follows (in thousands):

FLORIDA RETIREMENT SYSTEM (FRS) PENSION					
	Percent Allocation	Net Pension Liability	Deferred Outflow of Resources	Deferred Inflow of Resources	Pension Expense Adjustment
Water and Sewer 2023	5.94 %	\$ 191,529	\$ 47,737	\$ (841)	\$ 21,092

THE RETIREE HEALTH INSURANCE SUBSIDY (HIS) PROGRAM PLAN DESCRIPTION

The Retiree Health Insurance Subsidy Program (HIS Plan) is a non-qualified cost-sharing multiple-employer defined benefit pension plan established under Section 112.363, Florida Statutes, and may be amended by the Florida Legislature at any time. The benefit is a monthly payment to assist retirees of the State-administered retirement systems in paying their health insurance costs and is administered by the Division of Retirement within the Florida Department of Management Services.

BENEFITS PROVIDED

For the fiscal year ended September 30, 2023, eligible retirees and surviving beneficiaries received a monthly HIS payment equal to the number of years of creditable service completed at the time of retirement multiplied by \$5, with a minimum HIS payment of \$30 and a maximum HIS payment of \$150 per month, pursuant to Section 112.363, Florida Statutes. To be eligible to receive a HIS Plan benefit, a retiree under a State-administered retirement system must provide proof of health insurance coverage, which may include Medicare.

CONTRIBUTIONS

The HIS Plan is funded by required contributions from FRS participating employers as set by the Florida Legislature. Employer contributions are a percentage of gross compensation for all active FRS members. For the fiscal year ended September 30, 2023, the HIS contribution rate was 1.66%. The County contributed 100 percent of its statutorily required contributions for the current year. The HIS Plan contributions are deposited in a separate trust fund from which payments are authorized. HIS Plan benefits are not

Notes to Financial Statements

guaranteed and are subject to annual legislative appropriation. In the event the legislative appropriation or if available funds fail to provide full subsidy benefits to all participants, benefits may be reduced or canceled.

For the fiscal year ended September 30, 2023, the Department's contributions to the HIS Plan totaled \$2.7 million.

PENSION LIABILITIES, PENSION EXPENSE, AND DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES RELATED TO PENSIONS

At September 30, 2023, the Department reported a net pension liability of \$63.6 million for its proportionate share of the HIS Plan's net pension liability. The net pension liability was measured as of June 30, 2023, and the total pension liability was determined by an actuarial valuation date as of July 1, 2023.

For the fiscal year ended September 30, 2023, the Department recognized a pension expense of \$23.0 million related to the HIS Plan. In addition, the Department reported, deferred outflows or resources and deferred inflows of resources related to the HIS Plan from the following sources (in thousands):

Description	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 932	\$ (149)
Change of assumptions	1,673	(5,515)
Net difference between projected and actual earnings on HIS pension plan investments	33	—
Changes in proportion and differences between the Department HIS contributions and proportionate share of HIS contributions	2,024	(102)
The Department contributions subsequent to measurement date	720	—
Total	<u>\$ 5,382</u>	<u>\$ (5,766)</u>

For fiscal year ended September 30, 2023, the deferred outflows of resources related to pensions of approximately \$720 thousand, resulting from the Department's contributions to the HIS Plan subsequent to the measurement date, will be recognized as a reduction of the net pension liability in the fiscal year ended September 30, 2023. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense (income) as follows (in thousands):

Fiscal Year Ending September 30,	Deferred Outflows/(Inflows), Net
2024	\$ 32
2025	160
2026	(112)
2027	(742)
2028	(421)
Thereafter	(21)
Total	<u>\$ (1,104)</u>

ACTUARIAL ASSUMPTIONS

The HIS pension as of July 1, 2023 actuarial valuations were determined using the following actuarial assumptions, applied to all periods included in the measurement.

Notes to Financial Statements

Inflation	2.40%
Salary increases	3.25% average, including inflation
Investment rate of return	N/A
Discount rate	3.65%

Mortality rates were based on the Generational PUB-2010 with Projection Scale MP-2018.

The actuarial assumptions used in the June 30, 2023 valuations were based on the results of an actuarial experience study for the period July 1, 2013 through June 30, 2018.

DISCOUNT RATE

For fiscal year ended September 30, 2023, the discount rate used to measure the total pension liability for the HIS Plan was 3.65 percent. In general, the discount rate for calculating the total pension liability is equal to the single rate equivalent to discounting at the long-term expected rate of return for benefit payments prior to the projected depletion date. Because the HIS benefit is essentially funded on a pay-as-you-go basis, the depletion date is considered to be immediate, and the single equivalent discount rate is equal to the municipal bond rate selected by the HIS Plan sponsor. The Bond Buyer General Obligation 20-Bond Municipal Bond Index was adopted as the applicable municipal bond index.

SENSITIVITY OF THE DEPARTMENT'S PROPORTIONATE SHARE OF THE NET PENSION LIABILITY TO CHANGES IN THE DISCOUNT RATE

For fiscal year ended September 30, 2023, the following represents the Department's proportionate share of the net pension liability calculated using the discount rate of 3.65 percent; as well as what the Department's proportionate share of the net pension liability would be if it is calculated using a discount rate that is one percentage point lower (2.65 percent) or one percentage point higher (4.65 percent) than the current rate (in thousands):

	<u>1% Decrease (2.65%)</u>	<u>Current Discount Rate (3.65%)</u>	<u>1% Increase (4.65%)</u>
Miami Dade County's proportionate share of the net pension liability allocated to the Department	\$ 72,597	\$ 63,634	\$ 56,205

PENSION PLAN FIDUCIARY NET POSITION

Detailed information regarding the HIS Plan's fiduciary net position is available in the separately issued FRS Pension Plan and Other State-Administered Systems Annual Comprehensive Financial Report.

DEPARTMENT'S ALLOCATION

The Department's proportionate share of the HIS Plan's net pension liability, deferred outflow of resources and deferred inflow of resources, and pension expense adjustment for the fiscal year ended September 30, 2023 were allocated as follows (in thousands):

	<u>Percent Allocation</u>	<u>Net Pension Liability</u>	<u>HIS PLAN</u>		
			<u>Deferred Outflow of Resources</u>	<u>Deferred Inflow of Resources</u>	<u>Pension Expense Adjustment</u>
Water and Sewer 2023	5.94%	\$ 63,634	\$ 5,382	\$ (5,766)	\$ 23,077

The below table represents the Department's aggregate net pension liability, deferred outflow of resources related to pensions, deferred inflow of resources related to pensions, and the pension expense adjustments for FRS and HIS plans as of the end of the fiscal year.

Notes to Financial Statements

	FRS & HIS PLAN				
	Percent Allocation	Net Pension Liability	Deferred Outflow of Resources	Deferred Inflow of Resources	Pension Expense Adjustment
Water and Sewer 2023	5.94%	\$ 255,163	\$ 53,119	\$ (6,607)	\$ 44,169

FRS – DEFINED CONTRIBUTION INVESTMENT PLAN

The Department contributes to the FRS Defined Contribution Investment Plan (Investment Plan). The Investment Plan is administered by the State Board of Administration (SBA) and is reported in the SBA's annual financial statements and in the State of Florida Annual Comprehensive Financial Report.

As provided in Section 121.4501, Florida Statutes, eligible FRS members may elect to participate in the Investment Plan in lieu of the FRS defined benefit plan. Miami-Dade County employees participating in the DROP are not eligible to participate in the Investment Plan. Employer and employee contributions, including amounts contributed to individual member's accounts, are defined by law, but the ultimate benefit depends in part on the performance of investment funds. Benefit terms, including contribution requirements, for the Investment Plan are established and may be amended by the Florida Legislature. The Investment Plan is funded with the same employer and employee contribution rates that are based on salary and membership class (Regular Class, Elected County Officers, etc.), as the FRS Pension Plan. Contributions are directed to individual member accounts, and the individual members allocate contributions and account balances among various approved investment choices. Allocations to the investment member's accounts, as established by Section 121.72, Florida Statutes, are based on a percentage of gross compensation, by class.

For all membership classes, employees are immediately vested in their own contributions and are vested after one year of service for employer contributions and investment earnings. If an accumulated benefit obligation for service credit originally earned under the FRS Pension Plan is transferred to the Investment Plan, the member must have the years of service required for FRS Pension Plan vesting (including the service credit represented by the transferred funds) to be vested for these funds and the earnings on the funds. Non-vested employer contributions are placed in a suspense account for up to five years. If the employee returns to FRS-covered employment within the five-year period, the employee will regain control over their account. If the employee does not return within the five-year period, the employee will forfeit the accumulated account balance. At fiscal year ended September 30, 2023, the costs of administering the Investment Plan, including the FRS Financial Guidance Program, were funded through an employer contribution of 0.06 percent of payroll and by forfeited benefits of Investment Plan members. For fiscal year ended September 30, 2023, the information for forfeitures was unavailable from the SBA; however, management believes that these amounts, if any, would be insignificant to Miami Dade County.

After termination and applying to receive benefits, the member may rollover vested funds to another qualified plan, structure a periodic payment under the Investment Plan, receive a lump-sum distribution, leave the funds invested for future distribution, or any combination of these options. Disability coverage is provided under the Investment Plan if the member becomes permanently and totally disabled. The member must transfer the account balance to the FRS Trust Fund when approved for disability retirement to receive guaranteed lifetime monthly benefits under the FRS Pension Plan.

For the fiscal year ended September 30, 2023, the Department's Investment Plan pension contributions totaled \$3.9 million.

12. RISK MANAGEMENT

The Department is exposed to various risks of loss related to torts; theft of, damage to and destruction of assets; errors and omissions; job-related injuries or illnesses to employees; natural disasters and employee health and accident. In the fiscal year ended September 30, 1987, the Department established a self-

Notes to Financial Statements

insurance program for general and automobile liability exposures as provided by Section 706 of County Ordinance 78-82, as amended. Ordinance 78-82 was amended and restated by Ordinance 93-134 and Section 609 continues to provide for such self-insurance program.

Claims are administered by the County's Risk Management Division, and the program is based upon an actuarial study performed annually by consulting actuaries. Liabilities are reported when it is possible that a loss has occurred, and the amount of that loss can be reasonably estimated. Liabilities also include an amount for claims that have been incurred but not reported (IBNR). Because actual claims liability depends on such complex factors as inflation, change in legal doctrines and damage awards, the process used in computing claims liability does not necessarily result in an exact amount. Claims liabilities are re-evaluated periodically to take into consideration recently settled claims, the frequency of claims and other economic and social factors.

Changes in the balance of claim liabilities for the general and automobile self-insurance program during fiscal years 2023 and 2022 were as follows (in thousands):

	2023	2022
Balance at beginning of year	\$ 4,389	\$ 4,331
Claims and changes in estimates	1,609	58
Less: payments	(1,206)	—
Balance at end of year	\$ 4,792	\$ 4,389

The Department participates in the workers' compensation self-insurance program of the County, administered by the Risk Management Division. Risk Management charges a "premium" to each County department based on amounts necessary to provide funding for expected payments during the fiscal year. The estimate of IBNR losses is performed by an independent actuary. The Department maintained a liability in the amount of \$4.7 million at September 30, 2023 for possible funding of these IBNR losses. The County maintains no excess coverage with independent carriers for workers' compensation. The Department's total self-insurance liability was \$6 million as of September 30, 2023.

The Department also participates in the County's group health and life self-insurance program, administered by an independent administrator. The County charges a uniform "premium" per employee to each County department based on recent trends in actual claims experience and makes provisions for catastrophic losses. Current year premiums are adjusted for County-wide prior year actual claims experience.

The Department purchases a master property insurance policy which covers up to \$200,000,000 per occurrence for most perils. The Department also has selected properties covered under the National Flood Insurance Program (NFIP) and supplements the NFIP with excess flood policies. The named windstorm deductible is \$35,000,000 and the deductible for flood insurance is \$1,000,000.

The Department continues to carry commercial insurance for all other risks of loss. Settled claims resulting from these risks have not exceeded commercial insurance coverage in any of the past three fiscal years.

Notes to Financial Statements

13. CAPITAL CONTRIBUTIONS

Capital Contributions during fiscal year 2023 are presented as follows (in thousands):

	2023
Contributed facilities:	
Developers	\$ 29,563
Contributions - GOB	8,361
Contributions- OJUS	2,865
Total additions	\$ 40,789

14. RELATED PARTY TRANSACTIONS

The Department provides water and wastewater services to other County departments as part of the normal course of business, based on regular retail rates. The Department also provides billing services to other County departments. The County provides various services to the Department which are charged using direct and indirect cost allocation methods. The Department reimburses the County (General Fund) for certain administrative services. The following table presents a list of providers of services and respective payments for the fiscal year ended September 30, 2023 (in thousands):

	2023
General Fund	\$ 25,863
Other County Departments	54,515
Regulatory	65,331
Information Technology	20,830
Internal Services Department	21,239
Solid Waste	17,232

In addition to the payments, the Department had related payables of \$23.6 million at September 30, 2023. The Department also has receivables from other County departments amounting to \$0.4 Million at September 30, 2023. The Department has every intention of paying the outstanding payables on a timely basis and is confident it will collect the outstanding receivables.

The Department has also entered other transactions with various County entities. These transactions arise from the normal course of business and in connection with the management of ongoing projects.

15. COMMITMENTS AND CONTINGENCIES

CONSTRUCTION

For fiscal year ended September 30, 2023, the Department had contractual commitments of \$1.268 billion.

LEGAL CONTINGENCIES

The County is a defendant in various actions brought by parties in the normal course of business of the Department. Based on consultation with the County Attorney's Office, it is the opinion of management that the ultimate resolution of these suits would not significantly affect the financial position of the Department or its ability to conduct its business.

FEDERAL AND STATE GRANTS

Federal and state grant awards are audited under the provisions of the Single Audit Act to determine that the Department has complied with the terms and conditions of the grant awards. Federal and state grants received are also subject to audit by the grantor agency. It is management's opinion that no significant liabilities will result from any such audits.

Notes to Financial Statements

REBATABLE ARBITRAGE EARNINGS

Federal tax law requires that arbitrage interest earnings be remitted to the federal government, unless the local government qualifies for an exemption. As of September 30, 2023, the Department had no obligation to rebate and did not record any obligation of interest earned on bond proceeds invested in taxable securities in excess of interest costs. These arbitrage rebates are payable five years from the date of bond issuance and each five years thereafter. The amount of the obligation, if any, will be determined based on actual interest earned.

16. POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS

PLAN DESCRIPTION

Miami-Dade County administers a single-employer defined benefit healthcare plan (the Plan) that provides postemployment medical and dental coverage to retirees as well as their eligible spouses and dependents. Benefits are provided through the County's group health insurance plan, which covers both active and retired members. Benefits are established and may be amended by the Miami-Dade County Board of County Commissioners (BCC), whose powers derive from F.S. 125.01(3)(a). The Plan does not issue a publicly available financial report.

To be eligible to receive retiree medical and dental benefits, participants must be eligible for retirement benefits under the FRS or the Public Health Trust of Miami-Dade County, Florida, Defined Benefit Retirement Plan and pay required contributions. Refer to note 9, Pension Plan, for a description of eligibility requirements.

The medical plans offered provide hospital, medical and pharmacy coverage. Pre-65 retirees are able to select from four medical plans as follows:

- AvMed POS
- AvMed HMO High
- AvMed HMO Select
- Jackson First HMO

Post-65 retirees are able to select from three medical plans, as follows. The County only contributes to post-65 retirees electing an AvMed Medicare Supplement Plan.

- AvMed Medicare Supplement Low Option with prescription drug coverage
- AvMed Medicare Supplement High Option with prescription drug coverage
- AvMed Medicare Supplement High Option without prescription drug coverage

FUNDING POLICY

The County contributes to both the pre-65 and post-65 retiree medical coverage. Medical contributions vary based on plan and tier. Retirees pay the full cost of dental coverage. The postretirement medical is currently funded on a pay-as-you-go basis. Contributions are required for both retiree and dependent coverage. Retirees contribute a portion of the full active premium equivalent rates for health coverage. The County subsidy is assumed to remain flat. The plan is funded on a pay-as-you-go basis and there are no assets accumulated in a qualifying trust.

The County's contribution is the actual pay-as-you-go postemployment benefit payments less participant contributions. No assets have been segregated and restricted to provide postretirement benefits.

TOTAL OPEB LIABILITY

The Department's total OPEB liability of \$58.4 million was measured as of September 30, 2023 and was determined by an actuarial valuation as of that date.

Notes to Financial Statements

ACTUAL ASSUMPTIONS AND OTHER INPUTS

The total OPEB liability in the September 30, 2023 actuarial valuation was determined using the following actuarial assumptions and other inputs, applied to all periods included in the measurement unless otherwise specified:

Valuation date	September 30, 2022
Measurement date	September 30, 2023
Discount rate	4.09%
Salary increase rate	3.0% per annum
Actuarial cost method	Entry Age Normal based on level percentage of projected salary.
Amortization method	Experience/Assumptions gains and losses are amortized over a close period of 14.4 years starting October 1, 2022, equal to the average remaining service of active and inactive plan members (who have no future service).
Healthcare cost trend rates	Medical/Rx Select 7.0=% and Ultimate 4.0%
Retirees' share of benefit-related costs	22.90%
Mortality rates	Pub-2010, headcount weighted base mortality table, projected generationally using Scale MP-2021, applied on a gender-specific and job class basis (teacher, safety, or general, as applicable).

The discount rate was based on a Bond Buyer 20-Bond GO index.

The actuarial assumptions used in the September 30, 2023 valuation were based on the Florida Retirement System's valuation assumptions as of July 1, 2021 and Miami Dade County's claims experience as of June 2022.

CHANGES IN TOTAL OPEB LIABILITY

Changes in the Department's total OPEB liability for the fiscal year ended September 30, 2023 were as follows (in thousands):

	Total OPEB Liability
Balance at September 30, 2022	\$ 53,466
Changes for the year:	
Service cost	6,182
Interest	5,227
Change in assumptions	(764)
Difference between expected and actual experience	—
Benefits payments	(5,709)
Balance at September 30, 2023	\$ 58,402

The increase in the total OPEB liability is mostly due to changes in actuarial assumptions.

Notes to Financial Statements

SENSITIVITY OF THE TOTAL OPEB LIABILITY TO CHANGES IN THE DISCOUNT RATE

For fiscal year ended September 30, 2023, the following presents the total OPEB liability of the Department, as well as what the Department's total OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current discount rate (in thousands):

	1% Decrease 3.09	Current Discount Rate 4.09	1% Increase 5.09
Total OPEB Liability	\$ 62,884	\$ 58,402	\$ 54,308

SENSITIVITY OF THE TOTAL OPEB LIABILITY TO CHANGES IN THE HEALTHCARE COST TREND RATES

For fiscal year ended September 30, 2023, the following presents the total OPEB liability of the Department, as well as what the Department's total OPEB liability would be if it were calculated using healthcare cost trend rates that are 1-percentage-point lower or 1-percentage-point higher than the current healthcare cost trend rates (in thousands):

	1% decrease (4.0% initial to 3.0%)	Current Trend (5.0% initial to 4.0%)	1% increase (6.0% initial to 5.0%)
Total OPEB Liability	\$ 54,854	\$ 58,402	\$ 62,340

OPEB EXPENSE, DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES TO OPEB

For fiscal year ended September 30, 2023, the Department recognized OPEB expense of \$6.5 million. At September 30, 2023, the Department reported deferred outflow of resources and deferred inflow of resources related to OPEB from the following sources (in thousands):

	Deferred Outflow of Resources	Deferred Inflow of Resources
Differences between expected and actual experience	\$ 2,276	\$ (1,527)
Changes in assumptions / inputs	10,136	(5,945)
Total	\$ 12,412	\$ (7,472)

Notes to Financial Statements

Amounts reported as deferred outflow of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows (in thousands):

Fiscal Year Ending September 30,	Deferred Outflows/(Inflows), Net
2024	\$ 795
2025	795
2026	795
2027	795
2028	795
Thereafter	965
Total	\$ 4,940

17. SUBSEQUENT EVENTS

On September 21, 2023, the Board of County commissioners adopted County Budget Ordinance Number 23-81 authorizing a 4% rate increase to the Department's retail tiered-based structure that will generate enough revenues to support costs including fiscal requirements related to capital investments. Changes will be effective October 1, 2023. In addition, effective October 1, 2023, the County Budget Ordinance increased the water wholesale rate by \$0.1857 per thousand gallons to \$2.1130 from \$1.9273 and the wastewater wholesale rate by \$0.1992 to \$3.9414 from \$3.7422 per thousand gallons. Wholesale water and wastewater rates per thousand gallons rates are based on cost recovery. These rates will be in effect for FY 2023-24.

Required Supplementary Information

MIAMI-DADE WATER & SEWER DEPARTMENT SCHEDULE OF CHANGES IN TOTAL OPEB LIABILITY AND RELATED RATIOS (Dollars in thousands)

Total OPEB Liability	2023	2022	2021	2020	2019
Changes for the Year:					
Service Cost	\$ 6,182	\$ 16,870	\$ 1,116	\$ 914	\$ 795
Interest	5,227	9,044	584	1,371	1,682
Change of Benefit Terms	(764)	(35,019)	(119)	11,845	6,225
Difference Between Expected and Actual Experience	—	18,109	—	(2,677)	—
Benefits Payments	(5,709)	(14,332)	(1,221)	(2,365)	(2,645)
Net Change in Total OPEB Liability	\$ 4,936	\$ (5,328)	\$ 360	\$ 9,088	\$ 6,056
Total OPEB Liability – Beginning	\$ 53,466	\$ 58,794	\$ 58,434	\$ 49,346	\$ 43,290
Total OPEB Liability – Ending	\$ 58,402	\$ 53,466	\$ 58,794	\$ 58,434	\$ 49,346
Covered – Employee Payroll	\$194,862	\$188,273	\$171,274	\$166,285	\$193,094
Total OPEB Liability as a Percentage of Covered – Employee Payroll	30.0 %	28.4 %	34.3 %	35.1 %	25.6 %

Changes in Assumptions: Changes in assumptions and other inputs reflect the effects of changes in the discount rate each period. The following are the discount rates used each period:

2023	4.09 %
2022	4.02 %
2021	2.26 %
2020	2.21 %
2019	2.66 %

No assets are accumulated in a trust that meets the criteria in paragraph 4 of GASB 75 to pay related benefits. The increase in the total OPEB liability is mostly due to changes in actuarial assumptions and an increase in the discount rate.

Note: Schedule is intended to show information for 10 years. Currently, only data for fiscal years ending September 30, 2018 thru 2023 are available. Additional years will be displayed as they become available.

Required Supplementary Information

MIAMI-DADE WATER & SEWER DEPARTMENT REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF THE DEPARTMENT'S PROPORTIONATE SHARE OF THE NET PENSION LIABILITY FLORIDA RETIREMENT SYSTEM PENSION PLAN (Dollars in thousands)

JUNE 30th,	2023	2022	2021	2020	2019	2018	2017	2016	2015
Department's proportion of the County's FRS net pension liability	5.94 %	5.76%	5.46%	5.16 %	5.07 %	5.26 %	5.29 %	5.65 %	5.93 %
Department's proportionate share of the County's FRS net pension liability	\$ 191,529	\$ 170,752	\$ 32,340	\$ 177,352	\$ 138,669	\$ 124,066	\$ 121,477	\$ 111,748	\$ 56,648
Department's covered payroll	\$ 245,798	\$ 217,650	\$ 191,779	\$ 193,464	\$ 185,240	\$ 179,491	\$ 168,335	\$ 168,798	\$ 131,903
Department's proportionate share of the County's FRS net pension liability as a percentage of its covered payroll	77.92 %	78.45 %	16.86 %	91.67 %	74.86 %	69.12 %	72.16 %	66.20 %	42.95 %
FRS Plan fiduciary net position as a percentage of the total pension liability	82.00 %	83.00 %	96.00 %	79.00 %	83.00 %	84.00 %	84.00 %	85.00 %	92.00 %

MIAMI-DADE WATER & SEWER DEPARTMENT REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF THE DEPARTMENT'S CONTRIBUTIONS- FLORIDA RETIREMENT SYSTEM PENSION PLAN (Dollars in thousands)

SEPTEMBER 30th,	2023	2022	2021	2020	2019	2018	2017	2016	2015
Contractually required FRS contribution	\$ 23,605	\$ 19,583	\$ 16,310	\$ 13,596	\$ 12,485	\$ 10,637	\$ 10,691	\$ 10,534	\$ 10,693
FRS contribution in relation to the contractually required contribution	23,605	19,583	16,310	13,596	12,485	10,637	10,691	10,534	10,693
FRS contribution deficiency (excess)	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>
Department's covered payroll	\$242,217	\$218,982	\$201,497	\$192,766	\$186,248	\$183,327	\$169,397	\$174,697	\$141,267
FRS contribution as a percentage of covered payroll	9.75 %	8.94 %	8.09 %	7.05 %	6.70 %	5.80 %	6.31 %	6.03 %	7.57 %

Note: The schedules presented above illustrate the requirements of GASB Statement No. 68. However, until a full 10-year trend is compiled, information for those years for which information is available will be presented.

Required Supplementary Information

MIAMI-DADE WATER & SEWER DEPARTMENT REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF THE DEPARTMENT'S PROPORTIONATE SHARE OF THE NET PENSION LIABILITY HEALTH INSURANCE SUBSIDY PENSION PLAN (Dollars in thousands)

JUNE 30th,	2023	2022	2021	2020	2019	2018	2017	2016	2015
Department's proportion of the County's HIS net pension liability	5.94 %	5.76%	5.46%	5.16 %	5.07 %	5.26 %	5.29 %	5.65 %	5.93 %
Department's proportionate share of the County's HIS net pension liability	\$ 63,634	\$ 40,733	\$ 43,774	\$ 39,829	\$ 36,069	\$ 35,055	\$ 35,033	\$ 42,010	\$ 37,204
Department's covered payroll	\$170,235	\$170,080	\$196,874	\$154,311	\$148,448	\$143,553	\$134,720	\$134,855	\$164,213
Department's proportionate share of the County's HIS net pension liability as a percentage of its covered payroll	37.38 %	23.95 %	22.23 %	25.81 %	24.30 %	24.42 %	26.00 %	31.15 %	22.66 %
HIS Plan fiduciary net position as a percentage of the total pension liability	4.12 %	4.81 %	3.56 %	3.00 %	2.63 %	2.15 %	1.64 %	0.97 %	0.50 %

MIAMI-DADE WATER & SEWER DEPARTMENT REQUIRED SUPPLEMENTARY INFORMATION SCHEDULE OF THE DEPARTMENT'S CONTRIBUTIONS- HEALTH INSURANCE SUBSIDY PENSION PLAN (Dollars in thousands)

SEPTEMBER 30th,	2023	2022	2021	2020	2019	2018	2017	2016	2015
Contractually required HIS contribution	\$ 2,701	\$ 2,327	\$ 2,098	\$ 1,880	\$ 1,790	\$ 1,725	\$ 1,734	\$ 1,770	\$ 1,394
HIS contribution in relation to the contractually required contribution	2,701	2,327	2,098	1,880	1,790	1,725	1,734	1,770	1,394
HIS contribution deficiency (excess)	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>
Department's covered payroll	\$183,887	\$170,235	\$157,567	\$153,512	\$148,970	\$146,648	\$135,685	\$139,403	\$162,174
HIS contribution as a percentage of covered payroll	1.47 %	1.37 %	1.33 %	1.22 %	1.20 %	1.18 %	1.28 %	1.27 %	0.86 %

Note: The schedules presented above illustrate the requirements of GASB Statement No. 68. However, until a full 10-year trend is compiled, information for those years for which information is available will be presented.

Supplementary Financial Data

Bond Ordinance 93-134 requires the Department to establish restricted accounts to be used in accounting for proceeds and collateral pledged as a result of the debt. In many cases, the bond ordinance refers to the restricted accounts as “funds”. Such accounts are not “funds” as defined by *NCGA Statement 1: Governmental Accounting and Financial Reporting Principles* and, therefore, are not funds for financial reporting purposes.

Similarly, the Water and Wastewater Systems do not meet the above-referenced definition and, therefore, combining statements are not presented. The following system schedules are furnished solely as supplementary information and are not required by GAAP.

Water System

SCHEDULE OF NET POSITION

	September 30,	2023
ASSETS		
<i>CURRENT ASSETS:</i>		
Cash and cash equivalents	\$	71,858
Investments		59,639
Accounts receivable (net of allowance for uncollectible accounts of \$25.5 million)		91,256
Inventory of materials and supplies		28,539
Other current assets		1,845
Restricted cash and cash equivalents		55,429
Total current assets		308,566
<i>NONCURRENT RESTRICTED ASSETS:</i>		
Restricted cash and cash equivalents		115
Investments		397,614
Long-term receivable		2,096
Total restricted assets		399,825
<i>CAPITAL ASSETS:</i>		
Land		28,312
Construction work in progress		204,199
Building and building improvements		20,812
Structures and improvements		2,435,917
Equipment		459,730
Intangible lease asset-equipment		264
SBITA's		6,193
Intangible assets- C51 Water Rights		69,000
Less accumulated depreciation		(1,446,455)
Less accumulated amortization		(1,157)
Total capital assets		1,776,815
Total noncurrent assets		2,176,640
Total assets		2,485,206
<i>DEFERRED OUTFLOWS OF RESOURCES:</i>		
Loss on refundings		32,845
Outflow related to pension		24,691
Outflow related to post-employment benefits		12,412
Total deferred outflows of resources		69,948
Total assets and deferred outflows of resources	\$	2,555,154

(Continued)

Water System

SCHEDULE OF NET POSITION

(Continued)	September 30,	2023
		(In thousands)
LIABILITIES		
<i>CURRENT LIABILITIES (PAYABLE FROM UNRESTRICTED CURRENT ASSETS):</i>		
Accounts payable and accrued expenses	\$	88,310
Customer and developer deposits		12,335
Current portion of lease/SBITA liability		916
Liability for compensated absences		2,226
Other liabilities		777
Total current liabilities (payable from unrestricted current assets)		104,564
<i>CURRENT LIABILITIES (PAYABLE FROM RESTRICTED CURRENT ASSETS):</i>		
Accounts payable and accrued expenses		16,415
Retainage payable		3,662
Current portion of long-term debt		17,780
Accrued interest payable		16,380
Liability for self insurance		1,192
Total current liabilities (payable from restricted current assets)		55,429
Total current liabilities		159,993
<i>NONCURRENT LIABILITIES:</i>		
Revenue bonds payable, net		852,827
State loan obligations, net		37,203
Liability for self-insurance		3,600
Liability for compensated absences		24,968
Liability for post-employment benefits		58,402
Net pension liability		119,516
Lease/SBITA liability		5,422
Unearned revenues (LIHWAP)		8,550
Total noncurrent liabilities		1,110,488
Total liabilities		1,270,481
<i>DEFERRED INFLOWS OF RESOURCES:</i>		
Inflow related to pension		4,009
Inflow related to post-employment benefits		7,472
Total deferred inflows of resources		11,481
Total liabilities and deferred inflows of resources		1,281,962
NET POSITION		
Net investment in capital assets		938,491
Restricted for:		
Capital projects		166,900
Debt service		66,076
Unrestricted		101,725
Total net position		1,273,192
Total liabilities, deferred inflows of resources and net position	\$	2,555,154

Water System

SCHEDULE OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

For the fiscal year ended September 30,

2023

(In thousands)

<i>OPERATING REVENUES:</i>	
Retail	\$ 368,375
Wholesale	41,475
Other revenues	20,626
Total operating revenues	430,476
 <i>OPERATING AND MAINTENANCE EXPENSES:</i>	
Source of supply	17,140
Power and pumping	2,212
Treatment	90,212
Transmission and distribution	49,186
Customer accounting	(2,068)
Customer service	16,153
General and administrative	71,369
Total operating and maintenance expenses	244,204
Operating income before depreciation/amortization	186,272
<i>DEPRECIATION & AMORTIZATION EXPENSE</i>	81,415
Operating income	104,857
 <i>NON-OPERATING REVENUES (EXPENSES):</i>	
Investment income	27,478
Interest expense	(29,791)
Amortization of issuance costs	(1,718)
Operating disaster revenue	1,541
Customer connection fees	7,783
Other revenues	1,381
Other expenses	(998)
Income before contributions and transfers	110,533
Capital contributions	20,613
Transfer (to) Wastewater System	(35,708)
Increase in net position	95,438
Net position at beginning of year	1,177,754
Net position at end of year	\$ 1,273,192

Water System

SCHEDULE OF CASH FLOWS

For the fiscal year ended September 30,	<u>2023</u>
	(In thousands)
<i>CASH FLOWS FROM OPERATING ACTIVITIES:</i>	
Cash received from customers	\$ 462,503
Cash paid to suppliers for goods and services	(67,224)
Cash paid to employees for services	(106,003)
Transfer to Wastewater System	(35,708)
Net cash provided by operating activities	<u>253,568</u>
 <i>CASH FLOWS FROM NON-CAPITAL FINANCING ACTIVITIES:</i>	
Third party Meter installation and replacement costs	(2,500)
Long Term Receivable	404
Net cash used by non-capital and financing activities	<u>(2,096)</u>
 <i>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:</i>	
Principal payments - bond and loans	(18,264)
Principal payments - Lease/SBITA	(120)
Bond premium and issue costs	(10)
Interest paid	(32,932)
Acquisition and construction of capital assets	(171,543)
Net cash used by capital and related financing activities	<u>(222,869)</u>
 <i>CASH FLOWS FROM INVESTING ACTIVITIES:</i>	
Purchase of investment securities	(5,609,081)
Proceeds from sale and maturity of investment securities	5,526,767
Interest on investments	18,708
Net cash used by investing activities	<u>(63,606)</u>
 Net decrease in cash and cash equivalents	 (35,005)
Cash and cash equivalents at beginning of year	<u>162,407</u>
 Cash and cash equivalents at end of year	 <u>\$ 127,402</u>

Water System

SCHEDULE OF CASH FLOWS

For the fiscal year ended September 30,

2023

(Continued)

(In thousands)

RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES:

Operating income	\$	104,857
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation and amortization		81,416
Provision for uncollectible accounts		(7,098)
Non-operating other, net		21,802
Transfer to Wastewater System		(35,708)
(Increase) decrease in assets and deferred outflows:		
Accounts Receivable		22,352
Inventory of materials and supplies		(3,315)
Contracts/Grants Receivable		227
Deferred outflows related to pension and OPEB		1,634
Increase (decrease) in liabilities and deferred inflows:		
Accounts payable and accrued expenses		56,026
Customer and developer deposits		(1,257)
Accrued interest payable		(343)
Liability for compensated absences		2,452
Other liabilities		(13,886)
Liability for other post-employment benefits		4,936
Liability for self-insurance		403
Net pension liability		19,655
Deferred inflows related to pension and OPEB		(576)
Net cash provided by operating activities	\$	<u>253,568</u>

NONCASH INVESTING, CAPITAL AND FINANCING ACTIVITIES

Property, plant and equipment contributions were received in amounts of \$20.6 million in fiscal year 2023.

The change in the fair value of investments was a \$5.1 million increase in fiscal year 2023.

The Lease (right-of-use asset) initiation amount was \$264 thousand in fiscal year 2023.

The SBITA (right-of-use asset) initiation amount was \$6.2 million in fiscal year 2023.

RECONCILIATION OF CASH AND CASH EQUIVALENTS AT END OF YEAR

Unrestricted current cash and cash equivalents	\$	71,858
Restricted current cash and cash equivalents		55,429
Restricted noncurrent cash and cash equivalents		115
Total cash and cash equivalents at end of year	\$	<u>127,402</u>

Water System

SCHEDULE OF OPERATING AND MAINTENANCE EXPENSES

Budget and Actual
For the fiscal year ended September 30, 2023
(In thousands)

	Budget	Actuals	Variance under/(over)
Source of supply	\$ 18,746	\$ 17,140	\$ 1,606
Power and pumping	2,178	2,212	(34)
Treatment	84,071	90,212	(6,141)
Transmission and distribution	47,212	49,186	(1,974)
Customer accounting	(1,997)	(2,068)	71
Customer service	16,161	16,153	8
General and administrative	57,936	71,369	(13,433)
Totals	<u>\$ 224,307</u>	<u>\$ 244,204</u>	<u>\$ (19,897)</u>

Wastewater System

SCHEDULE OF NET POSITION

	September 30,	<u>2023</u>
		(In thousands)
ASSETS		
<i>CURRENT ASSETS:</i>		
Cash and cash equivalents	\$	13,939
Investments		69,046
Accounts receivable (net of allowance for uncollectible accounts of \$26.6 million)		128,458
Inventory of materials and supplies		26,125
Restricted cash and cash equivalents		<u>222,376</u>
Total current assets		<u>459,944</u>
 <i>NONCURRENT RESTRICTED ASSETS:</i>		
Restricted cash and cash equivalents		40,880
Investments		<u>334,138</u>
Total restricted assets		<u>375,018</u>
 <i>CAPITAL ASSETS:</i>		
Land		56,560
Construction work in progress		1,787,123
Building and building improvements		20,812
Structures and improvements		3,945,089
Equipment		1,145,247
Intangible lease asset-equipment		396
SBITA's		9,290
Less accumulated depreciation		(2,677,278)
Less accumulated amortization		<u>(505)</u>
Total capital assets		<u>4,286,734</u>
Total noncurrent assets		<u>4,661,752</u>
Total assets		<u>5,121,696</u>
 <i>DEFERRED OUTFLOWS OF RESOURCES:</i>		
Loss on refundings		97,525
Outflow related to pension		<u>28,428</u>
Total deferred outflows of resources		<u>125,953</u>
Total assets and deferred outflows of resources	\$	<u><u>5,247,649</u></u>

(Continued)

Wastewater System

SCHEDULE OF NET POSITION

	September 30,	<u>2023</u>
(Continued)		(In thousands)
LIABILITIES		
<i>CURRENT LIABILITIES (PAYABLE FROM UNRESTRICTED CURRENT ASSETS):</i>		
Accounts payable and accrued expenses	\$	52,892
Customer and developer deposits		6,626
Current portion of lease/SBITA liability		1,372
Liability for compensated absences		10,974
Other liabilities		362
Total current liabilities (payable from unrestricted current assets)		<u>72,226</u>
<i>CURRENT LIABILITIES (PAYABLE FROM RESTRICTED CURRENT ASSETS):</i>		
Accounts payable and accrued expenses		44,819
Retainage payable		37,261
Current portion of long-term debt		81,938
Accrued interest payable		58,358
Total current liabilities (payable from restricted current assets)		<u>222,376</u>
Total current liabilities		<u>294,602</u>
<i>NONCURRENT LIABILITIES:</i>		
Revenue bonds payable, net		3,001,565
State loan obligations, net		146,907
Notes Payable		1,360
Liability for compensated absences		34,641
Net pension liability		135,647
Other Non-Current Liabilities - Restricted		16,509
Lease/SBITA liability		8,133
Total noncurrent liabilities		<u>3,344,762</u>
Total liabilities		<u>3,639,364</u>
<i>DEFERRED INFLOWS OF RESOURCES:</i>		
Inflow related to pension		2,598
Total deferred inflows of resources		<u>2,598</u>
Total liabilities and deferred inflows of resources		<u>3,641,962</u>
NET POSITION		
Net investment in capital assets		1,181,931
Restricted for:		
Capital projects		159,090
Debt service		197,255
Unrestricted		67,411
Total net position		<u>1,605,687</u>
Total liabilities, deferred Inflows of resources and net position	\$	<u><u>5,247,649</u></u>

Wastewater System

SCHEDULE OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

For the fiscal year ended September 30,	<u>2023</u>
	(In thousands)
<i>OPERATING REVENUES:</i>	
Retail	\$ 379,628
Wholesale	124,315
Other revenues	19,993
Total operating revenues	<u>523,936</u>
 <i>OPERATING AND MAINTENANCE EXPENSES:</i>	
Collection system	39,252
Pumping	64,514
Treatment	137,878
Customer accounting	(3,586)
Customer service	12,691
General and administrative	87,205
Total operating and maintenance expenses	<u>337,954</u>
Operating income before depreciation/amortization	185,982
 <i>DEPRECIATION & AMORTIZATION EXPENSE</i>	 <u>160,215</u>
Operating income	25,767
 <i>NON-OPERATING REVENUES (EXPENSES):</i>	
Investment income	33,447
Interest expense	(103,790)
Amortization of issuance costs	(5,905)
Customer connection fees	30,946
Other revenues	2,189
Other expenses	(1,845)
Income (loss) before contributions and transfers	<u>(19,191)</u>
Capital contributions	20,176
Transfer from Water System	35,708
Increase in net position	<u>36,693</u>
Net position at beginning of year	<u>1,568,994</u>
Net position at end of year	<u><u>\$ 1,605,687</u></u>

Wastewater System

SCHEDULE OF CASH FLOWS

For the fiscal year ended September 30,	<u>2023</u>
	(In thousands)
<i>CASH FLOWS FROM OPERATING ACTIVITIES:</i>	
Cash received from customers	\$ 552,536
Cash paid to suppliers for goods and services	(166,552)
Cash paid to employees for services	(153,001)
Transfer from Water System	35,708
Net cash provided by operating activities	<u>268,691</u>
<i>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:</i>	
Proceeds from bond issues, loan agreements and notes	182
Principal payments - bond and loans	(78,732)
Principal payments - Lease/SBITA	(180)
Bond premium and issue costs	(10)
Interest paid	(118,900)
Acquisition and construction of capital assets	(406,426)
Net cash used by capital and related financing activities	<u>(604,066)</u>
<i>CASH FLOWS FROM INVESTING ACTIVITIES:</i>	
Purchase of investment securities	3,989,201
Proceeds from sale and maturity of investment securities	(3,928,818)
Interest on investments	247,463
Net cash provided by investing activities	<u>307,846</u>
Net decrease in cash and cash equivalents	(27,529)
Cash and cash equivalents at beginning of year	<u>304,724</u>
Cash and cash equivalents at end of year	<u>\$ 277,195</u>

Wastewater System

SCHEDULE OF CASH FLOWS

(Continued)	For the fiscal year ended September 30,	<u>2023</u>
		(In thousands)
<i>RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES:</i>		
Operating income		\$ 25,767
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation and amortization		160,214
Provision for uncollectible accounts		(7,538)
Non-operating other, net		44,958
Transfer from Water System		35,707
(Increase) decrease in assets and deferred outflows:		
Accounts Receivable		(4,010)
Inventory of materials and supplies		(1,355)
Deferred outflows related to pension and OPEB		894
Increase (decrease) in liabilities and deferred inflows:		
Accounts payable and accrued expenses		3,057
Customer and developer deposits		(525)
Accrued interest payable		(1,805)
Liability for compensated absences		4,001
Other liabilities		(14,072)
Net pension liability		24,023
Deferred Inflows related to pension and OPEB		(625)
		<u>\$ 268,691</u>
 <i>NONCASH INVESTING, CAPITAL AND FINANCING ACTIVITIES</i>		
Property, plant and equipment contributions were received in amounts of \$20.2 million in fiscal year 2023.		
The change in the fair value of investments was a \$12.2 million increase in fiscal year 2023.		
The Lease (right-of-use asset) initiation amount was \$396 thousand in fiscal year 2023.		
The SBITA (right-of-use asset) initiation amount was \$9.2 million in fiscal year 2023.		
 <i>RECONCILIATION OF CASH AND CASH EQUIVALENTS AT END OF YEAR</i>		
Unrestricted current cash and cash equivalents		\$ 13,939
Restricted current cash and cash equivalents		222,376
Restricted noncurrent cash and cash equivalents		40,880
Total cash and cash equivalents at end of year		<u>\$ 277,195</u>

Wastewater System

SCHEDULE OF OPERATING AND MAINTENANCE EXPENSES

Budget and Actual

For the fiscal year ended September 30, 2023

(In thousands)

	<u>Budget</u>	<u>Actuals</u>	<u>Variance under/(over)</u>
Collection system	\$ 37,230	\$ 39,252	\$ (2,022)
Pumping	57,217	64,514	(7,297)
Treatment	116,725	137,878	(21,153)
Customer accounting	(3,176)	(3,586)	410
Customer service	12,191	12,691	(500)
General and administrative	70,810	87,205	(16,395)
Totals	<u>\$ 290,997</u>	<u>\$ 337,954</u>	<u>\$ (46,957)</u>

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Statistical Section

Statistical Section

This part of the Department's annual comprehensive financial report details information as a context for understanding what the information in the financial statements, note disclosures, and required supplementary information says about the Department's overall financial health.

Contents

Financial Trends

These schedules, found on pages 87-90, contain trend information to help the reader understand how the Department's financial performance and well-being have changed over time.

Revenue Capacity

These schedules, found on pages 91-93, contain information to help the reader assess the factors affecting the Department's ability to generate revenue.

Debt Capacity

These schedules, found on pages 94-96, present information to help the reader assess the affordability of the Department's current levels of outstanding debt and the Department's ability to issue additional debt in the future.

Demographic and Economic Information

These schedules, found on pages 97-102, offer demographic and economic indicators to help the reader understand the environment within which the Department's financial activities take place.

Operating and Capital Information

These schedules, found on pages 103-105, contain service and infrastructure data to help the reader understand how the information in the Department's financial report related to the services the Department provides and the activities it performs.

Net Position

BY COMPONENTS – LAST TEN FISCAL YEARS

(In thousands)	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
<i>COMBINED WATER AND WASTEWATER SYSTEMS:</i>										
Net investment in capital assets	\$2,120,422	\$1,841,503	\$1,967,212	\$1,967,658	\$1,962,557	\$1,941,144	\$1,851,041	\$1,730,528	\$1,590,653	\$1,542,930
Restricted	589,321	745,174	564,710	491,735	419,134	342,400	356,540	330,257	340,066	321,122
Unrestricted	169,136	160,071	167,838	192,058	218,794	237,744	260,899	266,833	266,597	355,635
Total net position	<u>\$2,878,879</u>	<u>\$2,746,748</u>	<u>\$2,699,760</u>	<u>\$2,651,451</u>	<u>\$2,600,485</u>	<u>\$2,521,288</u>	<u>\$2,468,480</u>	<u>\$2,327,618</u>	<u>\$2,197,316</u>	<u>\$2,219,687</u>
<i>WATER SYSTEM:</i>										
Net investment in capital assets	\$ 938,491	\$ 834,166	\$ 851,796	\$ 931,597	\$ 989,270	\$ 986,573	\$ 975,646	\$ 965,055	\$1,013,229	\$ 988,585
Restricted	232,976	238,014	225,148	210,526	141,881	108,344	111,646	80,115	80,841	93,302
Unrestricted	101,725	105,574	88,089	84,910	108,306	123,265	139,835	137,622	146,403	189,084
Total net position	<u>\$1,273,192</u>	<u>\$1,177,754</u>	<u>\$1,165,033</u>	<u>\$1,227,033</u>	<u>\$1,239,457</u>	<u>\$1,218,182</u>	<u>\$1,227,127</u>	<u>\$1,182,792</u>	<u>\$1,240,473</u>	<u>\$1,270,971</u>
<i>WASTEWATER SYSTEM:</i>										
Net investment in capital assets	\$1,181,931	\$1,007,337	\$1,115,416	\$1,036,061	\$ 973,287	\$ 954,571	\$ 875,395	\$ 765,473	\$ 577,424	\$ 554,345
Restricted	356,345	507,160	339,562	281,209	277,253	234,056	244,894	250,142	259,225	227,820
Unrestricted	67,411	54,497	79,749	107,148	110,488	114,479	121,064	129,211	120,194	166,551
Total net position	<u>\$1,605,687</u>	<u>\$1,568,994</u>	<u>\$1,534,727</u>	<u>\$1,424,418</u>	<u>\$1,361,028</u>	<u>\$1,303,106</u>	<u>\$1,241,353</u>	<u>\$1,144,826</u>	<u>\$ 956,843</u>	<u>\$ 948,716</u>

Combined Water and Wastewater Systems

SCHEDULE OF REVENUES AND EXPENSES – LAST TEN FISCAL YEARS

(In thousands)	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
<i>OPERATING REVENUES:</i>										
Retail	\$ 748,003	\$ 703,749	\$ 674,875	\$ 627,340	\$ 586,158	\$ 563,839	\$ 554,546	\$ 520,146	\$ 486,201	\$ 465,057
Wholesale	165,790	140,654	132,092	118,383	118,260	117,735	123,854	110,951	98,810	85,771
Other	40,619	26,530	20,158	23,758	30,033	30,275	28,932	28,685	28,305	28,022
Total operating revenues	<u>954,412</u>	<u>870,933</u>	<u>827,125</u>	<u>769,481</u>	<u>734,451</u>	<u>711,849</u>	<u>707,332</u>	<u>659,782</u>	<u>613,316</u>	<u>578,850</u>
<i>OPERATING AND MAINTENANCE EXPENSES:</i>										
Source of supply	17,140	15,462	14,291	14,179	13,966	9,578	14,193	14,284	10,931	10,788
Collection system	39,252	36,064	36,695	33,169	32,481	34,049	33,457	26,866	27,634	22,500
Pumping	66,727	58,477	55,962	52,228	50,162	45,426	44,519	41,532	39,384	37,355
Treatment	228,090	208,393	178,812	165,021	169,240	163,435	152,734	160,186	156,229	145,513
Transmission and distribution	49,186	44,619	37,825	40,328	39,058	35,783	31,228	30,554	30,892	28,844
Customer accounting and service	23,190	43,183	59,626	49,731	33,422	34,787	34,160	30,239	28,068	23,180
General and administrative	158,574	103,316	93,828	124,023	103,896	100,250	88,239	84,827	75,769	81,662
Total operating and maintenance expense	<u>582,158</u>	<u>509,513</u>	<u>477,038</u>	<u>478,679</u>	<u>442,225</u>	<u>423,308</u>	<u>398,530</u>	<u>388,488</u>	<u>368,907</u>	<u>349,842</u>
Operating income before depreciation/amortization	372,254	361,420	350,087	290,802	292,226	288,541	308,802	271,294	244,409	229,008
DEPRECIATION/AMORTIZATION EXPENSE	241,630	234,800	226,059	206,311	201,173	199,694	187,921	184,424	188,909	183,557
Operating income (loss)	130,624	126,620	124,028	84,491	91,053	88,847	120,881	86,870	55,500	45,451
<i>NON-OPERATING REVENUES (EXPENSES):</i>										
Investment income (loss)	60,925	(9,349)	1,445	14,559	27,954	1,407	(9,649)	(4,853)	20,557	3,933
Interest expense	(133,581)	(140,947)	(129,755)	(122,239)	(111,875)	(42,861)	(25,978)	(46,369)	(75,728)	(89,678)
Other income	33,374	38,856	14,203	16,207	38,358	16,075	20,499	41,043	36,186	42,670
Income (loss) before contributions and transfers	91,342	15,180	9,921	(6,982)	45,490	63,468	105,753	76,691	36,515	2,376
Capital contributions	40,789	31,808	38,388	57,949	33,707	28,330	35,109	53,611	46,692	35,810
Increase in net position	<u>\$ 132,131</u>	<u>\$ 46,988</u>	<u>\$ 48,309</u>	<u>\$ 50,967</u>	<u>\$ 79,197</u>	<u>\$ 91,798</u>	<u>\$ 140,862</u>	<u>\$ 130,302</u>	<u>\$ 83,207</u>	<u>\$ 38,186</u>

Water System

SCHEDULE OF REVENUES AND EXPENSES – LAST TEN FISCAL YEARS

(In thousands)	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
<i>OPERATING REVENUES:</i>										
Retail	\$ 368,375	\$ 346,854	\$ 331,651	\$ 302,360	\$ 277,305	\$ 268,275	\$ 265,636	\$ 247,088	\$ 233,464	\$ 219,880
Wholesale	41,475	38,292	34,682	27,779	34,810	39,310	34,916	28,572	37,008	28,815
Other	20,626	12,729	9,476	11,820	15,937	16,159	15,493	15,383	14,966	14,908
Total operating revenues	430,476	397,875	375,809	341,959	328,052	323,744	316,045	291,043	285,438	263,603
<i>OPERATING AND MAINTENANCE EXPENSES:</i>										
Source of supply	17,140	15,462	14,291	14,179	13,966	9,578	14,193	14,284	10,931	10,788
Pumping	2,212	2,139	2,106	2,040	2,224	1,927	1,976	1,982	2,054	1,911
Treatment	90,212	83,524	71,767	64,517	68,717	62,707	60,387	68,272	63,921	58,741
Transmission and distribution	49,186	44,619	37,825	40,328	39,058	35,783	31,228	30,554	30,892	28,844
Customer accounting and service	14,085	23,714	31,771	26,719	18,850	19,300	19,066	16,859	15,651	13,025
General and administrative	71,369	46,492	42,207	55,875	46,754	45,077	39,683	37,983	34,078	36,711
Total operating and maintenance expenses	244,204	215,950	199,967	203,658	189,569	174,372	166,533	169,934	157,527	150,020
Operating income before depreciation/amortization	186,272	181,925	175,843	138,301	138,483	149,372	149,512	121,109	127,911	113,583
DEPRECIATION & AMORTIZATION EXPENSE	81,415	83,474	82,330	76,720	73,078	74,858	74,142	72,180	66,642	65,456
Operating income	104,857	98,451	93,513	61,581	65,405	74,514	75,370	48,929	61,269	48,127
<i>NON-OPERATING REVENUES (EXPENSES):</i>										
Investment income (loss)	27,478	(3,311)	557	6,218	12,535	5	(5,178)	(2,650)	10,127	1,769
Interest expense	(29,791)	(31,634)	(31,598)	(30,133)	(26,497)	(16,158)	(17,434)	(16,290)	(19,169)	(21,731)
Other income	7,988	13,838	4,541	9,191	7,161	7,161	2,463	11,843	9,812	13,090
Income (loss) before contributions and transfers	110,531	77,344	67,013	46,857	58,604	65,522	55,221	41,832	62,039	41,255
Capital contributions	20,613	15,173	21,995	19,804	21,115	16,895	21,632	28,860	27,918	21,370
Transfer (to) from Wastewater System	(35,708)	(79,795)	(151,009)	(79,085)	(58,444)	(71,867)	(32,520)	(128,373)	(67,666)	(80,939)
Increase (decrease) in net position	\$ 95,436	\$ 12,722	(\$62,001)	\$ (12,424)	\$ 21,275	\$ 10,550	\$ 44,333	\$ (57,681)	\$ 22,291	\$ (18,314)

Wastewater System

SCHEDULE OF REVENUES AND EXPENSES – LAST TEN FISCAL YEARS

(In thousands)	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
<i>OPERATING REVENUES:</i>										
Retail	\$ 379,628	\$ 356,895	\$ 343,224	\$ 324,980	\$ 308,853	\$ 295,564	\$ 288,910	\$ 273,058	\$ 252,737	\$ 245,167
Wholesale	124,315	102,362	97,410	90,604	83,450	78,425	88,938	82,380	61,802	56,956
Other	19,993	13,801	10,682	11,938	14,096	14,116	13,439	13,301	13,339	13,114
Total operating revenues	<u>523,936</u>	<u>473,058</u>	<u>451,316</u>	<u>427,522</u>	<u>406,399</u>	<u>388,105</u>	<u>391,287</u>	<u>368,739</u>	<u>327,878</u>	<u>315,237</u>
<i>OPERATING AND MAINTENANCE EXPENSES:</i>										
Collection system	39,252	36,064	36,695	33,169	32,481	34,049	33,457	26,866	27,634	22,500
Pumping	64,514	56,337	53,855	50,188	47,938	43,499	42,543	39,549	37,330	35,444
Treatment	137,878	124,869	107,045	100,504	100,523	100,728	92,347	91,915	92,308	86,772
Customer accounting and service	9,105	19,469	27,855	23,012	14,572	15,487	15,094	13,380	12,417	10,155
General and administrative	87,205	56,824	51,623	68,148	57,142	55,173	48,556	46,844	41,691	44,951
Total operating and maintenance expenses	<u>337,954</u>	<u>293,563</u>	<u>277,073</u>	<u>275,021</u>	<u>252,656</u>	<u>248,936</u>	<u>231,997</u>	<u>218,554</u>	<u>211,380</u>	<u>199,822</u>
Operating income before depreciation/amortization	185,982	179,495	174,243	152,501	153,743	139,169	159,290	150,185	116,498	115,415
DEPRECIATION & AMORTIZATION EXPENSE	<u>160,215</u>	<u>151,326</u>	<u>143,729</u>	<u>129,591</u>	<u>128,095</u>	<u>124,836</u>	<u>113,779</u>	<u>112,244</u>	<u>122,267</u>	<u>118,101</u>
Operating income (loss)	25,767	28,169	30,514	22,910	25,648	14,333	45,511	37,941	(5,769)	(2,686)
<i>NON-OPERATING REVENUES (EXPENSES):</i>										
Investment income (loss)	33,447	(6,038)	888	8,341	15,419	1,402	(4,471)	(2,203)	10,430	2,164
Interest expense	(103,790)	(109,313)	(98,157)	(92,106)	(85,378)	(26,703)	(8,544)	(30,079)	(56,559)	(67,947)
Other income	25,385	25,019	9,662	7,017	31,197	8,914	18,034	29,200	26,374	29,580
Income (loss) before contributions and transfers	<u>(19,191)</u>	<u>(62,163)</u>	<u>(57,093)</u>	<u>(53,838)</u>	<u>(13,114)</u>	<u>(2,054)</u>	<u>50,530</u>	<u>34,859</u>	<u>(25,524)</u>	<u>(38,889)</u>
Capital contributions	20,176	16,635	16,393	38,145	12,592	11,435	13,477	24,751	18,774	14,440
Transfer (to) from Water System	35,708	79,795	151,009	79,085	58,444	71,867	32,520	128,373	67,666	80,939
Increase in net position	<u>\$ 36,693</u>	<u>\$ 34,267</u>	<u>\$ 110,309</u>	<u>\$ 63,392</u>	<u>\$ 57,922</u>	<u>\$ 81,248</u>	<u>\$ 96,527</u>	<u>\$ 187,983</u>	<u>\$ 60,916</u>	<u>\$ 56,490</u>

Water and Wastewater System Rates

LAST TEN FISCAL YEARS

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
WATER RATES:										
Meter Size Rate										
5/8"	\$ 3.49	\$ 3.32	\$ 3.20	\$ 3.20	\$ 3.20	\$ 3.20	\$ 3.20	\$ 3.20	\$ 3.20	\$ 3.20
1"	14.83	14.12	13.62	12.38	12.38	12.38	12.38	11.42	10.77	10.16
1.5"	29.65	28.24	27.24	24.76	24.76	24.76	24.76	22.84	21.55	20.33
2"	47.42	45.16	43.56	39.60	39.60	39.60	39.60	36.53	34.46	32.51
3"	94.86	90.34	87.13	79.21	79.21	79.21	79.21	73.07	68.93	65.03
4"	148.21	141.15	136.14	123.76	123.76	123.76	123.76	114.17	107.71	101.61
6"	296.38	282.27	272.25	247.50	247.50	247.50	247.50	228.32	215.40	203.21
8"	474.23	451.65	435.62	369.02	396.02	396.02	396.02	365.33	344.65	325.14
10"	681.71	649.25	626.21	569.28	569.28	569.28	569.28	525.16	495.43	467.39
12"	1,274.50	1,213.81	1,170.73	1,064.30	1,064.30	1,064.30	1,064.30	981.83	926.25	873.82
14"	2,371.14	2,258.23	2,178.08	1,980.07	1,980.07	1,980.07	1,980.07	1,826.63	1,723.24	1,625.70
16"	3,260.33	3,105.08	2,994.87	2,722.61	2,722.61	2,722.61	2,722.61	2,511.63	2,369.46	2,235.34
Composite rate (revenues/flows)	5.81	5.53	5.28	4.86	4.47	4.30	4.09	3.85	3.66	3.46
WASTEWATER RATES:										
Base rate (per 1,000 gallons)	—	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Meter Size Rate										
5/8"	\$ 5.50	\$ 5.24	\$ 5.05	\$ 5.05	\$ 5.05	\$ 3.25	\$ 3.25	\$ 3.25	\$ 3.25	\$ 3.25
1"	20.44	19.47	18.78	17.07	17.07	12.57	12.53	11.60	10.94	10.32
1.5"	40.88	38.93	37.55	34.14	34.14	25.14	25.05	23.19	21.88	20.64
2"	65.42	62.30	60.09	54.63	54.63	40.23	40.08	37.11	35.01	33.03
3"	130.80	124.57	120.15	109.23	109.23	80.43	80.14	74.20	70.00	66.04
4"	204.39	194.66	187.75	170.68	170.68	125.68	125.22	115.94	109.38	103.19
6"	408.81	389.34	375.52	341.38	341.38	251.38	250.46	231.90	218.77	206.39
8"	654.08	622.93	600.82	546.20	546.20	402.20	400.72	371.03	350.03	330.22
10"	940.23	895.46	863.68	785.16	785.16	578.16	576.03	533.36	503.17	474.69
12"	1,757.84	1,674.13	1,614.00	1,467.92	1,467.92	1,080.92	1,076.93	997.16	940.72	887.47
14"	3,270.40	3,114.67	3,004.12	2,731.02	2,731.02	2,011.02	2,003.59	1,855.18	1,750.17	1,651.10
16"	4,496.81	4,282.68	4,130.67	3,755.15	3,755.15	2,765.15	2,754.95	2,550.88	2,406.49	2,270.27
Composite rate (revenues/flows)	7.65	7.29	7.01	6.70	6.41	6.10	5.74	5.51	5.16	4.98

Increases in Water and Wastewater rates must be approved by the Board of County Commissioners.

Water Treatment

LAST TEN FISCAL YEARS

(millions of gallons)	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
<i>WATER PUMPED:</i>										
Water treatment plants:										
Alexander Orr, Jr.	63,629	65,187	66,281	67,283	66,620	66,096	66,190	65,968	62,566	60,183
John E. Preston	37,609	39,227	38,102	31,791	30,138	26,555	27,891	26,789	27,044	26,942
Hialeah	15,354	10,522	10,283	14,531	16,939	20,467	20,093	20,142	19,488	19,248
South Dade Water System	2,620	3,599	3,765	3,845	3,790	3,920	3,752	3,921	3,570	2,607
Purchase water	94	116	88	89	99	116	116	192	164	124
Total water pumped	119,306	118,651	118,519	117,539	117,586	117,154	118,042	117,012	112,832	109,104
<i>WATER SOLD:</i>										
Wholesale:										
Miami Beach	8,568	6,351	6,926	7,195	8,109	8,381	8,566	8,249	8,346	7,615
Hialeah	6,140	5,643	6,263	6,146	6,376	6,566	7,040	6,857	6,623	7,285
North Miami	2,758	2,295	2,218	2,318	2,792	3,468	2,313	1,538	2,096	1,693
Opa-Locka	747	757	771	861	998	909	894	993	950	895
Hialeah Gardens	801	731	743	766	764	703	742	768	694	638
Homestead ¹	877	856	888	810	668	723	668	684	520	188
Bal Harbor	457	457	415	454	437	455	487	506	503	407
North Bay Village	371	399	419	423	404	419	435	419	430	405
Medley	501	459	405	403	368	389	378	381	365	470
Bay Harbor Islands	299	329	414	317	319	338	319	291	328	318
Surfside	277	335	337	340	358	386	389	325	326	303
West Miami	364	330	328	347	321	334	344	319	251	278
Indian Creek Village	235	219	167	195	179	154	143	119	134	117
Virginia Gardens	84	83	78	82	86	80	80	84	82	91
North Miami Beach	6	7	—	—	—	—	83	—	3	—
Total wholesale	22,485	19,251	20,372	20,657	22,179	23,305	22,881	21,533	21,651	20,703
Retail	63,456	62,723	62,860	62,243	62,051	62,421	64,968	64,108	63,783	63,539
Total water sold	85,941	81,974	83,232	82,900	84,230	85,726	87,849	85,641	85,434	84,242
Non-account water	33,365	36,677	35,284	34,632	33,357	31,428	30,193	31,373	27,398	24,862
Non-account water as a percentage of total water pumped	27.97%	30.91%	29.77%	29.46%	28.37%	26.83%	25.58%	26.81%	24.28%	22.79%
Unaccounted for water as a percentage of total water pumped	9.33%	10.83%	8.37%	10.15%	9.18%	5.65%	6.69%	10.10%	8.37%	5.67%

¹ Homestead usage of water is limited to an as needed basis. Their usage is not consistent to that of a wholesale customer.

Wastewater Treatment

LAST TEN FISCAL YEARS

(millions of gallons)	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
WASTEWATER PLANT FLOWS:										
North District Plant	39,006	35,499	37,867	37,190	32,998	32,785	34,251	30,734	32,745	34,296
Central District Plant	33,244	32,731	32,841	36,495	41,449	40,344	40,000	46,432	40,662	44,044
South District Wastewater Treatment Plant	43,104	37,265	37,950	35,735	34,515	36,415	38,207	38,115	33,413	37,382
Total wastewater plant flows	115,354	105,495	108,658	109,420	108,962	109,544	112,458	115,281	106,820	115,722
WASTEWATER TREATED:										
Wholesale:										
Miami Beach	8,459	7,242	7,813	7,694	8,058	8,082	8,054	8,797	8,399	8,312
Hialeah	13,903	11,850	11,705	10,636	8,994	9,144	9,203	8,943	7,169	7,102
North Miami	3,545	3,424	3,679	3,607	3,400	3,544	3,654	3,711	3,722	3,619
Coral Gables	1,344	1,241	1,195	1,443	1,074	906	1,477	1,432	1,231	1,041
Homestead	1,689	1,568	1,311	1,202	1,117	1,106	1,763	1,643	938	1,374
Opa-Locka	899	831	909	876	893	703	702	729	861	1,174
Hialeah Gardens	725	717	761	703	661	679	704	700	757	877
North Miami Beach	1,277	1,097	1,061	1,241	1,258	1,250	580	510	505	499
Medley	568	403	573	602	464	438	456	617	477	644
Florida City	572	488	483	445	449	458	425	458	464	420
North Bay Village	354	331	353	315	322	353	409	457	433	418
West Miami	238	214	196	196	199	184	169	185	147	147
Homestead Air Force Base	63	99	99	85	79	73	86	98	78	79
Total wholesale	33,636	29,505	30,138	29,045	26,968	26,920	27,683	28,280	25,181	25,706
Retail	49,620	48,943	48,937	48,523	48,167	48,492	50,334	49,550	48,998	49,247
Unaccounted for wastewater	32,098	27,047	29,582	31,841	33,827	34,131	34,442	37,450	32,641	40,769
Total wastewater treated	115,354	105,495	108,657	109,409	108,963	109,543	112,459	115,280	106,820	115,722
Unaccounted for wastewater as a percentage of total wastewater treated	27.83%	25.64%	27.23%	29.10%	31.04%	31.16%	30.63%	32.49%	30.56%	35.23%
ANNUAL RAINFALL (inches): ¹	81.29	66.96	73.85	75.49	61.28	73.02	78.33	75.11	47.22	73.70

¹ Source: National Weather Service Forecast Office in Miami for rainfall recorded in inches at Miami International Airport.

Debt Services Coverage

LAST TEN FISCAL YEARS

(In thousands)	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
<i>SENIOR OBLIGATIONS DEBT SERVICE COVERAGE:</i>										
Net operating revenues	\$ 372,253	\$ 361,420	\$ 350,086	\$ 290,802	\$ 292,226	\$ 288,540	\$ 308,802	\$ 271,293	\$ 244,597	\$ 229,008
Investment earnings ¹	30,789	3,784	1,870	10,413	15,355	9,566	3,144	1,823	1,198	1,166
Net transfers from (to) Rate Stabilization Fund	—	—	—	—	—	—	—	—	—	—
Net revenues available for debt service	\$ 403,042	\$ 365,204	\$ 351,956	\$ 301,215	\$ 307,581	\$ 298,106	\$ 311,946	\$ 273,116	\$ 245,795	\$ 230,174
Debt service requirements ²	\$ 225,057	\$ 223,846	\$ 202,029	\$ 188,003	\$ 173,198	\$ 164,449	\$ 161,194	\$ 157,036	\$ 153,211	\$ 143,622
Actual coverage	1.79	1.63	1.74	1.60	1.78	1.81	1.94	1.74	1.60	1.60
Required coverage	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
<i>SUBORDINATE OBLIGATIONS DEBT SERVICE COVERAGE:</i>										
Net revenues available for debt service	\$ 403,042	\$ 365,204	\$ 351,956	\$ 301,215	\$ 307,581	\$ 298,106	\$ 311,946	\$ 273,116	\$ 245,795	\$ 230,174
Less: Maximum principal and interest ³	225,057	225,057	225,057	202,029	182,569	171,345	161,195	161,195	161,195	163,181
Adjusted net revenues	\$ 177,985	\$ 140,147	\$ 126,899	\$ 99,186	\$ 125,012	\$ 126,761	\$ 150,751	\$ 111,921	\$ 84,600	\$ 66,993
Debt service requirements ⁴	\$ 23,038	\$ 23,883	\$ 16,910	\$ 16,934	\$ 15,589	\$ 15,822	\$ 15,973	\$ 16,819	\$ 18,081	\$ 15,369
Actual coverage	7.73	5.87	7.50	5.86	8.02	8.01	9.44	6.65	4.68	4.36
Required coverage	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
<i>TOTAL OBLIGATIONS DEBT SERVICE COVERAGE:</i>										
Net revenues available for debt service	403,042	365,204	351,956	301,215	307,581	298,106	311,946	273,116	245,795	230,174
Senior debt service requirements	225,057	223,846	202,029	188,003	173,198	164,449	161,194	157,036	153,211	143,622
Subordinate debt service requirements ⁴	23,038	23,883	16,910	16,934	15,589	15,822	15,973	16,819	18,081	15,369
Total debt service requirements	248,095	247,729	218,939	204,937	188,787	180,271	177,167	173,855	171,292	158,991
Actual coverage	1.62	1.47	1.61	1.47	1.63	1.65	1.76	1.57	1.43	1.45
Required coverage	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
<i>STATE REVOLVING FUND LOANS DEBT SERVICE COVERAGE:</i>										
Net revenues available for debt service	\$ 403,042	\$ 365,204	\$ 351,956	\$ 301,215	\$ 307,581	\$ 298,106	\$ 311,946	\$ 273,116	\$ 245,795	\$ 230,174
Less: revenue required for primary debt service coverage ⁵	281,321	279,808	252,536	235,004	216,498	205,561	201,493	196,295	191,514	179,528
Adjusted net revenues	\$ 121,721	\$ 85,397	\$ 99,421	\$ 66,212	\$ 91,083	\$ 92,546	\$ 110,453	\$ 76,821	\$ 54,093	\$ 50,646
Debt service requirements ⁶	\$ 12,504	\$ 16,187	\$ 16,910	\$ 16,934	\$ 15,589	\$ 15,822	\$ 15,973	\$ 16,819	\$ 18,081	\$ 15,369
Actual coverage	9.73	5.28	5.88	3.91	5.84	5.85	6.92	4.57	2.99	—
Required coverage	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
<i>SUBORDINATE BONDS DEBT SERVICE COVERAGE RATIO:</i>										
Net revenues available for debt service	\$ 403,042									
Less: revenue required for primary debt service coverage	281,321									
Adjusted net revenues	121,721									
Debt service requirements	10,534									
Actual coverage	11.56									
Required coverage	1.10									
<i>WIFIA LOANS DEBT SERVICE COVERAGE RATIO:</i>										
Net revenues available for debt service	\$ 403,042									
Less: revenue required for primary debt service coverage	281,321									
Adjusted net revenues	121,721									
Debt service requirements	—									
Actual coverage	—									
Required coverage	1.10									

Debt Services Coverage

LAST TEN FISCAL YEARS

(continued)

- ¹ Excludes interest income from Construction Fund
- ² Represents debt service requirements on outstanding Bonds for such fiscal year
- ³ Maximum principal and interest requirements on the Bonds for such fiscal year
- ⁴ Represents debt service requirements on outstanding State Revolving Fund Loans, Subordinate Bonds and WIFIA Loans for such fiscal year.
- ⁵ Represents 125% of primary debt service requirements
- ⁶ Represents debt service requirements on outstanding State Revolving Fund Loans for such fiscal year.

Note: Debt Service requirements are on "Cash" basis.

- 1. Debt service payments on WIFIA loans are not expected to commence until 2028

Ratio of Outstanding Debt by Types

LAST TEN FISCAL YEARS (IN THOUSANDS)

Fiscal Year	Revenue Bonds	Loans	Notes Payable	Commercial Paper ¹	Total Outstanding Debt	Total Per Customer
2023	\$ 3,943,732	\$ 194,488	\$ 1,360	\$ —	\$ 4,139,580	\$ 4.93
2022	4,046,347	204,830	1,321	—	4,252,498	5.09
2021	4,146,417	197,807	1,284	—	4,345,508	4.18
2020	3,236,961	185,282	1,229	—	3,423,472	3.41
2019	2,548,020	160,430	—	300,000	3,008,450	3.16
2018	2,366,854	156,833	—	200,000	2,723,687	2.90
2017	1,980,348	165,449	—	375,000	2,520,797	2.77
2016	2,053,731	161,272	—	100,000	2,315,003	2.95
2015	2,024,019	164,698	—	—	2,188,717	3.03
2014	2,132,906	175,796	—	—	2,308,702	2.66

¹ Financing from Commercial Paper/Line of Credit to provide interim financing for the Department's Capital Improvement Program.

Customer Statistics

LARGEST SYSTEM CUSTOMERS – CURRENT YEAR AND NINE YEARS AGO

Name	Dollar Amount ¹ (In thousands)	Percent of System Gross Revenues
WATER SYSTEM:		
City of Miami Beach	\$ 15,807	3.8 %
Miami Int'l Airport	12,487	2.9 %
City of Hialeah	11,249	2.8 %
City of North Miami	5,109	1.2 %
Fl Dep't of Corrections	2,607	0.6 %
City of Homestead	1,608	0.4 %
FPL Turkey Point	1,578	0.4 %
University of Miami	1,575	0.4 %
City of Hialeah Gardens	1,471	0.4 %
City of Opa-Locka	1,367	0.3 %
WASTEWATER SYSTEM:		
City of Hialeah	\$ 51,265	10.0 %
City of Miami Beach	31,767	6.1 %
City of North Miami	13,330	2.5 %
City of Homestead	6,558	1.3 %
City of Coral Gables	5,072	1.0 %
City of North Miami Beach	4,829	0.9 %
Miami Int'l Airport	3,732	0.7 %
City of Opa-Locka	3,377	0.6 %
City of Hialeah Gardens	2,739	0.5 %
Fl Dep't of Corrections	2,194	0.4 %

October 2013 - September 2014

Name	Dollar Amount ¹ (In thousands)	Percent of System Gross Revenues
WATER SYSTEM:		
City of Miami Beach	\$ 13,054	5.0 %
City of Hialeah	12,488	4.7 %
Dade County Aviation	5,784	2.2 %
City of North Miami	2,901	1.1 %
Florida Power & Light Company	1,726	0.7 %
City of Opa-Locka	1,535	0.6 %
Hialeah Gardens	1,094	0.4 %
Medley	806	0.3 %
Bal Harbour	697	0.3 %
North Bay Village	694	0.3 %
WASTEWATER SYSTEM:		
City of Miami Beach	\$ 20,317	6.4 %
City of Hialeah	17,486	5.5 %
City of North Miami	8,904	2.8 %
City of Homestead	3,365	1.1 %
Dade County Aviation	3,073	1.0 %
City of Opa-Locka	2,874	0.9 %
City of Coral Gables	2,563	0.8 %
Hialeah Gardens	2,155	0.7 %
Medley	1,585	0.5 %
City of North Miami Beach	1,220	0.4 %

¹ Using billed flows in place of net amount

Retail Customer Statistics

NUMBER OF CUSTOMERS AT FISCAL YEAR-END – LAST TEN FISCAL YEARS

Fiscal Year	Number of Customers		Ratio of Wastewater Customers to Water
	Water	Wastewater	
2023	462,214	377,496	81.7 %
2022	459,962	375,345	81.6 %
2021	457,286	372,681	81.5 %
2020	451,509	367,618	81.4 %
2019	449,985	366,069	81.4 %
2018	447,209	363,444	81.3 %
2017	443,615	361,055	81.4 %
2016	441,059	357,882	81.1 %
2015	436,862	354,006	81.0 %
2014	432,315	349,778	80.9 %

Population

MIAMI-DADE COUNTY, FLORIDA – LAST TEN FISCAL YEARS

Fiscal Year	Annual Resident Population	Increase (Decrease)	Percent Change
2023 ¹	2,763,366	5,774	0.2%
2022	2,757,592	25,653	0.9%
2021	2,731,939	(91,364)	(3.2)%
2020	2,823,303	11,173	0.4%
2019	2,812,130	32,808	1.2%
2018	2,779,322	36,227	1.3%
2017	2,743,095	46,742	1.7%
2016	2,696,353	42,419	1.6%
2015	2,653,934	67,644	2.5%
2014	2,586,290	20,605	0.8%

Source: Annual Estimates of the Resident Population for Counties in Florida: April 1, 2010 to July 1, 2019 (CO-EST2019-ANNRES-12) - Release Date: March 2020

¹ U.S. Census Bureau, Population Division

Construction Activity

MIAMI-DADE COUNTY, FLORIDA – LAST TEN FISCAL YEARS

Fiscal Year	Commercial Construction		Residential Construction	
	Number of Buildings	Value (In thousands)	Number of Units	Value (In thousands)
2023 ¹	—	\$ —	—	\$ —
2022	118	375,294	3,823	1,068,887
2021	120	151,835	3,427	790,771
2020	118	232,844	2,686	394,876
2019	132	133,329	3,195	460,048
2018	117	173,258	2,886	638,408
2017	92	408,257	2,259	467,543
2016	83	176,969	2,064	324,500
2015	94	74,157	3,472	451,617
2014	137	242,138	1,932	265,791

Source: Miami-Dade County Building Department. Includes only Unincorporated Area.

¹ For FY 2023 information unavailable as of the date of this report.

Principal Employers

MIAMI-DADE COUNTY, FLORIDA – CURRENT YEAR AND NINE YEARS AGO

Employer	2023			2014		
	Employees	Rank	Percentage of Total County Employment	Employees	Rank	Percentage of Total County Employment
Miami-Dade County Public Schools	35,601	1	2.57 %	33,477	1	2.61 %
Miami-Dade County	28,677	2	2.07 %	25,502	2	1.99 %
University of Miami	21,276	3	1.54 %	12,818	5	1.00 %
Jackson Health System	13,721	4	0.99 %	9,797	8	0.76 %
Publix Super Markets	13,606	5	0.98 %	4,604	9	0.36 %
American Airlines	10,961	6	0.79 %	11,031	7	0.86 %
Amazon Airlines	8,014	7	0.58 %			
Walmart	7,005	8	0.51 %			
Florida International University	6,613	9	0.48 %	3,534	11	0.28 %
United States Postal Service	5,828	10	0.42 %			
Miami-Dade College	5,563	11	0.40 %			
Department of Homeland Security	5,246	12	0.38 %			
Baptist Hospital of Miami	5,121	13	0.37 %			
City of Miami	4,802	14	0.35 %	3,997	10	0.31 %
Baptist Health South Florida	4,652	15	0.34 %	11,353	6	0.88 %
U.S. Federal Government				19,200	3	1.50 %
Florida State Government				17,100	4	1.33 %
Miami Children's Hospital				3,500	12	0.27 %
Mount Sinai Medical Center				3,321	13	0.26 %
Homestead Air Force Base				3,250	14	0.25 %
Florida Power & Light Company				3,011	15	0.23 %
	<u>176,686</u>		<u>12.77 %</u>	<u>165,495</u>		<u>12.89 %</u>

Source: Florida Department of Commerce (FloridaCommerce), Bureau of Workforce Statistics & Economic Research
The Beacon Council, Miami, Florida, Miami Business Profile

Economic Statistics

MIAMI-DADE COUNTY UNEMPLOYMENT RATE AND LABOR FORCE LAST TEN FISCAL YEARS

Fiscal Year	Total Personal Income	Per Capita Personal Income	Unemployment Rate	Labor Force
2023	(1)	(1)	2.80 %	1,385,768
2022	\$ 183,105,933	\$ 68,481	2.30	1,371,121
2021	172,678,816	64,849	5.20	1,307,815
2020	154,891,958	57,213	12.60	1,396,663
2019	149,166,155	54,902	2.90	1,463,774
2018	138,138,976	50,022	3.60	1,363,766
2017	126,715,595	46,048	4.70	1,386,660
2016	123,276,064	45,440	5.80	1,334,404
2015	116,553,169	43,278	6.20	1,321,033
2014	111,528,866	43,123	7.20	1,282,854

Source: Economic Information System, Florida Agency for Workforce Innovation, Labor Market Statistics, Miami-Dade County Department of Regulatory and Economic Resources, Research Section University of Florida, Bureau of Economic and Business Research

⁽¹⁾ Information unavailable as of the date of this report.

Employees by Identifiable Activity

LAST TEN FISCAL YEARS

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
WATER:										
Water Distribution	226	237	228	240	224	222	222	230	221	220
Water Production and Maintenance	237	236	240	231	232	224	231	243	240	241
Laboratory Services	62	61	59	60	55	57	57	59	59	59
Meter ¹	96	96	95	94	97	96	—	—	—	—
SEWER:										
Sewer Collection	226	212	213	221	217	217	210	206	194	194
Wastewater Treatment and Maintenance	393	382	376	366	362	372	370	367	358	358
Pump Station Maintenance	232	229	227	241	226	228	230	208	195	197
SCADA ²	52	48	49	43	46	48	—	—	—	—
ENGINEERING:										
Utility Pipeline and Plant Engineering & Construction	36	35	75	74	78	77	66	71	71	71
Surveying	24	25	19	15	14	16	14	—	—	—
Utilities Development	136	126	120	113	110	111	107	105	104	94
Capital Improvements Program	80	83	32	25	27	26	29	55	50	69
ADMINISTRATION:										
Office of Director	7	6	3	3	29	20	21	24	17	32
Office of Deputy Director of Regulatory Compliance and Capital Improvements	13	27	20	17	11	15	16	21	9	6
Office of Deputy Director of Operations	4	4	4	3	12	14	3	4	47	45
Office of Assistant Director of Utility Engineering and Construction	6	4	4	4	4	3	2	1	1	1
Office of Chief Financial Officer	141	43	41	40	42	42	40	41	66	38
Office of Deputy Director of Internal and Administrative Services and Assistant Director of Customer Initiatives	31	94	97	89	76	79	73	77	114	114
Office of Assistant Director of Water	1	1	1	1	2	2	104	108	108	110
Office of Assistant Director of Wastewater	1	1	1	1	1	—	41	43	46	48
Office of Assistant Director of Regulatory Compliance and Planning	10	11	12	16	9	8	9	5	5	5
Office of Senior Advisor of Capital Projects and Compliance ³	—	0	—	10	—	—	—	—	—	—
Attorney's Office	4	4	4	4	4	4	4	4	4	4
Controller	117	116	125	117	114	119	118	125	106	112
Information Technology	—	—	—	—	—	—	—	76	71	69
Retail Customer Service	241	241	238	242	247	248	219	238	255	243
Planning	16	19	23	22	23	22	25	25	19	19
Regulatory Compliance and Monitoring	14	15	12	14	14	15	15	17	17	16
General Maintenance	132	131	132	128	122	127	112	124	114	114
Human Resources Division	45	53	51	41	46	46	44	44	—	—
Security and Communications Division	37	34	34	39	40	40	43	44	—	—
Office of Assistant Contracts Compliance and Quality Assurance	3	3	2	2	3	3	3	4	—	—
Quality Assurance and Control Division	14	12	13	12	13	14	4	13	—	—
Performance Improvements & Management Division	11	11	13	10	12	12	13	17	—	—
Contract Compliance and Monitoring Division	24	20	19	21	22	26	20	27	—	—
Total	2,672	2,620	2,582	2,559	2,534	2,553	2,465	2,626	2,491	2,479

¹ Previously included in the Office of Assistant Director of Water

² Previously included in the Office of Assistant Director of Wastewater

³ Previously included in the Office of Director and Deputy Director of Operations

Capital Indicators

LAST TEN FISCAL YEARS

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
<i>WATER:</i>										
Water mains ¹ (miles)	6,376	6,345	6,316	6,288	6,271	6,269	6,264	6,131	6,035	6,004
Water treatment plants	9	9	9	9	9	9	9	9	9	9
Permitted water treatment capacity (million gallons per day)	464	464	464	464	464	464	461	461	464	464
Water supply wells	100	100	100	100	100	100	100	100	100	100
<i>WASTEWATER:</i>										
Sanitary sewers ¹ (miles)	4,267	4,253	4,225	4,214	4,191	4,191	4,184	4,165	4,110	4,072
Wastewater treatment plants	3	3	3	3	3	3	3	3	3	3
Permitted wastewater treatment capacity (million gallons per day)	376	376	376	376	376	376	376	376	376	376
Wastewater pump stations	1,041	1,041	1,041	1,041	1,041	1,052	1,049	1,049	1,047	1,047

¹ Does not include laterals.

Insurance in Force

Type of Coverage and Insurance Company	Policy Period	Details of Coverage	Limits of Liability
<i>Crime Policy:</i> Fidelity & Deposit Co. of Maryland	08/19/23 – 08/19/24	Employee Dishonesty	\$1,000,000
<i>Money and Securities:</i> Fidelity & Deposit Co. of Maryland	11/25/23 – 11/25/24	Theft of money and securities	Values scheduled per location
<i>Accidental Death:</i> Minnesota Life	01/01/24 – 01/01/25	Accidental death and dismemberment	\$25,000
<i>Property Insurance:</i> Ace American Ins. Co. AEGIS Electric & Gas Ins Services Underwriters at Lloyd's, London (Helvetia) Underwriters at Lloyd's, London (HDI) Underwriters at Lloyd's, London (Aspen)	03/02/24 – 03/02/25	"All risk" coverage on real and personal property and outfalls	\$165,000,000
<i>Automobile Liability:</i>	Continuous	Self-Insured	\$200,000 per person/ \$300,000 per occurrence pursuant to F.S. 768.28 (certain claims may not fall with the parameters of FS)
<i>General Liability:</i>	Continuous	Self-Insured	\$200,000 per person/ \$300,000 per occurrence pursuant to F.S. 768.28 (certain claims may not fall with the parameters of FS)
<i>Workers' Compensation:</i>	Continuous	Self-Insured	Statutory coverage pursuant to F.S. 440

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MIAMI-DADE WATER AND SEWER DEPARTMENT

A DEPARTMENT OF MIAMI-DADE COUNTY, FLORIDA
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Miami-Dade County provides equal access and equal opportunity in employment and services and does not discriminate on the basis of disability. It is the policy of Miami-Dade County to comply with all the requirements of the Americans with Disabilities Act.

THE BOND ORDINANCE

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ORDINANCE NO. 93-134

ORDINANCE AUTHORIZING ISSUANCE OF NOT TO EXCEED \$500,000,000 OF DADE COUNTY, FLORIDA WATER AND SEWER SYSTEM REVENUE REFUNDING BONDS, SERIES 1993, FOR PURPOSE OF ADVANCE REFUNDING, REDEEMING AND PAYING, TOGETHER WITH OTHER AVAILABLE FUNDS AND REVENUES, AN AGGREGATE OUTSTANDING PRINCIPAL BALANCE OF \$389,015,000 TOGETHER WITH ACCRUED INTEREST AND REDEMPTION PREMIUMS, OF DADE COUNTY WATER AND SEWER SYSTEM REVENUE BONDS, DADE COUNTY WATER SYSTEM REVENUE REFUNDING BONDS, SERIES 1992, DADE COUNTY WATERWORKS SYSTEM GENERAL OBLIGATION BONDS AND STATE LOANS AND LOAN OBLIGATIONS, PROVIDING FOR ESTABLISHMENT OF TERMS, MATURITIES, INTEREST RATES AND OTHER DETAILS OF BONDS BY SUBSEQUENT RESOLUTION; PROVIDING BY SUBSEQUENT RESOLUTION FOR ESCROW DEPOSIT AGREEMENT AND OTHER DOCUMENTATION NECESSARY FOR REFUNDING; AUTHORIZING ISSUANCE OF NOT TO EXCEED \$500,000,000 OF DADE COUNTY WATER AND SEWER SYSTEM REVENUE BONDS, SERIES 1993A FOR PURPOSE OF PAYING OR REIMBURSING, TOGETHER WITH OTHER AVAILABLE FUNDS AND REVENUES, COST OF CERTAIN ADDITIONS, EXTENSIONS AND IMPROVEMENTS TO COUNTY'S WATER AND SEWER TREATMENT PLANTS, FACILITIES AND DISTRIBUTION AND COLLECTION SYSTEMS; PROVIDING FOR ESTABLISHMENT OF TERMS, MATURITIES, INTEREST RATES AND OTHER DETAILS OF SAID BONDS; PROVIDING TERMS AND CONDITIONS FOR ISSUANCE OF ADDITIONAL BONDS; PROVIDING OTHER TERMS AND PROVISIONS FOR ISSUANCE OF ALL BONDS AUTHORIZED UNDER THIS ORDINANCE; AUTHORIZING HEDGE AGREEMENTS, HEDGE OBLIGATIONS AND HEDGE CHARGES; PROVIDING FOR SEVERABILITY AND EFFECTIVE DATE.

WHEREAS, the Board of County Commissioners (the "Board") of Dade County, Florida (the "County"), by applicable ordinances and resolutions, has previously authorized the issuance of certain Dade County Water and Sewer System Revenue Bonds, Dade County Water System Revenue Bonds, Dade County Waterworks System General Obligation Bonds and various state loans and loan obligations, more particularly described and defined herein (collectively, the "Refunded Obligations"); and

WHEREAS, as of the date of this Ordinance the Refunded Obligations constitute an aggregate outstanding principal balance of \$389,015,000 consisting of ten separate issuances, identified and described herein as the Water and Sewer System Revenue Bonds, Series A (the "Series A Bonds"), the Dade County Water System Revenue Refunding Bonds, Series 1992 (the "Series 1992 Bonds"), the Dade County Waterworks System General Obligation Bonds, Series A (the "Series A G.O. Bonds"), the Dade County Waterworks System General Obligation Bonds, Series B (the "Series B G.O. Bonds"), Dade County Waterworks System Refunding Bonds, Series 1987 (the "Series 1987 Bonds"), and certain state loans and loan obligations under Loan Agreements between the County as the "Local Agency" and the State of Florida as the "State Agency" (the "Series H State Loan", the "Series T State Loan", the "Series V State Loan", the "Series W State Loan"; and the "Series X State Loan"); and

WHEREAS, in order to achieve debt service savings and to modernize the underlying provisions by which the County will hereafter issue its water and sewer system bonds, and for other reasons related thereto, the Board desires to refund, redeem and pay, on a current or advance basis, as applicable, the Refunded Obligations; and, to accomplish this purpose, the Board has determined to issue water and sewer system revenue refunding bonds, Series 1993 (the "Series 1993 Refunding Bonds") in a principal amount not exceeding \$500,000,000, for the purpose of refunding the said Refunded Obligations, funding a reserve account, paying costs of credit enhancement, all as applicable, and paying the cost of issuance of said bonds; and

WHEREAS, the Board also has determined to issue bonds in an original principal amount not exceeding \$300,000,000, to be designated Dade County, Florida Water and Sewer System Revenue Bonds, Series 1993A (the "Series 1993A Bonds"), for the purpose of paying, together with other available funds and revenues, the cost of certain additions and improvements to the County's water and wastewater treatment plants, facilities and distribution and collection systems (the "Series 1993A Project"), providing a reserve fund, if appropriate, providing credit enhancement, if appropriate, providing for capitalized interest, if applicable, and paying the cost of issuance of the Series 1993A Bonds; and

WHEREAS, the Board desires to make provision for the issuance of Additional Bonds from time to time, subject to the terms of this Ordinance; now therefore,

BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF DADE COUNTY, FLORIDA:

ARTICLE I

Incorporation of Recitals and Definitions

SECTION 101. **Incorporation of Recitals.** The Board hereby finds and determines and does hereby incorporate as part of this Ordinance the matters set forth in the foregoing recitals.

SECTION 102. **Meaning of Words and Terms.** In addition to words and terms elsewhere defined in this Ordinance, the following words and terms as used in this Ordinance shall have the following meanings, unless some other meaning is plainly intended:

"Accountant" means the certified public accountants or firm of certified public accountants employed by the County under the provisions of Section 608 of this Ordinance to perform and carry out the duties imposed on the Accountant by this Ordinance.

"Accreted Value" means, with respect to any Compounding Interest Bond, (a) the amount representing the Accreted Value of such Bonds as of any Compounding Date, as established by the schedule of Accreted Values relating to such Bond, which amount represents the initial principal amount thereof plus the amount of interest that has accrued to such Compounding Date calculated on the basis of a three hundred and sixty (360) day year of twelve (12) thirty (30) day months, and (b) as of any date other than a Compounding Date, the sum of (i) the Accreted Value on the preceding Compounding Date plus (ii) the product of (x) a fraction, the numerator of which is the number of days having elapsed from the preceding Compounding Date and the denominator of which is the number of days from such preceding Compounding Date to the next succeeding Compounding Date, multiplied by (y) the difference between the Accreted Values on such Compounding Dates, which amount represents the principal plus the amount of interest that has accrued to such date of determination. The Board may provide by Series Resolution that, with respect to any Series, the Accreted Value as of any date other than a Compounding Date shall be determined using a constant interest rate method rather than as provided in (b).

"Additional Bonds" means any Bonds issued at any time under the provisions of Section 208 of this Ordinance.

"Amortization Requirements" means such moneys required to be deposited in the Redemption Account for the purpose of paying when due or redeeming prior to maturity any Term Bonds issued pursuant to this Ordinance, or the specific amounts and times of such

deposits to be determined in accordance with or under the authority of a Series Resolution authorizing the issuance of such Term Bonds.

"Annual Budget" means the Annual Budget of Operating Expenses and Capital Expenditures adopted pursuant to Section 603 of this Ordinance.

"Board" means the Board of County Commissioners of Dade County, Florida, or any successor of the board or body in which the general legislative powers of the County shall be vested.

"Bond Year" means the period commencing the first day of October in each year and ending on the last day of September of the following year.

"Bonds" means, collectively, any bonds issued under the provisions this Ordinance.

"Bondholders" or "Holder" means the holders or registered owners of Bonds.

"Bond Service Account" means the Bond Service Account in the Debt Service Fund created and designated by Section 502 of this Ordinance, together with any subaccount therein designated by this Ordinance or any applicable Series Resolution.

"Book-Entry Bonds" and "Bonds in Book-Entry Form" means Bonds which are subject to a Book-Entry System.

"Book-Entry System" or "Book-Entry-Only-System" means a system under which either (a) bond certificates are not issued and the ownership of bonds is reflected solely by the Registrar, or (b) physical certificates in fully registered form are issued to a securities depository or to its nominee as Registered Owner, with the certificated bonds held by and "immobilized" in the custody of such securities depository, and under which records maintained by Persons, other than the Registrar, constitute the written record that identifies the ownership and transfer of the beneficial interests in those Bonds.

"Capital Appreciation Bond" means a Bond which is a Compounding Interest Bond throughout its entire term.

"Capital Facilities Charges" means all payments received by the County or the Department which are related to acquiring, constructing, expanding or equipping capacity and facilities of the Water and Sewer Utility, for the purpose of reserving capacity in either the Water System or the Sewer System, connecting to either System, or paying or reimbursing any capital cost relating to such acquisition, construction, expansion or equipping of excess and

unused capacity of either System or any expansion thereof, including connection charges and impact fees relative to the Utility, but shall not include: (i) amounts received for the acceptance, treatment or disposal of sewage; (ii) amounts received from the sale of water; (iii) meter installation fees; and (iv) other revenues constituting Operating Revenues.

"Chairman" means the Chairman of the Board or in the absence of the Chairman, the Vice Chairman or the officer or officers succeeding to that function.

"Clerk" means the Clerk or Deputy Clerk of the Board or his/her designee or the officer or officers succeeding to his/her principal functions.

"Code" means the Internal Revenue Code of 1986, as amended from time to time. Each reference to a section of the Code herein shall be deemed to include the United States Treasury Regulations proposed or in effect thereunder and applied to the Bonds or the use of proceeds thereof, and also includes all amendments and successor provisions unless the context clearly requires otherwise.

"Compounding Date" means, with respect to any Compounding Interest Bond, the date on which interest is compounded for purposes of determining its Accreted Value.

"Compounding Interest Bond" means a Bond, the interest on which (a) shall be compounded periodically, (b) shall be payable at maturity or redemption prior to maturity, and (c) shall be determined by reference to Accreted Value and includes, but is not limited to, Capital Appreciation Bonds and Convertible Capital Appreciation Bonds.

"Construction Fund" means the Dade County Water and Sewer Utility Construction Fund, a special fund created and designated by Section 401 of this Ordinance.

"Consultant" means such qualified and nationally recognized independent consulting firm retained by the County, having favorable repute or skill and experience with respect to the services to be provided by such Consultant, as herein required.

"Convertible Capital Appreciation Bond" means a Bond the interest on which from its issuance date or dated date until a conversion date specified therein is compounded periodically, and from and after such conversion date is payable not less often than annually, calculated on the basis of the Accreted Value thereof on such conversion date, and the Accreted Value of which as of said conversion date is treated as the principal amount thereof for purposes of payment or redemption after such conversion date.

"Depository" means any bank or trust company duly authorized by law to engage in the banking business and designated by the County as a depository of moneys under the provisions of this Ordinance.

"Director" means the director of the Department appointed by the County Manager.

"Finance Director" means the Finance Director of the County, his designee or the officer or officers succeeding to his principal functions.

"First Lien Obligations" means the Series 1993 Refunding Bonds, the Series 1993 A Bonds and any additional Series of Bonds issued pursuant to this Ordinance, and shall also include, where applicable, other obligations, in each case specified by the applicable Series Resolution to be First Lien Obligations.

"Fiscal Year" means the fiscal year of the County.

"Fixed Rate Bond" means a bond, the interest rate on which (i) is not, under any circumstances, subject to change during its remaining term, or (ii) is subject to change at specified times and in specified amounts so that the yield and annual debt service for each period during its remaining term is fixed (such as a stepped coupon bond); any bond which was not a fixed rate bond as of its date of issuance shall become a fixed rate bond as of any date after its issuance on which it meets the requirements of (i) or (ii), above.

"GAAP" means generally accepted accounting principles for municipal utilities.

"General Reserve Fund" means the Dade County Water and Sewer Utility General Reserve Fund created and designated by Section 502 of this Ordinance.

"Government Obligations" means (i) any obligations which as to both principal and interest constitute non-pre-payable and non-callable (except as the option of the Holder thereof) direct obligations of, or non-pre-payable and non-callable (except as the option of the Holder thereof) direct obligations, the timely payment of which is fully and unconditionally guaranteed as to full and timely payment by the full faith and credit of the United States of America, including bonds, U.S. Treasury Securities-State and Local Government Series ("SLGS"), (ii) other evidences of indebtedness issued or guaranteed by any agency or corporation which has been or may hereafter be created pursuant to an Act of Congress as an agency or instrumentality of the United States of America to the extent unconditionally guaranteed as to full and timely payment by the United States of America, (iii) any bonds or other obligations of any state of the United States of America or of any agency, instrumentality or local governmental unit of any such state (a) which are not callable for redemption prior to

"Cost" or "Costs" as applied to any Improvements, means and shall embrace the cost of acquisition and construction and all obligations for expenses and all items of cost which are set forth in Section 403 of this Ordinance.

"Counterparty" means a party, other than the County, to a Hedge Agreement.

"County" means Dade County, Florida, a political subdivision of the State of Florida.

"County Attorney" means the County Attorney of the County, his designee or the officer or officers succeeding to the principal functions of that office.

"County Manager" means the County Manager of the County or his designee or the officer or officers succeeding to his principal functions.

"Credit Agreement" means any contract, agreement, or other instrument executed by the County in connection with obtaining or administering any Credit Facility or Reserve Account Credit Facility for any Bonds, including, but not limited to, any reimbursement agreement, financial guaranty agreement, or standby bond purchase agreement.

"Credit Facility" means a policy of insurance, a letter of credit, surety bond or other financial product which guarantees the prompt payment of all or any portion of the principal of, premium, if any, or interest on any of the Bonds, or to provide funds for the purchase of any Bonds for retirement or remarketing.

"Credit Facility Charges" means (a) Initial Credit Facility Charges, and (b) Recurring Credit Facility Charges.

"Credit Facility Provider" means an insurance company, bank, or other organization which has provided a Credit Facility in connection with any Series of Bonds.

"Debt Service Fund" means the Dade County Water and Sewer Utility Revenue Bonds Debt Service Fund, a fund created and designated by Section 502 of this Ordinance.

"Defeasance Obligations" means those obligations eligible to refund and defease Bonds of a Series which are defined and described in any applicable Series Resolution.

"Department" means the Miami-Dade Water and Sewer Department, the administrative entity of Dade County that operates the Water and Sewer Utility, or any successor thereto.

maturity, or which have been duly called for redemption by the obligor on a date or dates specified and as to which irrevocable instructions have been given to a trustee in respect of such bonds or other obligations by the obligor to give due notice of such redemption on such date or dates, which date or dates shall be also specified in such instructions, (b) which are secured as to principal and interest and redemption premium, if any, by a fund consisting only of cash, bonds or other obligations of the character described in clauses (i) or (ii) above which fund may be applied only to the payment of such principal of and interest and redemption premium, if any, on such bonds or other obligations on the maturity date or dates thereof or the redemption date or dates specified in the irrevocable instructions referred to in subclause (a) of this clause (ii), as appropriate, and (c) as to which the principal of and interest on the bonds and obligations of the character described in clauses (i) or (ii) above on deposit in such fund along with any cash on deposit in such fund are sufficient to pay principal of and interest and redemption premium, if any, on the bonds or other obligations described in this clause (iii) on the maturity date or dates thereof or on the redemption date or dates specified in the irrevocable instructions referred to in subclause (a) of this clause (iii), as appropriate; and (iv) certifies that evidence ownership of the right to payments of principal and/or interest on obligations described in any of clauses (i), (ii) or (iii) of this definition, provided that such obligations shall be held in trust by a bank or trust company or a national banking association authorized to exercise corporate trust powers and subject to supervision or examination by federal, state, territorial or District of Columbia authority and having a combined capital, surplus and undivided profits of not less than \$25,000,000. The definition of Government Obligations does not include, nor does it permit, investment in mutual funds or unit investment trusts.

"Hedge Agreement" means and includes an interest rate exchange agreement, an Interest Swap Agreement, forward purchase contract, put option contract, call option contract or other financial product which is used by the County as a hedging device with respect to its obligation to pay debt service on any of the Bonds, entered into between the County and a Counterparty; provided that such Counterparty shall be an entity whose long-term debt obligations, or whose payment obligations under the Hedge Agreement are guaranteed by an entity, whose senior long-term debt obligations are rated (on the date the Hedge Agreement is entered into) by Moody's Investors Service and Standard and Poor's Corporation or their respective successors in a rating category not less than "A" by Moody's Investors Service and "A" by Standard and Poor's Corporation; and further provided that such arrangement shall be specifically designated in a certificate of the Finance Director as a "Hedge Agreement" for purposes of this Ordinance; and provided further that at the time of entering into such Hedge Agreement the County shall have obtained written evidence that entering into such Hedge Agreement will not, in and of itself, result in a withdrawal or reduction of any rating assigned to the Bonds by a rating agency.

"Hedge Charges" means charges payable by the County to a Counterparty upon the execution, renewal or termination of any Hedge Agreement and any periodic fee payable by

the County to keep such Hedge Agreement in effect and other payments required thereby, exclusive of Hedge Obligations.

"Hedge Obligations" means (i) net payments required to be made by the County under a Hedge Agreement from time to time as a result of fluctuation in hedged interest rates, or fluctuation in the value of any index of payment and (ii) termination charges with respect to a Hedge Agreement, provided that with respect to any such termination charge, such termination charge may be considered as a Hedge Obligation (and not a Hedge Charge) if, on or before the date of entering into such Hedge Agreement, the County shall have obtained written evidence from each Rating Agency that such Hedge Agreement will not, in and of itself, result in the withdrawal or reduction of the rating(s) then applicable to the Bonds.

"Hedge Receipts" means net payments received by the County from a Counterparty under a Hedge Agreement.

"Improvements" means such improvements, renewals and replacements of the Water and Sewer Utility or any part thereof and such extensions and additions including additional water and sewer systems thereto as may be necessary or desirable, in the judgment of the County, to keep the same in proper condition for the safe, efficient and economic operation thereof and to integrate into the Water and Sewer Utility any unit or part thereof, and shall include such land, structures and facilities as may be authorized to be acquired or constructed by the County under the provisions of Florida law and such improvements, renewals and replacements of such land, structures and facilities of the Water and Sewer Utility and such extensions and additions thereto as may be necessary or desirable for continuous and efficient service to the public.

"Initial Credit Facility Charges" means and includes any premium, commitment fee or other issuance charges payable by the County to any Provider for the issuance of any Credit Facility or Reserve Account Credit Facility relating to any Bonds, at the time of the initial issuance of such Bonds, together with any fees and expenses relating thereto, including, but not limited to, the legal fees and expenses of legal counsel to the Provider of any Credit Facility or Reserve Account Credit Facility, which the County is required to pay or for which it is required to make reimbursement, but shall not include any Payment Obligations or Recurring Credit Facility Charges.

"Interest" or "interest" means the interest on the specified obligations; in the case of Compounding Interest Bonds, the interest component included in the Maturity Amount (and in the Accreted Value thereof payable at redemption) shall be deemed to constitute principal; provided, however, that for purposes of any limitation contained herein or in any Series Resolution on the issuance of an aggregate principal amount of Bonds of any Series, the

principal amount of Compounding Interest Bonds shall be the initial principal amount thereof on the Issuance Date.

"Interest Payment Date" means, when used with reference to any Bonds, the dates on which interest is stated to be due thereon, and any date on which interest becomes due thereon on account of the early redemption thereof or on account of the happening of an event which, under the terms of such Bonds, requires a payment of interest to be made thereon.

"Interest Swap Agreement" means an agreement between the County and a Counterparty under which the County is obligated to make periodic payments on a "notional amount" to the Counterparty at a fixed rate of interest and the Counterparty is obligated to make periodic payments to the County on such "notional amount" at a variable rate of interest, or vice-versa, and under which the amounts so payable by the County and such Counterparty on any date are netted against each other with the party owing the larger amount making a net payment to the other party.

"Investment Obligations" means (i) Government Obligations, (ii) bonds, debentures or notes issued by any of the following Federal agencies: Banks for Cooperatives, Federal Intermediate Credit Banks, Federal Home Loan Banks, Export-Import Bank of the United States, Government National Mortgage Association, Federal Land Banks, or the Federal National Mortgage Association (including participation certificates issued by such Association), (iii) all other obligations issued or unconditionally guaranteed as to principal and interest by an agency or person controlled or supervised by and acting as an instrumentality of the United States Government pursuant to authority granted by the Congress, (iv) general obligations of any state of the United States (other than obligations rated lower than the three highest grades by two Rating Agencies), (v) repurchase agreements with any bank or trust company organized under the laws of any state of the United States of America or any national banking association or government bond dealer reporting to, trading with, and recognized as a primary dealer by the Federal Reserve Bank of New York, which agreement is fully secured by Government Obligations delivered to another bank or trust company organized under the laws of any state of the United States of America or any national banking association, as custodian, (vi) certificates of deposit or similar arrangements with any Federal or State of Florida bank, trust company or savings and loan association which is a member of the Federal Deposit Insurance Corporation, (vii) investment agreements or contracts which are rated or are issued or guaranteed by an entity whose long-term unsecured obligations are rated in one of the two highest rating categories by both Moody's Investors Service and Standard & Poor's Corporation or their respective successors, and which are not required to be registered under the Securities Act of 1933 but may be so registered, whereby under each such investment agreement or contract the party is absolutely and unconditionally obligated to repay the moneys invested by the County and interest thereon at a guaranteed rate, without any right of recoupment, counterclaim or set off; provided, however, that such party may have the right to assign its

obligations under any such agreements or contracts to any other entity if the investment agreements or contracts shall continue to be rated in one of the two highest rating categories by both Moody's Investors Service and Standard & Poor's Corporation or their respective successors and if such agreements or contracts shall not be registered, the agreements or contracts shall not be required to be registered under the Securities Act of 1933 by reason of such assignment; and (viii) any other investment which is a permitted investment for public funds under County ordinance or rule approved by each Rating Agency.

"Maturity Amount" means, with respect to any Compounding Interest Bond, the value of such Compounding Interest Bond which is due at the stated maturity thereof.

"Maturity Date" means the stated date on which principal matures on Bonds or on which the Maturity Amount becomes payable on Compounding Interest Bonds.

"Maximum Principal and Interest Requirements" means, as of any particular date of calculation, the greatest amount of Principal and Interest Requirements for the then current or any future Fiscal Year.

"Multimodal Bond" means a Bond which contains provisions allowing for the payment of interest at different rates during different interest periods and for the establishment of different interest periods and interest rates; the interest rate during any particular interest period may be a Variable Rate or a fixed rate.

"Net Operating Revenues" means the Operating Revenues reduced by Operating Expenses.

"Operating Expenses" means all current expenses, paid or accrued, and any Operating Expense reserve as described in Section 502, for the operation, maintenance and ordinary current repairs of the Utility and its components, as calculated in accordance with GAAP, including, without limitation, insurance premiums (or comparable payments under a self-insurance or risk management program), labor, cost of materials and supplies used for current operations, charges for the accumulation of appropriate reserves for current expenses not annually recurrent but which are such as may reasonably be expected to be incurred in accordance with GAAP and Credit Facility Charges, administrative expenses and professional fees and expenses, before depreciation, amortization and interest expense determined in accordance with GAAP, provided, however, there shall not be taken into account:

- (a) any gain or loss resulting from either the extinguishment or refinancing of indebtedness;

- (b) loss from the sale, exchange or other disposition of capital assets not made in the ordinary course of business; and
- (c) any capital expenditures for renewal, replacement, expansion or acquisition of capital assets of the Utility (including any deposits to reserves therefor).

"Operating Revenues" or "Revenues" means all operating income or earnings received or accrued by the County from the ownership, operation or use of the Water and Sewer Utility, or any part thereof, including, but not limited to, user charges for the provision of water service and sewer service, meter installation fees, and the like, delinquent charges and investment earnings, but shall exclude any income from the investment of the Construction Fund, proceeds from insurance (except business interruption insurance), condemnation or the disposition of property not in the ordinary course of business, Capital Facilities Charges, grants, and proceeds from the sale of any obligations of the County (exclusive of short-term obligations for Utility working capital), and payments on special assessments for water and sewer improvements.

"Ordinance" means this Ordinance as the same may be amended or supplemented from time to time in accordance with Article VIII hereof.

"Outstanding" means, when used with respect to the Bonds, all Bonds theretofore delivered except:

- (a) Bonds paid or redeemed or delivered to or acquired by the County for cancellation;
- (b) Bonds issued under a particular Series Resolution which, under the terms of such Series Resolution, are no longer deemed to be outstanding (such as Bonds that have been defeased); and for purposes of voting, giving directions and granting consents, Bonds held by the County or by an agent of the County shall not be deemed outstanding, except that when Bonds are held by any tender agent or remarketing agent, such tender agent or remarketing agent rather than the County shall be deemed the holder for purposes of voting the same for purposes of amending this Ordinance or the Series Resolution under which the same were issued or for the purpose of giving directions or granting consents under this Ordinance or such Series Resolution.

"Payment Obligation" means an obligation of the County arising under a Credit Agreement: (a) to reimburse any Provider for amounts advanced by such Provider under a

Credit Facility or Reserve Account Credit Facility which are used (i) to pay any principal, Maturity Amount or Accreted Value of, premium on, or interest on any Bond or Bonds, or (ii) to purchase any Bond or Bonds for cancellation, or (iii) to purchase any Bond or Bonds for remarketing, or (b) to pay interest on any such advances.

"Pledged Funds" means the Revenue Fund, the Debt Service Fund, the General Reserve Fund, the Renewal and Replacement Fund, the Rate Stabilization Fund and to the extent provided herein, the Construction Fund and the Plant Expansion Fund, in each case together with all accounts and subaccounts therein.

"Pledged Revenues" means Net Operating Revenues (whether or not on deposit in the funds and accounts established herein).

"Principal" or "principal" means the principal of the specified obligations; in the case of Compounding Interest Bonds, the interest component of the Maturity Value (or Accreted Value thereof payable upon redemption) shall be deemed to constitute principal; provided that for purposes of any limitation contained herein or in any Series Resolution on the aggregate principal amount of Bonds of any Series, the principal amount thereof shall be the initial principal amount on the date of issuance thereof.

"Principal and Interest Requirements" or "Debt Service Requirements" means the respective amounts which are required in each Fiscal Year to pay (a) principal and interest on all Bonds then Outstanding; and (b) the Amortization Requirements, if any, for all Term Bonds then Outstanding for such Fiscal Year, provided, however:

- (i) the amount of such Principal and Interest Requirements for any Fiscal Year may be reduced by the amount of any capitalized interest to be used to pay interest in such Fiscal Year and by the anticipated earnings on the money in the applicable Bond Service Account, and such earnings will be deposited to the credit of the applicable Bond Service Account; and
- (ii) the Principal and Interest Requirements for any Bonds bearing interest at a Variable Rate shall be determined as provided in the definition of "Variable Rate" herein.

"Project" means the acquisition, construction, addition, improvement, sizing, separating and equipping of various components of the Utility, identified as a Project by a Series Resolution providing for the issuance of any obligation to finance the cost thereof, in whole or in part.

"Registrar, Paying Agent or Transfer Agent" means as to any Series of Bonds, the County or a bank or trust company within or without the State, which has been designated by the County as the Registrar, Paying Agent or Transfer Agent, or any one or combination of these functions, for such Series; provided, however, that any bank or trust company designated as Registrar, Paying Agent or Transfer Agent for any Series of Bonds issued hereunder must have an aggregate unimpaired reported capital, surplus and retained earnings of not less than \$25,000,000; provided further, that "Paying Agent" when used with respect to Refunded Obligations means those respective Paying Agents to which principal and interest on the Refunded Obligations are payable.

"Regular Record Date" means that day in the month immediately preceding any scheduled Interest Payment Date, that is established as the Regular Record Date by the Series Resolution applicable to such Series of Bonds.

"Renewal and Replacement Fund" means the Dade County Water and Sewer Utility Renewal and Replacement Fund created and designated by Section 502 of this Ordinance.

"Reserve Account" means the Reserve Account in the Debt Service Fund created and designated by Section 502 of this Ordinance.

"Reserve Account Credit Facility" means a surety bond, a policy of insurance, a letter of credit, or other financial product obtained by the County with respect to any Bonds, from an entity that is rated in one of the two highest rating categories by Moody's and Standard & Poor's and which financial product provides for payment of Principal and Interest on such Bonds in amounts not greater than the Reserve Account Requirement for such Bonds in the event of an insufficiency of available moneys herein to pay when due principal of, premium, if any, and interest on such Bonds.

"Reserve Account Requirement" means the Maximum Principal and Interest Requirements in the then current or any subsequent Fiscal Year on all Outstanding Bonds or such lesser amount which is the greatest allowable under the Code.

"Revenue Fund" means the Dade County Water and Sewer Utility Revenue Fund created and designated by Section 502 of this Ordinance.

"Separate System" means any water and/or sewer system which may be acquired by the County subsequent to the date of this Ordinance and designated by the County as a Separate System on or prior to the date of acquisition.

"Serial Bonds" means the Bonds of a Series which shall be stated to mature in sequential years.

"Provider" means a Credit Facility Provider or Reserve Account Credit Facility Provider, as indicated by the context in which such term is used.

"Rate Stabilization Fund" means the Dade County Water and Sewer Utility Rate Stabilization Fund created and designated by Section 502 of this Ordinance.

"Rating Agency" means Moody's Investors Service, Standard & Poor's Corporation, and any other nationally recognized securities rating agency which has assigned a rating to any Series of Bonds.

"Rebate Amount" means the amount of any rebate or penalty in lieu of rebate which is payable under Section 148(f) of the Code.

"Recurring Credit Facility Charges" means and includes (a) all charges payable by the County to any Provider of a Credit Facility or Reserve Account Credit Facility under any Credit Agreement to renew or extend the term of any Credit Facility or Reserve Account Credit Facility, (b) all charges of the type described in the definition of "Initial Credit Facility Charges" relating to the replacement of any Credit Facility or Reserve Account Credit Facility for any Outstanding Bonds with a new Credit Facility or Reserve Account Credit Facility, and (c) any other fees, charges or amounts the County is required to pay to any Provider of a Credit Facility or Reserve Account Credit Facility (other than Initial Credit Facility Charges and Payment Obligations) under any Credit Agreement, including, but not limited to, draw fees, transaction fees, "gross-up charges" termination fees, annual fees, expenses of such Provider which the County is required to pay or for which it is required to reimburse such Provider, and any payments the County is required to make to indemnify any such Provider for any costs or expenses incurred by it or any loss suffered by it in connection with a Credit Facility or Reserve Account Credit Facility, but shall not include any Payment Obligations.

"Redemption Account" means the Redemption Account in the Debt Service Fund created and designated by Section 502 of this Ordinance.

"Refunded Obligations" means collectively or individually, as the context requires, (a) the Series A Bonds, (b) the Series 1992 Bonds, (c) the Series A G.O. Bonds, (d) the Series B G.O. Bonds, (e) the Series 1987 Bonds, (f) the Series T State Loan, the Series V State Loan, the Series X State Loan, the Series H State Loan and the Series W State Loan, all as further defined and described herein or in the Series Resolution relating to the refunding of said obligations.

"Refunding Bonds" means the Bonds issued at any time under the provisions of Section 209 of this Ordinance.

"Series" means the Bonds delivered at any one or more times under the provisions of this Ordinance which are designated by or pursuant to this Ordinance or any supplemental ordinance of the Board or applicable Series Resolution as constituting a single Series.

"Series A Bonds" means that portion of the Refunded Obligations consisting of the outstanding principal balance of the Dade County Water and Sewer System Revenue Bonds, Series A, originally issued pursuant to the authority of Ordinance No. 78-81 of the County, and after repeal of said ordinance following the consolidation of the Miami-Dade Water and Sewer Authority Department into Dade County, secured by and issued under Ordinance No. 78-82 of the County, enacted by the Board on November 21, 1978 as amended and supplemented.

"Series A G.O. Bonds" means that portion of the Refunded Obligations consisting of the Dade County Waterworks System Bonds, Series A, issued pursuant to Ordinance No. 76-6, enacted by the Board on January 20, 1976.

"Series B G.O. Bonds" means that portion of the Refunded Obligations consisting of the outstanding principal balance of the Dade County Waterworks System Bonds, Series B, issued pursuant to Resolution No. R-634-79, adopted by the Board on May 15, 1979.

"Series H, Series T, Series V, Series W and Series X State Loans" (individually or collectively) means those portions of the Refunded Obligations consisting of the respective outstanding principal balances of those State Loans under various loan agreements between the Department of Environmental Regulation of the State of Florida and the Division of Bond Finance of the State Board of Administration (collectively, the "State Agencies") and Dade County (the "Local Agency"), authorized as local governmental agency loans from the State of Florida under the provisions of Section 14, Article VII of the Florida Constitution and Section 403.1834, Florida Statutes, the funds for which loans were provided through the issuance of the respective corresponding series of State of Florida Full Faith and Credit Pollution Control Bonds.

"Series 1987 Bonds" means that portion of the Refunded Obligations consisting of the outstanding principal balance of the Dade County Waterworks System Refunding Bonds, Series 1987, issued pursuant to Resolution No. R-401-87, adopted by the Board on April 7, 1987.

"Series 1992 Bonds" means that portion of the Refunded Obligations consisting of the outstanding principal balance of the Dade County Water System Revenue Refunding Bonds, Series 1992, issued pursuant to Resolution No. R-942-92 of the County, adopted by the Board on July 21, 1992.

"Series 1993A Bonds" means those bonds authorized to be issued hereunder for the purpose of paying the costs of Series 1993A Projects.

"Series 1993A Projects" means additions, extensions and improvements to the Water and Sewer Utility, to be more particularly described in the Series Resolution relating to the issuance of the Series 1993A Bonds.

"Series 1993 Refunding Bonds" means those Bonds authorized to be issued hereunder for the purpose of refunding, on a current or advance basis, as applicable, the Refunded Obligations.

"Series Resolution" or "Resolution" means, as to any one or more Series of Bonds, the resolution or resolutions, including any award resolution, of the County providing for the authorization, sale and issuance of a Series of Bonds and includes any certificate of award, any trust indenture, the bond purchase agreement or other document or instrument that is approved by or required to be executed by any such Resolution, including any State Revolving Fund Loan Agreement or agreement relating to a State Loan.

"Sewer System" means and includes any plant, system, facility or property, and additions, extensions and improvements thereto at any future time constructed or acquired as part thereof, owned by the County and useful or necessary or having a present capacity for future use in connection with the collection, treatment, purification and disposal of sewage of any nature or originating from any source, and without limiting the generality of the foregoing definition, shall embrace treatment plants, pumping stations, lift stations, valves, force mains, intercepting sewers, laterals, pressure lines, mains and all necessary appurtenances and equipment, all wastewater mains and laterals for the reception and collection of sewage from premises connected therewith, and shall include all real and personal property and any interest therein, rights, easements and franchises of any nature whatsoever relating to any such system and necessary or convenient for the operation thereof. Sewer System shall not include, at the option of the County, Separate Systems.

"State Loan" means, generally (and in addition to the State Loans constituting part of the Refunded Obligations); (i) any loan from the State of Florida to the County for Improvements to the Water and Sewer Utility pursuant to any State of Florida Pollution Control Loan Agreement ("Loan Agreement") entered into pursuant to the authority granted by Article VII, Section 14 of the Florida Constitution and Section 403.1834, Florida Statutes, or any legislation continuing such authority, and (ii) any indebtedness (other than Bonds) issued for the purpose of providing funds for paying or prepaying all or any portion of a loan described in clause (i) of this definition.

shall be deemed to be the interest rate for such bonds for the purpose hereof. If a Hedge Agreement is in effect and the County's Hedge Obligation is a Variable Rate, then such rate shall be deemed to be the Assumed Interest Rate set forth in subparagraph (ii) below.

- (ii) For purposes of determining whether Additional Bonds may be issued under Sections 208 and 209 of this Ordinance, and for the purpose of compliance with the rate covenants set forth in Section 602, the rate of interest on any then outstanding Variable Rate Bonds shall be determined as set forth in (a)(i) above.
- (iii) For purposes of determining whether Additional Bonds may be issued, the interest rate on the proposed Variable Rate Bond shall be deemed to be the "Assumed Interest Rate" as defined below; or if a Hedge Agreement is in effect the interest rate shall be as set forth in (i) B above. If a Hedge Agreement is in effect and the County's Hedge obligation is a variable rate, then such rate shall be deemed to be the Assumed Interest Rate. As used herein the "Assumed Interest Rate" shall be deemed to be the greater of (A) the sum of the average of the actual interest rates on seven day obligations for the immediately preceding 52 weeks (or if not available for the 52 week period, then for the period for which available), as shown by the Public Securities Association Municipal Swap Index, published by Thompson Financial Services (or if such index is not published, a like 7 day index for high quality variable rate demand obligations selected by the County) for such period, plus 50 basis points, or (B) the average of the interest rate which would have been applicable to such Variable Rate Bonds pursuant to the index or formula specified for determination on the interest on such Variable Rate Bonds during the immediately preceding 52 weeks (or if not available for such 52 week period, for the period for which available).

- (b) A Multimodal Bond shall be deemed to be a Variable Rate Bond unless and until it has been irrevocably converted to bear a fixed interest rate for the entire balance of its term.

"Water and Sewer Utility" or "Utility" means, collectively, the water supply, treatment and distribution system and the sewage collection, transmission, treatment and disposal system owned and operated by the County, together with any Improvements, extensions or

"State Revolving Fund Loan Agreement" means any and all agreements between the State of Florida Department of Environmental Regulation and the County; executed under and pursuant to the applicable laws of the State of Florida.

"Subordinate Obligations" means indebtedness or other payment obligation which, with respect to any issue thereof, by operation of law, contract, indenture or other document, is subordinated and subject in right to the prior payment in full, from Pledged Revenues, of the Bonds. Subordinate Obligations include, but are not limited to, all obligations of the County under any State Revolving Fund Loan Agreement.

"Term Bonds" means that portion of the Bonds of any Series which are stated to mature on one date in a calendar year and which shall be subject to mandatory redemption by operation of Amortization Requirements.

"Variable Rate" means, when used with respect to any Bonds or Hedge Obligation, Bonds or Hedge Obligations having (or determined by reference to) an interest rate which is subject to future change so that at the date any calculation of interest thereon is required to be made hereunder or under any Series Resolution, the interest payable at any future time or for any interest period (which is relevant to such calculation) is not known. For the following purposes, interest on Variable Rate Bonds shall be calculated as follows:

- (a) If, as of the date of any calculation, any Outstanding Bond is a Variable Rate Bond, or if any Additional Bond to be issued is a Variable Rate Bond, the following rules shall apply:
 - (i) At the time of establishing the Annual Budget for any Fiscal Year, the rate of interest on any outstanding Variable Rate Bond shall be deemed to be (A) if no Hedge Agreement relating to such Bond shall be in effect, the mean average interest rate borne by such Bond during the preceding twelve (12) months (or such shorter period as such Bond has been outstanding), or (B) if a Hedge Agreement relating to such Bond is in effect for any period during such Fiscal Year, the interest rate determined by taking into account the payments expected to be made or expected to be received by the County under such Hedge Agreement (other than Hedge Charges) shall be used for such period, such that if the Bonds and the Hedge Agreement taken together result in a net fixed rate payable by the County for such period, such net fixed rate shall be deemed to be the rate of interest on such Bonds for purposes hereof, or (C) if two Variable Rate Bonds taken together result in a net fixed rate payable by the County, such net fixed rate

enlargements, as same may exist from time to time; provided, however, the Water and Sewer Utility shall not include, at the option of the County, any Separate Systems.

"Water System" means and includes any plant, system, facility or property, and additions, extensions and improvements thereto at any future time constructed or acquired as part thereof, owned by the County and useful or necessary or having the present capacity or future use in connection with the development of sources, treatment or purification and distribution of water, and, without limiting the generality of the foregoing, shall include dams, reservoirs, storage tanks, mains, lines, valves, meters, pumping stations, laterals and pipes for the purpose of carrying water to the premises connected with such system, and shall include all real and personal property and any interest therein, rights, easements and franchises of any nature whatsoever relating to any such system and necessary or convenient for the operation thereof. Water System shall not include, at the option of the County, Separate Systems.

SECTION 103. Interpretations. Unless the context shall otherwise indicate, the words "Bond", "owner", "holder" and "person" shall include the plural as well as the singular number, the word "person" means any individual corporation, partnership, joint venture, association, joint-stock company, trust, unincorporated organization or government or any agency or political subdivision thereof, and the word "holder" or "bondholder" when used herein with respect to Bonds issued hereunder shall mean the Holder or registered owner, as the case may be, of Bonds at the time issued and outstanding hereunder.

ARTICLE II

Issuance of Bonds; Form, Execution, Delivery and
Registration of Bonds.

SECTION 201. Authority for Issuance of Bonds. The Bonds authorized to be issued under this Ordinance are issued, and the Hedge Agreements authorized to be secured under the provisions hereof are entered into pursuant to the authority of the Constitution and laws of the State of Florida, including, but not limited to the Dade County Home Rule Amendment and Charter, as amended, Chapters 125, 159 and 166, Florida Statutes, and all other applicable laws.

(a) **The Series 1993 Refunding Bonds.** There is hereby authorized to be issued Bonds in an aggregate principal amount not exceeding \$500,000,000, for the purpose of refunding, on a current or advance basis, the Refunded Obligations, paying the cost of issuance of said Bonds, and paying such other costs as may be specified or provided for in the Series Resolution relating to the issuance of said Series 1993 Refunding Bonds.

The details of a plan of refunding, including providing for the creation of an escrow deposit agreement or agreements, the designation of an escrow agent or agents and providing for the purchase of Defeasance Obligations, will be set forth in or provided for by the Series Resolution relating to the Series 1993 Refunding Bonds.

(b) **The Series 1993A Bonds.** There is hereby authorized to be issued Bonds in an aggregate principal amount not to exceed \$500,000,000 for the purpose of paying all or a portion of the cost of the Series 1993A Projects, providing for capitalized interest, the costs of credit enhancement, providing a reserve fund, and paying for such other costs incidental to the issuance of said Bonds, all as may be provided for in the Series Resolution relating to the Series 1993A Bonds.

(c) **Additional Bonds, Refunding Bonds and Completion Bonds.** There may be issued, from time to time, pursuant to the provisions of this Ordinance, Additional Bonds, Refunding Bonds and Completion Bonds, subject to the terms and provisions hereinafter provided in Sections 208, 209 and 210.

SECTION 202. Details of Bonds. The Series Resolution relating to any Series of Bonds shall provide for establishing the terms and provisions of the Bonds of each such Series, including, but not limited to the denomination of each Bond, the numbering sequence of the Bonds, interest rates, maturities, payment dates and redemption provisions. The Bonds of each Series shall bear an appropriate title, which shall include an identifying Series designation.

may be exchanged for Bonds of the same Series, interest rate, maturity date and tenor of any other authorized denominations.

The Registrar shall keep books for the registration of Bonds and for the registration of transfers of Bonds. The Bonds shall be transferable by the Holder thereof in person or by his attorney duly authorized in writing only upon the registration books of the County kept by the Registrar and only upon surrender thereof together with a written instrument of transfer satisfactory to the Registrar duly executed by the Holder or his duly authorized attorney. Upon the transfer of any such Bond, the County shall issue in the name of the transferee a new Bond or Bonds.

The County, the Paying Agent and the Registrar shall deem and treat the person in whose name any Bond shall be registered upon the books kept by the Registrar as the absolute owner of such Bond, whether such Bond shall be overdue or not, for the purpose of receiving payment of, or on account of, the principal of and interest on such Bond as the same become due and for all other purposes. All such payments so made to any such Holder or upon his order shall be valid and effectual to satisfy and discharge the liability upon such Bond to the extent of the sum or sums so paid, and neither the County, the Paying Agent nor the Registrar shall be affected by any notice to the contrary.

In all cases in which the privilege of exchanging Bonds or transferring Bonds is exercised, the County shall execute and the Registrar shall authenticate and deliver Bonds in accordance with the provisions of this Ordinance or any applicable Series Resolution. All Bonds surrendered in any such exchanges or transfers shall forthwith be delivered to the Registrar and canceled by the Registrar in the manner provided in this Section. There shall be no charge for any such exchange or transfer of Bonds, but the County or the Registrar may require the payment of a sum sufficient to pay any tax, fee or other governmental charge required to be paid with respect to such exchange or transfer. Neither the County nor the Registrar shall be required (a) to transfer or exchange Bonds for a period from a Regular Record Date to the next succeeding Interest Payment Date on such Bonds or 15 days next preceding any selection of Bonds to be redeemed or thereafter until after the mailing of any notice of redemption; or (b) to transfer or exchange any Bonds called for redemption. However, if less than all of a Term Bond is redeemed or defeased, the County shall execute and the Registrar shall authenticate and deliver, upon the surrender of such Term Bond, without charge to the Bondholder, for the unpaid balance of the principal amount of such Term Bond so surrendered, a registered Term Bond in the appropriate denomination and interest rate.

All Bonds paid or redeemed, either at or before maturity shall be delivered to the Registrar when such payment or redemption is made, and such Bonds, together with all Bonds purchased by the County, shall thereupon be promptly canceled. Bonds so canceled may at any time be destroyed by the Registrar, who shall execute a certificate of destruction in duplicate by

The County may issue all manner and forms of Bonds hereunder, including, but not limited to Fixed Rate Bonds, Variable Rate Bonds (including index, auction, inverse floater or other types of Variable Rate Bonds), Capital Appreciation Bonds, Convertible Capital Appreciation Bonds, Compounding Interest Bonds, MultiModal Bonds, Serial Bonds, Term Bonds, taxable or tax-exempt Bonds, and any one or combination of these.

The County may enter into Hedge Agreements, Interest Swap Agreements, agreements regarding Credit Facilities, and all other forms of contracts relating to the issuance of Bonds, whether or not related to a specific Series of Bonds.

Principal, interest or the Accrued Value thereof on the Bonds and premiums, if any, shall be paid in any coin or currency of the United States of America which, at the respective dates of payment thereof, is legal tender for the payment of public and private debts. The Bonds shall be payable at such places and in such other manner as shall be provided for in the Series Resolution under which such Bonds are issued.

SECTION 203. Execution and Form of Bonds.

(a) Bonds shall be signed by, or bear the facsimile signature of the Chairman and shall be signed by or bear the facsimile signature of, the Clerk, and a facsimile of the official seal of the County shall be imprinted on the Bonds. When applicable, the Bonds shall be authenticated by manual signature of an authorized signer on behalf of an authenticating agent for such Bonds. The County may provide by Series Resolution any other uniform method for execution and authentication of Bonds.

(b) The form of any Bonds shall be specified in or provided for in the Series Resolution under which such Bonds are issued.

(c) Bonds issued pursuant to any Series Resolution may be issued in Book-Entry Form, or may be issued in fully certificated form.

SECTION 204. No Necessity for Validation. The Bonds issued under and pursuant to this Ordinance are not required to be validated; however, Bonds of any Series may be validated at the option of the County.

SECTION 205. Negotiability, Registration and Transfer of Bonds. At the option of the registered Holder thereof and upon surrender thereof at the designated corporate trust office of the Registrar with a written instrument of transfer satisfactory to the Registrar, duly executed by the registered Holder or his duly authorized attorney, and upon payment by such Holder of any charge which the Registrar may make as provided in this Section, the Bonds

the signature of one of its authorized officers describing the Bonds so destroyed, and one executed certificate shall be filed with the County and the other executed certificate shall be retained by the Registrar.

The County, by Series Resolution, may provide for the registration of the Bonds of any Series by adopting the Book-Entry System for such Series. Beneficial ownership of such Bonds shall be transferred in accordance with the procedures of the Securities Depository and its participants.

SECTION 206. Bonds Mutilated, Destroyed, Stolen or Lost. In case any Bond shall become mutilated, or be destroyed, stolen or lost, the County may in its discretion cause to be executed, and the Registrar shall authenticate and deliver, a new Bond of like date and tenor as the Bond so mutilated, destroyed, stolen or lost in exchange and substitution for such mutilated Bond upon surrender and cancellation of such mutilated Bond or in lieu of and substitution for the Bond destroyed, stolen or lost, and upon the Holder furnishing the County and the Registrar proof of his ownership thereof and satisfactory indemnity and complying with such other reasonable regulations and conditions as the County and the Registrar may prescribe and paying such expenses as the County and the Registrar may incur. All Bonds so surrendered shall be canceled by the Registrar or Paying Agent on behalf of the County. If any of the Bonds shall have matured or be about to mature, instead of issuing a substitute Bond, the County may pay the same, upon being indemnified as aforesaid, and if such Bond be lost, stolen or destroyed, without surrender thereof.

Any such duplicate Bonds issued pursuant to this Section 206 shall constitute original, additional contractual obligations on the part of the County whether or not the lost, stolen or destroyed Bonds be at any time found by anyone, and such duplicate Bonds shall be entitled to equal and proportionate benefits and rights as to lien on and source and security for payment from the funds, as hereinafter pledged, to the same extent as all other Bonds issued hereunder.

SECTION 207. Preparation of Definitive Bonds; Temporary Bonds. Until definitive Bonds are prepared, the Chairman and the Clerk may execute and the Registrar may authenticate, in the same manner as is provided in Section 203 of this Article II, and deliver, in lieu of definitive Bonds, but subject to the same provisions, limitations and conditions as the definitive Bonds, one or more printed, lithographed or typewritten temporary fully registered Bonds, substantially of the tenor of the definitive Bonds in lieu of which such temporary Bond or Bonds are issued, in authorized denominations or any whole multiples thereof, and with such omissions, insertions and variations as may be appropriate to such temporary Bonds. Upon the surrender at the corporate trust office of the Registrar of such temporary Bonds for which no payment or only partial payment has been provided, the Registrar shall authenticate and, without charge to the Holder thereof, deliver in exchange therefor, definitive Bonds of the same

aggregate principal amount and maturity as the temporary Bond surrendered. Until so exchanged, the temporary Bonds shall in all respects be entitled to the same benefits and security as definitive Bonds issued pursuant to this Ordinance.

SECTION 208. Provisions for Issuance of Additional Bonds: Debt Service Coverage Requirements. Additional Bonds of the County and any other obligations that are First Lien Obligations, which for the purposes of this Section are deemed Additional Bonds (other than Completion Bonds and Refunding Bonds), may be issued under and secured by this Ordinance, subject to the conditions hereinafter provided in this Section, from time to time, (i) for the purpose of paying all or any part of the cost of constructing or acquiring any improvements, (ii) or to refund any obligations of the County which financed or refinanced any improvements, or (iii) to finance termination payments relating to Hedge Agreements.

Before any Series of Additional Bonds shall be issued under the provisions of this Section 208, the Board shall adopt a Series Resolution authorizing the issuance of such Additional Bonds, providing for the amount and the details thereof, and describing in brief and general terms the Project to be constructed or acquired (or, if applicable, obligations to be refunded). The Additional Bonds of each Series issued under the provisions of this Section shall be dated, shall mature (subject to the right of prior redemption as hereinafter set forth) on such dates in such year or years not more than the number of years allowed by law after the date of such Additional Bonds, shall have such Paying Agents, and any Term Bonds of such Series shall have such Amortization Requirements, and may be made redeemable at such times and prices (subject to the provisions of Article III of this Ordinance), all as may be specified in or provided for by or pursuant to the Series Resolution authorizing the issuance of such Additional Bonds. Such Additional Bonds, if issued in certificated form, shall be executed substantially in the manner hereinabove set forth, with such changes as may be necessary or appropriate to conform to the provisions of the Series Resolution authorizing the issuance of such Additional Bonds. Prior to the delivery of each Series of Additional Bonds, there shall be filed with the Finance Director the following:

- (a) a copy, certified by the Clerk, of the Series Resolution mentioned above;
- (b) a copy, certified by the Clerk, of the Resolution adopted by the Board awarding such Additional Bonds and directing the delivery of such Additional Bonds to or upon the order of the purchasers therein named upon payment of the purchase price therein set forth, or if such Additional Bonds are sold by competitive bid, authorizing the receipt of bids and acceptance of the best qualifying bid received;
- (c) a certificate, signed by the Finance Director

proceeds of the Additional Bonds then sought to be delivered and shall have established rates and charges to be charged and collected from the users of such improvements, by adding the amount of the Net Operating Revenues estimated to be realized during the first twelve (12) months after the date of completion, as estimated by the Consultant, of such improvements, and

- (5) in case the County has made deposits of Net Operating Revenues to or withdrawals from the Rate Stabilization Fund during the Computation Period, by subtracting the amount of any such deposits and adding the amount of any such withdrawals;
 - (ii) setting forth the respective amounts of the Principal and Interest Requirements for each Fiscal Year thereafter including the Additional Bonds then requested to be delivered; and stating that the adjusted Net Operating Revenues (as determined by subparagraph (i) above) for the Computation Period shall have equalled at least the sum of:
 - (1) one hundred ten percent (110%) of the Maximum Principal and Interest Requirement on all Bonds to be Outstanding as of the date of such issuance, plus
 - (2) one hundred percent (100%) of all required deposits to the Reserve Account during the Computation Period.
- Subordinate Obligations.** In addition to satisfying the debt service coverage requirements set forth above, the Adjusted Net Operating Revenues remaining after deduction of the Maximum Principal and Interest Requirements on all Bonds shall be at least equal to one hundred percent (100%) of all debt service and reserve requirements on Subordinate Obligations;
- (d) a certificate signed by the Consultant setting forth:
 - (i) the estimated date on which such Improvements will be placed in operation (if the improvements being financed or refinanced have not theretofore been placed in service);

- (i) setting forth the amount of the Net Operating Revenues for any four consecutive quarters (the "Computation Period") in the preceding six quarters. For purposes of this paragraph (c), the Net Operating Revenues, at the election of the County, may be adjusted as follows (provided that, each such adjustment shall be certified by the Consultant in a certificate or report which shall set forth the assumptions upon which it is based and shall state that such assumptions, in the opinion of the Consultant, form a reasonable basis for the conclusions expressed therein):

- (1) in case the rates and charges for the services furnished by the Water and Sewer Utility shall have been revised and such revised rates and charges shall have gone into effect prior to the delivery of the Additional Bonds, by adding the additional amount of Net Operating Revenues which would have been received during the Computation Period if such rates and charges had been in effect during the Computation Period, and
- (2) in case an existing water system, sewer system or water and sewer system is to be acquired with the proceeds of the Additional Bonds, by adding the additional amount of Net Operating Revenues which would have been realized during the Computation Period if such existing water system, sewer system or water and sewer system to be acquired had been a part of the Water and Sewer Utility during the Computation Period, and
- (3) in case the County shall enter into a contract with any governmental unit, the term of which shall be at least as long as the term of the Additional Bonds then sought to be delivered, in which the County agrees either to furnish services for the collection, treatment and disposal of sewage or other waste matter or to furnish services in connection with any water system, the additional amount of Net Operating Revenues which would have been realized during the Computation Period if such contract had been in effect during the Computation Period, and
- (4) in case the County shall construct or acquire any improvements to the Water and Sewer Utility with the

- (ii) the Consultant's estimate of the Net Operating Revenues for each of the three Fiscal Years following the Fiscal Year in which the Improvements will be placed in operation as estimated in item (i) of said certificate, taking into account the rates and charges in effect on the date of delivery of such Additional Bonds and any revised rates and charges that shall become effective prior to or during such Fiscal Year; and
 - (iii) that after taking into account (i) and (ii) above, the Adjusted Net Operating Revenues will satisfy the ratio set forth in Section 208(c)(ii) above, and that the Adjusted Net Operating Revenues remaining after deduction of the Maximum Principal and Interest Requirements on all Bonds shall be at least equal to one hundred percent (100%) of all debt service and reserve requirements on Subordinate Obligations;
- (e) an opinion of the County Attorney stating that the issuance of such Additional Bonds has been duly authorized.

State Loans. If the County enters into any Loan Agreement for a State Loan, the covenants and agreements herein shall be for the benefit of the Holder of such State Loan and the County shall further comply with all provisions of the instrument authorizing such State Loan.

Series 1993A Bonds Not Additional Bonds. Bonds authorized herein as Series 1993A Bonds shall not be deemed to be Additional Bonds, but prior to the delivery and issuance of such Series 1993A Bonds, the Finance Director shall deliver a certificate to the effect that the rate covenants contained in Section 602 are being complied with.

When the documents mentioned above in this Section shall have been filed with the Finance Director and when the Additional Bonds described in the Resolutions mentioned in clauses (a) and (b) of this Section shall have been executed as required by this Ordinance, the County shall deliver such Additional Bonds at one time to or upon the order of the purchasers named in the Resolution mentioned in said clause (b), but only upon payment to the County of the purchase price of such Additional Bonds.

The proceeds, excluding accrued interest, any premium of such Series of Additional Bonds and any proceeds to be deposited in the Reserve Account for the Bonds of such Series shall be deposited by the Finance Director with one or more Depositories to the credit of

a special account or accounts, which shall be created and appropriately designated in the Series Resolution, and shall be applied to the payment of the Cost of such Improvements and the cost of issuance of the Bonds. The amount received as accrued interest and any premium on such Bonds shall be deposited to the credit of the Bond Service Account for application to the interest due on such Bonds. Any proceeds which are required by the applicable Series Resolution to fund the Reserve Accounts for such Bonds or to purchase a Reserve Account Credit Facility for such Bonds shall be used for said purpose.

SECTION 209. Refunding Bonds. Refunding Bonds may be issued under and secured by this Ordinance, subject to the conditions hereinafter provided in this Section, from time to time for the purpose of providing funds for paying at maturity and redeeming all or any part of the outstanding Bonds of any one or more Series, including the payment of any redemption premium thereon and any interest which will accrue on such Bonds and any principal on Serial Bonds which will mature on the redemption date or stated maturity date or dates and any expenses in connection with such paying at maturity and redemption.

Before any Series of Refunding Bonds shall be issued under the provisions of this Section, the Board shall adopt a Series Resolution authorizing the issuance of such Refunding Bonds, fixing or providing for the fixing of the amount and details thereof, and describing the Bonds to be paid and redeemed. Such Refunding Bonds shall be dated, shall be stated to mature (subject to the right of prior redemption as hereinafter set forth) on such dates in such year or years not more than the number of years allowed by law after the date of such Refunding Bonds, shall have such Paying Agents, and any Term Bonds of such Series shall have such Amortization Requirements, and may be made redeemable at such times and prices (subject to the provisions of Article III of this Ordinance), all as may be specified in or provided for by the Series Resolution authorizing the issuance of such Refunding Bonds. Such Refunding Bonds, if issued in certificated form, shall be executed substantially in the manner hereinabove set forth, with such changes as may be necessary or appropriate to conform to the provisions of the Series Resolution authorizing the issuance of such Refunding Bonds. Prior to or simultaneously with the delivery of such Refunding Bonds by the Finance Director, there shall be filed with the Finance Director the following:

- (a) a copy, certified by the Clerk, of the Series Resolution authorizing the issuance of such Refunding Bonds;
- (b) a copy, certified by the Clerk, of the Resolution adopted by the Board, awarding such Refunding Bonds and directing the delivery of such Refunding Bonds to or upon the order of the purchasers therein named upon payment of the purchase price therein set forth;

- (c) an opinion of the County Attorney to the effect that the issuance of such Refunding Bonds has been duly authorized and that all conditions precedent to the delivery of such Refunding Bonds have been fulfilled;
- (d) a certificate, signed by the Finance Director, either:
 - (1) stating that the Principal and Interest Requirements for each Fiscal Year thereafter (except for years subsequent to the final maturity of all then Outstanding Bonds) on account of all Bonds to be Outstanding after the issuance of such Bonds and the payment and redemption of the Bonds to be paid and redeemed shall not exceed the Principal and Interest Requirements for each such Fiscal Year on account of all Bonds Outstanding immediately prior to the issuance of such Bonds, or
 - (2) complying with Paragraph 208(c) hereof.
- (e) such documents as shall be required by the Finance Director to show that provision has been made in accordance with the provisions of this Ordinance for the payment or redemption of all of the Bonds to be paid or redeemed.

When the documents mentioned above in this Section shall have been filed with the Finance Director and when the Refunding Bonds described in the Resolutions mentioned in clauses (a) and (b) of this Section shall have been executed as required by this Ordinance, the Finance Director shall deliver such Refunding Bonds at one time to or upon the order of the purchasers named in the Resolution mentioned in said clause (b), but only upon payment to the Finance Director of the purchase price of such Refunding Bonds.

SECTION 210. Completion Bonds. Bonds may be issued under and secured by this Ordinance, subject to the conditions hereinafter provided in this Section, from time to time for the purpose of providing funds for paying the cost of completion of any Project for which one or more Series of Bonds have theretofore been issued, in a principal amount not greater than ten percent (10%) of the estimated cost of such Project.

Before any Series of Completion Bonds shall be issued under the provisions of this Section, the Board shall adopt a Series Resolution authorizing the issuance of such Completion Bonds, fixing or providing for the fixing of the amount and details thereof, and describing the Improvements. Such Completion Bonds shall be dated, shall be stated to mature (subject to the right of prior redemption as hereinafter set forth) on such dates in such year or years not more than the number of years allowed by law after the date of such Completion

Bonds, shall have such Paying Agents, and any Term Bonds of such Series shall have such Amortization Requirements, and may be made redeemable at such times and prices (subject to the provisions of Article III of this Ordinance), all as may be specified in or provided for by the Series Resolution authorizing the issuance of such Completion Bonds. Such Completion Bonds, if issued in certificated form, shall be executed substantially in the manner hereinabove set forth, with such changes as may be necessary or appropriate to conform to the provisions of the Series Resolution authorizing the issuance of such Completion Bonds. Prior to or simultaneously with the delivery of such Completion Bonds by the Finance Director, there shall be filed with the Finance Director the following:

- (a) a copy, certified by the Clerk, of the Series Resolution mentioned above authorizing the issuance of such Completion Bonds;
- (b) a copy, certified by the Clerk, of the resolution adopted by the Board, awarding or authorizing the award of such Completion Bonds and directing the delivery of such Completion Bonds to or upon the order of the purchasers therein named upon payment of the purchase price therein set forth;
- (c) an opinion of the County Attorney stating that the signer is of the opinion that the issuance of such Completion Bonds has been duly authorized and that all conditions precedent to the delivery of such Completion Bonds have been fulfilled;

When the documents mentioned above in this Section shall have been filed with the Finance Director and when the Completion Bonds described in the resolutions mentioned in clauses (a) and (b) of this Section shall have been executed as required by this Ordinance, the Finance Director shall deliver such Completion Bonds at one time to or upon the order of the purchasers named in the resolution mentioned in said clause (b), but only upon payment to the Finance Director of the purchase price of such Completion Bonds.

SECTION 211. Moneys Held in Trust. All moneys which the County shall have withdrawn from the Debt Service Fund or shall have received from any other source and deposited with the Paying Agents, for the purpose of paying any of the Bonds hereby secured, either at the maturity thereof or upon call for redemption, or for the purpose of paying any interest on the Bonds hereby secured, shall be held in trust for the respective Holders of such Bonds. But any moneys which shall be so set aside or deposited and which shall remain unclaimed by the Holders of such Bonds for the period of six (6) years after the date on which amount shall have become due and payable, upon the County's request in writing, shall be paid to the County or to such officer, board or body as may then be entitled by law to receive the same, and thereafter the Holders of such Bonds shall look only to the County or to such officer,

board or body, as the case may be, for the payment and then only to the extent of the amounts so received without any interest thereon, and the Paying Agents shall have no responsibility with respect to such moneys.

SECTION 212. Cancellation of Bonds. All Bonds paid, redeemed or purchased, either at or before maturity, shall be canceled by the Paying Agent upon the payment, redemption or purchase of such Bonds. All Bonds canceled under any of the provisions of this Ordinance shall be destroyed by the Paying Agent and the person so destroying such Bonds shall execute a certificate in triplicate describing the Bonds, and one executed certificate shall be filed with the Clerk, one executed certificate shall be filed with the Finance Director and the other executed certificate shall be retained by the person making such certificate.

ARTICLE III

Redemption

SECTION 301. Provisions for Redemption. Each Series of Bonds shall be subject to redemption prior to their maturity upon the terms and conditions and at such times, in such manner and at such redemption price or premium as shall be provided for by the Series Resolution adopted with respect to such Series of Bonds.

SECTION 302. Notice of Redemption. In the event any Bonds are called for redemption, the Paying Agent shall give notice in the name of the County, of the redemption of such Bonds, which notice shall (i) specify the Bonds, including Series designations, to be redeemed, the CUSIP numbers, certificate numbers, the date of issue, interest rate, maturity date of the Bonds to be redeemed, the redemption date, the date of notice, the redemption price and the place or places where amounts due upon such redemption will be payable (which shall be the designated principal corporate trust office of the Paying Agent or of its agent) and, if less than all of the Bonds of any Series are to be redeemed, the members of the Bonds and the portion of Bonds so to be redeemed and (ii) state that on the redemption date, the Bonds to be redeemed shall cease to bear interest.

Notice of redemption shall be given by the Paying Agent in the name of the County by mailing a copy of an Official Redemption Notice to the registered owners of the Bonds not less than 30 days prior to the date fixed for redemption, by first class mail at their addresses appearing on the bond registration books of the County maintained by the Registrar, and, if applicable, to the securities depository. Provision may be made in any applicable Series Resolution for notice by certified mail, or other type of special mailing, to the Holders of Bonds having an aggregate principal amount of, or Accrued Value in the case of Capital Appreciation Bonds, \$1,000,000 or more.

A second notice of redemption shall be given (within 60 days after the redemption date) in the manner required above, to the registered Holders of redeemed Bonds which have not been presented for payment within 30 days after the redemption date. However, failure to give such notice shall not affect the validity of the redemption of the Bonds.

(A) Anything contained in this Ordinance to the contrary notwithstanding, failure to mail any such notice (or any defect in the notice) to one or more Holders of Bonds shall not affect the validity of any proceedings for such redemption with respect to Holders of Bonds to which notice was duly given.

(B) The giving of any notice of redemption described above, other than for mandatory sinking fund redemptions, shall be conditioned upon the actual issuance and sale by

the County of the Refunding Bonds utilized to make the redemption and receipt by the County of the redemption price of the Bonds out of such refunding, or the deposit by the County of the redemption price of the Bonds from other available resources.

(C) Any Bonds which have been duly selected for redemption, as well as any Bonds which are deemed to be paid in accordance with this Article III, shall cease to bear interest on the specified redemption date.

ARTICLE IV

Construction Fund

SECTION 401. Construction Fund. There is hereby created and established a special fund to be called the "Dade County Water and Sewer Utility Construction Fund" (the "Construction Fund"), which shall be held by the Department. A separate account shall be established in the Construction Fund for each Series of Bonds issued hereunder from time to time relating to a Project, which shall be provided for in the applicable Series Resolution.

The moneys in the Construction Fund shall be held in trust and applied to the payment of the Cost of any Improvements and, pending such application, shall be subject to a lien and charge in favor of the Holders of the Bonds issued and Outstanding under this Ordinance and for the further security of such Holders until paid out, as herein provided.

SECTION 402. Payments from Construction Fund. Payment of the Cost of any Improvements shall be made from the applicable Construction Account, as provided for in the Series Resolution relating to the applicable Project. Moneys in the respective Construction Accounts shall be disbursed subject to such controls and procedures as the County may from time to time institute in connection with the disbursement of funds for paying the Cost of Projects, and in accordance with, or as provided for by the applicable Series Resolution.

SECTION 403. Cost of Improvements. The Cost of any Improvements to be constructed or acquired shall include, without limitation, the following:

- (a) obligations incurred for labor and materials and to contractors, builders and materialmen in connection with the construction of enlargements, improvements, and extensions, for machinery and equipment, for the restoration of property damaged or destroyed in connection with such construction, for the relocation of water and sewer lines and for the demolition and disposal of structures necessary or desirable in connection with such construction or the operation of the Water and Sewer Utility;
- (b) interest accruing upon any Bonds prior to the commencement of and during construction or for any additional period as may be determined by the County, subject to any limitation in the applicable Series Resolution;
- (c) the cost of acquiring any Water System or Sewer System now serving any portion of the County and territory adjacent thereto, or any part of such system, either within or without or partly within and partly without the corporate limits of the County;

- (d) the cost of acquiring by purchase, and the amount of any award or final judgment in any proceeding to acquire by condemnation, such land, structures, facilities and improvements, interests in lands as necessary or convenient in connection with such construction or with the operation of the Water and Sewer Utility, and the amount of any damages incident thereto;
- (e) expenses of administration properly chargeable to such construction or acquisition, legal, architectural and engineering expenses and fees, cost of audits and of preparing and issuing the Bonds, fees and expenses of consultants, financing charges, taxes or other governmental charges lawfully assessed during construction, premiums on insurance in connection with construction, the cost of funding the Reserve Account, costs of Credit Facilities, Hedge Charges, costs of issuance and all other items of expense not elsewhere specified herein, incident to the financing, construction or acquisition of any Improvements and the placing of the same in operation; and
- (f) any obligation or expense advanced by the County for any of the foregoing purposes, which is legally reimbursable.

SECTION 404. Disposition of Construction Fund Balance. When the construction of any Improvements shall have been completed, which fact shall be determined by the County Manager or Finance Director in a manner approved by him, the balance in the Construction Fund not reserved by the County for the payment of any remaining part of the Cost of such Improvements (i) shall be deposited, at the option of the County, to the credit of the Renewal and Replacement Fund, (ii) to the credit of the Debt Service Fund, (iii) shall be applied to purchase or redeem outstanding Bonds, or (iv) may be applied to the Cost of other Improvements to the Utility.

ARTICLE V

Revenues and Funds

SECTION 501. Security for Bonds, Hedge Obligations and Hedge Charges.

The Bonds shall be a special and limited obligation of the County, payable solely from and secured by a prior lien upon and a pledge of the Pledged Revenues of the Water and Sewer Utility as herein provided. Until payment has been provided for as herein permitted, the payment of the principal of and interest on the Bonds and all Hedge Obligations shall be secured forthwith equally and ratably by an irrevocable lien on the Pledged Revenues, and the County does hereby irrevocably pledge and grant a lien upon such Pledged Revenues to the payment of the principal of and interest on the Bonds, the reserves therefor, Hedge Obligations, and for all other required payments hereunder including Hedge Charges, in the manner and with the priority of application as provided herein. Unless provided for by supplemental ordinance, no Holder of any Bonds issued hereunder nor any Counterparty shall have the right to require or compel the exercise of the ad valorem taxing power of the County or taxation in any form of any property therein for payment of the Bonds or any Hedge Obligation or Hedge Charges, or be entitled to payment of such amount from any other funds of the County, except from the Pledged Revenues in the manner provided herein.

The County does hereby irrevocably pledge and grant a lien upon the Pledged Revenues, subject and subordinate to the application of Pledged Revenues for the purposes and in the manner provided herein, to the payment of Hedge Charges.

SECTION 502. Creation of Funds and Accounts.

The following special funds and accounts are hereby created and established: the "Dade County Water and Sewer Utility Revenue Fund" (herein called the "Revenue Fund"); the "Dade County Water and Sewer Utility Bond Debt Service Fund" (herein called the "Debt Service Fund") together with three separate accounts therein, designated "Bond Service Account", "Redemption Account", and "Reserve Account", respectively; the "Dade County Water and Sewer Utility Renewal and Replacement Fund" (herein called the "Renewal and Replacement Fund"); the "Dade County Water and Sewer Utility Plant Expansion Fund" (herein called the "Plant Expansion Fund"); the "Dade County Water and Sewer Utility Rate Stabilization Fund" (herein called the "Rate Stabilization Fund"); and the "Dade County Water and Sewer Utility General Reserve Fund" (herein called the "General Reserve Fund").

A. Trust Funds. The moneys in each of said Funds and Accounts shall be held in trust by the County and applied as hereinafter provided with regard to each such Fund and Account and, pending such application, shall be subject to a lien and charge in favor of the Holders of the Bonds and Counterparties until paid out or transferred as herein provided.

B. Government Accounting Effect. The cash required to be accounted for in each of the Funds and Accounts established herein may be deposited in a single bank account, provided that adequate accounting records are maintained to reflect and control the allocation of the cash on deposit therein for the various purposes of such Funds and Accounts. The designation and establishment of the various Funds and Accounts in and by this Ordinance shall not be construed to require the establishment of any completely independent, self-balancing funds, as such term is commonly defined and used in governmental accounting, but rather is intended solely to constitute an earmarking of Operating Revenues, Capital Facilities Charges, if applicable, and certain other assets of the Water and Sewer Utility for certain purposes and to establish certain priorities for application of such Operating Revenues, Capital Facilities Charges and other assets as herein provided. The Plant Expansion Fund may be established as one or more accounting funds as necessary or desirable to account separately for water and wastewater Capital Facilities Charges or to reflect collection and expenditures, all in the manner required by law for the application of such Capital Facilities Charges.

C. Subaccounts. In each Series Resolution, the County may create subaccounts within the Funds and Accounts herein established with respect to one or more Series of Bonds and may provide that deposits to such Funds and Accounts shall be appropriately credited to such subaccounts, together with amounts received pursuant to any Credit Facility or Hedge Agreement. Amounts held in any such subaccount may be required to be held solely for the applicable Series of Bonds and applied to the payment thereof or to the payment of Payment Obligations and Hedge Obligations relating to such Series.

SECTION 503. Flow of Funds. For as long as any of the principal of and interest on any of the Bonds shall be outstanding and unpaid, or until payment has been provided for as herein permitted, or until there shall have been set apart in the Debt Service Fund, including the Reserve Account therein, a sum sufficient to pay when due the entire principal of the Bonds remaining unpaid, together with interest accrued or to accrue thereon, and all Hedge Obligations and Hedge Charges, the County covenants with the Holders of any and all Bonds as follows:

Application of Revenues. All Revenues shall be deposited in the Revenue Fund as received. Moneys in the Revenue Fund shall be applied to pay Operating Expenses and to create an Operating Expense reserve in an amount to be determined by the County (not to exceed 1/6th of the budgeted Operating Expenses for the then-current Fiscal Year). Thereafter, the County, on or before the 20th day of each month, commencing in the month immediately following the

first delivery of any Bonds, shall apply the remaining amount to the credit of the following Funds and Accounts in the following order:

- (i) to the credit of the Bond Service Account, an amount equal to one-sixth (1/6th) of the amount of interest payable on the Bonds of each Series on the interest payment date next succeeding (less any amount received as capitalized or accrued interest from the proceeds of any Bonds which is available for such interest payment) and an amount equal to one-twelfth (1/12th) of the next maturing installment of principal (or Accrued Value, as applicable) on all Serial Bonds then outstanding; provided, however, that:
 - (1) in each month intervening between the date of delivery of a Series of Bonds, and the next succeeding interest payment date and the next succeeding principal payment date, respectively, the amount specified in this subparagraph (i) shall be that amount which when multiplied by the number of deposits to the credit of the Bond Service Account required to be made during such respective periods will equal the amounts required (in addition to any amounts received as accrued interest or capitalized interest from the proceeds of such Bonds) for such next succeeding interest payment and next maturing installment of principal, respectively;
 - (2) the amount specified in this subparagraph (1) shall be reduced to take into account Hedge Receipts to be received on or before the succeeding interest payment date and shall be increased to provide for the payment of any Hedge Obligations to be paid on or before the succeeding interest payment date; and
 - (3) with respect to any Bonds (or any Hedge Agreement) bearing interest at a Variable Rate and/or payable other than semiannually, the amount specified in this subparagraph (i) for the payment of interest (or Hedge Obligation) shall be that amount necessary to provide substantially equal monthly payments for the payment of such interest (or Hedge Obligation) on the payment dates therefor.

- (ii) to the credit of the Redemption Account an amount equal to one-twelfth (1/12th) of the principal amount (or Accrued Value, as applicable) of Term Bonds of each Series then Outstanding required to be retired in satisfaction of the Amortization Requirements for such Bond Year, plus the redemption premiums, if any, which would be payable in such Bond Year for such Term Bonds were to be redeemed prior to their respective maturities from moneys held for the credit of the Debt Service Fund; and
- (iii) to the credit of the Reserve Account the amount required under Section 507 for such month; provided, however, no deposit shall be required in any month in which the amount on deposit in the Reserve Account is at least equal to the Reserve Account Requirement. If a Reserve Account Credit Facility is utilized and the Provider thereof is required to advance any sums to meet Principal and Interest Requirements or other sums required to be funded from the Reserve Account, the County shall reimburse the Provider within 12 months from the date the County receives written notice of such advance by the Provider; and
- (iv) to the payment of principal (including amortization installment, if any) of, and premiums and interest on, and other required payments with respect to Subordinate Obligations; and
- (v) to the credit of the Renewal and Replacement Fund, an amount equal to one-twelfth (1/12th) of the amount to be deposited from Revenues, if any, recommended by the Consultant pursuant to the provisions of Section 607 of this Ordinance, to the credit of said fund during such Fiscal Year; and
- (vi) in the discretion of the County, to the credit of the Rate Stabilization Fund in such sums as shall be determined by the County; and
- (vii) to the credit of the General Reserve Fund, the balance, if any, remaining thereafter.

If the amount deposited in any month to the credit of any of the Accounts or Funds shall be less than the amount required to be deposited under the foregoing provisions of this Section, the requirement therefor shall nevertheless be cumulative and the amount of any

deficiency in any month shall be added to the amount otherwise required to be deposited in each month thereafter until such time as all such deficiencies have been made up.

SECTION 504. Payment of Operating Expenses. The Operating Expenses of the Water and Sewer Utility shall be paid from the Revenue Fund. Such Operating Expenses shall be paid as the same become due and payable, shall be made in accordance with standard practices and procedures of the County established from time to time, and the Annual Budget.

SECTION 505. Application of Monies in Bond Service Account. (a) Except as provided in subsection (b), all Hedge Receipts shall be deposited by the County directly into the Bond Service Account and applied as provided in this Section. The Finance Director, on or before each interest or principal payment date, shall withdraw from the Bond Service Account, and deposit in trust with the Paying Agents the amounts required for paying the interest on the Bonds as such interest becomes due and payable and the principal of all Serial Bonds as such principal becomes due and payable. In addition, on or before each payment date for any Hedge Obligation, the Finance Director shall withdraw from the Bond Service Account the amount payable with respect to such Hedge Obligation and pay such amount to the applicable Counterparty. Such payments may be made by wire transfer or other electronic means or as may be provided with respect to any Book-Entry System.

(b) Hedge receipts constituting termination payments may, at the option of the County, be applied to acquire a replacement Hedge Agreement on terms similar to the expired or terminated Hedge Agreement and, in such event, only the Hedge Receipts in excess of the cost of entering into such replacement Hedge Agreement shall be deposited into the Bond Service Account as required by subsection (a).

SECTION 506. Application of Monies in Redemption Account. Monies held for the credit of the Redemption Account shall be applied to the retirement of the Bonds issued under the provisions of this Ordinance as follows:

(a) Subject to the provisions of paragraph (c) of this Section, the Finance Director may purchase any Term Bonds secured hereby and then outstanding, whether or not such Term Bonds shall then be subject to redemption, on the most advantageous terms obtainable with reasonable diligence, such price not to exceed the principal of such Term Bonds plus the amount of the redemption premium, if any, which might on the next redemption date be paid to the Holders of such Term Bonds if such Term Bonds should be called for redemption on such date from moneys in the Debt Service Fund. The Finance Director shall pay the interest accrued on such Term Bonds to date of settlement therefor from the Bond Service Account and the purchase price from the Redemption Account, but no such purchase shall be made by the Finance Director within the period of forty-five (45) days next preceding any interest payment date on which such Term

Bonds are subject to call for redemption under the provisions of this Ordinance, except from moneys other than moneys set aside or deposited for the redemption of Term Bonds.

(b) Subject to the provisions of Article III of this Ordinance and paragraph (c) of this Section, the Finance Director may call for redemption on each interest payment date on which Term Bonds are subject to redemption that amount of such Term Bonds as, with the redemption premium, if any, will exhaust the moneys which will be held for the credit of the Redemption Account on said interest payment date as nearly as may be practicable; provided, however, that not less than Fifty Thousand Dollars (\$50,000) principal amount of Term Bonds shall be called for redemption at any one time unless a lesser amount shall be required to satisfy the Amortization Requirement for any Bond Year. Such redemption shall be made pursuant to the provisions of Article III of this Ordinance and the applicable Series Resolution. The Finance Director, on or before the redemption date, shall withdraw from the Bond Service Account and the Redemption Account and set aside in separate accounts or deposit with the Paying Agent the respective amounts required for paying the interest on, and the principal and redemption premium of, the Term Bonds so called for redemption.

(c) Monies held by the Finance Director in the Redemption Account shall be applied by the Finance Director each Bond Year to the retirement of Bonds then outstanding in the following order:

First: to the retirement of Term Bonds to the extent of the Amortization Requirement, if any, for such Bond Year for such Term Bonds, plus the applicable premium, if any, and any deficiency in any preceding Bond Years in the purchase or redemption of such Term Bonds under the provisions of this subdivision and, if the amount available in such Bond Year shall not be sufficient therefor, then in proportion to the Amortization Requirement, if any, for such Bond Year for the Term Bonds of each such Series then outstanding, plus the applicable premium, if any, and any such deficiency.

Second: Term and Serial Bonds may be retired by optional redemption or by purchase as provided in or by the Series Resolution under which such Serial Bonds are issued.

Upon the retirement of any Bonds by purchase or redemption the Finance Director shall file with the Clerk and the Director a statement briefly describing such Bonds and setting forth the date of their purchase or redemption, the amount of the purchase price or the redemption price of such bonds and the amount paid as interest thereon. The expenses in

connection with the purchase or redemption of any Bonds shall be paid by the Department from the Revenue Fund.

SECTION 507. Application of Monies in Reserve Account. Each Series of Bonds shall be secured by the Reserve Account. The Reserve Account should be funded with cash, investments or a Reserve Account Credit Facility or any combination thereof. Upon the initial issuance of any Bonds hereunder, the County shall deposit into the Reserve Account the amount necessary to make the balance in the Reserve Account equal to the Reserve Account Requirement; provided, however, that if the County shall have obtained written evidence from each Rating Agency that a withdrawal or reduction in the rating(s) then assigned to the Outstanding Bond will not result, the County may fund not less than fifty percent (50%) of the Reserve Account Requirement applicable to any Series of Bonds on the date of issuance of the applicable Bonds, and the remaining Reserve Requirement may be funded in substantially equal monthly installments over a period not to exceed 36 months, all as same may be provided for in the applicable Series Resolution. Monies held for the credit of the Reserve Account shall first be used for the purpose of paying the interest on and the principal of the Bonds whenever and to the extent that the available moneys held for such purpose for the credit of the Bond Service Account and the General Reserve Fund shall be insufficient for such purpose, and thereafter for the purpose of making deposits to the credit of the Redemption Account of the Debt Service Fund pursuant to the requirements of clause (b) of Section 503 of this Ordinance whenever and to the extent that withdrawals from the Revenue Fund and the amount on deposit in the General Reserve Fund are insufficient for such purposes, and shall next be used to pay Payment Obligations with respect to the applicable Reserve Account Credit Facility, if any. Amounts withdrawn from the Reserve Account for the purpose of payment of debt service on any Bonds shall be replenished by substantially equal monthly deposits into the Reserve Account over a period not to exceed 60 months. If at any time the moneys held for the credit of any subaccount in the Reserve Account shall exceed the Reserve Account Requirement for those Bonds which are secured by such subaccount, such excess shall be withdrawn by the Finance Director and deposited to the credit of the Revenue Fund.

SECTION 508. Application of Monies in Renewal and Replacement Fund. Except as hereinafter provided in this Section, or except in case of an emergency caused by some extraordinary occurrence, so characterized in a certificate signed by the Consultant and filed with the Finance Director, and an insufficiency of moneys held for the credit of the Revenue Fund to meet such emergency, moneys held for the credit of the Renewal and Replacement Fund shall be disbursed only for the purpose of paying the cost of unusual or extraordinary maintenance or repairs, the cost of renewals and replacements, the cost of acquiring, installing or replacing equipment and acquiring and constructing additions, extensions and improvements and engineering, legal and administrative expenses relating to the foregoing and the cost of providing a local share of moneys required to entitle the County to receive

federal or state grants or participate in federal or state assistance programs related to the Water and Sewer Utility.

If at any time the moneys held for the credit of the Bond Service Account, the General Reserve Fund and the applicable subaccounts of the Reserve Account shall be insufficient for the purpose of paying the interest on and the principal of the Bonds as such interest and principal become due and payable, then the Finance Director shall withdraw from any moneys held for the credit of the Renewal and Replacement Fund and deposit to the credit of the Bond Service Account an amount sufficient to make up any such deficiency. If at any time the moneys held for the credit of the General Reserve Fund and the applicable subaccounts of the Reserve Account shall be insufficient for making the deposits to the credit of the Redemption Account required by clause (b) of Section 506 of this Article, then the Finance Director shall withdraw from any moneys held for the credit of the Renewal and Replacement Fund and deposit to the credit of the Redemption Account an amount sufficient to make up any such deficiencies; provided, however, that no such transfer shall be made unless the moneys then held for the credit of the Bond Service Account are at least equal to the maximum requirement therefor under Section 505. For purposes of this Section, amounts in any subaccount of the Reserve Account which serves as security for particular Bonds, are available for the payment of debt service on those particular Bonds and are not available for the purpose of paying debt service on any other Bonds.

SECTION 509. Application of Monies in Rate Stabilization Fund. Monies held for the credit of the Rate Stabilization Fund may only be used for transfer to the credit of the Revenue Fund at the time and in the amounts determined by the County; provided that such moneys shall be deposited to the credit of the Revenue Fund to the extent necessary to avoid a deficiency in the required deposits and payments therefrom.

SECTION 510. Application of Monies in the General Reserve Fund. Monies held for the credit of the General Reserve Fund at the election of the County may be applied to one or more of the following purposes:

- (a) to make up deficiencies in any of the Accounts and Funds created by this Ordinance including, but not limited to, any deficiencies in the Revenue Fund required for the payment of Operating Expenses;
- (b) to pay the principal of and the interest on any obligations issued or indebtedness incurred by the County to finance or refinance the Cost of Improvements, which obligations are junior and subordinate with respect to lien on and pledge of Revenues to the Bonds issued under the provisions of this Ordinance;

- (c) to pay the Cost of Improvements;
- (d) to purchase or redeem Bonds;
- (e) to pay the Cost of any item qualifying as an authorized expenditure from the Renewal and Replacement Fund;
- (f) paying principal, interest and redemption premium, if any, on any general obligation bonds issued by the County for the purposes of the Water and Sewer Utility, if such amount is set forth in the Annual Budget, and
- (g) any other lawful purpose of the Water and Sewer Utility, including, but not limited to, the payment of rebate, Credit Facility Charges, Hedge Charges and Payment Obligations and to make contributions to other funds of the County in the amounts to be determined by the Board, to the extent legally permitted.

Provided, however, that in the event of any deficiencies in any Accounts or Funds created by this Ordinance the moneys in the General Reserve Fund shall be applied to make up all such deficiencies prior to applying any moneys in the Reserve Account or the Renewal and Replacement Fund for such purpose.

SECTION 511. Investment of Moneys in Funds and Accounts. All moneys in the funds and accounts created hereunder shall be invested and reinvested in Investment Obligations. Investment Obligations allocated to any fund or account shall mature not later than the respective dates, as estimated by the Department, that moneys held for the credit of such fund or account will be needed for the purposes thereof. In the case of the Reserve Account, Investment Obligations shall mature (or be subject to mandatory purchase at the option of the Holder) not later than seven (7) years, unless the Investment Obligation is of such a nature that it can be drawn upon or redeemed at par, in which event such Investment Obligation may mature not later than the final maturity on Bonds secured by the Reserve Account. Investment earnings may be retained in such accounts to the extent necessary to maintain the Reserve Account Requirement therein, or may be transferred to the Construction Fund, if any, if necessary or desirable in connection with any Series as determined by the County as or prior to the issuance of such Series. Except as otherwise provided herein with respect to any particular moneys, and except to the extent necessary to be deposited into the Rebate Fund in accordance with any Tax Compliance Certificate, all income received on Investment Obligations shall upon receipt be deposited into the Revenue Fund.

SECTION 512. Security for Deposits. Any and all moneys deposited under the provisions of this Ordinance shall, to the extent provided herein, be trust funds under the

ARTICLE VI

Covenants

SECTION 601. Water and Sewer Rates. The County covenants that it will cause the schedules of rates for water and sewer service by the Water and Sewer Utility to be not less than the schedules fixed and prescribed by resolutions heretofore adopted by the County and now in effect as of the date of this Ordinance, and that neither such schedules nor the effective dates thereof will be revised except as hereinafter provided in this Article, except that there shall be no restriction on increasing rates at any time.

SECTION 602. Rate Covenant. The County further covenants that it will fix, charge and collect rates and charges for the use of the services and facilities furnished by the Water and Sewer Utility and that from time to time, and as often as it shall be necessary, it will adjust such rates and charges by increasing or decreasing the same or any selected categories of rates and charges, so as to provide Net Operating Revenues in each Fiscal Year, commencing with the Fiscal Year beginning October 1, 1993, equal to (a) one hundred ten percent (110%) of the Principal and Interest Requirements on the Bonds for such Fiscal Year, plus (b) one hundred percent (100%) of the required deposits into the Reserve Account (less any portion thereof to be deposited from proceeds of Bonds) together with any Reserve Account Credit Facility Costs payable in such Fiscal Year. In addition to satisfying the debt service coverage requirements set forth above, the Adjusted Net Operating Revenues remaining after deduction of the Maximum Principal and Interest Requirements on all Bonds shall be at least equal to one hundred percent (100%) of all debt service and reserve requirements on Subordinate Obligations;

In case the County has made deposits of Net Operating Revenues to or withdrawals from the Rate Stabilization Fund during such Fiscal Year Net Operating Revenues shall be adjusted by subtracting the amount of any such deposits and by adding the amount of any such withdrawal.

SECTION 603. Annual Budget. The County covenants that on or before the first day of each Fiscal Year the Board will cause the Department to adopt a budget of Operating Expenses and Capital Expenditures for such Fiscal Year (herein sometimes called the "Annual Budget"). Copies of the Annual Budget shall be filed with the Clerk and the Finance Director and mailed by the County to those Credit Facility Providers, Counterparties and Bondholders who shall have filed a request for the same and who have submitted their names and addresses with the Clerk for such purpose.

If for any reason the Board shall not have adopted the Annual Budget before the first day of any Fiscal Year, the Annual Budget for the preceding Fiscal Year, until the adoption

terms hereof and shall not be subject to any lien or attachment by any creditor of the County or the Department other than as provided herein. Such moneys shall be held in trust and applied in accordance with the provisions of this Ordinance.

All money deposited in the funds and accounts created under this Ordinance in excess of the amount guaranteed by the Federal Deposit Insurance Corporation or other federal agency shall be continuously secured for the benefit of the County and the Holders in such manner as may then be required or permitted by applicable State or federal laws and regulations regarding the security for, or granting a preference in the case of, the deposit of trust or public funds; provided, however, that it shall not be necessary to give security for any money that shall be represented by obligations purchased under the provisions of this Ordinance as an investment of such money unless otherwise required by applicable law.

of the Annual Budget for such Fiscal Year shall be deemed to be in force and shall be treated as the Annual Budget under the provisions of this Article.

The Board may at any time adopt an amended or supplemental Annual Budget for the remainder of the then current Fiscal Year and the Annual Budget so amended or supplemented shall be treated as the Annual Budget under the provisions of this Article. Copies of any such amendment or supplemental Annual Budget shall be filed with the Clerk and the Finance Director and mailed by the County to all Bondholders who shall have filed their names and addresses with the Clerk for such purpose.

SECTION 604. Payment of Principal, Interest and Premiums. The County covenants that it will promptly pay (i) the principal of and the interest on such and every Bond issued under the provisions of this Ordinance at the places, on the dates and in the manner specified herein and in said Bonds and any premium required for the retirement of said Bonds by purchase or redemption according to the true intent and meaning thereof.

Bonds issued under the provisions of this Ordinance and Hedge Agreements secured hereunder shall not be deemed to constitute a debt of the County or a pledge of the faith and credit of the County but such Bonds shall be payable solely from the funds provided therefor from Revenues. The issuance of the Bonds shall not directly or indirectly or contingently obligate the County to levy or to pledge any form of taxation whatsoever therefor, nor shall any such Bonds constitute a charge, lien or encumbrance, legal or equitable, upon any property of the County.

SECTION 605. Construction of Improvements; Operation of Water and Sewer Utility. The County covenants that it will construct any Improvements for the construction of which Bonds shall be issued under the provisions of this Ordinance, or for which moneys repayable from the proceeds of Bonds issued under the provisions of this Ordinance shall have been or are to be expended, in accordance with plans theretofore approved by the Consultant and that upon the completion of such Improvements it will operate and maintain the same as a part of the Water and Sewer Utility.

SECTION 606. Covenant as to Maintenance, Repair and Operation. The County covenants that it will establish and enforce reasonable rules and regulations governing the use of the Water and Sewer Utility and the operations thereof, that it will operate the Water and Sewer Utility in an efficient and economical manner, that it will at all times maintain the Water and Sewer Utility in good repair and in sound operating condition and will make all necessary repairs, renewals and replacements, and that it will comply with all valid acts, rules, regulations, orders and directions of any legislative, executive, administrative or judicial body applicable to the Water and Sewer Utility.

SECTION 607. Employment of Consultant. The County covenants and agrees that so long as any Bonds are outstanding under this Ordinance, it will employ a Consultant whose duty shall be to prepare and file with the County on or before the 1st day of September in each year a report setting forth their recommendations as to any necessary or advisable revisions of rates and charges and such other advice and recommendations as they may deem desirable. The Consultant shall include in such report its recommendations as to the amount that should be deposited monthly during the next Fiscal Year to the credit of the Renewal and Replacement Fund for the purposes set forth in Section 508 of this Ordinance.

Anything in this Ordinance to the contrary notwithstanding, if the County shall comply with all recommendations of the Consultant in respect of rates and charges and is current on its deposits to the Renewal and Replacement Fund, it will not constitute an Event of Default under this Ordinance if the total amounts deposited to the credit of the Bond Service Account, the Redemption Account or the Reserve Account, as the case may be, in any Fiscal Year, shall be less than the amounts required in Section 602 herein; provided, however, that in any Fiscal Year the County shall have Net Operating Revenues of at least 100% of Maximum Principal and Interest Requirements and 100% of all required deposits to the Reserve Account.

The County shall employ a Consultant to make physical inspection of the Utility at least once every three years and render a written report as to the state of condition and repair of the Utility, including therein recommendations as to repairs, replacements and improvements required.

The County further covenants that the Consultant shall at all times have free access to all properties of the Water and Sewer Utility and every part thereof for the purposes of inspection and examination, and that the County's books, records and accounts relating to the Utility may be examined by the Consultant at all reasonable times.

SECTION 608. Employment of Accountant. For the purpose of performing and carrying out the duties imposed on the Accountants by this Ordinance, the County will employ an accountant of suitable experience and responsibility.

SECTION 609. Insurance. The County covenants that it will maintain a practical insurance program, with reasonable terms, conditions, provisions and costs, which the County determines will afford adequate protection against loss, caused by damage to or destruction of the Water and Sewer Utility or any part thereof and also such comprehensive public liability insurance on the Water and Sewer Utility for bodily injury and property damage.

All such insurance policies shall be carried by a responsible insurance company or companies satisfactory to the County Manager and authorized and qualified under the laws of the State of Florida to assume the risk thereof.

The proceeds of all such insurance covering damage to or destruction of the Water and Sewer Utility shall be deposited with the Finance Director and shall be available for and, to the extent necessary, shall be applied to the repair, replacement or reconstruction of the damaged or destroyed property, and shall be paid out in the manner hereinabove provided for payments from the Construction Fund. If such proceeds are more than sufficient for such purpose, the balance remaining shall be deposited to the credit of the General Reserve Fund. If such proceeds shall be insufficient for such purpose, the deficiency may be supplied out of any moneys in the General Reserve Fund or the Renewal and Replacement Fund. The proceeds of all insurance covering loss of Operating Revenues shall be deposited to the credit of the Revenue Fund.

Copies of all recommendations and approvals made by the Consultant under the provisions of this Section shall be filed with the Finance Director.

Notwithstanding the foregoing provisions of this Section, the County may institute and maintain self-insurance programs with regard to such risks as shall be consistent with the recommendations of the Dade County Insurance Department; provided, however, the Dade County Insurance Department shall determine the premiums on an actuarially sound basis, and the premiums so determined shall be paid annually.

SECTION 610. Reports, Accounts and Audits. The County covenants that it will keep the accounts of the Water and Sewer Utility separate from all other accounts of the County or of any of its departments, and that it will keep accurate records and accounts of all items of cost and of all expenditures relating to the Water and Sewer Utility and of the Operating Revenues collected and the application of such Operating Revenues.

The County further covenants that, at the end of each Fiscal Year, it will prepare financial statements of the Water and Sewer Utility in accordance with GAAP and that it will cause an audit of the financial statements to be made by the Accountants. Such audit will be conducted in accordance with generally accepted auditing standards. The audit will be completed within sixty (60) days after the completed financial statements are submitted to the Accountant and such financial statements shall be submitted to the Accountant within sixty (60) days after the end of the Fiscal Year. The County will also cause an annual report of operations of the Water and Sewer Utility to be prepared, such annual report to cover the matters usually contained in annual reports for water and sewer systems. Within a reasonable time thereafter reports of each such audit and copies of each annual report shall be filed with the Finance Director and the Director and copies of such reports shall be mailed by the Director to the Consultant. The scope of the Accountant's audit will be sufficient to enable them to express an opinion that the County has complied with the conditions and covenants of its Ordinance or to the extent that such audit causes them to be of the opinion that compliance has not been met, to report events of non-compliance which came to their attention as a result of their audit which

was designed for the purpose of testing such compliance. The cost of such audits shall be treated as a part of the cost of operation.

The County further covenants that it will cause any additional reports or audits relating to the Water and Sewer Utility to be made as required by law.

For the purposes of this Ordinance each fund, account or sub-account created or provided for hereunder shall be a series of accounts within the book of accounts of the Water and Sewer Utility and shall connote a segregation of accounts, which will support special purpose disclosure reports, not to be construed as a separate set of books of accounts.

SECTION 611. Mandatory Connections. The County, to the full extent permitted by law, will require all lands, buildings and structures within the service area of the Water and Sewer Utility, fronting or abutting on the lines of the Water and Sewer Utility, or any part thereof, or which can use the facilities of the Water and Sewer Utility to connect with and use such facilities within ninety (90) days after notification that service is available. The County may make charges for sewage disposal service effective as to each lot or parcel of land which may feasibly use the facilities of the sewer portion of the Water and Sewer Utility at the time when the construction of the sewer lines abutting upon such lot or parcel of land or sewer lines from which such lot or parcel of land may feasibly be served are completed and are ready for service.

The County may grant franchises for the operation of water systems or sewer systems or water and sewer systems if the Consultant shall certify that (a) the area to be covered by such franchise cannot be served feasibly by the Water and Sewer Utility in accordance with generally accepted engineering practices, (b) the customers in the area to be covered by such franchise would be better served by the proposed grantee of the franchise than by the Water and Sewer Utility and (c) the granting of such franchise will not require the County to raise the rates and charges for the services and facilities of the Water and Sewer Utility in order to comply with Section 602 of this Ordinance.

SECTION 612. Supervisory Personnel. The Director shall serve as the manager of the Water and Sewer Utility. The County shall require all employees who may have possession of money of the County derived from the operation of the Water and Sewer Utility to be covered by a fidelity bond, written by a responsible indemnity company in amounts fully adequate to protect the County from loss.

SECTION 613. No Free Services. The County will not render or cause to be rendered any free services of any nature by the facilities of the Water and Sewer Utility nor will any preferential rates be established for users of the same class; the County including its departments, agencies and instrumentalities in the service area, shall avail itself of the facilities

of the Water and Sewer Utility, and the same rates, fees and charges applicable to other customers receiving like services under similar circumstances shall be charged to the County and any such department, agency or instrumentality. Such charges will be paid as they accrue, and the County shall transfer from its appropriate funds sufficient sums to pay such charges. The moneys so received shall be deemed to be Operating Revenues and shall be deposited and accounted for in the same manner as other Revenues.

SECTION 614. Failure to Pay for Services. To the extent permitted by law, upon failure of any user to pay for services rendered within ninety (90) days, the County shall shut off the connection of such user to the Water and Sewer Utility and shall not furnish him or permit him to receive further service until all obligations owed by him to the County on account of services shall have been paid in full. This covenant shall not, however, prevent the County from causing any connection to be shut off sooner. To the extent permitted by law, the County shall not provide any water or sewer service to any new property owner until such time as all delinquent charges owed for services rendered to such property are paid.

SECTION 615. Enforcement of Collections. The County will diligently enforce and collect the rates, fees and other charges for the services of the Water and Sewer Utility; will take all steps, actions and proceedings for the enforcement and collection of such rates, fees and charges that become delinquent, to the full extent permitted or authorized by law; and will maintain accurate records with respect thereto. All such rates, fees, charges and revenues herein pledged, as collected, shall be held in trust to be applied as provided in this Ordinance and not otherwise.

SECTION 616. Right to Borrow and Pledge Federal Grants. Notwithstanding anything contained in this Ordinance, the County shall have the right from time to time to incur indebtedness to any person for the purpose of paying all or any part of the Cost of Improvements for paying the cost of which the County has a grant agreement with the Federal government provided, that such indebtedness shall be payable as to principal, interest and premium solely from moneys to be received by the County pursuant to such grant agreement and such indebtedness may in no event be payable from Revenues.

SECTION 617. Disposition of Assets. Except for the sale of parts being replaced in the ordinary course of business, the County will not sell or otherwise dispose of any portion or component of the Utility, except under the following conditions:

- (1) If the original cost of the property in question, as determined by the Consultant, together with the original cost of all property previously sold or disposed of in such Fiscal Year, does not exceed two percent (2%) of the property, plant and equipment of the Utility as shown on the County's most recent audited financial statements, then such property may be sold.

if the Board (by affirmative vote at a meeting duly called and held), shall find that such property is no longer necessary, useful or profitable in the operations of the Utility, and the Board authorizes the sale of such property. The proceeds received from the sale of such property shall be deposited in the Renewal and Replacement Fund.

- (2) If the original cost of the property in question, together with the original cost of all property previously sold or disposed of in such Fiscal Year, exceeds two percent (2%) of the property, plant and equipment of the Utility as shown on the County's most recent audited financial statements, then such property may be sold if a Consultant shall first find in writing delivered to the Department that the sale or disposition of such property will not materially and adversely affect the Net Operating Revenues of the Utility in any of the five (5) Fiscal Years following the Fiscal Year in which such property is sold, and if the Board (by affirmative vote at a meeting duly called and held) shall find that such property is no longer necessary, useful or profitable in the operations of the Utility, and the Board authorizes the sale of such property. The proceeds derived from the sale of such property shall be deposited first into the Renewal and Replacement Fund in an amount which the Consultant shall certify is necessary to replenish the fund to the level recommended by the Consultant for such Fiscal Year, and the remainder of the proceeds shall be used to either (a) pay the cost of acquisitions, extensions or improvements to the Utility, or (b) retire Bonds, if callable, or to defease Bonds, to the maximum extent possible, pursuant to Section 901.

discharged within ninety (90) days from the entry thereof or an appeal shall not be taken therefrom or from the order, decree or process upon which or pursuant to which such judgment shall have been granted or entered, in such manner as to stay the execution of or levy under such judgment, order, decree or process or the enforcement thereof; or

(h) Any Event of Default under any Series Resolution which, by the terms of such Series Resolution, shall be deemed an Event of Default hereunder;

(i) The County shall default in the due and punctual performance of any other of the covenants, conditions, agreements and provisions contained in any of the Bonds, in this Resolution or in any Series Resolution on the part of the County to be performed, and such default shall continue for thirty (30) days after written notice specifying such default and requiring the same to be remedied shall have been given by the registered owners of not less than ten percent (10%) in aggregate principal amount (and Accreted Value, if applicable) of the one or more series of Bonds then Outstanding, with respect to which such default has occurred; or

(j) The County shall be in default on any payments which are due under any Credit Agreement relating to a Credit Facility or Reserve Account Credit Facility securing any Bonds and the Provider which issued such credit facility or reserve fund credit facility notifies the Finance Director in writing by registered mail that it elects to treat such default as an Event of Default hereunder; or

Notwithstanding the foregoing, but subject to limitations in any Series Resolution or Credit Agreement, with respect to the events described in clauses (d), (h) and (i), above, the County shall not be deemed in default hereunder if such default can be cured within a reasonable period of time and if the County in good faith institutes appropriate curative action and diligently pursues such action until the default has been corrected.

SECTION 702. Notice of Default. If any Event of Default shall occur, the Finance Director shall give, or cause to be given, within thirty (30) days after the Finance Director has knowledge of the Event of Default, unless such Event of Default shall have been cured, written notice of the Event of Default, by first class mail to the Holders of all Bonds and by registered or certified mail, to each Provider and Counterparty.

SECTION 703. Remedies. Any trustee, any Holder of Bonds issued under the provisions hereof acting for the Holders of all Bonds may by suit, action, mandamus or other proceedings in any court of competent jurisdiction, protect and enforce any and all rights, including the right to the appointment of a receiver, existing under the laws of the State of Florida, or granted and contained herein, and may enforce and compel the performance of all duties herein required or by any applicable statutes to be performed by the County or by any

ARTICLE VII

Events of Default; Remedies

SECTION 701. Events of Default. Each of the following events is hereby declared an "Event of Default":

(a) Payment of the principal of or any premium on any Bond shall not be made when the same shall become due and payable, either at maturity or on required payment dates by proceedings for redemption, purchase or otherwise; or

(b) Payment of any installment of interest on any Bond shall not be made when the same shall become due and payable; or

(c) The County shall fail to cause any Bond to be purchased at the time required by the Series Resolution under which such bond was issued; or

(d) The County shall admit that it has been rendered incapable of fulfilling its obligations hereunder or under any Series Resolution to such an extent that the payment of or security for any of the bonds will be materially adversely affected, and that such condition has continued unremedied for a period of thirty (30) days after the County first became aware of such condition; or

(e) An order or decree shall be entered, with the consent or acquiescence of the County, appointing a receiver or receivers of the County or of any of the Pledged Revenues or of any of the funds herein described, or any part thereof or the filing of a petition by the County or of relief under federal bankruptcy laws or any other applicable law or statute of the United States of America or the State, which shall not be dismissed, vacated or discharged within thirty (30) days after the filing thereof; or

(f) Any proceedings shall be instituted, with the consent or acquiescence of the County, for the purpose of effecting a composition between the County and its creditors or for the purpose of adjusting the claims of such creditors, pursuant to any federal or state statutes now or hereafter enacted, if the claims of such creditors are under any circumstances payable from the Pledged Funds or any of the funds; or

(g) The entry of a final judgment or judgments for the payment of money against the County which subjects the Pledged Revenues or any of the funds or any part thereof to a lien for the payment thereof in contravention of the provisions of this Resolution or of any Series Resolution for which there does not exist adequate insurance, reserves or appropriate surety or indemnity bonds for the timely payment thereof, and any such judgment shall not be

officer thereof. Nothing herein, however, shall be construed to grant to any Holder of such Bonds any lien on any property of or within the corporate boundaries of the County. No Holder of Bonds, however, shall have any right in any manner whatsoever to affect, disturb or prejudice the security of this Ordinance or to enforce any right hereunder except in the manner herein provided, and all proceedings at law or in equity shall be instituted and maintained for the benefit of all Holders of Bonds.

Nothing herein shall be construed to preclude any Counterparty from exercising any and all rights and remedies, including the right to the appointment of a receiver, available to it under the laws of the State of Florida as a pledgee to enforce the obligations of the County under the applicable Hedge Agreement.

If any payments of Principal and Interest Requirements are made by a Credit Facility Provider with respect to Bonds which have not been defeased in accordance with the provisions of Section 901 hereof, the lien upon and pledge of the money on deposit from time to time in the Funds and Accounts created and established herein and all covenants and other obligations of the Issuer to the Holders of such Bonds shall continue to exist and the Credit Facility Provider shall be subrogated to the rights of the Holders of such Bonds with respect to the Principal and Interest Requirements paid or insured by such Credit Facility Provider.

SECTION 704. Pro Rata Application of Funds. Anything in this Ordinance to the contrary notwithstanding, if at any time the available moneys in the Debt Service Fund shall not be sufficient to pay the principal of or the interest on the Bonds and Hedge Obligations as the same become due and payable, such moneys together with any moneys then available or hereafter becoming available for such purpose, whether through the exercise of the remedies provided for in this Article or otherwise, shall be applied as follows:

First: to the payment of the persons entitled thereto of all installments of interest then due and payable on the Bonds and all Hedge Obligations (other than termination payments), in the order in which such amounts become due and payable, and, if the amount available shall not be sufficient to make payment in full, then to the payment ratably, according to the amounts due, to the persons entitled thereto, without any discrimination or preference except as to any difference in the respective rates of interest specified in the Bonds or applicable Hedge Agreement;

Second: to the payment of the persons entitled thereto of the unpaid principal of any of the Bonds and Hedge Obligations which are termination payments that have become due (other than Bonds called for redemption for the payment of which sufficient moneys are held pursuant to the provisions of this Ordinance), in the order of their due dates, and, if the amount available shall not

be sufficient to pay in full the principal of Bonds due on any particular date and then to the payment of such principal, ratably according to the amount of such principal due on such date, to the persons entitled thereto without any discrimination or preference except as to any difference in the respective rates of interest specified in the Bonds; and

Third: to the payment of the interest on and the principal of the Bonds, Hedge Obligations and Hedge Charges, and to the purchase and retirement of Bonds and to the redemption of Bonds, all in accordance with the provisions of Article V of this Ordinance.

For purposes of the foregoing provisions of this Section, if any principal or interest on any particular Bonds is paid with funds advanced under any Credit Facility, the Credit Facility Provider shall become subrogated to the Holder's right to payment from the County of such principal or interest and shall be entitled to receive payment from the County under the foregoing provisions.

Whenever moneys are to be applied by the County pursuant to the provisions of this Section, such moneys shall be applied by the County at such times, and from time to time, as the Finance Director in his sole discretion shall determine, having due regard to the amount of such moneys available for application and the likelihood of additional moneys becoming available for such application in the future; the deposit of such moneys with the Paying Agent, or otherwise setting aside such moneys, in trust for the proper purpose, shall constitute proper application by the County; and the County shall incur no liability whatsoever to any Bondholder or to any other person for any delay in applying any such funds, so long as the County acts with reasonable diligence, having due regard to the circumstances, and ultimately applies the same in accordance with such provisions of this Ordinance as may be applicable at the time of application. Whenever the Finance Director shall exercise such discretion in applying such funds, he shall fix the date upon which such application is to be made and upon such date interest on the amounts of principal to be paid on such date shall cease to accrue. The Finance Director shall give such notice as he may deem appropriate of the fixing of any such date, and shall not be required to make payment to the Holder of any Bond until such Bond shall be surrendered to him for appropriate endorsement.

The pro-rata application of moneys pursuant to this Section 702 shall be adjusted with respect to Variable Rate Bonds and any Bonds bearing interest payable other than semiannually on October 1 and April 1 so as to ensure that each person entitled to receive payment shall receive as nearly as practicable the same proportion of the total amount due to such person, taking into account any interest paid since the preceding October 1 or April 1.

Notwithstanding the foregoing, moneys in each subaccount of the Reserve Account securing particular Bonds shall be used only to pay debt service on such particular Bonds (or to pay Payment Obligations to any Credit Facility Provider which has advanced moneys under a Credit Facility securing such Bonds) and moneys in any other subaccount in the Reserve Account shall not be used to pay debt service on said Bonds or to pay such Payment Obligations.

SECTION 705. Effect of Discontinuance of Proceedings. In case any proceeding taken by any Bondholder or Credit Facility Provider on account of any default shall have been discontinued or abandoned for any reason, then and in every such case the County and the Bondholder or Credit Facility Provider shall be restored to their former positions and rights hereunder, respectively, and all rights and remedies of the Bondholders and Credit Facility Providers shall continue as though no such proceeding had been taken.

SECTION 706. Restriction on Individual Bondholder Actions. No Holder of any of the Bonds hereby secured nor any Counterparty shall have any right in any manner whatever by his or their action to affect, disturb or prejudice the security of this Ordinance or to enforce any right hereunder except in the manner herein provided, and all proceedings at law or in equity shall be instituted, had and maintained for the benefit of all Holders of such Bonds, and all Credit Facility Providers, as their respective interests may appear.

Nothing herein shall be construed to preclude any Counterparty from exercising any and all rights and remedies, including the right to the appointment of a receiver, available to it under the laws of the State of Florida as a pledgee to enforce the obligations of the County under the applicable Hedge Agreement.

SECTION 707. Right to Enforce Payment of Bonds. Nothing in this Article shall affect or impair the right of any Holder of a Bond to enforce the payment of the principal of and interest on his/her Bond, or the obligation of the County to pay the principal of and interest on such Bond to the Holder thereof at the time and place stated in said Bond or the right of any Counterparty to enforce payment of amounts due under a Hedge Agreement or the obligation of the County to make such payments in accordance with such Hedge Agreement.

ARTICLE VIII Supplemental Ordinances

SECTION 801. Supplemental Ordinance Without Bondholders' Consent. The Board, from time to time and at any time may adopt such ordinances supplemental hereto as shall not be incompatible with the terms and provisions hereof (which supplemental ordinance shall thereafter form a part hereof), in order to:

- (a) cure any ambiguity or formal defect or omission or to correct any inconsistent provisions in this Ordinance or in any supplemental ordinance, or
- (b) grant to or confer upon the Bondholders any additional rights, remedies, powers, authority or priority that may lawfully be granted to or conferred upon the Bondholders, or
- (c) add to the conditions, limitations and restrictions on the issuance of Bonds or the entering into of Hedge Agreements under the provisions of this Ordinance other conditions, limitations and restrictions thereafter to be observed, or
- (d) add to the covenants and agreements of the County in this Ordinance other covenants and agreements thereafter to be observed by the County or to surrender any right or power herein reserved to or conferred upon the County, or
- (e) to make other changes or modifications to the provisions of this Ordinance which are not adverse to the interests of the Bondholders, any Credit provider or any Counterparty.

SECTION 802. Supplemental Ordinance With Bondholders' Consent. Subject to the terms and provisions contained in this Section, and not otherwise, the Holders of not less than two-thirds (2/3) in aggregate principal amount of the Bonds then outstanding shall have the right, from time to time, anything contained in this Ordinance to the contrary notwithstanding, to consent to and approve the adoption of such ordinance or ordinances supplemental hereto as shall be deemed necessary or desirable by the County for the purpose of modifying, altering, amending, adding to or rescinding, in any particular, any of the terms or provisions contained in this Ordinance or in any supplemental ordinance; provided, however, that nothing herein contained shall permit, or be construed as permitting, (a) an extension of the

maturity of the principal of or the interest on any Bonds issued hereunder, or (b) a reduction in the principal amount of any Bonds or the redemption premium or the rate of interest thereon, or (c) the creation of a lien upon or a pledge of Revenues other than a lien and pledge created by this Ordinance, or (d) a preference or priority of any Bond or Bonds over any other Bond or Bonds, or (e) a reduction in the aggregate principal amount of the Bonds required for consent to such supplemental ordinance, or (f) a change in any State Loan which is adverse to the interests of the Bondholders. Nothing herein contained, however, shall be construed as making necessary the approval by Bondholders of the adoption of any supplemental ordinance as authorized in Section 801 of this Article.

If the Holders (and Providers who are entitled to act in lieu of Holders) of not less than two-thirds (2/3) in aggregate principal amount of the Bonds outstanding at the time of the adoption of such supplemental ordinance shall have consented to and approved the adoption thereof as herein provided, no Holder of any Bond or Credit Facility Provider shall have any right to object to the adoption of such supplemental ordinance, or to object to any of the terms and provisions contained therein or the operation thereof, or in any manner to question the propriety of the adoption thereof, or to enjoin or restrain the Board from adopting the same or from taking any action pursuant to the provisions thereof.

Upon the enactment of any supplemental ordinance pursuant to the provisions of this Section, this Ordinance shall be and be deemed to be modified and amended in accordance therewith, and the respective rights, duties and obligations under this Ordinance of the County and all Holders of Bonds then outstanding shall thereafter be determined, exercised and enforced in all respects under the provisions of this Ordinance as so modified and amended.

SECTION 803. Rights of Credit Facility Provider. In the event that a Credit Facility is in full force and effect as to a Series of Bonds and the Credit Facility Provider is not insolvent and no default of the Credit Facility exists on the part of the Credit Facility Provider, then the said Credit Facility Provider, in place of the Holders of that Series of Bonds, shall have the power and authority to give any consents and exercise any and all other rights which the Holders of that Series would otherwise have the power and authority to make, give or exercise, including, but not limited to, the exercise of remedies provided in Article VII, and the giving of consents to supplemental ordinances when required by Section 802 above, and such consent shall be deemed to constitute the consent of the Holders of all of those Bonds which are secured by such Credit Facility.

SECTION 804. Supplemental Ordinances Part of Ordinance. Any supplemental ordinance enacted in accordance with the provisions of this Article and approved as to legality by the County Attorney shall thereafter form a part of this Ordinance, and all of the terms and conditions contained in any such supplemental ordinance as to any provision authorized to be contained therein shall be and shall be deemed to be part of the terms and

conditions of this Ordinance for any and all purposes. In case of the enactment and approval of any supplemental ordinance, express reference may be made thereof in the text of any Bonds issued thereafter, if deemed necessary or desirable by the County.

SECTION 805. Notice of Supplemental Ordinances. The County shall give to the Rating Agencies advance notice of the proposed adoption of any supplemental ordinance, which notice shall include the substantial form of such supplemental ordinance.

ARTICLE IX

Defeasance

SECTION 901. Cessation of Interest of Bondholders. If, when any Bonds secured hereby shall have become due and payable in accordance with their terms or shall have been called for redemption on either instructions to call the Bonds for redemption or to pay the Bonds at their respective maturities and mandatory redemption dates or any combination of such payment and redemption, and, if applicable, provisions for redemption shall have been made by the County with an appropriate escrow agent, the whole amount of the principal and the interest and premium, if any, so payable upon such Bonds then Outstanding shall be paid or sufficient moneys or Defeasance Obligations shall be held by such escrow agent for such purpose, and provision shall also be made for paying all other sums payable by the County on said Bonds, then and in that case the right, title and interest of the Holders of said Bonds in this Ordinance and any applicable Series Resolution shall thereupon cease, determine and become void; otherwise this Ordinance shall be, continue and remain in full force and effect; provided, however, that in the event Defeasance Obligations shall be deposited with and held by an escrow agent as above provided, in addition to the requirements set forth in Article II of this Ordinance, the Finance Director, within thirty (30) days after such Defeasance Obligations shall have been deposited with such escrow agent, shall cause a notice to be mailed to all registered owners of such Bonds or published once in a daily newspaper of general circulation, or a financial journal, published in the Borough of Manhattan, City and State of New York, setting forth the date designated for the redemption of the Bonds and identifying the Bonds to be redeemed. Further, when all amounts due under any Hedge Agreement and any Credit Facility shall have been paid or provided for (in the manner permitted under such Hedge Agreement or Credit Facility), then and only in that case the right, title and interest of the Counterparty or the Credit Facility Provider in this Ordinance shall thereupon cease, determine and become void.

ARTICLE X

Miscellaneous Provisions

SECTION 1001. Inconsistent Ordinances. All ordinances and parts thereof, including Chapter 32A of the Code of Metropolitan Dade County, which are inconsistent with any of the provisions of this Ordinance are hereby declared to be inapplicable to the provisions of this Ordinance.

SECTION 1002. Further Acts. The officers and agents of the County are hereby authorized and directed to do all acts and things required of them by the Bonds and this Ordinance, for the full, punctual and complete performance of all of the terms, covenants, provisions and agreements contained in the Bonds and this Ordinance.


SECTION 1003. Headings Not Part of Ordinance. Any headings preceding the texts of the several Articles and Sections hereof and any table of contents, marginal notes or footnotes appended to copies hereof shall be solely for convenience of reference, and shall not constitute a part of this Ordinance, nor shall they affect its meaning, construction or effect.


SECTION 1004. No Third Party Beneficiaries. Except as herein otherwise expressly provided, nothing in this Ordinance, expressed or implied, is intended or shall be construed to confer upon any person, firm or corporation, other than the County, any applicable Credit Facility Provider, any Counterparty and the Holders of the Bonds issued under and secured by this Ordinance, any right, remedy or claim, legal or equitable, under or by reason of this Ordinance or any provision hereof, this Ordinance and all its provisions being intended to be and being for the sole and exclusive benefit of the County, each Credit Facility Provider, each Counterparty and the Holders from time to time of the Bonds issued hereunder.


SECTION 1005. Severability. In case any one or more of the provisions of this Ordinance or of any Bonds issued hereunder shall for any reason be held to be illegal or invalid, such illegality or invalidity shall not affect any other provision of this Ordinance or of the Bonds, but this Ordinance and the Bonds and coupons shall be construed and enforced as if such illegal or invalid provision had not been contained herein.

SECTION 1006. Application of Florida Law. The Bonds are issued and this Ordinance is adopted with the intent that the laws of the State of Florida shall govern their construction.

SECTION 1007. Effective Date. This Ordinance shall take effect ten (10) days after its adoption.

PASSED AND ENACTED ON this 16 day of November, 1993. 

Approved by County Attorney as to form and legal sufficiency: 

Prepared by 

Co-Bond Counsel: Squire, Sanders & Dempsey
Valdes-Fauli, Cobb, Bischoff & Kriss, P.A.

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STATE OF FLORIDA)
DADE COUNTY) SS:

I, HARVEY RUVIN, Clerk of the Circuit Court in and for Dade County, Florida, and Ex-Officio Clerk of the Board of County Commissioners of said County, DO HEREBY CERTIFY that the above foregoing is a true and correct

COPY OF ORDINANCE 93-134 PASSED AND ADOPTED NOVEMBER 16, 1993
as appears of record.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal on this 03rd day of MAY A.D. 1999.



HARVEY RUVIN, Clerk
Board of County Commissioners
Dade County, Florida
By: *[Signature]*
Deputy Clerk

Board of County Commissioners
Dade County, Florida

ORDINANCE NO. 13-47

ORDINANCE AUTHORIZING ISSUANCE OF NOT TO EXCEED \$4,245,000,000.00 AGGREGATE PRINCIPAL AMOUNT OF MIAMI-DADE COUNTY, FLORIDA WATER AND SEWER SYSTEM REVENUE BONDS, IN MULTIPLE SERIES, AS ADDITIONAL BONDS UNDER SECTION 208 OF ORDINANCE NO. 93-134, TO PAY COSTS OF CERTAIN IMPROVEMENTS TO WATER AND SEWER UTILITY; PROVIDING THAT DETAILS, TERMS AND OTHER MATTERS RELATING TO ADDITIONAL BONDS BE DETERMINED IN SERIES RESOLUTIONS, AMENDING ORDINANCE NO. 93-134 TO INCREASE RATE COVENANT; AND PROVIDING FOR SEVERABILITY AND EFFECTIVE DATE

WHEREAS, the Board of County Commissioners (the "Board") of Miami Dade County, Florida (the "County"), acting pursuant to the authority recited in Section 1 of this Ordinance (the "2013 Ordinance"), owns and operates water and wastewater treatment plant facilities and a distribution and collection system and pursuant to such authority and Ordinance No. 93 134, enacted by the Board on November 16, 1993 (the "Original Ordinance" and as amended by this 2013 Ordinance, the "Master Ordinance"), is authorized to issue revenue bonds from time to time; and

WHEREAS, pursuant to Ordinance No. 09-67 enacted by the Board on July 23, 2009 (the "2009 Ordinance"), the Board authorized the issuance of not to exceed \$800,000,000 in aggregate principal amount of Additional Bonds under the provisions of Section 208 of the Master Ordinance for the purpose of paying Costs of the CIP Projects (as defined in the 2009 Ordinance), funding the Reserve Account established under the Master Ordinance and paying costs of issuance of such Additional Bonds, of which the County has issued \$594,330,000; and

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Section 2. Incorporation of Recitals. The matters set forth in the foregoing recitals to this 2013 Ordinance are incorporated as part of this 2013 Ordinance.

Section 3. Definitions. All terms used in capitalized form and not defined in this 2013 Ordinance have the meanings assigned to such terms in the Master Ordinance, unless the context otherwise clearly requires a different meaning.

Section 4. Authorization to Issue Additional Bonds. The Board authorizes the issuance, from time to time, of not to exceed \$4,245,000,000 aggregate principal amount of Miami-Dade County, Florida Water and Sewer System Revenue Bonds, in multiple Series, as Additional Bonds pursuant to Section 208 of the Master Ordinance and the authority of the Act, for the purpose of paying Costs of the CIP Projects, funding the Reserve Account, funding capitalized interest, if advisable, and paying costs of issuance of such Additional Bonds.

The Additional Bonds authorized under this 2013 Ordinance shall be special limited obligations of the County payable solely from and secured solely by Pledged Revenues. Such Additional Bonds do not constitute an indebtedness, liability, general or moral obligation, or a pledge of the faith, credit or power of the County, the State of Florida (the "State") or any political subdivision of the State, within the meaning of any constitutional, statutory or charter provision. Neither the State nor any political subdivision of the State nor the County shall be directly or indirectly or contingently obligated to levy any ad valorem taxes on any property to pay the principal of or the interest on such Additional Bonds or other related costs, or to pay the same from any other funds of the County except from the Pledged Revenues. The acceptance of such Additional Bonds by the registered owners from time to time shall be deemed an agreement between the County and such registered owners that such Additional Bonds and the indebtedness evidenced thereby shall not constitute a lien upon the Water and Sewer Utility, any part of the

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WHEREAS, the CIP Projects have been supplemented as more specifically described in Exhibit A to this 2013 Ordinance (as so supplemented, hereinafter referred to as the "CIP Projects"); and

WHEREAS, the Board has determined at this time that it is in the best interests of the County and its citizens to authorize the issuance, from time to time, of Additional Bonds in an aggregate principal amount not to exceed \$4,245,000,000, in multiple Series, under the provisions of Section 208 of the Master Ordinance for the purpose of paying Costs of the CIP Projects, funding the Reserve Account, funding capitalized interest, if advisable, and paying costs of issuance of such Additional Bonds; and

WHEREAS, the Board has further determined at this time that it is in the best interest of the County to amend the Original Ordinance in accordance with the provisions of Section 801 of the Original Ordinance in order to increase the rate covenant contained in Section 602 of the Original Ordinance as set forth in this 2013 Ordinance; and

WHEREAS, the Board desires to accomplish the purposes outlined in the accompanying memorandum, a copy of which is incorporated in this 2013 Ordinance by reference,

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA that:

Section 1. Authority. This 2013 Ordinance is enacted pursuant to the provisions of the Constitution of the State of Florida, the Home Rule Amendment and Charter of Miami-Dade County, Florida, as amended, Chapters 125 and 166, Florida Statutes, as amended, the Code of Miami-Dade County, Florida, as amended, and other applicable provisions of law (collectively, the "Act").

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Water and Sewer Utility, or any other property of the County, but shall constitute a lien only on the Pledged Revenues.

Section 5. Details, Terms and Other Matters Relating to Additional Bonds. In accordance with Section 202 of the Master Ordinance, all details, terms and other matters relating to the Additional Bonds authorized pursuant to this 2013 Ordinance shall be determined in the manner specified in the applicable Series Resolutions.

Section 6. Amendment to Original Ordinance. In accordance with the provisions of Section 801 of the Original Ordinance, Section 602 of the Original Ordinance is amended to read as follows:

SECTION 602. Rate Covenant. The County further covenants that it will fix, charge and collect rates and charges for the use of the services and facilities furnished by the Water and Sewer Utility and that from time to time, and as often as it shall be necessary, it will adjust such rates and charges by increasing or decreasing the same or any selected categories of rates and charges, so as to provide Net Operating Revenues in each Fiscal Year, >>{a} {f}<< commencing with the Fiscal Year beginning October 1, 1993, equal to {{{a}}} one hundred ten percent (110%) of the Principal and Interest Requirements on the Bonds for such Fiscal Year, >>and (ii) commencing with the Fiscal Year beginning October 1, 2012, equal to one hundred twenty five percent (125%) of the Principal and Interest Requirements on the Bonds for such Fiscal Year, << plus (b) >>in each case, << one hundred percent (100%) of the required deposits into the Reserve Account (less any portion thereof to be deposited from proceeds of Bonds) together with any Reserve Account Credit Facility Costs payable in such Fiscal Year. In addition to satisfying the debt service coverage requirements set forth above, the Adjusted Net Operating Revenues remaining after deduction of the Maximum Principal and Interest Requirements on all Bonds shall be at least equal to one hundred percent (100%) of all debt service and reserve requirements on Subordinate Obligations.

In case the County has made deposits of Net Operating Revenues to or withdrawals from the Rate Stabilization Fund during such Fiscal Year Net Operating Revenues shall be adjusted by subtracting the amount of any such deposits and by adding the amount of any such withdrawal.

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Section 7. Original Ordinance in Force. Except as amended by this 2013 Ordinance, the Original Ordinance and all terms and provisions of the Original Ordinance are and shall remain in full force and effect.

Section 8. Further Acts. The officers and agents of the County are authorized and directed to take all actions and do all things required of them by the Master Ordinance and this 2013 Ordinance for the full, punctual and complete performance of all of the terms, covenants, provisions and agreements contained in the Master Ordinance and this 2013 Ordinance.

Section 9. Headings Not Part of Ordinance. Any headings preceding the Sections of this 2013 Ordinance shall be solely for convenience of reference and shall not constitute a part of this 2013 Ordinance, nor shall they affect its meaning, construction or effect.

Section 10. Severability. In case any one or more of the provisions of this 2013 Ordinance shall for any reason be held to be illegal or invalid, such illegality or invalidity shall not affect the legality or enforceability of any other provision of this 2013 Ordinance.

Section 11. Effective Date. This 2013 Ordinance shall take effect ten (10) days after its enactment unless vetoed by the Mayor, and if vetoed, shall become effective only upon an override by this Board.

PASSED AND ADOPTED: June 4, 2013

Approved by County Attorney as
to form and legal sufficiency:



Prepared by:



Gerald T. Heffernan
Bond Counsel:Squire Sanders (US) LLP
D. Seaton and Associates

EXHIBIT A
CIP Projects

WASTEWATER PROJECTS

- NORTH DISTRICT UPGRADES - WASTEWATER TREATMENT PLANT
- CENTRAL DISTRICT UPGRADES - WASTEWATER TREATMENT PLANT
- SOUTH DISTRICT WASTEWATER TREATMENT PLANT EXPANSION - PHASE 3
- SOUTH DISTRICT UPGRADES - WASTEWATER TREATMENT PLANT
- NORTH MIAMI-DADE WASTEWATER TRANSMISSION MAINS AND PUMP STATION IMPROVEMENTS
- CENTRAL MIAMI-DADE WASTEWATER TRANSMISSION MAINS AND PUMP STATION IMPROVEMENTS
- SOUTH DISTRICT WASTEWATER TRANSMISSION MAINS AND PUMP STATIONS IMPROVEMENTS
- GRAVITY SEWER RENOVATIONS
- SANITARY SEWER SYSTEM IMPROVEMENTS
- WASTEWATER GENERAL MAINTENANCE AND OFFICE FACILITIES
- CORROSION CONTROL FACILITIES IMPROVEMENTS
- PUMP STATION IMPROVEMENTS PROGRAM
- PEAK FLOW MANAGEMENT FACILITIES
- SANITARY SEWER SYSTEM EXTENSION
- WASTEWATER ENGINEERING STUDIES
- PUMP STATION GENERATORS AND MISCELLANEOUS UPGRADES
- WASTEWATER TELEMETERING SYSTEM
- WASTEWATER SYSTEM MAINTENANCE AND UPGRADES
- LIFT STATION UPGRADES AND STRUCTURAL MAINTENANCE IMPROVEMENTS
- WASTEWATER EQUIPMENT AND VEHICLES
- WASTEWATER TREATMENT PLANTS REPLACEMENT AND RENOVATION
- WASTEWATER TREATMENT PLANT AUTOMATION ENHANCEMENTS
- WASTEWATER TREATMENT PLANTS MISCELLANEOUS UPGRADES
- WASTEWATER TREATMENT PLANTS EFFLUENT REUSE
- MIAMI SPRINGS CONSTRUCTION FUND - WASTEWATER
- OUTFALL LEGISLATION SUMMARY DESCRIPTION
- WASTEWATER - PIPES AND INFRASTRUCTURE PROJECTS
- SUBTOTAL WASTEWATER PROJECTS: \$1,625,716,000**

WATER PROJECTS

- WATER TREATMENT PLANT - HIALEAH/PRESTON IMPROVEMENTS
- WATER TREATMENT PLANT - ALEXANDER OKR, JR EXPANSION
- WELLFIELD IMPROVEMENTS
- NORTH MIAMI-DADE WATER TRANSMISSION MAINS IMPROVEMENTS
- CENTRAL MIAMI-DADE WATER TRANSMISSION MAINS IMPROVEMENTS
- SOUTH MIAMI-DADE WATER TRANSMISSION MAINS IMPROVEMENTS
- WATER MAINS EXTENSION
- WATER GENERAL MAINTENANCE AND OFFICE FACILITIES
- WATER DISTRIBUTION SYSTEM EXTENSION ENHANCEMENTS
- WATER SYSTEM FIRE HYDRANT INSTALLATION
- WATER EQUIPMENT AND VEHICLES
- WATER TREATMENT PLANTS REPLACEMENT AND RENOVATIONS
- WATER SYSTEM MAINTENANCE AND UPGRADES
- WATER ENGINEERING STUDIES
- AUTOMATION OF WATER TREATMENT PLANTS
- WATER TREATMENT PLANTS MISCELLANEOUS UPGRADES
- SAFE DRINKING WATER ACT MODIFICATIONS - SWT RULE AND D-DBP
- SOUTH MIAMI HEIGHTS WATER TREATMENT PLANT AND WELLFIELD
- WATER TELEMETERING SYSTEM ENHANCEMENTS
- WATER TREATMENT PLANT - FLORIDIAN REVERSE OSMOSIS
- MIAMI SPRINGS CONSTRUCTION FUND - WATER
- WATER - PIPES AND INFRASTRUCTURE PROJECTS
- SUBTOTAL WATER PROJECTS: \$1,945,256,000**
- TOTAL WASTEWATER AND WATER PROJECTS: \$3,570,972,000**

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RESOLUTION NO. _____ R-317-24

RESOLUTION AUTHORIZING ISSUANCE OF NOT TO EXCEED \$350,000,000.00 AGGREGATE PRINCIPAL AMOUNT OF MIAMI-DADE COUNTY, FLORIDA WATER AND SEWER SYSTEM REVENUE BONDS, IN ONE OR MORE SERIES, PURSUANT TO SECTION 208 OF ORDINANCE NO. 93-134, AS AMENDED, TO PAY COSTS OF CERTAIN IMPROVEMENTS; AUTHORIZING ISSUANCE OF NOT TO EXCEED \$600,000,000.00 AGGREGATE PRINCIPAL AMOUNT OF MIAMI-DADE COUNTY, FLORIDA WATER AND SEWER SYSTEM REVENUE REFUNDING BONDS, IN ONE OR MORE SERIES, PURSUANT TO SECTION 208 OF ORDINANCE NO. 93-134, AS AMENDED, TO REFUND ALL OR A PORTION OF CERTAIN OUTSTANDING BONDS, WITH ESTIMATED NET PRESENT VALUE SAVINGS OF 7.29 PERCENT, ESTIMATED COSTS OF ISSUANCE OF \$1,420,423.46 AND ESTIMATED FINAL MATURITY OF OCTOBER 1, 2048; PROVIDING FOR CERTAIN DETAILS OF BONDS AND THEIR SALE BY NEGOTIATION; APPROVING TENDER PROGRAM IN CONNECTION WITH REFUNDING OF REFUNDED BONDS; AUTHORIZING THE COUNTY MAYOR OR COUNTY MAYOR'S DESIGNEE, WITHIN CERTAIN LIMITATIONS AND RESTRICTIONS, TO FINALIZE DETAILS, TERMS AND OTHER PROVISIONS OF BONDS, THEIR NEGOTIATED SALE, TENDER PROGRAM AND REFUNDING OF REFUNDED BONDS; APPROVING FORMS OF AND AUTHORIZING EXECUTION AND DELIVERY OF CERTAIN DOCUMENTS; PROVIDING CERTAIN COVENANTS; AUTHORIZING COUNTY OFFICIALS TO DO ALL THINGS DEEMED NECESSARY IN CONNECTION WITH ISSUANCE, SALE, EXECUTION AND DELIVERY OF BONDS, TENDER PROGRAM AND REFUNDING OF REFUNDED BONDS; AND WAIVING PROVISIONS OF RESOLUTION NO. R-130-06

WHEREAS, the Board of County Commissioners (the "Board") of Miami-Dade County, Florida (the "County"), acting pursuant to the authority recited in section 1(c) of this Resolution (the "Series 2024A/B Resolution"), owns and operates water and wastewater

MDC022

which are currently Outstanding, \$233,305,000.00 aggregate principal amount of Miami-Dade County, Florida Water and Sewer System Revenue Bonds, Series 2019, all of which are currently Outstanding, \$663,860,000.00 aggregate principal amount of Miami-Dade County, Florida Water and Sewer System Revenue Bonds, Series 2019B, all of which are currently Outstanding, and \$548,090,000.00 aggregate principal amount of Miami-Dade County, Florida Water and Sewer System Revenue Refunding Bonds, Taxable Series 2019C, all of which are currently outstanding (such Outstanding Bonds so refunded being referred to as the "Refunded Bonds"); and

WHEREAS, the Board desires to authorize the issuance of not to exceed \$350,000,000.00 aggregate principal amount of Miami-Dade County, Florida Water and Sewer System Revenue Bonds, in one or more Series, which constitute a portion of the New Money Bonds (the "Series 2024A New Money Bonds"), as Additional Bonds under the provisions of Section 208 of the Master Ordinance, for the purpose of paying Costs of the Series 2024A Project, funding the Reserve Account established under the Master Ordinance (whether with proceeds of the Series 2024A New Money Bonds or by deposit of one or more Reserve Account Credit Facilities), funding capitalized interest, if advisable, and paying costs of issuance of the Series 2024A New Money Bonds, including the premiums on or fees for any Credit Facilities and/or Reserve Account Credit Facilities, if there is an economic benefit in accordance with Section 12 of this Series 2024A/B Resolution; and

WHEREAS, the Board desires to authorize the issuance of not to exceed \$600,000,000.00 aggregate principal amount of Miami-Dade County, Florida Water and Sewer System Revenue Refunding Bonds, in one or more Series (the "Series 2024B Refunding Bonds" and, together with the Series 2024A New Money Bonds, the "Series 2024A/B Bonds"), as Additional Bonds under the provisions of Section 208 of the Master Ordinance, for the purpose

MDC024

treatment plant facilities and a distribution and collection system and pursuant to such authority and Ordinance No. 93-134, enacted by the Board on November 16, 1993 (the "Original Ordinance" and as amended by the 2013 Ordinance (defined below), the "Master Ordinance"), is authorized to issue revenue bonds from time to time (the Master Ordinance, the 2013 Ordinance and the Series 2024A/B Resolution are referred to herein as the "Bond Ordinance"); and

WHEREAS, section 208 of the Master Ordinance authorizes the County to issue Additional Bonds payable from Pledged Revenues; and

WHEREAS, pursuant to Ordinance No. 13-47, enacted by the Board on June 4, 2013 (the "2013 Ordinance"), the Board authorized the issuance of not to exceed \$4,245,000,000.00 in aggregate principal amount of Additional Bonds under the provisions of Section 208 of the Master Ordinance for the purpose of paying costs of the CIP Projects (the "New Money Bonds"), of which the County has issued \$2,224,385,000.00; and

WHEREAS, the Board has determined at this time that it is in the best interests of the County and its citizens to provide for the issuance of (i) Additional Bonds under the provisions of section 208 of the Master Ordinance, for the purpose of paying Costs of the Improvements described in Exhibit A to this Series 2024A/B Resolution (the "Series 2024A Project"), and (ii) Additional Bonds under the provisions of Section 208 of the Master Ordinance, for the purpose of refunding, together with any other available moneys, through a tender program as described in this Series 2024A/B Resolution (the "Tender Program"), all or a portion of the \$381,355,000.00 aggregate principal amount of Miami-Dade County, Florida Water and Sewer System Revenue Bonds, Series 2017A, all of which are currently Outstanding, \$548,025,000.00 aggregate principal amount of Miami-Dade County Florida Water and Sewer System Revenue Refunding Bonds, Series 2017B, \$538,425,000.00 of

MDC023

of refunding, together with any other available moneys, through the Tender Program the Refunded Bonds, funding the Reserve Account (whether with proceeds of the Series 2024B Refunding Bonds or by deposit of one or more Reserve Account Credit Facilities), if necessary, and paying costs of issuance of the Series 2024B Refunding Bonds and of the Tender Program, estimated to be \$1,420,423.46, which costs shall be increased by the premiums on or fees for any Credit Facilities and/or Reserve Account Credit Facilities, if there is an economic benefit in accordance with Section 12 of this Series 2024A/B Resolution; and

WHEREAS, this Series 2024A/B Resolution constitutes a Series Resolution with respect to each Series of Series 2024A/B Bonds for all purposes of the Master Ordinance; and

WHEREAS, the Board desires to approve the establishment of the Tender Program in connection with the refunding of the Refunded Bonds under which the County will offer to purchase all or portions of the Refunded Bonds for cash funded from proceeds of the Series 2024B Refunding Bonds, together with any other available moneys, with the assistance of the Dealer Manager named in the Dealer Manager Agreement and to authorize the distribution and use of the Offer to Tender Documents (as all such terms are hereinafter defined); and

WHEREAS, based upon the findings set forth in Section 2 of this Series 2024A/B Resolution, the Board deems it in the best financial interest of the County that the Series 2024A/B Bonds be sold at a public offering by negotiated sale to the Underwriters named in the Bond Purchase Agreement in accordance with the Bond Purchase Agreement and to authorize the distribution, use and delivery of the Preliminary Official Statement and the Official Statement (as all such terms are hereinafter defined), all relating to the negotiated sale of the Series 2024A/B Bonds; and

MDC025

WHEREAS, the Board deems it appropriate, subject to the limitations contained in this Series 2024A/B Resolution, to authorize the Mayor or Mayor’s designee (the “County Mayor”), to (i) finalize the terms of the Series 2024A/B Bonds, the Tender Program and the refunding of the Refunded Bonds to the extent not provided in the Master Ordinance, the 2013 Ordinance or this Series 2024A/B Resolution, including whether to issue Series 2024A New Money Bonds to pay Costs of the Series 2024A Project, whether to issue Series 2024B Refunding Bonds and the number of Series which will be issued; (ii) finalize the terms of the negotiated sale of the Series 2024A/B Bonds; (iii) secure one or more Credit Facilities and/or one or more Reserve Account Credit Facilities, if there is an economic benefit in accordance with Section 12 of this Series 2024A/B Resolution; (iv) determine whether it is advisable to fund capitalized interest on the Series 2024A New Money Bonds; and (v) select and appoint a Registrar (the “Registrar”), a Paying Agent (the “Paying Agent”), and, with respect to the Tender Program, an information agent and tender agent (the “Information and Tender Agent”); and

WHEREAS, the Board desires to provide for a Book-Entry-Only System with respect to the Series 2024A/B Bonds, and to approve, ratify and confirm the Blanket Issuer Letter of Representations previously executed and delivered by the County to The Depository Trust Company, New York, New York (“DTC”) relating to such Book-Entry-Only System; and

WHEREAS, the Board desires to accomplish the purposes outlined in the accompanying memorandum (the “County Mayor’s Memorandum”), a copy of which is incorporated in this Series 2024A/B Resolution by reference,

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA that:

MDC026

Section 1. Recitals, Definitions, Authority and Construction.

(a) Recitals. The recitals contained in the foregoing “WHEREAS” clauses are incorporated as part of this Series 2024A/B Resolution.

(b) Definitions. Capitalized terms used in this Series 2024A/B Resolution which are not defined shall have the meanings assigned to such terms in the Master Ordinance or in the 2013 Ordinance, unless otherwise expressly provided or the context otherwise clearly requires. In addition, unless the context otherwise clearly requires, the following capitalized terms shall have the following meanings:

“Bond Purchase Agreement” means the Bond Purchase Agreement between the County and the Underwriters related to the purchase of the Series 2024A/B Bonds, as authorized pursuant to Section 10.

“Dealer Manager” means the dealer manager identified in and party to the Dealer Manager Agreement.

“Dealer Manager Agreement” means the Dealer Manager Agreement between the County and the Dealer Manager as authorized pursuant to Section 16 of this Series 2024A/B Resolution.

“Defeasance Obligations” means for purposes of the Series 2024A/B Bonds, Government Obligations as defined in the Master Ordinance.

“Invitation” means the Offer to Tender Bonds as authorized pursuant to Section 16 of this Series 2024A/B Resolution.

“Offer to Tender Documents” means the Invitation and all additional ancillary documents relating to the Tender Program as authorized pursuant to Section 16 of this Series 2024A/B Resolution.

MDC027

“Omnibus Certificate” means a certificate of the County executed by the County Mayor setting forth, among other things, the information and designations required by Section 3 of this Series 2024A/B Resolution.

“Regular Record Date” means the 15th day of the calendar month (whether or not a business day) next preceding each Interest Payment Date.

“Underwriters” mean the underwriters identified in and party to the Bond Purchase Agreement.

To the extent that the Series 2024A/B Bonds are issued in a calendar year other than calendar year 2024, all references to “2024” contained in any defined term in this Series 2024A/B Resolution and in the names of the accounts and subaccounts created pursuant to this Series 2024A/B Resolution shall, without further action of the Board, be replaced with the calendar year in which the Series 2024A/B Bonds are issued.

(c) Authority. This Series 2024A/B Resolution is adopted pursuant to the provisions of the Constitution of the State of Florida, the Home Rule Amendment and Charter of Miami-Dade County, Florida, as amended, Chapters 125 and 166, Florida Statutes, as amended, the Code of Miami-Dade County, Florida, as amended, and other applicable provisions of law (collectively, the “Act”), the Master Ordinance and the 2013 Ordinance.

(d) Rules of Construction. Any reference to any Article, Section or provision of the Constitution or laws of the State, or of federal laws, or rules or regulations, shall include such provisions as amended, modified, revised, supplemented or superseded from time to time; provided that no such change shall be deemed applicable to any particular Series 2024A/B Bonds in any way that would constitute an unlawful impairment of the rights of the County or any Bondholder.

MDC028

Section 2. Findings. The Board finds, determines and declares as follows:

(a) The County is authorized under the Act and the Bond Ordinance to issue the Series 2024A/B Bonds to provide funds to pay Costs of the Series 2024A Project and to refund the Refunded Bonds.

(b) In accordance with Section 218.385, Florida Statutes, as amended, and based upon the advice of Public Resources Advisory Group, Inc., which is serving as financial advisor to the County in connection with the issuance of the Series 2024A/B Bonds (the “Financial Advisor”), the negotiated sale of the Series 2024A/B Bonds is in the best interest of the County because of the need (i) for flexibility in size and structure, (ii) to update the market on credit and coverage, (iii) to allow premarketing to investors, (iv) to allow the County to enter the market at a time most advantageous to the County, and (v) to undertake the Tender Program.

(c) The sale and issuance of the Series 2024A/B Bonds and the use of the proceeds of the Series 2024A/B Bonds, as provided in this Series 2024A/B Resolution, serve a valid public and County purpose.

(d) The Board has determined that it is in the best interest of the County to appoint the Underwriters from the County’s pool of underwriters and sell the Series 2024A/B Bonds to them through a negotiated sale but only upon the terms and conditions set forth in this Series 2024A/B Resolution and as may be determined by the County Mayor, after consultation with the Financial Advisor, in accordance with the terms of this Series 2024A/B Resolution and set forth in the Bond Purchase Agreement and the Omnibus Certificate.

(e) The Series 2024B Refunding Bonds shall only be issued if the final maturity of the Series 2024B Refunding Bonds is not later than the final maturity on the Refunded Bonds

MDC029

and there is a net present value savings of five percent or more resulting from the refunding of the Refunded Bonds.

(f) The authority granted to the County Mayor in this Series 2024A/B Resolution is necessary for the proper and efficient implementation of the financing program contemplated by this Series 2024A/B Resolution, and such authorization is in the best interest of the County.

Section 3. Authorization and Form of Series 2024A/B Bonds; Terms and Provisions of Series 2024A/B Bonds; Tender Program and Refunding of Refunded Bonds.

(a) Authorization and Form. The Series 2024A New Money Bonds, to be designated as “Miami-Dade County, Florida Water and Sewer System Revenue Bonds,” are authorized to be issued in one or more Series, with such Series designations (including their year of issuance) as shall be set forth in the Omnibus Certificate, pursuant to Section 208 of the Master Ordinance, the 2013 Ordinance and this Series 2024A/B Resolution. The aggregate principal amount of the Series 2024A New Money Bonds shall not exceed \$350,000,000.00. The Series 2024A New Money Bonds shall be issued as fixed rate Bonds to pay Costs of the Series 2024A Project, fund the Reserve Account (whether with proceeds of the Series 2024A New Money Bonds or by the deposit of one or more Reserve Account Credit Facilities), fund capitalized interest, if advisable, and pay the costs of issuance of the Series 2024A New Money Bonds, including the premiums on or fees for any Credit Facilities and/or Reserve Account Credit Facilities. Prior to the delivery of the Series 2024A New Money Bonds, there shall be filed with the County Clerk the documents, certificates and opinion required under Section 208 of the Master Ordinance.

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The Series 2024B Refunding Bonds, to be designated as “Miami-Dade County, Florida Water and Sewer System Revenue Refunding Bonds,” are authorized to be issued in one or more Series, with such Series designations (including their year of issuance) as shall be set forth in the Omnibus Certificate, pursuant to Section 208 of the Master Ordinance and this Series 2024A/B Resolution. The aggregate principal amount of the Series 2024B Refunding Bonds shall not exceed \$600,000,000.00. The Series 2024B Refunding Bonds shall be issued as fixed rate Bonds to refund, together with any other available moneys, through the Tender Program the Refunded Bonds, fund the Reserve Account (whether with proceeds of the Series 2024B Refunding Bonds or by the deposit of one or more Reserve Account Credit Facilities), if necessary, and pay the costs of issuance of the Series 2024B Refunding Bonds, including the premiums on or fees for any Credit Facilities and/or Reserve Account Credit Facilities, and of the Tender Program. Prior to the delivery of the Series 2024B Refunding Bonds, there shall be filed with the County Clerk the documents, certificate and opinion required under Section 208 of the Master Ordinance.

Each of the Series 2024A/B Bonds shall be in substantially the form attached as Exhibit B to this Series 2024A/B Resolution, which form of Series 2024A/B Bond is approved, with such variations, omissions and insertions and such filling in of blanks as may be necessary, and approved by the County Mayor, after consultation with the County Attorney and Squire Patton Boggs (US) LLP and D. Seaton and Associates, P.A. (collectively, “Bond Counsel”), and which are not inconsistent with the provisions of the Bond Ordinance.

(b) Terms and Provisions of the Series 2024A/B Bonds. The County Mayor is authorized, after consultation with the Financial Advisor, the County Attorney and Bond Counsel, to approve the terms of the Series 2024A/B Bonds not set forth in this Series 2024A/B Resolution, such approval to be evidenced by the terms and provisions set

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forth in the Omnibus Certificate, including, without limitation, whether to issue Series 2024A New Money Bonds to pay Costs of the Series 2024A Project, whether to issue Series 2024B Refunding Bonds, the aggregate principal amount of the Series 2024A New Money Bonds and, if being issued, the Series 2024B Refunding Bonds, the number of Series of Series 2024A/B Bonds to be issued and the Series designations, the dated date of the Series 2024A/B Bonds, the interest rates of the Series 2024A/B Bonds, the purchase price for the Series 2024A/B Bonds, the maturity dates of the Series 2024A/B Bonds, the optional and mandatory redemption terms of the Series 2024A/B Bonds, if any, whether the Series 2024A/B Bonds shall be Serial Bonds and/or Term Bonds, and the maturity amounts as to Serial Bonds and Amortization Requirements as to Term Bonds; provided, however, that in no event shall: (i) the aggregate principal amounts of the Series 2024A New Money Bonds and the Series 2024B Refunding Bonds exceed \$350,000,000.00 and \$600,000,000.00, respectively; (ii) the Series 2024B Refunding Bonds be issued if the net present value savings resulting from the refunding of the Refunded Bonds is less than 5 percent; (iii) the purchase price (excluding original issue discount and original issue premium) be less than 99.00 percent of the aggregate principal amount of the Series 2024A/B Bonds (the “Minimum Purchase Price”); (iv) the true interest cost rate (the “TIC”) on the Series 2024A New Money Bonds exceed 6.00 percent (the “Maximum TIC”); (v) the final maturity of the Series 2024A New Money Bonds be later than forty years from the dated date of the Series 2024A New Money Bonds; and (vi) the final maturity of the Series 2024B Refunding Bonds be later than the final maturity of the Refunded Bonds.

The Series 2024A/B Bonds shall be issuable only in fully registered form in denominations of \$5,000.00 or any integral multiple of \$5,000.00. Interest on Series 2024A/B Bonds shall be payable semiannually on April 1 and October 1 of each year (each an “Interest

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Payment Date”), commencing on the date determined by the County Mayor and set forth in the Omnibus Certificate. Interest on the Series 2024A/B Bonds shall be computed on the basis of a 360-day year of twelve 30-day months.

Each Series of the Series 2024A/B Bonds shall be initially numbered consecutively from R-1 and upwards.

(c) Tender Program and Refunding of Refunded Bonds. The Tender Program is approved by the Board. The County Mayor, after consultation with the Financial Advisor, is authorized to determine (i) whether to proceed with the Tender Program and if so, the terms of the Tender Program and (ii) the Outstanding Bonds described in the recitals to this Series 2024A/B Resolution that will constitute the Refunded Bonds. The delivery of the final acceptance notice in connection with the Tender Program shall be conclusive evidence of the approval by the Board of such determinations.

Section 4. Execution and Authentication of Series 2024A/B Bonds. The Series 2024A/B Bonds shall be executed as set forth in the Master Ordinance. A Certificate of Authentication of the Registrar shall appear on the Series 2024A/B Bonds, and no Series 2024A/B Bonds shall be valid or obligatory for any purpose or be entitled to any security or benefit under the Master Ordinance and this Series 2024A/B Resolution unless such certificate shall have been duly manually executed by the Registrar on such Series 2024A/B Bonds.

In case any one or more of the officers who shall have signed any of the Series 2024A/B Bonds shall cease to be such officer of the County before the Series 2024A/B Bonds so signed shall have been actually delivered, such Series 2024A/B Bonds may nevertheless be delivered as provided in this Series 2024A/B Resolution and may be issued as if the person who signed such Series 2024A/B Bonds had not ceased to hold such office. Any

MDC033

Series 2024A/B Bonds may be signed on behalf of the County by such person as at the actual time of the execution of such Series 2024A/B Bonds shall hold the proper office, although at the date of such Series 2024A/B Bonds such person may not have held such office or may not have been so authorized.

Section 5. Special Obligations of County. The Series 2024A/B Bonds shall be special limited obligations of the County payable solely from and secured solely by Pledged Revenues. The Series 2024A/B Bonds do not constitute an indebtedness, liability, general or moral obligation, or a pledge of the faith, credit or power of the County, the State of Florida (the "State") or any political subdivision of the State, within the meaning of any constitutional, statutory or charter provision. Neither the State nor any political subdivision of the State nor the County shall be directly or indirectly or contingently obligated to levy any ad valorem taxes on any property to pay the principal of or the interest on the Series 2024A/B Bonds or other related costs, or to pay the same from any other funds of the County except from the Pledged Revenues. The acceptance of the Series 2024A/B Bonds by the registered owners from time to time of the Series 2024A/B Bonds shall be deemed an agreement between the County and such registered owners that the Series 2024A/B Bonds and the indebtedness evidenced by the Series 2024A/B Bonds shall not constitute a lien upon the Water and Sewer Utility, any part of the Water and Sewer Utility, or any other property of the County, but shall constitute a lien only on the Pledged Revenues.

Section 6. Payment and Ownership of Series 2024A/B Bonds. The principal of or any premium on any Series 2024A/B Bond shall be payable when due to a Bondholder upon presentation and surrender of such Series 2024A/B Bond at the designated corporate trust office of the Paying Agent and interest on each Series 2024A/B Bond shall be paid on each Interest Payment Date by check or draft, mailed by the Paying Agent on that Interest Payment

MDC034

Date to the registered owner of the Series 2024A/B Bond as of the close of business on the Regular Record Date applicable to that Interest Payment Date and at the Bondholder's address as it appears on the registration books of the Registrar on that Regular Record Date, provided, however, that (i) so long as the ownership of such Series 2024A/B Bonds are maintained in a Book-Entry-Only-System by a securities depository, such payment shall be made by automatic funds transfer ("wire") to such securities depository or its nominee and (ii) if such Series 2024A/B Bonds are not maintained in a Book-Entry-Only-System by a securities depository, upon written request of the registered owner of \$1,000,000.00 or more in principal amount of Series 2024A/B Bonds delivered 15 days prior to an Interest Payment Date, interest may be paid when due by wire in immediately available funds. If and to the extent, however, the County fails to make payment or provision for payment on any Interest Payment Date of interest on any Series 2024A/B Bond, interest shall be payable to the person in whose name such bond is registered at the close of business on a special record date for the payment of such defaulted interest as established by notice mailed by the Registrar to the registered owners of the Series 2024A/B Bonds not less than fifteen days preceding such special record date. Such notice shall be mailed to the persons in whose name the Series 2024A/B Bonds are registered at the close of business on the fifth (5th) day preceding the date of mailing.

The registered owner of any Series 2024A/B Bond shall be deemed and regarded as the absolute owner of the Series 2024A/B Bonds for all purposes of this Series 2024A/B Resolution. Payment of or on account of the debt service on any Series 2024A/B Bond shall be made only to or upon the order of that registered owner or such registered owner's attorney-in-fact duly authorized in writing in the manner permitted by law, and neither the County nor the Paying Agent shall be affected by notice to the contrary. All payments made as described in the Series 2024A/B Resolution shall be valid and effective to satisfy and

MDC035

discharge the liability upon that Series 2024A/B Bond, including without limitation, the interest on that Series 2024A/B Bond, to the extent of the amount or amounts so paid.

Section 7. Redemption Provisions.

(a) **General.** The Board authorizes the County Mayor to determine in the Omnibus Certificate the redemption provisions with respect to the Series 2024A/B Bonds. The Series 2024A/B Bonds shall be subject to mandatory redemption from moneys in the Redemption Account and/or at the option of the County, as provided in the Omnibus Certificate and in the Series 2024A/B Bonds. The amount of Series 2024A/B Bonds constituting Term Bonds required to be redeemed in each Bond Year as set forth in the Omnibus Certificate shall constitute the Amortization Requirements for the Series 2024A/B Bonds in the preceding Bond Year. The execution and delivery of such Omnibus Certificate by the County Mayor shall be conclusive evidence of the approval of such redemption provisions by the Board.

Upon surrender of any Series 2024A/B Bond for redemption in part only, the County shall issue and the Registrar shall deliver to the registered owner of the Series 2024A/B Bond, without charge, a new Series 2024A/B Bond or Series 2024A/B Bonds of the same Series and maturity in authorized denominations in an aggregate principal amount equal to the unredeemed portion surrendered.

(b) **Effect of Calling for Redemption.** On the date so designated for redemption, notice having been mailed as provided in the Master Ordinance, the Series 2024A/B Bonds so called for redemption shall become and be due and payable at the redemption price provided for redemption of such Series 2024A/B Bonds on such date, together with accrued interest, if any, and moneys for payment of the redemption price, together with accrued interest, if any, being held in separate accounts by the Paying Agent in trust for the registered owners of the

MDC036

Series 2024A/B Bonds to be redeemed, interest on the Series 2024A/B Bonds so called for redemption shall cease to accrue, such Series 2024A/B Bonds shall not be deemed to be Outstanding for purposes of this Series 2024A/B Resolution and the Master Ordinance, and shall cease to be entitled to any lien, benefit or security under this Series 2024A/B Resolution or the Master Ordinance, and the registered owners of such Series 2024A/B Bonds shall have no rights in respect of the Series 2024A/B Bonds except to receive payment of the redemption price of the Series 2024A/B Bonds, together with accrued interest, if any, to such date.

(c) **Conditional Notice of Redemption.** If the Series 2024A/B Bonds or any portion thereof are to be optionally redeemed pursuant to the terms authorized in this Series 2024A/B Resolution, the County may provide a conditional notice of redemption of such Series 2024A/B Bonds in accordance with the terms set forth below, and the County Mayor is authorized, in his discretion, to add to the form of Series 2024A/B Bonds a provision reflecting this right:

Conditional Notice of Redemption. In the case of an optional redemption, the notice of redemption may state that (1) it is conditioned upon the deposit of moneys with the Paying Agent or with an escrow agent under an escrow deposit agreement, in amounts necessary to effect the redemption, no later than the redemption date or (2) the County retains the right to rescind such notice on or prior to the scheduled redemption date (in either case, a "Conditional Redemption"), and such notice and optional redemption shall be of no effect if such moneys are not so deposited or if the notice is rescinded as described in this subsection. Any such notice of Conditional Redemption shall be captioned "Conditional Notice of Redemption." Any Conditional Redemption may be rescinded at any time prior to the redemption date if the County delivers a written direction to the Paying Agent directing the Paying Agent to rescind the redemption

MDC037

notice. The Paying Agent shall give prompt notice of such rescission to the affected Bondholders. Any Series 2024A/B Bonds subject to Conditional Redemption where redemption has been rescinded shall remain Outstanding, and neither the rescission nor the failure by the County to make such moneys available shall constitute an Event of Default. The County shall give immediate notice to each MSIR (as hereinafter defined) and the affected Bondholders that the redemption did not occur and that the Series 2024A/B Bonds called for redemption and not so paid remain Outstanding.

Section 8. System of Certificated and Uncertificated Registration. There is established a system of registration with respect to the Series 2024A/B Bonds as permitted by Chapter 279, Florida Statutes, as amended, pursuant to which both certificated and uncertificated registered Series 2024A/B Bonds may be issued. The system shall be as described in the Official Statement. The Series 2024A/B Bonds shall be initially issued as book-entry-only bonds through the Book-Entry-Only System maintained by DTC which will act as securities depository for the Series 2024A/B Bonds. The Board reserves the right to amend, discontinue or reinstitute the Book-Entry-Only System from time to time, subject to the rights of Bondholders contained in the Bond Ordinance.

Neither the County, the Registrar nor the Paying Agent shall be liable for the failure of the securities depository of the Series 2024A/B Bonds to perform its obligations as described in the Official Statement, nor for the failure of any participant in the Book-Entry-Only System maintained by the securities depository to perform any obligation such participant may have to a beneficial owner of any Series 2024A/B Bonds.

The Board approves, ratifies and confirms the Blanket Issuer Letter of Representations previously executed and delivered by the County to DTC. The County Mayor is authorized to execute any additional documentation required by DTC, as securities depository for the

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conditions in this Series 2024A/B Resolution and as set forth in the Omnibus Certificate and the Bond Purchase Agreement.

Section 11. Approval of the Preliminary Official Statement and Final Official Statement. The use and distribution of the Preliminary Official Statement (the "Preliminary Official Statement") in connection with the offering and sale of the Series 2024A/B Bonds in substantially the form attached as Exhibit D to this Series 2024A/B Resolution is approved, with such variations, additions, deletions and completions as may be necessary and approved by the County Mayor, after consultation with the Financial Advisor, the County Attorney, Bond Counsel and Hunton Andrews Kurth LLP and DiFalco & Fernandez LLLP (collectively, "Disclosure Counsel"). The County Mayor is authorized to deem the Preliminary Official Statement "final" for the purposes of Rule 15c2-12 of the Securities and Exchange Commission (the "Rule"). The County Mayor is authorized and directed to deliver the final Official Statement (the "Official Statement") in connection with the offering and sale of the Series 2024A/B Bonds. The Official Statement shall be in substantially the form of the Preliminary Official Statement, with such variations, additions, omissions and insertions and such filling in of blanks as may be necessary and approved by the County Mayor, after consultation with the Financial Advisor, the County Attorney, Bond Counsel and Disclosure Counsel, with the delivery of the Official Statement by the County Mayor being conclusive evidence of the Board's approval of any such variations, additions, omissions and insertions and such filling in of blanks.

Section 12. Credit Facilities and Reserve Account Credit Facilities. If the County Mayor demonstrates, after consultation with the Financial Advisor, that there is an economic benefit to the County to obtain and pay for one or more Credit Facilities and/or Reserve Account Credit Facilities with respect to all or a portion of the Series 2024A/B Bonds, the

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Series 2024A/B Bonds, in connection with the issuance of the Series 2024A/B Bonds through DTC's Book-Entry-Only System.

Section 9. Appointment of Paying Agent, Registrar and Information and Tender Agent. The County Mayor is authorized to appoint a Paying Agent and a Registrar, after a competitive process, and an Information and Tender Agent, in each case after consultation with the Financial Advisor and, after consultation with the County Attorney and Bond Counsel, to execute any necessary agreements with the Paying Agent, the Registrar and the Information and Tender Agent.

Section 10. Approval of Bond Purchase Agreement and Authorization to Award the Sale of the Series 2024A/B Bonds. The Board approves the Bond Purchase Agreement in substantially the form on file with the Clerk's office as Exhibit C to this Series 2024A/B Resolution, with such variations, additions, deletions and completions as may be necessary and approved by the County Mayor in accordance with the terms of this Series 2024A/B Resolution after consultation with the Financial Advisor, Bond Counsel and the County Attorney. Upon compliance by the Underwriters with the requirements of section 218.385, Florida Statutes, as amended, the County Mayor, after consultation with the Financial Advisor, is authorized and directed to award the sale of the Series 2024A/B Bonds to the Underwriters upon the terms described in section 3(b) of this Series 2024A/B Resolution and to finalize the terms of, and to execute the Bond Purchase Agreement between the County and the Underwriters and to deliver the Bond Purchase Agreement. The execution and delivery of the Bond Purchase Agreement by the County Mayor shall be conclusive evidence of the Board's approval of any such variations, additions, deletions and completions and acceptance of the Underwriters' proposal to purchase the Series 2024A/B Bonds. The Board approves the negotiated sale of the Series 2024A/B Bonds to the Underwriters upon the final terms and

MDC039

County Mayor is authorized to secure one or more Credit Facilities and/or Reserve Account Credit Facilities with respect to all or a portion of the Series 2024A/B Bonds. The County Mayor is authorized to provide for the payment of any premiums on or fees for such Credit Facilities and/or Reserve Account Credit Facilities from the proceeds of the issuance of the Series 2024A/B Bonds and, after consultation with the County Attorney and Bond Counsel, to enter into, execute and deliver any agreements as may be necessary to secure such Credit Facilities and/or Reserve Account Credit Facilities, with the County Mayor's execution of any such agreements to be conclusive evidence of the Board's approval of such agreements. Any such agreements shall supplement and be in addition to the provisions of the Bond Ordinance.

Section 13. Application of Series 2024A/B Bond Proceeds. (a) The proceeds received from the sale of the Series 2024A New Money Bonds shall be deposited and applied as follows:

- (i) To the extent not satisfied by the deposit of one or more Reserve Account Credit Facilities, proceeds of the Series 2024A New Money Bonds in such amount as shall be set forth in the Omnibus Certificate shall be deposited in the Reserve Account.
- (ii) Proceeds of the Series 2024A New Money Bonds in an amount necessary to pay the costs of issuance of the Series 2024A New Money Bonds shall be deposited in a special account created in the Construction Fund and designated the "Miami-Dade County, Florida Water and Sewer System Revenue Bonds, Series 2024_ Cost of Issuance Account" (inserting the Series designation) (the "Series 2024_ Cost of Issuance Account" (inserting the Series designation)), to be held by the County and applied to such costs of issuance of the Series 2024A New Money Bonds; provided, however, that any premiums on or fees for Credit Facilities and/or a Reserve Account

MDC041

Credit Facilities payable by the County may be paid directly by the Underwriters from the proceeds of the Series 2024A New Money Bonds.

(iii) Subject to the last sentence of this clause (iii), the balance of the proceeds of the Series 2024A New Money Bonds shall be deposited in a special account created in the Construction Fund with respect to the Series 2024A New Money Bonds and designated the "Series 2024_ Construction Account" (inserting the Series designation) (the "Series 2024_ Construction Account" (inserting the Series designation)), to be held by the County and applied to the payment of the Costs of the Series 2024A Project (other than as described under clauses (i) and (ii) above and the next succeeding sentence). If the County Mayor determines that it is advisable to fund capitalized interest on the Series 2024A New Money Bonds, proceeds of the Series 2024A New Money Bonds in such amount as shall be set forth in the Omnibus Certificate shall be deposited in a special subaccount to be created in the Series 2024_ Construction Account and designated the "Series 2024_ Capitalized Interest Subaccount" (inserting the Series designation) (the "Series 2024_ Capitalized Interest Subaccount" (inserting the Series designation)), to be held by the County and applied to the payment of capitalized interest on the Series 2024A New Money Bonds.

(b) The proceeds received from the sale of the Series 2024B Refunding Bonds shall be deposited and applied as follows:

(i) To the extent necessary and not satisfied by the deposit of one or more Reserve Account Credit Facilities, proceeds of the Series 2024B Refunding Bonds in such amount as shall be set forth in the Omnibus Certificate shall be deposited in the Reserve Account.

MDC042

Section 14. Creation of Subaccounts. There are created and established for the benefit of each Series of the Series 2024A/B Bonds separate subaccounts with respect to each such Series in the Debt Service Fund created pursuant to section 502 of the Master Ordinance designated "Series 2024_ (inserting the Series designation) Bond Service Subaccount" (each, the "Series 2024_ Bond Service Subaccount" (inserting the Series designation)), and "Series 2024_ (inserting the Series designation) Redemption Subaccount" (each, the "Series 2024_ Redemption Subaccount" (inserting the Series designation)). The County is authorized to create or cause to be created such additional subaccounts as shall be necessary or advisable in connection with the issuance of the Series 2024A/B Bonds. Amounts held in any such subaccounts are to be held solely for the benefit of the Series 2024A/B Bonds.

Section 15. Tax Covenants. The County covenants to take the actions required of it for interest on the Series 2024A/B Bonds to be and to remain excluded from gross income of the holders of the Series 2024A/B Bonds for federal income tax purposes, and not to take any actions that would affect that exclusion. In furtherance of the foregoing covenant, the County agrees that it will comply with the provisions of a tax compliance certificate to be prepared by Bond Counsel and executed and delivered on the date of issuance of the Series 2024A/B Bonds. The County Mayor is authorized to execute and deliver, and the Director is authorized to acknowledge, such tax compliance certificate.

Notwithstanding anything in this Series 2024A/B Resolution to the contrary, the requirement of the County to rebate any amounts due to the United States pursuant to section 148 of the Code shall survive the payment or provision for payment of the principal, interest and redemption premium, if any, with respect to all or any of the Series 2024A Bonds.

Section 16. Appointment of Dealer Manager; Approval of Dealer Manager Agreement and Offer to Tender Documents. The Board approves the appointment of the

MDC044

(ii) Proceeds of the Series 2024B Refunding Bonds and any other available moneys necessary to purchase the Refunded Bonds pursuant to the Tender Program shall be transferred to the paying agent for the Refunded Bonds or to such other party as may be necessary to purchase the Refunded Bonds, which funds shall be applied to the purchase of the Refunded Bonds in accordance with the Tender Program.

(iii) The balance of the proceeds of the Series 2024B Refunding Bonds in an amount necessary to pay the costs of issuance of the Series 2024B Refunding Bonds and of the Tender Program shall be deposited in a special account created by this Series 2024A/B Resolution with respect to the Series 2024B Refunding Bonds and designated the "Miami-Dade County, Florida Water and Sewer System Revenue Refunding Bonds, Series 2024_ Cost of Issuance Account" (inserting the Series designation) (the "Series 2024_ Cost of Issuance Account" (inserting the Series designation)), to be held by the County and applied to such costs of issuance of the Series 2024B Refunding Bonds and of the Tender Program; provided, however, that any premiums on or fees for Credit Facilities and/or a Reserve Account Credit Facilities payable to the County may be paid directly by the Underwriters from the proceeds of the Series 2024B Refunding Bonds.

(c) If more than one Series of Series 2024A New Money Bonds and/or Series 2024B Refunding Bonds are issued, separate accounts shall be created and designated with respect to each Series of Series 2024A New Money Bonds and/or Series 2024B Refunding Bonds and the above deposits shall be made with respect to each Series of Series 2024A New Money Bonds and/or Series 2024B Refunding Bonds, all as set forth in the Omnibus Certificate.

MDC043

Dealer Manager. The Board approves the Dealer Manager Agreement, in substantially the form on file with the Clerk's office as Exhibit E to this Series 2024A/B Resolution, with such variations, additions, deletions and completions as may be necessary and approved by the County Mayor, in accordance with the terms of this Series 2024A/B Resolution, after consultation with the Financial Advisor, Bond Counsel and the County Attorney, with the execution and delivery of the Dealer Manager Agreement being conclusive evidence of the Board's approval of any such variations, additions, deletions and completions to such agreement.

The distribution and use of the Invitation in connection with the Tender Program in substantially the form on file with the Clerk's office as Exhibit F to this Series 2024A/B Resolution and such additional ancillary documents constituting the Offer to Tender Documents is approved, with such variations, additions, deletions and completions as may be necessary and approved by the County Mayor, after consultation with the Financial Advisor, the County Attorney, Bond Counsel and Disclosure Counsel. The delivery of the final acceptance notice in connection with the Tender Program shall be conclusive evidence of the Board's approval of any such variations, additions, deletions and completions.

Section 17. State Revolving Fund and WIFIA Obligations to Be Subordinate. The County's obligations to (i) the State under the various State Revolving Fund Loan Agreements, (ii) the United States Environmental Protection Agency under the loan agreements entered into by the County pursuant to the Water Infrastructure Finance and Innovation Act (the "WIFIA Loan Agreements"), and (iii) with respect to Subordinate Obligations issued pursuant to Ordinance No. 20-1 enacted by the Board on January 22, 2020 shall be subordinate to the Outstanding Bonds, the Series 2024A/B Bonds and any Additional Bonds and Refunding Bonds issued and delivered pursuant to the Master Ordinance. The

MDC045

County Mayor is authorized and directed to deliver a certificate, if necessary, upon the issuance and delivery of the Series 2024A/B Bonds, to confirm the annual debt service coverage required under the State Revolving Fund Loan Agreements and the WIFIA Loan Agreements.

Section 18. Continuing Disclosure.

(a) The County agrees, in accordance with the provisions of, and to the degree necessary to comply with, the continuing disclosure requirements of the Rule to provide or cause to be provided for the benefit of the beneficial owners of the Series 2024A/B Bonds (the "Beneficial Owners") to the Municipal Securities Rulemaking Board ("MSRB") in an electronic format prescribed by the MSRB and such other municipal securities information repository as may be required by law or applicable legislation, from time to time (each such information repository, a "MSIR"), the following annual financial information (the "Annual Information"), commencing with the Fiscal Year ending after the issuance of the Series 2024A/B Bonds:

- (i) Operating Revenues and Pledged Revenues in a form which is generally consistent with the presentation of such information in the Official Statement; and
- (ii) The Department's Annual Comprehensive Financial Report utilizing generally accepted accounting principles applicable to local governments.

The information in clauses (i) and (ii) above is expected to be available on or before June 1 of each year for the preceding Fiscal Year. The Department's Annual Comprehensive Financial Report referred to in clause (ii) above is expected to be available separately from the information in clause (i) above and shall be provided by the County as soon as practical after acceptance of the audited financial statements from the auditors by the Department. If not

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(x) release, substitution, or sale of any property securing repayment of the Series 2024A/B Bonds, if material;

- (xi) rating changes;
- (xii) bankruptcy, insolvency, receivership or similar event of the County (which is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent or similar officer for the County 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 County, 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 County);

(xiii) the consummation of a merger, consolidation, or acquisition involving the County or the sale of all or substantially all of the assets of the County, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material;

(xiv) the appointment of a successor or additional trustee or the change of name of a trustee, if material;

(xv) incurrence of a financial obligation of the County, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar

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available within eight (8) months from the end of the Fiscal Year, unaudited information will be provided in accordance with the time frame set forth above and audited financial statements will be provided as soon after such time as they become available.

(b) The County agrees to provide or cause to be provided to each MSIR in the appropriate format required by law or applicable regulation, in a timely manner not in excess of ten business days after the occurrence of the event, notice of the occurrence of any of the following events with respect to the Series 2024A/B Bonds:

- (i) principal and interest payment delinquencies;
- (ii) non-payment related defaults, if material;
- (iii) unscheduled draws on debt service reserves reflecting financial difficulties;
- (iv) unscheduled draws on credit enhancements reflecting financial difficulties;
- (v) substitution of credit or liquidity providers, or their failure to perform;
- (vi) adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701 TEB) or other material notices or determinations with respect to the tax status of the Series 2024A/B Bonds, or other material events affecting the tax status of the Series 2024A/B Bonds;
- (vii) modifications to rights of holders of the Series 2024A/B Bonds, if material;
- (viii) bond calls, if material, and tender offers;
- (ix) defeasances;

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terms of a financial obligation of the County, any of which affect security holders, if material; and

(xvi) default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a financial obligation of the County, any of which reflect financial difficulties.

For purposes of clauses (xv) and (xvi) above, "financial obligation" shall have the meaning set forth in the Rule.

(c) The County agrees to provide or cause to be provided, in a timely manner, to each MSIR, in the appropriate format required by law or applicable regulation, notice of its failure to provide the Annual Information with respect to itself on or prior to June 1 following the end of the preceding Fiscal Year.

(d) The obligations of the County under this section 18 shall remain in effect only so long as the Series 2024A/B Bonds are Outstanding. The County reserves the right to terminate its obligations to provide the Annual Information and notices of the occurrence of the events specified in subsection (b) above if and when the County no longer remains an "obligated person" with respect to the Series 2024A/B Bonds within the meaning of the Rule.

(e) The County agrees that its undertaking pursuant to the Rule set forth in this section 18 is intended to be for the benefit of the Beneficial Owners of the Series 2024A/B Bonds and shall be enforceable by the Beneficial Owners if the County fails to cure a breach within a reasonable time after receipt of written notice from a Beneficial Owner that a breach exists; provided, however, that any Beneficial Owner's right to enforce the provisions of this undertaking shall be on behalf of all Beneficial Owners and shall be limited to a right to obtain specific performance of the County's obligations under this section 18 in a federal or

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state court located within the County and any failure by the County to comply with the provisions of this undertaking shall not be a default with respect to the Series 2024A/B Bonds.

(f) Notwithstanding the foregoing, each MSIR to which information shall be provided shall include each MSIR approved by the Securities and Exchange Commission prior to the issuance of the Series 2024A/B Bonds. In the event that the Securities and Exchange Commission approves any additional MSIRs after the date of issuance of the Series 2024A/B Bonds, the County shall, if the County is notified of such additional MSIRs, provide such information to the additional MSIRs. Failure to provide information to any new MSIR whose status as a MSIR is unknown to the County shall not constitute a breach of this covenant.

(g) The requirements of subsection (a) above do not necessitate the preparation of any separate annual report addressing only the Series 2024A/B Bonds. The requirements of subsection (a) may be met by the filing of an annual information statement or the County's Annual Comprehensive Financial Report, provided such report includes all of the required Annual Information and is available by June 1 of each year for the preceding Fiscal Year. Additionally, the County may incorporate any information in any prior filing with each MSIR or included in any final official statement of the County, provided such final official statement is filed with the MSRB.

(h) The County reserves the right to modify from time to time the specific types of information provided or the format of the presentation of such information, to the extent necessary or appropriate in the judgment of the County, provided that the County agrees that any such modification will be done in a manner consistent with the Rule.

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(i) Except to cure any ambiguity, inconsistency or formal defect or omission in the provisions of this section 18, the County's covenants as to continuing disclosure (the "Covenants") may only be amended if:

(i) the amendment is made in connection with a change in circumstances that arises from a change in legal requirements, a change in law or a change in the identity, nature or status of the County or type of business conducted; the Covenants, as amended, would have complied with the requirements of the Rule at the time of award of the Series 2024A/B Bonds, after taking into account any amendments or change in circumstances; and the amendment does not materially impair the interests of the Beneficial Owners, as determined by Disclosure Counsel or other independent counsel knowledgeable in the area of federal securities laws and regulations; or

(ii) all or any part of the Rule, as interpreted by the staff of the Securities and Exchange Commission at the date of adoption of this Series 2024A/B Resolution, ceases to be in effect for any reason, and the County elects that the Covenants shall be deemed amended accordingly.

(j) Any assertion of beneficial ownership must be filed with the County, along with full documentary support as part of the written request described above.

(k) The Board further authorizes and directs the County Mayor to cause all other agreements to be made or action to be taken as required in connection with meeting the County's obligations as to the Covenants. The County Mayor shall further be authorized to make such additions, deletions and modifications to the Covenants as he shall deem necessary or desirable in consultation with the County Attorney, Bond Counsel and Disclosure Counsel.

Section 19. Modification or Amendment. This Series 2024A/B Resolution shall constitute a contract between the County and the Bondholders of the Series 2024A/B Bonds.

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Except as provided in this Series 2024A/B Resolution, no material amendment or modification of this Series 2024A/B Resolution or of any amendatory or supplemental resolution may be made without the consent of the registered owners of fifty-one percent or more in principal amount of the Series 2024A/B Bonds then Outstanding.

Notwithstanding anything in this Series 2024A/B Resolution to the contrary, (i) this Series 2024A/B Resolution may be amended without the consent of the Bondholders to provide clarification, correct omissions, make technical changes, comply with state laws, make such additions, deletions or modifications as may be necessary to assure compliance with section 148 of the Code, as amended or otherwise as may be necessary to assure the exclusion of interest on the Series 2024A/B Bonds from gross income of the holders of the Series 2024A/B Bonds for federal income tax purposes, and such other amendments that do not materially adversely affect the interest of registered owners of the Series 2024A/B Bonds then Outstanding; and (ii) if a Credit Facility has been issued with respect to the Series 2024A/B Bonds, the Credit Facility Provider may give consents, on behalf of the registered owners of the Series 2024A/B Bonds insured or secured by it, to any of the foregoing amendments in accordance with the provisions of section 803 of the Master Ordinance.

Section 20. Authorization of Further Actions. The County Mayor, the Office of Management and Budget Director, the Finance Director, the County Attorney, the Clerk and other officers, employees and agents of the County are hereby authorized and directed to do all acts and things and to execute and deliver any and all documents and certificates which they deem necessary or advisable in order to consummate the issuance of the Series 2024A/B Bonds, the Tender Program, the refunding of the Refunded Bonds and the financing of the Series 2024A Project and otherwise to carry out, give effect to and comply with the terms and

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intent of this Series 2024A/B Resolution, the Series 2024A/B Bonds and the related documents. In the event that the County Mayor, the Office of Management and Budget Director, the Finance Director, the Clerk or the County Attorney is unable to execute and deliver the contemplated documents, such documents shall be executed and delivered by the respective designee of such officer or official or any other duly authorized officer or official of the County.

Section 21. Severability; Resolution Controlling. In case any one or more of the provisions of this Series 2024A/B Resolution or any approved document shall for any reason be held to be illegal or invalid, such illegality or invalidity shall not affect any other provisions of this Series 2024A/B Resolution or such document, as the case may be, and such other provisions shall be construed and enforced as if such illegal or invalid provisions had not been contained. All or any part of resolutions or proceedings in conflict with the provisions of this Series 2024A/B Resolution are to the extent of such conflict repealed or amended to the extent of such inconsistency.

Section 22. Governing Law; Venue. The Series 2024A/B Bonds are to be issued and this Series 2024A/B Resolution is adopted and such other documents necessary for the issuance of the Series 2024A/B Bonds shall be executed and delivered with the intent that, except to the extent otherwise specifically provided in such documents, the laws of the State shall govern their construction. Except as otherwise specifically provided in any such documents, venue shall lie in Miami-Dade County, Florida.

Section 23. No Recourse Against County's Officers. No covenant, agreement or obligation contained in this Series 2024A/B Resolution shall be deemed to be a covenant, agreement or obligation of any present or future official, officer, employee or agent of the County in the individual capacity of such person, and no official, officer, employee or agent

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of the County executing the Series 2024A/B Bonds shall be liable personally on the Series 2024A/B Bonds or be subject to any personal liability or accountability by reason of the issuance of the Series 2024A/B Bonds. No official, officer, employee, agent or advisor of the County shall incur any personal liability with respect to any other action taken by such person pursuant to this Series 2024A/B Resolution, provided the official, officer, employee, agent or advisor acts in good faith, but this section 23 shall not relieve any official, officer, employee, agent or advisor of the County from the performance of any official duty provided by law or this Series 2024A/B Resolution.

Section 24. Waivers. The provisions of Resolution No. R-130-06, as amended, requiring that any contracts of the County with third parties be executed and finalized prior to their placement on an agenda of the Board are waived at the request of the County Mayor for the reasons set forth in the County Mayor's Memorandum.

The foregoing resolution was offered by Commissioner **Marleine Bastien**, who moved its adoption. The motion was seconded by Commissioner **Kionne L. McGhee** and upon being put to a vote, the vote was as follows:

Oliver G. Gilbert, III, Chairman	absent
Anthony Rodriguez, Vice Chairman	aye
Marleine Bastien	aye
Kevin Marino Cabrera	aye
Roberto J. Gonzalez	aye
Danielle Cohen Higgins	aye
Kionne L. McGhee	aye
Micky Steinberg	aye
Juan Carlos Bermudez	aye
Sen. René García	aye
Keon Hardemon	aye
Eileen Higgins	aye
Raquel A. Regalado	aye

The Chairperson thereupon declared this resolution duly passed and adopted this 16th day of April, 2024. This resolution shall become effective upon the earlier of (1) 10 days after the date of its adoption unless vetoed by the County Mayor, and if vetoed, shall become effective only upon an override by this Board, or (2) approval by the County Mayor of this resolution and the filing of this approval with the Clerk of the Board.



MIAMI-DADE COUNTY, FLORIDA
BY ITS BOARD OF
COUNTY COMMISSIONERS
JUAN FERNANDEZ-BARQUIN, CLERK

By: Basia Pruna
Deputy Clerk

Approved by County Attorney as to Form and legal sufficiency *JRA*
Juliette R. Antoine

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EXHIBIT A

SERIES 2024A PROJECT

Wastewater Projects	\$261,800,209
North District WWTP Upgrades	
Central District WWTP Upgrades	
South District WWTP Upgrades	
North District Forcemain Network Rehabilitation and upgrade	
Central District Forcemain Network Rehabilitation and upgrade	
South District Forcemain Network Rehabilitation and upgrade	
Flow Reduction Program	
Consent Decree Wastewater Treatment Plants Projects	
Consent Decree Sewer Pump Station Projects	
Pump Station Rehabilitation and Resilience Program	
Water Projects	\$82,453,584
Hialeah /Preston Treatment Plant: Water Reset Projects	
Alexander Orr, Jr Treatment Plant: Water Reset Projects	
North Region Water Transmission Mains Rehabilitation and Upgrades	
Water General Maintenance and Office Facilities & Storm/Connectivity Improvements	
Construction Equipment Related to Water Equipment-Automated Meter Reading	
Safe Drinking Water Act Modifications - SWT Rule and D-DBP	
Water Pipes and Infrastructure Projects	
Small Diameter Water Mains Replacement Program	
Water Reset Program	
TOTAL WASTEWATER AND WATER PROJECTS	\$344,253,793

EXHIBIT B

FORM OF SERIES 2024A/B BOND

No. R-				\$ _____
	UNITED STATES OF AMERICA STATE OF FLORIDA MIAMI-DADE COUNTY, FLORIDA WATER AND SEWER SYSTEM REVENUE [REFUNDING] BOND, SERIES _____			
	INTEREST RATE	MATURITY	DATED DATE	CUSIP

REGISTERED OWNER:

PRINCIPAL AMOUNT:

Miami-Dade County, Florida, a political subdivision of the State of Florida (the "County"), for value received, hereby promises to pay, but only from the special funds described in this Bond, to the Registered Owner of this Bond specified above on the date shown above, upon surrender of this Bond, the principal of this Bond and to pay to the Registered Owner of this Bond at the close of business on the Regular Record Date (defined below), but only from said special funds, interest on this Bond from the interest payment date next preceding the date on which this Bond is authenticated unless it is authenticated on an interest payment date, in which event it shall bear interest from such date or if it is authenticated prior to the first interest payment date, in which event it shall bear interest from the Dated Date specified above, until payment of said principal amount has been made or provided for, at the interest rate shown above, computed on the basis of a 360-day year of twelve 30-day months, on the first day of April and October of each year, commencing _____, 20____. Regular Record Date for the purposes of this Bond shall mean the fifteenth day of the calendar month (whether or not a business day) next preceding the interest payment date. The interest on this Bond is payable by check or draft drawn on the Paying Agent hereinafter mentioned and the principal is payable at the designated corporate trust office of _____, or at the duly designated office of any duly appointed alternate or successor paying agent (the "Paying Agent"), provided that for any Registered Owner of one million dollars (\$1,000,000) or more in principal amount of Bonds, such payment shall, upon the express written request of such Registered Owner delivered 15 days prior to an interest payment date, be made by wire transfer. If and to the extent, however, the County fails to make payment or provision for payment on any interest payment date of interest on this Bond, interest shall be payable to the Registered Owner of this Bond at the close of business on a special record date for the payment of such defaulted interest (the "Special Record Date") as established by notice mailed by the Registrar to the Registered Owner of this Bond not less than fifteen days preceding

such Special Record Date. Such notice shall be mailed to the person who is the Registered Owner of this Bond at the close of business on the fifth (5th) day preceding the date of mailing. The principal of and interest on this Bond shall be paid in any coin or currency of the United States of America which, at the time of payment, is legal tender for the payment of public and private debts.

This Bond is one of a duly authorized series of revenue bonds of the County designated as "Miami-Dade County, Florida Water and Sewer System Revenue [Refunding] Bonds, Series ____" (the "Series ____ Bonds"), issued for the principal purpose of [paying Costs of the Series 2024A Project][refunding the Refunded Bonds], pursuant to Ordinance No. 93-134, duly enacted by the Board of County Commissioners of Miami-Dade County, Florida (the "Board") on November 16, 1993 (as amended, the "Master Ordinance"), Ordinance No. 13-47, duly enacted by the Board on June 4, 2013 (the "2013 Ordinance"), and Resolution No. R-____-24, duly adopted by the Board on _____, 2024 (the "Series 2024A/B Resolution" and, together with the Master Ordinance and the 2013 Ordinance, the "Bond Ordinance"), reference to which Bond Ordinance is hereby made for the provisions, among others, with respect to the custody and application of the proceeds of the Series ____ Bonds, the funds charged with and pledged to the payment of the principal of and the interest on the Series ____ Bonds, the nature and extent of the security, the terms and conditions on which obligations on a parity with the Series ____ Bonds may be issued under the Master Ordinance, the rights, duties and obligations of the County under the Bond Ordinance and the rights of the owners of the Series ____ Bonds; and, by the acceptance of this Bond, the owner of this Bond assents to all the provisions of the Bond Ordinance. This Bond is issued, the Master Ordinance and the 2013 Ordinance [were][was] enacted and the Series 2024A/B Resolution was adopted under the authority of the Constitution and laws of the State of Florida, including, but not limited to, the Home Rule Amendment and Charter of Miami-Dade County, Florida, as amended, Chapters 125 and 166, Florida Statutes, as amended, the Code of Miami-Dade County, Florida, as amended, and all other applicable laws. Terms used in capitalized form in this Bond and not defined shall have the meanings assigned to such terms in the Bond Ordinance.

This Bond and the interest thereon is a special and limited obligation of the County, payable from and secured by a lien on and a pledge of certain income and earnings derived from the ownership and operation of the water and sewer utility (the "Utility") of the County, subject to the prior payment of expenses of operation and maintenance of the Utility (the "Pledged Revenues"), all in the manner provided in the Master Ordinance.

The Outstanding Bonds, the Series ____ Bonds and any additional bonds (collectively, the "Bonds") issued under the Master Ordinance are and will be equally and ratably secured, to the extent provided in the Master Ordinance, by the pledge of the Pledged Revenues.

This Bond shall be a special limited obligation of the County payable solely from and secured solely by Pledged Revenues. This Bond does not constitute an indebtedness, liability, general or moral obligation, or a pledge of the faith, credit or power of the County, the State or any political subdivision of the State, within the meaning of any constitutional, statutory or charter provision. Neither the State nor any political subdivision of the State nor the County shall be directly or indirectly or contingently obligated to levy any ad valorem taxes on any property to pay the principal of or the interest on this Bond or other related costs, or to pay the

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same maturity, bearing interest at the same rate and of any denomination or denominations authorized by the Bond Ordinance.

The Registered Owner of this Bond shall have no right to enforce the provisions of the Bond Ordinance, or to institute action to enforce the covenants contained in the Bond Ordinance, or to take any action with respect to any event of default under the Bond Ordinance, or to institute, appear in or defend any suit or other proceeding, except as provided in the Bond Ordinance.

Modifications or alterations of the Bond Ordinance or of any amendatory or supplemental ordinance or resolution may be made only to the extent and in the circumstances permitted by the Bond Ordinance.

This Bond is transferable by the Registered Owner in person or by his attorney duly authorized in writing at the designated corporate trust office of the Registrar, but only in the manner, subject to the limitations and upon payment of the charges provided in the Bond Ordinance, and upon surrender and cancellation of this Bond. Upon such transfer a new registered Series ____ Bond or Series ____ Bonds of the same maturity and interest rate and of authorized denomination or denominations for the same aggregate principal amount will be issued in exchange to the transferee.

The Registrar shall not be required to transfer or exchange any Series ____ Bond (a) during the period beginning on a Regular Record Date and ending on the next succeeding interest payment date, (b) during the period 15 days next preceding any selection of Series ____ Bonds to be redeemed or thereafter until after the mailing of any notice of redemption, or (c) called for redemption.

Each Series ____ Bond delivered pursuant to any provision of the Bond Ordinance in exchange or substitution for, or upon the transfer of the whole or any part of one or more other Series ____ Bonds, shall carry all of the rights to interest accrued and unpaid and to accrue that were carried by the whole or such part, as the case may be, of such one or more other Series ____ Bonds, and notwithstanding anything contained in the Bond Ordinance, such Series ____ Bonds shall be so dated or bear such notation, that neither gain nor loss in interest shall result from any such exchange, substitution or transfer.

No recourse shall be had for the payment of the principal of or interest on this Bond, or for any claim based on this Bond or on the Bond Ordinance, against any member, officer or employee, past, present or future, of the County or of any successor body, as such, either directly or through the County or any such successor body, under any constitutional provision, statute or rule of law, or by the enforcement of any assessment or by any legal or equitable proceeding or otherwise, all such liability of such members, officers or employees being released as a condition of and as consideration for the enactment of the Master Ordinance and the 2013 Ordinance and the adoption of the Series 2024A/B Resolution by the County and the issuance of this Bond.

The County, the Registrar and the Paying Agent may deem and treat the person in whose name this Bond is registered upon the books kept by the Registrar as the absolute owner for the purpose of receiving payment of, or on account of, the principal of and the interest due on this

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same from any other funds of the County except from the Pledged Revenues. The acceptance of this Bond by the Registered Owner from time to time of this Bond shall be deemed an agreement between the County and such Registered Owner that this Bond and the indebtedness evidenced by this Bond shall not constitute a lien upon the Utility, any part of the Utility, or any other property of the County, but shall constitute a lien only on the Pledged Revenues.

The Series ____ Bonds maturing on October 1, _____ are subject to mandatory sinking fund redemption in part prior to maturity by lot, at a redemption price equal to 100% of the principal amount of the Series ____ Bonds to be redeemed, plus accrued interest to the date of redemption, commencing on October 1, _____ and on each October 1 thereafter, in the years and principal amounts set forth below:

Year	Principal Amount
------	------------------

*Final Maturity

The Series ____ Bonds maturing on or before October 1, _____ shall not be subject to optional redemption prior to maturity. The Series ____ Bonds maturing on or after October 1, _____ are subject to optional redemption prior to maturity, at the option of the County, in whole or in part at any time, on or after October 1, _____, and if in part, in maturities determined by the County and by lot within a maturity, at a redemption price equal to 100% of the principal amount of the Series ____ Bonds or portion of such Series ____ Bonds to be redeemed, plus accrued interest to the date of redemption.

Any such redemption shall be made upon written notice not less than thirty (30) days prior to the redemption date to the Registered Owners of the Series ____ Bonds to be redeemed, in the manner and under the terms and conditions provided in the Bond Ordinance. On the date designated for redemption, notice having been given and moneys for payment of the redemption price, together with accrued interest, if any, to the redemption date, being held by the Paying Agent, all as provided in the Bond Ordinance, the Series ____ Bonds so called for redemption shall become and be due and payable at the redemption price provided for redemption of such Series ____ Bonds on such date, together with accrued interest, if any, to the redemption date, interest on the Series ____ Bonds so called for redemption shall cease to accrue, such Series ____ Bonds shall cease to be entitled to any benefit or security under the Bond Ordinance, and the Registered Owners of such Series ____ Bonds shall have no rights in respect of such Series ____ Bonds except to receive payment of the redemption price, together with accrued interest, if any, to the redemption date. If less than all of one Series ____ Bond is selected for redemption, the Registered Owner of such Series ____ Bond or his legal representative shall present and surrender such Series ____ Bond to the Paying Agent for payment of the principal amount of the Series ____ Bond called for redemption, together with accrued interest, if any, to the redemption date, and the County shall execute and the Registrar shall authenticate and deliver to or upon the order of such Registered Owner or his legal representative, without charge, for the unredeemed portion of the principal amount of the old Series ____ Bond, a new Series ____ Bond of the

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Bond and for all other purposes; and neither the County, the Registrar nor the Paying Agent shall be affected by notice to the contrary except upon the due execution and delivery to the Registrar of the Certificate of Transfer set forth at the end of this Bond.

All acts, conditions and things required by the Constitution and laws of the State of Florida and the Bond Ordinance to exist, to have happened and to have been performed precedent to and in the issuance of this Bond, do exist, have happened and have been performed.

This Bond is not valid unless the Registrar's Certificate of Authentication endorsed on this Bond is duly executed.

IN WITNESS WHEREOF, Miami-Dade County, Florida has caused this Bond to be executed in its name and on its behalf by the facsimile signature of its Mayor and a facsimile of the seal to be printed hereon and attested by the facsimile signature of its Clerk and has caused this Bond to be dated as of _____.

MIAMI-DADE COUNTY, FLORIDA

[SEAL]

By: _____
Mayor

Attest: _____
Clerk of the Board of
County Commissioners

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REGISTRAR'S CERTIFICATE OF AUTHENTICATION

This Bond is one of the bonds of the Series designated herein, described in the within-mentioned Bond Ordinance.

as Registrar

By: _____
Authorized Signatory

Date of Authentication: _____

CERTIFICATE OF TRANSFER

FOR VALUE RECEIVED, _____, the undersigned, hereby sells, assigns and transfers unto _____ (Tax Identification or Social Security No. _____) the within bond and all rights thereunder, and hereby irrevocably constitutes and appoints _____ attorney to transfer the within bond on the books kept for registration thereof, with full power of substitution in the premises.

Dated: _____

NOTICE: The signature to this assignment must correspond with the name as it appears upon the face of the within bond in every particular, without alteration or enlargement or any change whatever.

ABBREVIATIONS

The following abbreviations, when used in the inscription on the face of the within Bond, shall be construed as though they were written out in full according to applicable laws or regulations:

- TEN COM -- as tenants in common
- TEN ENT -- as tenants by the entireties
- JT TEN -- as joint tenants with rights of survivorship and not as tenants in common

UNIFORM GIFT MIN ACT - _____ Custodian _____
(Cust) (Minor)

Under Uniform Gifts to Minors Act

(State)

Additional abbreviations may also be used though not in the above list.

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MDC063

SCHEDULE OF WATER AND SEWER RATES

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**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF RATES**

RESIDENTIAL CUSTOMER

WATER	<u>Effective</u>
<u>Monthly</u>	<u>October 1, 2023</u>
Meter Charge:	Monthly Charge
Meter Size	
5/8" plus 2,244 gallons (3ccf)	\$4.61
1" plus 2,244 gallons (3ccf)	\$15.01
1.5" plus 2,244 gallons (3ccf)	\$29.02
2" plus 2,244 gallons (3ccf)	\$45.82
3" plus 2,244 gallons (3ccf)	\$90.67
Flow Rate All Usage:	Monthly Charge
Usage per 100 cubic feet (ccf):	
4 to 17 ccf	\$3.7367
18 ccf and over	\$9.0386
Usage per 1,000 gallons:	
2,245 to 12,716 gallons	\$4.9955
12,717 gallons and over	\$12.0838
<u>Quarterly</u>	
Meter Charge:	Quarterly Charge
Meter Size:	
5/8" plus 6,732 gallons (9ccf)	\$13.83
1" plus 6,732 gallons (9ccf)	\$45.03
1.5" plus 6,732 gallons (9ccf)	\$87.06
2" plus 6,732 gallons (9ccf)	\$137.46
3" plus 6,732 gallons (9ccf)	\$272.01
Flow Rate All Usage:	Quarterly Charge
Usage per 100 cubic feet (ccf):	
10 to 51 ccf	\$3.7367
52 ccf and over	\$9.0386
Usage per 1,000 gallons:	
6,733 to 38,148 gallons	\$4.9955
38,149 gallons and over	\$12.0838

Note: 100 cubic feet (ccf) equals 748 gallons

Residential: any single-family or duplex property that is used solely and entirely for residential purposes

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF RATES**

MULTI-FAMILY DWELLINGS (MFD)

WATER	Effective
<u>Monthly</u>	<u>October 1, 2023</u>
Meter Charge: applied per unit	Monthly Charge
Meter Sizes 5/8" to 16" plus 2,244 gallons (3ccf):	\$4.61
Flow Rate All Usage Per Unit:	Monthly Charge
Usage per 100 cubic feet (ccf):	
4 ccf and over	\$4.7964
Usage per 1,000 gallons:	
2,245 gallons and over	\$6.4123
 <u>Quarterly</u>	
Meter Charge: applied per unit	Quarterly Charge
Meter Sizes 5/8" to 16" plus 6,732 gallons (9ccf):	\$13.83
Flow Rate All Usage Per Unit:	Quarterly Charge
Usage per 100 cubic feet (ccf):	
10 ccf and over	\$4.7964
Usage per 1,000 gallons:	
6,733 gallons and over	\$6.4123

Note: 100 cubic feet (ccf) equals 748 gallons

Multi-family:-any property with three (3) or more units served by a common meter that is used solely and entirely for residential purposes, including amenities

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF RATES**

MIXED-USE BUILDINGS

WATER

Monthly

**Effective
October 1, 2023**

Meter Charge: applied per billing unit	Monthly Charge
5/8" to 1.5" plus 2,244 gallons (3ccf)	\$10.78
2" plus 2,244 gallons (3ccf)	\$13.20
3" plus 2,244 gallons (3ccf)	\$21.10
4" to 6" plus 2,244 gallons (3ccf)	\$22.90
8" plus 2,244 gallons (3ccf)	\$24.71
10" plus 2,244 gallons (3ccf)	\$25.62
Flow Rate All Usage Per Billing Unit:	Monthly Charge
Usage per 100 cubic feet (ccf):	
4 ccf and over	\$4.7964
Usage per 1,000 gallons:	
2,245 gallons and over	\$6.4123

Quarterly

Meter Charge: applied per billing unit	Quarterly Charge
5/8" to 1.5" plus 6,732 gallons (9ccf)	\$32.34
2" plus 6,732 gallons (9ccf)	\$39.60
3" plus 6,732 gallons (9ccf)	\$63.30
4" to 6" plus 6,732 gallons (9ccf)	\$68.70
8" plus 6,732 gallons (9ccf)	\$74.13
10" plus 6,732 gallons (9ccf)	\$76.86
Flow Rate All Usage Per Billing Unit:	Quarterly Charge
Usage per 100 cubic feet (ccf):	
10 ccf and over	\$4.7964
Usage per 1,000 gallons:	
6,733 gallons and over	\$6.4123

Note: 100 cubic feet (ccf) equals 748 gallons

MIXED USE: any property consisting of more than two residential dwellings and non-residential activities served by a common meter in which permit application was submitted prior to October 1, 2016 (Ordinance No. 16-107)

BILLING UNIT: each residential unit within a mixed-use building shall be treated as one billing unit. All non-residential units within a mixed-use building shall collectively be treated as one billing unit

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF RATES**

NON-RESIDENTIAL CUSTOMERS

WATER	Effective
<u>Monthly</u>	<u>October 1, 2023</u>
Meter Charge:	Monthly Charge
Meter Size 5/8"	\$3.63
Flow Rate All Usage:	Monthly Charge
Usage per 100 cubic feet (ccf):	
0 to 3 ccf	\$0.4657
4 to 7 ccf	\$4.0234
8 to 17 ccf	\$5.4009
18 ccf and over	\$9.5068
Usage per 1,000 gallons:	
0 to 2,244 gallons	\$0.6226
2,245 to 5,236 gallons	\$5.3790
5,237 to 12,716 gallons	\$7.2205
12,717 gallons and over	\$12.7097
Meter Charge:	Monthly Charge
Meter Size 1"	 \$15.42
Flow Rate All Usage:	Monthly Charge
Usage per 100 cubic feet (ccf):	
0 to 8 ccf	\$0.4657
9 to 18 ccf	\$4.0234
19 to 43 ccf	\$5.4009
44 ccf and over	\$9.5068
Usage per 1,000 gallons:	
0 to 5,984 gallons	\$0.6226
5,985 to 13,464 gallons	\$5.3790
13,465 to 32,164 gallons	\$7.2205
32,165 gallons and over	\$12.7097

Note: 100 cubic feet (ccf) equals 748 gallons

Non-Residential: any single unit, duplex with at least one commercial unit, or multi-unit property used for commercial purposes

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF RATES**

NON-RESIDENTIAL CUSTOMERS

WATER	Effective
<u>Monthly</u>	<u>October 1, 2023</u>
Meter Charge:	Monthly Charge
Meter Size	
1.5"	\$30.84
Flow Rate All Usage:	Monthly Charge
Usage per 100 cubic feet (ccf):	
0 to 15 ccf	\$0.4657
16 to 35 ccf	\$4.0234
36 to 85 ccf	\$5.4009
86 ccf and over	\$9.5068
Usage per 1,000 gallons:	
0 to 11,220 gallons	\$0.6226
11,221 to 26,180 gallons	\$5.3790
26,181 to 63,580 gallons	\$7.2205
63,581 gallons and over	\$12.7097
Meter Charge:	Monthly Charge
Meter Size	
2"	\$49.32
Flow Rate All Usage:	Monthly Charge
Usage per 100 cubic feet (ccf):	
0 to 24 ccf	\$0.4657
25 to 56 ccf	\$4.0234
57 to 136 ccf	\$5.4009
137 ccf and over	\$9.5068
Usage per 1,000 gallons:	
0 to 17,952 gallons	\$0.6226
17,953 to 41,888 gallons	\$5.3790
41,889 to 101,728 gallons	\$7.2205
101,729 gallons and over	\$12.7097

Note: 100 cubic feet (ccf) equals 748 gallons

Non-Residential: any single unit, duplex with at least one commercial unit, or multi-unit property used for commercial purposes

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF RATES**

NON-RESIDENTIAL CUSTOMERS

WATER	Effective
<u>Monthly</u>	<u>October 1, 2023</u>
Meter Charge:	Monthly Charge
Meter Size	
3"	\$98.65
Flow Rate All Usage:	Monthly Charge
Usage per 100 cubic feet (ccf):	
0 to 48 ccf	\$0.4657
49 to 112 ccf	\$4.0234
113 to 272 ccf	\$5.4009
273 ccf and over	\$9.5068
Usage per 1,000 gallons:	
0 to 35,904 gallons	\$0.6226
35,905 to 83,776 gallons	\$5.3790
83,777 to 203,456 gallons	\$7.2205
203,457 gallons and over	\$12.7097
Meter Charge:	Monthly Charge
Meter Size	
4"	\$154.14
Flow Rate All Usage:	Monthly Charge
Usage per 100 cubic feet (ccf):	
0 to 75 ccf	\$0.4657
76 to 175 ccf	\$4.0234
176 to 425 ccf	\$5.4009
426 ccf and over	\$9.5068
Usage per 1,000 gallons:	
0 to 56,100 gallons	\$0.6226
56,101 to 130,900 gallons	\$5.3790
130,901 to 317,900 gallons	\$7.2205
317,901 gallons and over	\$12.7097

Note: 100 cubic feet (ccf) equals 748 gallons

Non-Residential: any single unit, duplex with at least one commercial unit, or multi-unit property used for commercial purposes

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF RATES**

NON-RESIDENTIAL CUSTOMERS

WATER	Effective
<u>Monthly</u>	<u>October 1, 2023</u>
Meter Charge:	Monthly Charge
Meter Size	
6"	\$308.24
Flow Rate All Usage:	Monthly Charge
Usage per 100 cubic feet (ccf):	
0 to 150 ccf	\$0.4657
151 to 350 ccf	\$4.0234
351 to 850 ccf	\$5.4009
851 ccf and over	\$9.5068
Usage per 1,000 gallons:	
0 to 112,200 gallons	\$0.6226
112,201 to 261,800 gallons	\$5.3790
261,801 to 635,800 gallons	\$7.2205
635,801 gallons and over	\$12.7097
Meter Charge:	Monthly Charge
Meter Size	
8"	\$493.20
Flow Rate All Usage:	Monthly Charge
Usage per 100 cubic feet (ccf):	
0 to 240 ccf	\$0.4657
241 to 560 ccf	\$4.0234
561 ccf to 1,360 ccf	\$5.4009
1,361 ccf and over	\$9.5068
Usage per 1,000 gallons:	
0 to 179,520 gallons	\$0.6226
179,521 to 418,880 gallons	\$5.3790
418,881 to 1,017,280 gallons	\$7.2205
1,017,281 gallons and over	\$12.7097

Note: 100 cubic feet (ccf) equals 748 gallons

Non-Residential: any single unit, duplex with at least one commercial unit, or multi-unit property used for commercial purposes

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF RATES**

NON-RESIDENTIAL CUSTOMERS

WATER	Effective
<u>Monthly</u>	<u>October 1, 2023</u>
Meter Charge:	Monthly Charge
Meter Size	
10"	<u>\$708.98</u>
Flow Rate All Usage:	Monthly Charge
Usage per 100 cubic feet (ccf):	
0 to 345 ccf	\$0.4657
346 to 805 ccf	\$4.0234
806 to 1,955 ccf	\$5.4009
1,956 ccf and over	\$9.5068
Usage per 1,000 gallons:	
0 to 258,060 gallons	\$0.6226
258,061 to 602,140 gallons	\$5.3790
602,141 to 1,462,340 gallons	\$7.2205
1,462,341 gallons and over	\$12.7097
Meter Charge:	Monthly Charge
Meter Size	
12"	\$1,325.48
Flow Rate All Usage:	Monthly Charge
Usage per 100 cubic feet (ccf):	
0 to 645 ccf	\$0.4657
646 to 1,505 ccf	\$4.0234
1506 to 3,655 ccf	\$5.4009
3,656 ccf and over	\$9.5068
Usage per 1,000 gallons:	
0 to 482,460 gallons	\$0.6226
482,461 to 1,125,740 gallons	\$5.3790
1,125,741 to 2,733,940 gallons	\$7.2205
2,733,941 gallons and over	\$12.7097

Note: 100 cubic feet (ccf) equals 748 gallons

Non-Residential: any single unit, duplex with at least one commercial unit, or multi-unit property used for commercial purposes

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF RATES**

NON-RESIDENTIAL CUSTOMERS

WATER	Effective
<u>Monthly</u>	<u>October 1, 2023</u>
Meter Charge:	Monthly Charge
Meter Size	
14"	\$2,465.99
Flow Rate All Usage:	Monthly Charge
Usage per 100 cubic feet (ccf):	
0 to 1,200 ccf	\$0.4657
1,201 to 2,800 ccf	\$4.0234
2,801 to 6,800 ccf	\$5.4009
6,801 ccf and over	\$9.5068
Usage per 1,000 gallons:	
0 to 897,600 gallons	\$0.6226
897,601 to 2,094,400 gallons	\$5.3790
2,094,401 to 5,086,400 gallons	\$7.2205
5,086,401 gallons and over	\$12.7097
Meter Charge:	Monthly Charge
Meter Size	
16"	\$3,390.74
Flow Rate All Usage:	Monthly Charge
Usage per 100 cubic feet (ccf):	
0 to 1,650 ccf	\$0.4657
1,651 to 3,850 ccf	\$4.0234
3,851 to 9,350 ccf	\$5.4009
9,351 ccf and over	\$9.5068
Usage per 1,000 gallons:	
0 to 1,234,200 gallons	\$0.6226
1,234,201 to 2,879,800 gallons	\$5.3790
2,879,801 to 6,993,800 gallons	\$7.2205
6,993,801 gallons and over	\$12.7097

Note: 100 cubic feet (ccf) equals 748 gallons

Non-Residential: any single unit, duplex with at least one commercial unit, or multi-unit property used for commercial purposes

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF RATES**

NON-RESIDENTIAL CUSTOMERS

WATER	Effective
<u>Monthly</u>	<u>October 1, 2023</u>
<u>Meter Charge:</u>	Monthly Charge
<u>Meter Size</u>	
20"	\$5,290.16
Flow Rate All Usage:	Monthly Charge
Usage per 100 cubic feet (ccf):	
0 to 2,574 ccf	\$0.4657
2,575 to 6,006 ccf	\$4.0234
6,007 to 14,586 ccf	\$5.4009
14,587 ccf and over	\$9.5068
Usage per 1,000 gallons:	
0 to 1,925,352 gallons	\$0.6226
1,925,353 to 4,492,488 gallons	\$5.3790
4,492,489 to 10,910,328 gallons	\$7.2205
10,910,329 gallons and over	\$12.7097
Meter Charge:	Monthly Charge
<u>Meter Size</u>	
24"	\$11,891.16
Flow Rate All Usage:	Monthly Charge
Usage per 100 cubic feet (ccf):	
0 to 3,708 ccf	\$0.4657
3,709 to 8,652 ccf	\$4.0234
8,653 to 21,012 ccf	\$5.4009
21,013 ccf and over	\$9.5068
Usage per 1,000 gallons:	
0 to 2,773,584 gallons	\$0.6226
2,773,585 to 6,471,696 gallons	\$5.3790
6,471,697 to 15,716,976 gallons	\$7.2205
15,716,977 gallons and over	\$12.7097

Note: 100 cubic feet (ccf) equals 748 gallons

Non-Residential: any single unit, duplex with at least one commercial unit, or multi-unit property used for commercial purposes

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF RATES**

NON-RESIDENTIAL CUSTOMERS

WATER	Effective
<u>Quarterly</u>	<u>October 1, 2023</u>
Meter Charge:	Quarterly Charge
Meter Size	
5/8"	\$10.89
Flow Rate All Usage:	Quarterly Charge
Usage per 100 cubic feet (ccf):	
0 to 9 ccf	\$0.4657
10 to 21 ccf	\$4.0234
22 to 51 ccf	\$5.4009
52 ccf and over	\$9.5068
Usage per 1,000 gallons:	
0 to 6,732 gallons	\$0.6226
6,733 to 15,708 gallons	\$5.3790
15,709 to 38,148 gallons	\$7.2205
38,149 gallons and over	\$12.7097
Meter Charge:	Quarterly Charge
Meter Size	
1"	\$46.26
Flow Rate All Usage:	Quarterly Charge
Usage per 100 cubic feet (ccf):	
0 to 24 ccf	\$0.4657
25 to 54 ccf	\$4.0234
55 to 129 ccf	\$5.4009
130 ccf and over	\$9.5068
Usage per 1,000 gallons:	
0 to 17,952 gallons	\$0.6226
17,953 gallons to 40,392 gallons	\$5.3790
40,393 to 96,492 gallons	\$7.2205
96,493 gallons and over	\$12.7097

Note: 100 cubic feet (ccf) equals 748 gallons

Non-Residential: any single unit, duplex with at least one commercial unit, or multi-unit property used for commercial purposes

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF RATES**

NON-RESIDENTIAL CUSTOMERS

WATER	<u>Effective</u>
<u>Quarterly</u>	<u>October 1, 2023</u>
Meter Charge:	Quarterly Charge
Meter Size	
1.5"	\$92.52
Flow Rate All Usage:	Quarterly Charge
Usage per 100 cubic feet (ccf):	
0 to 45 ccf	\$0.4657
46 to 105 ccf	\$4.0234
106 to 255 ccf	\$5.4009
256 ccf and over	\$9.5068
Usage per 1,000 gallons:	
0 to 33,660 gallons	\$0.6226
33,661 to 78,540 gallons	\$5.3790
78,541 to 190,740 gallons	\$7.2205
190,741 gallons and over	\$12.7097
Meter Charge:	Quarterly Charge
Meter Size	
2"	\$147.96
Flow Rate All Usage:	Quarterly Charge
Usage per 100 cubic feet (ccf):	
0 to 72 ccf	\$0.4657
73 to 168 ccf	\$4.0234
169 to 408 ccf	\$5.4009
409 ccf and over	\$9.5068
Usage per 1,000 gallons:	
0 to 53,856 gallons	\$0.6226
53,857 to 125,664 gallons	\$5.3790
125,665 to 305,184 gallons	\$7.2205
305,185 gallons and over	\$12.7097

Note: 100 cubic feet (ccf) equals 748 gallons

Non-Residential: any single unit, duplex with at least one commercial unit, or multi-unit property used for commercial purposes

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF RATES**

NON-RESIDENTIAL CUSTOMERS

WATER	Effective
<u>Quarterly</u>	<u>October 1, 2023</u>
Meter Charge:	Quarterly Charge
Meter Size	
3"	\$295.95
Flow Rate All Usage:	Quarterly Charge
Usage per 100 cubic feet (ccf):	
0 to 144 ccf	\$0.4657
145 to 336 ccf	\$4.0234
337 to 816 ccf	\$5.4009
817 ccf and over	\$9.5068
Usage per 1,000 gallons:	
0 to 107,712 gallons	\$0.6226
107,713 to 251,328 gallons	\$5.3790
251,329 to 610,368 gallons	\$7.2205
610,369 gallons and over	\$12.7097
Meter Charge:	Quarterly Charge
Meter Size	
4"	\$462.42
Flow Rate All Usage:	Quarterly Charge
Usage per 100 cubic feet (ccf):	
0 to 225 ccf	\$0.4657
226 to 525 ccf	\$4.0234
526 to 1,275 ccf	\$5.4009
1,276 ccf and over	\$9.5068
Usage per 1,000 gallons:	
0 to 168,300 gallons	\$0.6226
168,301 to 392,700 gallons	\$5.3790
392,701 to 953,700 gallons	\$7.2205
953,701 gallons and over	\$12.7097

Note: 100 cubic feet (ccf) equals 748 gallons

Non-Residential: any single unit, duplex with at least one commercial unit, or multi-unit property used for commercial purposes

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF RATES**

NON-RESIDENTIAL CUSTOMERS

WATER	Effective
<u>Quarterly</u>	<u>October 1, 2023</u>
Meter Charge:	Quarterly Charge
Meter Size	
6"	\$924.72
Flow Rate All Usage:	Quarterly Charge
Usage per 100 cubic feet (ccf):	
0 to 450 ccf	\$0.4657
451 to 1,050 ccf	\$4.0234
1,051 to 2,550 ccf	\$5.4009
2,551 ccf and over	\$9.5068
Usage per 1,000 gallons:	
0 to 336,600 gallons	\$0.6226
336,601 to 785,400 gallons	\$5.3790
785,401 to 1,907,400 gallons	\$7.2205
1,907,401 gallons and over	\$12.7097
Meter Charge:	Quarterly Charge
Meter Size	
8"	\$1,479.60
Flow Rate All Usage:	Quarterly Charge
Usage per 100 cubic feet (ccf):	
0 to 720 ccf	\$0.4657
721 to 1,680 ccf	\$4.0234
1,681 to 4,080 ccf	\$5.4009
4,081 ccf and over	\$9.5068
Usage per 1,000 gallons:	
0 to 538,560 gallons	\$0.6226
538,561 to 1,256,640 gallons	\$5.3790
1,256,641 to 3,051,840 gallons	\$7.2205
3,051,841 gallons and over	\$12.7097

Note: 100 cubic feet (ccf) equals 748 gallons

Non-Residential: any single unit, duplex with at least one commercial unit, or multi-unit property used for commercial purposes

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF RATES**

NON-RESIDENTIAL CUSTOMERS

WATER	Effective
<u>Quarterly</u>	<u>October 1, 2023</u>
Meter Charge:	Quarterly Charge
Meter Size	
10"	\$2,126.94
Flow Rate All Usage:	Quarterly Charge
Usage per 100 cubic feet (ccf):	
0 to 1,035 ccf	\$0.4657
1,036 to 2,415 ccf	\$4.0234
2,416 to 5,865 ccf	\$5.4009
5,866 ccf and over	\$9.5068
Usage per 1,000 gallons:	
0 to 774,180 gallons	\$0.6226
774,181 to 1,806,420 gallons	\$5.3790
1,806,421 to 4,387,020 gallons	\$7.2205
4,387,021 gallons and over	\$12.7097
Meter Charge:	Quarterly Charge
Meter Size	
12"	\$3,976.44
Flow Rate All Usage:	Quarterly Charge
Usage per 100 cubic feet (ccf):	
0 to 1,935 ccf	\$0.4657
1,936 to 4,515 ccf	\$4.0234
4,516 to 10,965 ccf	\$5.4009
10,966 ccf and over	\$9.5068
Usage per 1,000 gallons:	
0 to 1,447,380 gallons	\$0.6226
1,447,381 to 3,377,220 gallons	\$5.3790
3,377,221 to 8,201,820 gallons	\$7.2205
8,201,821 gallons and over	\$12.7097

Note: 100 cubic feet (ccf) equals 748 gallons

Non-Residential: any single unit, duplex with at least one commercial unit, or multi-unit property used for commercial purposes

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF RATES**

NON-RESIDENTIAL CUSTOMERS

WATER	Effective
<u>Quarterly</u>	<u>October 1, 2023</u>
Meter Charge:	Quarterly Charge
Meter Size	
14"	\$7,397.97
Flow Rate All Usage:	Quarterly Charge
Usage per 100 cubic feet (ccf):	
0 to 3,600 ccf	\$0.4657
3,601 to 8,400 ccf	\$4.0234
8,401 to 20,400 ccf	\$5.4009
20,401 ccf and over	\$9.5068
Usage per 1,000 gallons:	
0 to 2,692,800 gallons	\$0.6226
2,692,801 to 6,283,200 gallons	\$5.3790
6,283,201 to 15,259,200 gallons	\$7.2205
15,259,201 gallons and over	\$12.7097
Meter Charge:	Quarterly Charge
Meter Size	
16"	\$10,172.22
Flow Rate All Usage:	Quarterly Charge
Usage per 100 cubic feet (ccf):	
0 to 4,950 ccf	\$0.4657
4,951 to 11,550 ccf	\$4.0234
11,551 to 28,050 ccf	\$5.4009
28,051 ccf and over	\$9.5068
Usage per 1,000 gallons:	
0 to 3,702,600 gallons	\$0.6226
3,702,601 to 8,639,400 gallons	\$5.3790
8,639,401 to 20,981,400 gallons	\$7.2205
20,981,401 gallons and over	\$12.7097

Note: 100 cubic feet (ccf) equals 748 gallons

Non-Residential: any single unit, duplex with at least one commercial unit, or multi-unit property used for commercial purposes

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF RATES**

NON-RESIDENTIAL CUSTOMERS

WATER	Effective
<u>Quarterly</u>	<u>October 1, 2023</u>
Meter Charge:	Quarterly Charge
Meter Size	
20"	\$15,870.48
Flow Rate All Usage:	Quarterly Charge
Usage per 100 cubic feet (ccf):	
0 to 7,722 ccf	\$0.4657
7,723 to 18,018 ccf	\$4.0234
18,019 to 43,758 ccf	\$5.4009
43,759 ccf and over	\$9.5068
Usage per 1,000 gallons:	
0 to 5,776,056 gallons	\$0.6226
5,776,057 to 13,477,464 gallons	\$5.3790
13,477,465 to 32,730,984 gallons	\$7.2205
32,730,985 gallons and over	\$12.7097
Meter Charge:	Quarterly Charge
Meter Size	
24"	\$35,673.48
Flow Rate All Usage:	Quarterly Charge
Usage per 100 cubic feet (ccf):	
0 to 11,124 ccf	\$0.4657
11,125 to 25,956 ccf	\$4.0234
25,957 to 63,036ccf	\$5.4009
63,037 ccf and over	\$9.5068
Usage per 1,000 gallons:	
0 to 8,320,752 gallons	\$0.6226
8,320,753 to 19,415,088 gallons	\$5.3790
19,415,089 to 47,150,928 gallons	\$7.2205
47,150,929 gallons and over	\$12.7097

Note: 100 cubic feet (ccf) equals 748 gallons

Non-Residential: any single unit, duplex with at least one commercial unit, or multi-unit property used for commercial purposes

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF RATES**

RESIDENTIAL CUSTOMERS

WASTEWATER DISPOSAL

Monthly

**Effective
October 1, 2023**

Base Facility Charge (based on water meter size):

Monthly Charge

Meter Size

5/8" plus 2,244 gallons (3ccf)	\$7.85
1" plus 2,244 gallons (3ccf)	\$21.46
1.5" plus 2,244 gallons (3ccf)	\$40.79
2" plus 2,244 gallons (3ccf)	\$63.98
3" plus 2,244 gallons (3ccf)	\$125.80

Flow Rate All Usage:

Monthly Charge

Usage per 100 cubic feet (ccf):

4 ccf and over

\$7.4444

Usage per 1,000 gallons:

2,245 gallons and over

\$9.9524

Quarterly

Base Facility Charge (based on water meter size):

Quarterly Charge

Meter Size

5/8" plus 6,732 gallons (9ccf)	\$23.55
1" plus 6,732 gallons (9ccf)	\$64.38
1.5" plus 6,732 gallons (9ccf)	\$122.37
2" plus 6,732 gallons (9ccf)	\$191.94
3" plus 6,732 gallons (9ccf)	\$377.40

Flow Rate All Usage:

Quarterly Charge

Usage per 100 cubic feet (ccf):

10 ccf and over

\$7.4444

Usage per 1,000 gallons:

6,733 gallons and over

\$9.9524

Note: 100 cubic feet (ccf) equals 748 gallons

Residential: any single-family or duplex property that is used solely and entirely for residential purposes

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF RATES**

MULTI-FAMILY DWELLINGS (MFD)

WASTEWATER DISPOSAL

Monthly

**Effective
October 1, 2023**

Base Facility Charge: based on water meter size; applied per unit 5/8" to 16" plus 2,244 gallons (3ccf):	Monthly Charge \$7.85
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Flow Rate All Usage Per Unit:	Monthly Charge
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Usage per 100 cubic feet (ccf): 4 ccf and over	\$7.4444
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Usage per 1,000 gallons: 2,245 gallons and over	\$9.9524
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Quarterly

Quarterly Charge

Base Facility Charge: based on water meter size; applied per unit 5/8" to 16" plus 6,732 gallons (9ccf):	\$23.55
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Flow Rate All Usage Per Unit:	Quarterly Charge
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Usage per 100 cubic feet (ccf): 10 ccf and over	\$7.4444
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Usage per 1,000 gallons: 6,733 gallons and over	\$9.9524
--	----------

Note: 100 cubic feet (ccf) equals 748 gallons

Multi-family: any property with three (3) or more units served by a common meter that is used solely and entirely for residential purposes, including amenities

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF RATES**

MIXED-USE BUILDINGS

WASTEWATER DISPOSAL

Monthly

**Effective
October 1, 2023**

Base Facility Charge: based on water meter size; applied per billing unit	Monthly Charge
5/8" to 1.5" plus 2,244 gallons (3ccf)	\$12.31
2" plus 2,244 gallons (3ccf)	\$14.80
3" plus 2,244 gallons (3ccf)	\$22.66
4" to 6" plus 2,244 gallons (3ccf)	\$24.49
8" plus 2,244 gallons (3ccf)	\$26.34
10" plus 2,244 gallons (3ccf)	\$27.26

Flow Rate All Usage Per Billing Unit:	Monthly Charge
Usage per 100 cubic feet (ccf):	
4 ccf and over	\$7.4444
Usage per 1,000 gallons:	
2,245 gallons and over	\$9.9524

Quarterly

Base Facility Charge: based on water meter size; applied per billing unit	Quarterly Charge
5/8" to 1.5" plus 6,732 gallons (9ccf)	\$36.93
2" plus 6,732 gallons (9ccf)	\$44.40
3" plus 6,732 gallons (9ccf)	\$67.98
4" to 6" plus 6,732 gallons (9ccf)	\$73.47
8" plus 6,732 gallons (9ccf)	\$79.02
10" plus 6,732 gallons (9ccf)	\$81.78

Flow Rate All Usage Per Billing Unit:	Quarterly Charge
Usage per 100 cubic feet (ccf):	
10 ccf and over	\$7.4444
Usage per 1,000 gallons:	
6,733 gallons and over	\$9.9524

Note: 100 cubic feet (ccf) equals 748 gallons

MIXED USE: any property consisting of more than two residential dwellings and non-residential activities served by a common meter in which permit application was submitted prior to October 1, 2016 (Ordinance No. 16-107)

BILLING UNIT: each residential unit within a mixed-use building shall be treated as one billing unit. All non-residential units within a mixed-use building shall collectively be treated as one billing unit.

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF RATES**

NON-RESIDENTIAL CUSTOMER

WASTEWATER DISPOSAL
Monthly

Effective
October 1, 2023

Base Facility Charge based on water meter size

Monthly Charge

5/8"	\$5.72
1"	\$21.26
1.5"	\$42.52
2"	\$68.04
3"	\$136.03
4"	\$212.57
6"	\$425.16
8"	\$680.24
10"	\$977.84
12"	\$1,828.15
14"	\$3,401.22
16"	\$4,676.68
20"	\$7,296.46
24"	\$10,512.21

Flow Rate All Usage:

Monthly Charge

Usage per 100 cubic feet (ccf):

0 to 3 ccf	\$1.6091
4 ccf and over	\$7.6187

Usage per 1,000 gallons:

0 to 2,244 gallons	\$2.1511
2,245 gallons and over	\$10.1854

Note: 100 cubic feet (ccf) equals 748 gallons

Non-Residential: any single unit, duplex with at least one commercial unit, or multi-unit property used for commercial purposes, including dewatering.

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF RATES**

NON-RESIDENTIAL CUSTOMER

WASTEWATER DISPOSAL
Quarterly

Effective
October 1, 2023

Base Facility Charge: based on water meter size

Quarterly Charge

5/8"	\$17.16
1"	\$63.78
1.5"	\$127.56
2"	\$204.12
3"	\$408.09
4"	\$637.71
6"	\$1,275.48
8"	\$2,040.72
10"	\$2,933.52
12"	\$5,484.45
14"	\$10,203.66
16"	\$14,030.04
20"	\$21,889.38
24"	\$31,536.63

Flow Rate All Usage:

Quarterly Charge

Usage per 100 cubic feet (ccf):

0 to 9 ccf	\$1.6091
10 ccf and over	\$7.6187

Usage per 1,000 gallons:

0 to 6,732 gallons	\$2.1511
6,733 gallons and over	\$10.1854

Note: 100 cubic feet (ccf) equals 748 gallons

Non-Residential: any single unit, duplex with at least one commercial unit, or multi-unit property used for commercial purposes, including dewatering.

MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF RATES

WHOLESALE CUSTOMERS

Effective
October 1, 2023

WATER

Wholesale Customers:

Flow Rate Per 1,000 gallons \$2.1130

WASTEWATER

Rates for Wet Season (May 1 to October 31 Annually)

Flow Rate Per 1,000 gallons \$4.4341

Rates for Dry Season (November 1 to April 30 Annually)

Flow Rate Per 1,000 gallons \$3.4487

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF RATES**

RESIDENTIAL, MULTI-FAMILY DWELLINGS, MIXED-USE BUILDINGS, AND NON-RESIDENTIAL CUSTOMERS

WATER

**Effective
October 1, 2023**

Miami-Dade County (MDC) Water Conservation Surcharge:

Note: *{ During South Florida Water Management District (SFWMD) water restrictions, flow usage rate of the fourth tier will be priced as follows }:*

RESIDENTIAL

Usage Flows Starting on 4th Rate Block per 100 cubic feet (ccf):

Permanent or Phase I of Water Restrictions Imposed by (SFWMD)	\$9.0386
Phase II of Water Restrictions Imposed by (SFWMD)	\$10.8464
Phase III of Water Restrictions Imposed by (SFWMD)	\$12.6541
Phase IV of Water Restrictions Imposed by (SFWMD)	\$14.4618

Usage Flows Starting on 4th Rate Block per 1,000 gallons (gal):

Permanent or Phase I of Water Restrictions Imposed by (SFWMD)	\$12.0838
Phase II of Water Restrictions Imposed by (SFWMD)	\$14.5005
Phase III of Water Restrictions Imposed by (SFWMD)	\$16.9173
Phase IV of Water Restrictions Imposed by (SFWMD)	\$19.3340

MULTI-FAMILY DWELLINGS AND MIXED-USE BUILDINGS

Usage Flows Starting on 4th Rate Block per 100 cubic feet (ccf):

Permanent or Phase I of Water Restrictions Imposed by (SFWMD)	\$4.7964
Phase II of Water Restrictions Imposed by (SFWMD)	\$5.7557
Phase III of Water Restrictions Imposed by (SFWMD)	\$6.7150
Phase IV of Water Restrictions Imposed by (SFWMD)	\$7.6743

Usage Flows Starting on 4th Rate Block per 1,000 gallons (gal):

Permanent or Phase I of Water Restrictions Imposed by (SFWMD)	\$6.4123
Phase II of Water Restrictions Imposed by (SFWMD)	\$7.6948
Phase III of Water Restrictions Imposed by (SFWMD)	\$8.9773
Phase IV of Water Restrictions Imposed by (SFWMD)	\$10.2597

NON-RESIDENTIAL

Usage Flows Starting on 4th Rate Block per 100 cubic feet (ccf):

Permanent or Phase I of Water Restrictions Imposed by (SFWMD)	\$9.5068
Phase II of Water Restrictions Imposed by (SFWMD)	\$11.4083
Phase III of Water Restrictions Imposed by (SFWMD)	\$13.3097
Phase IV of Water Restrictions Imposed by (SFWMD)	\$15.2110

Usage Flows Starting on 4th Rate Block per 1,000 gallons (gal):

Permanent or Phase I of Water Restrictions Imposed by (SFWMD)	\$12.7097
Phase II of Water Restrictions Imposed by (SFWMD)	\$15.2517
Phase III of Water Restrictions Imposed by (SFWMD)	\$17.7937
Phase IV of Water Restrictions Imposed by (SFWMD)	\$20.3355

Miami Springs System Improvement Surcharge	22.58%
--	--------

WASTEWATER

Miami Springs System Improvement Surcharge	45.27%
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**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF WATER FEES AND CHARGES**

WATER

Effective
October 1, 2023

1. Oversizing Credits

Pipe Size	Credit Per Linear Foot	Credit Per Each Butterfly Valve
8" to 12"	(\$27.00)	(\$500.00)
8" to 16"	(\$62.00)	(\$2,500.00)
8" to 20"	(\$117.00)	(\$12,000.00)
8" to 24"	(\$197.00)	(\$13,800.00)
8" to 30"	(\$237.00)	(\$93,800.00)
8" to 36"	(\$267.00)	(\$113,800.00)
12" to 16"	(\$35.00)	(\$2,000.00)
12" to 20"	(\$90.00)	(\$11,500.00)
12" to 24"	(\$170.00)	(\$13,400.00)
12" to 30"	(\$210.00)	(\$93,400.00)
12" to 36"	(\$240.00)	(\$113,400.00)

**2. Developer Payment/Credit for New Water Service
Additional Service Program (ASP)**

Pipe Size	
1" (single service)	(\$2,000.00)
1" (dual service)	(\$2,500.00)
2" (single service)	(\$3,000.00)

3. Water Allocation Certification

Initial Certification	\$90.00
Re-Certification	\$30.00

4. Construction Connection Charge

Pipe Size	Rate Per Front Foot
8"	\$110.00
12" (12-inch base size only)	\$137.00
16" (16-inch base size only)	\$172.00

5. Service Installation Fees

Service Installation Application Request - Processing Fee \$250.00

Service Size

1" (5/8" meter-twin off or second meter in existing dual box)	\$850.00
1" (single - 5/8" or 1" meter)	\$1,200.00
1" (dual - two 5/8" meters)	\$1,700.00
2" (single - 2" meter)	\$2,500.00
Greater than 2"	Actual Cost

NOTE: The above fees will apply for all typical service installations. However, the Department reserves the right to charge its actual costs for atypical service installation. Additional estimates will be required for paving and restoration.

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF WATER FEES AND CHARGES**

WATER

Effective
October 1, 2023

6. Floating / Temporary Portable Meter Guarantee Deposit

Meter Size

1"	\$1,500.00
2" and Above	\$2,500.00

Note: The above deposits do not earn simple interest.

7. Fire Protection Water Service Rates

Monthly

Quarterly

Size of Fire Line Connection

2"	\$2.25	\$6.75
3"	\$4.00	\$12.00
4"	\$7.00	\$21.00
6"	\$11.50	\$34.50
8"	\$15.00	\$45.00
10"	\$23.00	\$69.00
12"	\$30.00	\$90.00

8. Fire Hydrant Service Charge

Per month	\$0.80
Per quarter	\$2.40

9. Connection Charge Rate

Per average daily gallon	\$1.39
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10. Basic Customer Service Fees

A.	Deposit	
	Residential-based on customer's credit analysis and payment history	\$0.00 to \$100.00
	Commercial - monthly	Amount based on 2.5 times the anticipated monthly billing with a minimum charge of \$50.00
	Commercial - quarterly	Amount based on 1.5 times the anticipated quarterly billing with a minimum charge of \$50.00
B.	Charge for opening or transferring an account on billing system	\$10.00
C.	Additional charge if a field visit is required to connect the water meter or obtain a water meter reading.	\$35.00

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF WATER FEES AND CHARGES**

WATER

Effective
October 1, 2023

11. Other Service Fees

A.	Office investigation of a delinquent account resulting from:	
	Active meter violation	\$30.00
	Returned payment (check, draft, or other order for the payment of money) (F.S. 2005 - 125.0105, 832.08(5)):	
	If face value of payment does not exceed \$50.00	\$25.00
	If face value of payment exceeds \$50.00 but exceed \$300.00	\$30.00
	If face value of payment exceeds \$300.00	\$40.00
		(or 5% of the face amount of payment, whichever is greater)
B.	Field visit to collect a payment or deposit or to discontinue water service by cutting or locking service or removing meter and plugging service	\$20.00
C.	Field visit to reconnect a cut-off or locked service or to reinstall a meter	\$35.00
D.	Field visit after initial attempt to read meter, disconnect service, or to inspect backflow prevention device required due to denied access	\$50.00
E.	Penalty for failure to provide a meter reading or a meter for inspection as required for floating/ temporary portable meters (construction meters)	\$150.00
F.	Customer-requested high bill investigation, which does not meet established criteria	\$20.00
G.	Charges the Department incurs on behalf of the customer, which shall be passed on to the customer	\$5.00 (minimum charge)
H.	Field visit to inspect/verify repairs related to underground leak credits	\$30.00
I.	Field visit to check a meter reading or pool credit reading (for each visit)	\$12.50
J.	Administrative Hearing Charged even if customer fails to appear at hearing and fails to cancel more than seven (7) days before hearing date	\$75.00

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF WATER FEES AND CHARGES**

WATER

Effective
October 1, 2023

12. Customer Requested Submeter Installation

To cover cost of field inspections, approvals and clerical expenses for establishing future billings	\$50.00
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13. Pipe Tapping Charges

Tap Size	
4"	\$520.00
6"	\$530.00
8"	\$600.00
12"	\$785.00
16"	\$1,555.00
20"	\$1,885.00
Overtime Charge	\$105.00

NOTE: There will be a \$205.00 charge if Department personnel arrive on a job site and are unable to perform the tapping operation because the contractor has not fulfilled its obligations specified in the Rules and Regulations. No materials shall be furnished by the Department for installation under the prices listed above.

14. Tailpiece Charge

Tailpiece Size	
3/4"	\$40.00
1"	\$75.00
2"	\$180.00

15. Certified Meter Test Charge

In-House Testing	
5/8" and 1" Meters	\$50.00
1 1/2" and 2" Meters	\$85.00
On-Site Testing	
3" through 10" Meters	\$200.00
Third Party Vendor Testing	
5/8" and 1" Meters	\$90.00
1 1/2" and 2" Meters	\$160.00

16. Municipal Excise Tax on Water Bills

As required by local ordinances, the Department will impose an excise tax on retail sales of water. Exempt from this tax are governmental agencies, houses of public worship and certain consulates.

17. Permit Fee(s)

As charged to the Department by various governmental agencies.

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF WATER FEES AND CHARGES**

WATER

Effective
October 1, 2023

18. Premise Location Certificate

To obtain notification of any actual or potential lien amount attached to a premise location fee per premise address:

Water & Sewer

- | | |
|---|---------|
| A. Regular premise location certificate | \$10.00 |
| B. 24-hour premise location certificate | \$20.00 |

19. Preliminary Water and/or Sewer Information Form

Preliminary review of a proposed development to determine potential water and/or sewer improvement requirements.	\$35.00
--	---------

20. Plans Review and Inspection Fees

- | | |
|--|------------------------------|
| A. Water Plans Review - One time upfront fee to go towards processing fees | \$55.00 |
| B. Water & Sewer Plans Review - One time upfront fee to go towards processing fees | \$110.00 |
| C. Firelines/Services | \$55.00 |
| D. Water Main Extensions | |
| Up to 500 ft. | \$300.00 |
| 501 ft. to 2,000 ft. | \$350.00 |
| Greater than 2,000 ft. | \$450.00 |
| | plus \$0.18 per ft >2,000 ft |
| E. Each rework of Plans Review items above C and D. | \$220.00 |

Renewal of expired approval and revisions (One year or more after original approval)	Same as original fee
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Note: Plans review processing fees entitle the applicant to an initial plans review and one final review. Processing fees are for the review and approval of plans to WASD standards regarding water extension projects, including firelines.

21. Expedited Plans Review Fees for Water and/or Sewer

- | | |
|-----------------------|----------|
| First Sheet | \$560.00 |
| Each Additional Sheet | \$280.00 |

Expedited Plans Review Rework Fees for Water and/or Sewer

- | | |
|-----------------------|----------|
| First Sheet | \$560.00 |
| Each Additional Sheet | \$280.00 |

NOTE: Expedited Plans Review Fees are in addition to processing review fees. Requests for expedited services and the associated fee noted in any sections of this implementing order are subject to the availability of requisite plan review staff. Expedited Plans Review is not available for projects over 40 pages. Expedited requests are only available during the 1st submittal or 2nd submittal rework. If the expedited mode is triggered, then the Expedited Plans Review Rework Fees will apply to all subsequent submittals until completion.

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF WATER FEES AND CHARGES**

WATER

Effective
October 1, 2023

22. As-Built Review Fees

Review and approval of As-Built plans for survey standards, regulatory compliance, plan adherence, and GIS compatibility.

Water - 3 sheets or less (Initial and second review included)	\$210.00
Water - 4 sheets or greater (Initial and second review included)	\$420.00
Each Rework of As-Built (beyond second review)	\$220.00

23. Laboratory Fees for Drinking Water Tests

Per Sample (*Excludes Sample Collection*)

Bacteriology (Membrane Filter)	\$15.00
Bacteriology (Membrane Filter) - <i>After Hours</i>	
<i>Charge to Wholesale Customers</i>	\$40.00
Color	\$10.00
Fluoride	\$20.00
Lead/Copper	\$50.00
Trihalomethanes	\$50.00
Water Quality Parameters	\$60.00
Volatile Organic Contaminants	\$75.00
Nitrate	\$10.00
Nitrite	\$10.00
Alkalinity	\$8.00
Chloride	\$8.00
Calcium	\$6.00
Hardness	\$8.00
Conductivity	\$4.00
Total Dissolved Solids (TDS)	\$6.00
Turbidity	\$8.00
Chlorine Residual	\$10.00
Ammonia - Nitrogen	\$10.00
Dissolved Oxygen	\$6.00
Total Phosphorous	\$10.00
Ortho Phosphate	\$10.00
pH	\$4.00
Sulfate	\$16.00
Total Organic Carbon	\$16.00
Marble	\$25.00
Sodium	\$18.00

Sample Collection Fee

Per water sample	\$25.00
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Note: Fee charged for Department's laboratory sample collection services

24. Payment for Collection of Lead/Copper Water Test at Customer Tap

Payment for collection of sample	(\$50.00)
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Note: Payment by Department to customers in established pool of homes who participate in sample collection for compliance with EPA Lead and Copper Rule (LCR).

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF WATER FEES AND CHARGES**

WATER

Effective
October 1, 2023

25. Release of Easement Fees

- | | | |
|----|--|----------|
| A. | Release of platted easement rights | \$250.00 |
| B. | Conditional consent letter for permission to use easement until required by Department | \$50.00 |
| C. | All other release requests | \$500.00 |

26. Completion of Water and Sewer Verification Form/Ordinance Letter/UAE Fees

*(See Table 1 - Types of Land Uses)
(See Section 24-43.1(5) of the Miami-Dade County Code)*

Water Only

- | | | |
|----|--------------------------------|---------|
| A. | Residential (R-A) | \$30.00 |
| B. | Multi-family residential (R-B) | \$75.00 |
| C. | Non-residential (NR) | \$75.00 |

Water & Sewer

- | | | |
|----|--------------------------------|----------|
| A. | Residential (R-A) | \$60.00 |
| B. | Multi-family residential (R-B) | \$150.00 |
| C. | Non-residential (NR) | \$150.00 |

Note: At the Department's Discretion, the Utilities Analysis Evaluation (UAE) form may be used in lieu of a Verification Form.

27. Certificate of Use (CU) Upfront Fee

(See Table 1 - Types of Land Uses)

Utilities Analysis Evaluation (UAE) Form \$75.00

28. Review and Release of Recorded Document Fees (Other Than Easements)

(covenants, unities of title, service agreements, warranty deeds)

- | | | |
|----|---------------|----------|
| A. | Water only | \$100.00 |
| B. | Water & Sewer | \$150.00 |

29. Completion of Service Feasibility Questionnaire Fee

\$25.00

30. Preparation of Service Agreement, Assignment, and Addendum Fees

Water Only

Residential, multi-family and commercial use \$200.00

Water & Sewer

Residential, multi-family and commercial use \$400.00

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF WATER FEES AND CHARGES**

WATER

Effective
October 1, 2023

31. Preparation of Letter of Availability Fees	\$50.00
A. Water only	
B. Water & Sewer	\$100.00
32. Other Recordable Legal Document Fees (Covenants, Unities of Title, Satisfaction, Indemnification and Hold Harmless, etc.)	
A. Water only	\$25.00
B. Water & Sewer	\$50.00
33. Environmental Quality Control Board (EQCB)	
Letter Preparation Fees	
A. Water only	\$35.00
B. Water & Sewer	\$70.00
34. Review of Shop Drawings Fee	
Per shop drawing	\$60.00
<u>Note:</u> Fee charged for the review of shop drawings for Department compliance regarding water valve fittings and taps.	
35. As-Builts or Sample Approved Plans Request Fee	
Fee per sheet	\$10.00
36. Atlas Page Request Fee	
Fee per sheet	\$5.00
37. Design and Construction Standard Specifications and Details Publication Fee	
Per publication	\$50.00
38. Verification of Underground Water and Sewer Infrastructure Horizontal Location Fee	
Per 100 Linear Feet	\$50.00
Additional Linear Foot	\$0.50
<u>Note:</u> (verification of horizontal location of underground infrastructure as shown on As-Builts)	

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF WATER FEES AND CHARGES**

WATER

Effective
October 1, 2023

39. Safety and Rescue Training Course Fees

Water & Sewer

A. Confined space entry (24 hours)	\$450.00
B. Hazardous material technician and incident command class (40 hours)	\$550.00
C. Hazwoper training (40 hours)	\$550.00
D. Air monitoring (16 hours)	\$150.00
E. Excavation safety (Trenching & shoring, 16 hours)	\$250.00
F. Fall protection/scaffolding (16 hours)	\$250.00
G. Electrical safety (16 hours)	\$500.00
H. Respiratory protection (40 hours)	\$450.00

Note: The revenues from the above course fees are allocated to the water and wastewater funds.

40. Floating Meters/Temporary Portable Meters/ Damaged/Cleaning Fees

Meter Size

1"	\$72.00
2"	\$125.00
3" and above	\$140.00

41. Floating Meters/Temporary Portable Meters

Charge to read a floating meter in the field.	\$50.00
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42. Preparation of GIS Adhoc Maps and/or Data Fees

Per hour (minimum one hour)	\$65.00
Additional copies of the same map-per copy	\$25.00

43. Detecto Meters

Per 100 cubic feet	\$7.6055
Per 1,000 gallons	\$10.1678

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF WATER FEES AND CHARGES**

WATER

Effective
October 1, 2023

44. Security Fees

- | | | |
|----|---|---------|
| A. | Fee for Issuance of Initial Identification Card
Per person | \$60.00 |
| | Fee charged for background check and processing costs for identification card and transponder issued to persons having access to Department facilities.
(Consultants, Contractors, Non-Water and Sewer Department Staff) | |
| B. | Fee for Renewal of Expired Identification Card
(One year from date of issuance)
(Consultants, Contractors, Non-Water and Sewer Department Staff)
Per person | \$55.00 |
| C. | Fee for Replacement of Identification Card
(Card lost, stolen, etc.)
Per person | \$15.00 |

45. Subscription Fee to Access Customer Care and Billing System (CCB)

Fee per user	\$6,300.00
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Note: Annual fee charged to title and lien companies to provide access to the Department's Customer Care and Billing System (CCB) via the Internet for Premise Lien Certificates (PLC).

46. Delinquent account notification service for rental property

One-time initial set-up fee per account	\$30.00
Annual Fee per Monthly Account	\$60.00
Annual Fee per Quarterly Account	\$50.00

Note: Subscribers to this service shall pay in advance

47. Cut For Non-Payment (CONP)

Third Attempt Water Meter Removal Charge	\$250.00
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Note: Fee charged to customers who fail to provide access to water meter on two previous attempts to collect or lock service for non-payment.

48. Developer Repayment Fee

To cover administrative costs for collection and repayment of construction connection charges collected from connecting and/or abutting properties on behalf of developers who constructed the facilities.	2.5% of gross repayment
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**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF WATER FEES AND CHARGES**

WATER

Effective
October 1, 2023

49. Unauthorized Usage of Water on Fire Lines

Daily penalty charge against fire line accounts for allowing unauthorized usage or waste of water. \$100.00 per day

50. General & Administrative (G&A) Overhead (OH) Rate

Rate charged to offset general and administrative costs related to work performed by the Department due to request, damage (billable job orders) or contractual agreement. 10.6% of total cost

51. Pipeline Installation Contributions

Pipe Size	<u>Rate Per Linear Foot</u>
8"	\$42.00
12"	\$46.00

Note: Contributory payments by developers of certain development projects as indicated by Section 2.04(2c) of the Rules and Regulations.

52. After-Hours Construction Inspections Activity Fees

Per hour rate charged for work outside the specified work hours - weekends, nights and holidays for contractors with special requirements or deadlines for construction. \$90.00 per hour

SCHEDULE OF WATER FEES AND CHARGES

WATER

Effective
October 1, 2023

53. Water Meter Installation Fees

These fees are for the installation of the water meter(s) only. All new water services must be installed in accordance with the appropriate Water & Sewer Department Standard Detail, prior to the installation of the water meters.

The Department reserves the right to install the appropriate sized meter, if a service is deemed to be oversized for a specific premise, as long as an adequate amount of flow is provided.

Fee for installing initial water meter for new customer

Service Size (Section 45) :

3/4" or 5/8"	\$145.00
1"	\$195.00
2"	\$1,350.00
4" (with 2 - 2" meters)	\$2,665.00
4" Turbo	\$4,075.00
6" Turbo	\$6,145.00
6" x 4" Turbo	\$7,475.00
8" Turbo	\$9,380.00
8" x 4" Turbo	\$10,740.00
10" Turbo	\$11,770.00
10" x 4" Turbo	\$13,130.00

Note: All other sizes and/or configurations will be charged at actual cost.

54. Return Field Visit to Set Meter After Failed Meter Installation

Fee for return field visit to set meter after initial installation was not up to Department standards.

Service Size:

5/8" to 1"	\$35.00
2" to 10"	\$55.00

55. Rental of Light Towers

\$505.00 per tower per day

56. Surcharge for After- Hours Initial Meter Installation

Service Size:

3/4" to 1" Service	\$385.00
2" to 4" Service	\$675.00
6" to 10" Service	\$1,015.00

57. Curb Stop Replacement for Initial Meter Installation

\$165.00

WATER

Effective
October 1, 2023

58. Backflow Preventer Test and Non-Compliant Certification Fee	\$250.00
Note: Charged to customers that fail to comply with the annually required backflow preventer testing; customer will receive two notices before a contractor is hired to perform testing and fee is charged.	
59. Cross-Connection Control Testing Fees	
Backflow preventers required annual testing charge	
Domestic Device	\$75.00
Fire Lines	\$150.00
60. Backflow Preventer Assembly Test Report Submission	\$5.00
Note: Processing test report submitted by private tester	
61. Construction Contract Documents	
A. Contract Documents on a CD or DVD (cost per CD/DVD)	\$20.00
B. Contract Documents without Full-Sized Plan Sheets	\$25.00
C. Contract Documents with Engineer's Estimate up to \$500,000	\$25.00
D. Contract Documents for Projects bidding via Miscellaneous Construction Contracts (MCC) with Engineer's Estimate greater than \$500,000 but less than \$5 million.	\$40.00
E. Contract Documents for Projects not bidding via Miscellaneous Construction Contracts (MCC) with Engineer's Estimate, as follows:	
1. Greater than \$500,000, but up to \$5 million	\$50.00
2. Greater than \$5 million, but up to \$10 million	\$75.00
3. Greater than \$10 million, but up to \$20 million	\$100.00
4. Greater than \$20 million, but up to \$50 million	\$150.00
5. Greater than \$50 million, but up to \$100 million	\$250.00
6. Greater than or equal to \$100 million	\$350.00

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF WASTEWATER FEES AND CHARGES**

WASTEWATER

Effective
October 1, 2023

1. Oversizing Credits

A. Force Mains	Credit Per Linear Foot	Credit Per Plug Valve
8" to 12"	(\$47.00)	(\$3,000.00)
8" to 16"	(\$80.00)	(\$10,000.00)
8" to 20"	(\$120.00)	(\$23,000.00)
8" to 24"	(\$150.00)	(\$26,000.00)
8" to 30"	(\$230.00)	(\$68,000.00)
8" to 36"	(\$290.00)	(\$83,000.00)
12" to 16"	(\$63.00)	(\$7,000.00)
12" to 20"	(\$103.00)	(\$20,000.00)
12" to 24"	(\$143.00)	(\$23,000.00)
12" to 30"	(\$183.00)	(\$65,000.00)
12" to 36"	(\$243.00)	(\$80,000.00)

**Credit Per Inch Diameter
Per Linear Foot**

B. Gravity Sewer Mains	
8" to 10"	(\$15.00)
8" to 12"	(\$30.00)
8" to 16"	(\$115.00)
10" to 16"	(\$100.00)
12" to 16"	(\$75.00)
12" to 18"	(\$85.00)
16" to 18"	(\$15.00)

2. Developer Payment/Credit for New Sanitary Sewer Lateral Installation for Existing Property Use, Additional Service Program (ASP)

A. 6-Inch PVC C-900 lateral and cleanout	(\$5,500.00)
B. 6-Inch DIP lateral and cleanout	(\$6,700.00)

3. Construction Connection Charge

Pipelines	Pipe Size	Rate Per Front Foot
Gravity Sewers	8"	\$130.00
	10"	\$140.00
	12"	\$160.00
Force Mains	8"	\$110.00
	12"	\$140.00
	16"	\$177.00

4. Connection Charge Rate

Per average daily gallon	\$5.60
Per average daily gallon for customers utilizing a graywater disposal system	\$2.80

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF WASTEWATER FEES AND CHARGES**

WASTEWATER

Effective
October 1, 2023

5. Basic Customer Service Fees

- A. **Deposit**
- | | |
|---|--|
| Residential - based on customer's credit analysis and payment history | \$0.00 to \$100.00 |
| Commercial - monthly | Amount based on 2.5 times the anticipated monthly billing with a minimum charge of \$50.00 |
| Commercial - quarterly | Amount based on 1.5 times the anticipated quarterly billing with a minimum charge of \$50.00 |
- B. **Administrative Hearing** \$75.00
- Note:** Charged even if customer fails to appear at hearing and fails to cancel more than seven (7) days before hearing date

6. Domestic Waste Disposal Fee

Charged to commercial tankers for unloading domestic waste at wastewater treatment plants

0 - 1,000 gallons truck	\$65.50
1,001 - 1,500 gallons truck	\$98.25
1,501 - 2,000 gallons truck	\$131.00
Over 2,000 gallons truck- (per hundred gallons)	\$6.55

7. Fats, Oils, Grease (FOG), and Other Waste Disposal Fee

Charged to commercial tankers for unloading fats, oils, grease (FOG), and other waste at wastewater treatment plants

0 - 1,000 gallons truck	\$94.00
1,001 - 1,500 gallons truck	\$141.00
1,501 - 2,000 gallons truck	\$188.00
Over 2,000 gallons truck - (per hundred gallons)	\$9.40

8. Waste Hauler Tank Disposal Deposit and Fees

Deposit: Per waste hauler tank disposal account \$2,000.00
Returned Payment Fee: A 2.5% of gross repayment fee will be applicable to waste hauler returned payments

9. Hauled Waste Receiving Station Spill Clean-up \$414.00

Per accidental spill when delivering waste loads to receiving stations

10. Waste Hauler Truck Cleanout Charge

Per cleanout \$50.00

11. Waste Hauler Truck Calibration Decal \$100.00

Charged per verification of waste truck capacity. Trucks are provided with a decal that identifies gallonage.

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF WASTEWATER FEES AND CHARGES**

WASTEWATER

Effective
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12. Departmental Review of Waste Load Disposal Other than FOG or Domestic	\$111.00
Ensure compliance with Miami Dade County Liquid Waste Transportation and Disposal Guidance Manual.	
 13. Laboratory Sampling of Other Waste Load Disposal	 \$563.00
 14. High Strength Sewage Surcharge	
Per pound for portion of suspended solids in excess of a concentration of 200 milligrams per liter	\$0.14
Per pound for portion of biochemical oxygen demand in excess of a concentration of 200 milligrams per liter	\$0.19
 15. Pump Station Maintenance Fee	
Fees charged for maintenance of pump stations under Interdepartmental Agreement	
 16. Discharge Regulations Violations	
Fine for failure to comply with discharge regulations	\$500.00
 17. Removal of Clean-Out Plug	 \$150.00
 18. Permit Fee(s)	 As charged to the Department by various governmental agencies
 19. Premise Location Certificate	
To obtain notification of any actual or potential lien amount attached to a premise location Fee per service address:	
Water & Sewer	
A. Regular premise location certificate	\$10.00
B. 24-hour premise location certificate	\$20.00
 20. Preliminary Water and/or Sewer Information Form	
Preliminary review of a proposed development to determine potential water and/or sewer improvement requirements.	\$35.00

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF WASTEWATER FEES AND CHARGES**

WASTEWATER

Effective
October 1, 2023

21. Plans Review and Inspection Fees

A. Sewer Plans Review - One time upfront fee to go towards processing fees	\$55.00
B. Water & Sewer Plans Review - One time upfront fee to go towards processing fees	\$110.00
C. Laterals/Connections	\$55.00
D. Sewer Main Extensions	
Up to 500 ft.	\$300.00
501 ft. to 2,000 ft.	\$350.00
Greater than 2,000 ft.	\$450.00
	plus \$0.18 per ft >2,000 ft
E. Pump Station	\$800.00
F. Each rework of Plans Review Items above C, D and E.	\$220.00

Renewal of expired approval and revisions
(One year or more after approval) Same as original fee

Note: Plans review processing fees entitles the applicant to an initial plans review, and one final review. Processing fees are for the review and approval of plans to WASD standards regarding sewer extension projects, including sewer laterals, connections and pump stations.

22. Expedited Plans Review Fees for Water and/or Sewer

First Sheet	\$560.00
Each Additional Sheet	\$280.00

Expedited Plans Review Rework Fees for Water and/or Sewer

First Sheet	\$560.00
Each Additional Sheet	\$280.00

Note: Expedited Plans Review Fees are in addition to processing review fees. Requests for expedited services and the associated fee noted in any sections of this implementing order are subject to the availability of requisite plan review staff. Expedited Plans Review is not available for projects over 40 pages. Expedited requests are only available during the 1st submittal or 2nd submittal rework. If the expedited mode is triggered, then the Expedited Plans Review Rework Fees will apply to all subsequent submittals until completion. Expedited Plans Review for pump stations will be 15 business days.

23. As-Built Review Fees

Review and Approval of as-built plans for survey standards, regulatory compliance, plan adherence, and GIS compatibility

Sewer - 3 sheets or less (Initial and second review included)	\$210.00
Sewer - 4 sheets or greater (Initial and second review included)	\$420.00
Each Rework of As-Built (beyond second review)	\$220.00

24. Weed Control Fee

Per quarter	\$25.00
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25. Facilities with Excessive Infiltration Surcharge 10%

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF WASTEWATER FEES AND CHARGES**

WASTEWATER	<u>Effective</u> <u>October 1, 2023</u>
26. Discharge of Sludge Charge	\$40.00/ton
27. Telemetry Equipment Installation Fee	
Fee charged for installation of telemetry equipment at developer installed pump stations Per pump station	\$7,550.00
28. Marinas	40% of retail rate
29. Release of Easement Fees	
A. Release of platted easement rights	\$250.00
B. Conditional consent letter for permission to use easement until required by Department	\$50.00
C. All other release requests	\$500.00
30. Completion of Application Form Fees	
A. Utilities collection transmission capacity form	\$50.00
B. Industrial pre-treatment facility application form Sewer only	\$150.00
31. Completion of Water and Sewer Verification Form/Ordinance Letter/UAE Fees	
<i>(See Table 1 - Types of Land Uses)</i>	
<i>(See Section 24-43.1(5) of the Miami-Dade County Code)</i>	
Sewer Only	
A. Residential (R-A)	\$30.00
B. Multi-family residential (R-B)	\$75.00
C. Non-residential (NR)	\$75.00
Water & Sewer	
A. Residential (R-A)	\$60.00
B. Multi-family residential (R-B)	\$150.00
C. Non-residential (NR)	\$150.00
Note: At the Department's discretion, the Utilities Analysis Evaluation (UAE) form may be used in lieu of a Verification Form.	
32. Certificate of Use (CU) Upfront Fee	
<i>(See Table 1 - Types of Land Uses)</i>	
Utilities Analysis Evaluation (UAE) Form	\$75.00

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF WASTEWATER FEES AND CHARGES**

WASTEWATER

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33. Review and Release of Recorded Document Fees (Other Than Easements) <i>(Covenants, unities of title, service agreements, warranty deeds, etc.)</i>	
A. Sewer only	\$100.00
B. Water & Sewer	\$150.00
34. Preparation of Service Agreement, Assignment and Addendum Fee	
Sewer Only	
Residential, multi-family and commercial use	\$200.00
Water & Sewer	
Residential, multi-family and commercial use	\$400.00
35. Preparation of Letter of Availability Fees	
A. Sewer only	\$50.00
B. Water & Sewer	\$100.00
36. Other Recordable Legal Document Fees	
Covenants, Unities of Title, Satisfaction, Indemnification and Hold Harmless, etc.	
A. Sewer only	\$25.00
B. Water & Sewer	\$50.00
37. Completion of Groundwater Discharge Form Fee	\$50.00
38. Environmental Quality Control Board (EQCB)	
<i>EQCB Letter Preparation Fees</i>	
A. Sewer only	\$35.00
B. Water & Sewer	\$70.00
39. Review of Shop Drawings Fee	
Per shop drawing	\$100.00
Note: The fee charged for the review of standard shop drawings for Department compliance includes sewer manholes, fittings, and taps.	
40. As-Builts or Sample Approved Plans Request Fee	
Fee per sheet	\$10.00
41. Atlas Page Request Fee	
Fee per sheet	\$5.00
42. Customer Call-Out Fees	
Fee per call-out:	
A. Regular working hours	\$125.00
B. Non-regular working hours	\$175.00
Note: Fee for investigation and/or emergency response to sewer collection complaints (call-outs), fee charged only if Department is not responsible to correct complaint	

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF WASTEWATER FEES AND CHARGES**

WASTEWATER

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43. Customer Initiated Closed Circuit Television Lateral Inspection Fee	\$250.00
Per inspection	
 44. Design and Construction Standard Specifications and Details Publication Fee	 \$50.00
Per publication	
 45. Verification of Underground Water and Sewer Infrastructure Horizontal Location Fee	
Per 100 Linear Feet	\$50.00
Additional Linear Foot	\$0.50
Note: Verification of horizontal location of underground infrastructure as shown on As-Builts	
 46. Safety and Rescue Training Course Fees	
Water & Sewer	
A. Confined space entry (24 hours)	\$450.00
B. Hazardous material technician and incident command class (40 hours)	\$550.00
C. Hazwoper training (40 hours)	\$550.00
D. Air monitoring (16 hours)	\$150.00
E. Excavation safety (Trenching & shoring, 16 hours)	\$250.00
F. Fall protection/scaffolding (16 hours)	\$250.00
G. Electrical safety (16 hours)	\$500.00
H. Respiratory protection (40 hours)	\$450.00

Note: The revenues from the above course fees are allocated to the water and wastewater funds.

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF WASTEWATER FEES AND CHARGES**

WASTEWATER

Effective
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47. Laboratory Fees for Wastewater Tests

Per Sample (Excludes Sample Collection)

Bacteriology (Membrane Filter)	\$15.00
Bacteriology (Membrane Filter) - <i>After Hours Charge to Wholesale Customers</i>	\$40.00
Nitrate	\$10.00
Nitrite	\$10.00
Alkalinity	\$8.00
Chloride	\$8.00
Conductivity	\$4.00
Total Dissolved Solids (TDS)	\$6.00
Chlorine Residual	\$10.00
Ammonia - Nitrogen	\$10.00
Dissolved Oxygen	\$6.00
Total Phosphorous	\$10.00
Ortho Phosphate	\$10.00
Biochemical Oxygen Demand	\$12.00
pH	\$4.00
Sulfate	\$16.00
Total Kjeldahl Nitrogen	\$14.00
Total Organic Carbon	\$16.00
Total Suspended Solids	\$6.00
Sodium	\$18.00

48. Preparation of GIS Adhoc Maps and/or Data Fees

Per hour (minimum one hour)	\$65.00
Additional copies of the same map Per copy	\$25.00

49. Billing Service Fee for Processing Stormwater Utility Fee for Municipalities

Fee Determined by Agreement

50. Billing Service Fee for Processing Sewer Billings for Coral Gables

Fee Determined by Agreement

51. Graywater Disposal System

Customers who utilize an approved graywater disposal system and install a sub-meter to measure water entering the property which utilizes the graywater disposal system will not be charged wastewater disposal for usage measured on the sub-meter.

52. Floating Meters/Temporary Portable Meter Guarantee Deposit

2" Meter and Above \$2,500.00

Note: The above deposits do not earn simple interest.

53. Floating Meters/Temporary Portable Meters

Charge to read a floating meter in the field \$50.00

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF WASTEWATER FEES AND CHARGES**

WASTEWATER

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54. Floating Meters/Temporary Portable Meters/ Damaged/Cleaning Fees	\$140.00
3" Meter and Above	
55. Penalty for failure to provide a meter reading or a meter for inspection as required for floating/ temporary portable meters (construction meters)	\$150.00
56. Security Fees	
A. Fee for Issuance of Initial Identification Card	
Per person	\$60.00
 Note: Fee charged for background check and processing costs for identification card issued to persons having access to Department facilities. (Consultants, Contractors, Non-Water and Sewer Department staff)	
B. Fee for Renewal of Expired Identification Card (One year from date of issuance) (Consultants, Contractors, Non-Water and Sewer Department staff)	
Per person	\$55.00
C. Fee for Replacement of Identification Card (card lost, stolen, etc.)	
Per person	\$15.00
57. Subscription Fee to Access Customer Care and Billing System (CCB)	
Fee per user	\$6,300.00
 Note: Annual fee charged to title and lien companies to provide access to the Department's Customer Care and Billing System (CCB) via the Internet for Premise Lien Certificates (PLC).	
58. Cut For Non-Payment (CONP)	
Third Attempt Water Meter Removal Charge	\$250.00
 Note: Fee charged to customers who intentionally blocked access to water meter on two previous attempts to collect or lock service for non-payment.	
59. Delinquent account notification service for rental property	
One-time initial set-up fee per account	\$30.00
Annual Fee per Monthly Account	\$60.00
Annual Fee per Quarterly Account	\$50.00
 Note: Subscribers to this service shall pay in advance	

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF WASTEWATER FEES AND CHARGES**

WASTEWATER

Effective
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60. After-Hours Construction Inspections Activity Fees

Per hour rate charged for work outside the specified work hours - weekends, nights and holidays for contractors with special requirements or deadlines for construction. \$90.00 per hour

61. Developer Repayment Fee

To cover administrative costs for collection and repayment of construction connection charges collected from connecting and/or abutting properties in behalf of developers who constructed the facilities. 2.5% of gross repayment

62. General & Administrative (G&A) Overhead (OH) Rate

Rate charged to offset general and administrative costs related to work performed by the Department due to request, damage (billable job orders) or contractual agreement. 10.6% of total cost

63. Rental of Light Towers

\$505.00 per tower per day

64. Sewer Force Main Pipe Tapping Charges

Tap Size:	
4"	\$650.00
6"	\$660.00
8"	\$730.00
12"	\$980.00
16"	\$1,750.00
20"	\$2,080.00
Overtime Charge	\$105.00

NOTE: There will be a \$205.00 charge if Department personnel arrive on a job site and are unable to perform the tapping operation because the contractor has not fulfilled its obligations specified in the Rules and Regulations. No materials shall be furnished by the Department for installation under the prices listed above.

**MIAMI-DADE WATER AND SEWER DEPARTMENT
SCHEDULE OF WASTEWATER FEES AND CHARGES**

WASTEWATER

**Effective
October 1, 2023**

65. Construction Contract Documents

A. Contract Documents on a CD or DVD (cost per CD/DVD)	\$20.00
B. Contract Documents without Full-Sized Plan Sheets	\$25.00
C. Contract Documents with Engineer's Estimate up to \$500,000	\$25.00
D. Contract Documents for Projects bidding via Miscellaneous Construction Contracts (MCC) with Engineer's Estimate greater than \$500,000 but less than \$5 million	\$40.00
E. Contract Documents for Projects not bidding via Miscellaneous Construction Contracts (MCC) with Engineer's Estimate, as follows:	
1. Greater than \$500,000, but up to \$5 million	\$50.00
2. Greater than \$5 million, but up to \$10 million	\$75.00
3. Greater than \$10 million, but up to \$20 million	\$100.00
4. Greater than \$20 million, but up to \$50 million	\$150.00
5. Greater than \$50 million, but up to \$100 million	\$250.00
6. Greater than or equal to \$100 million	\$350.00

MIAMI-DADE WATER AND SEWER DEPARTMENT

Table 1- TYPES OF LAND USE

No.	Types of Building Usages		Verification Form (VF), Ordinance Letter (OL), and/or Utility Analysis Evaluation (UAE) Form Fee Listing
Residential Land Uses:			
1	Single Family Residences		R-A
2	Townhouse Residences		R-B
3	Apartments		R-B
4	Mobile Home Residences/Parks		R-A
5	Duplexes or Twin Home Residences		R-A
Commercial Land Uses:			
6	<u>Airport:</u> (a) Common Area/Concourse (b) Retail (c) Food Service		NR
7	Banquet Halls with kitchen		NR
8	Bars or Cocktail Lounges		NR
9	Barber Shops		NR
10	Beauty Shops		NR
11	Bowling Alleys		NR
12	<u>Car Washes:</u> (a) Manual Washing (b) Automated Washing with recycle system		NR
13	Coin Laundries		NR
14	Country Clubs with kitchen		NR
15	Dentist Offices		NR
16	Fitness Centers or Gyms		NR
17	Food Preparation Outlets (Bakeries, Meat Markets, Commissaries, etc.)		NR
18	Funeral Homes		NR
19	Gas Station / Convenience Store/ Mini-Mart (a) without Car Wash (b) with Single Automated Car Wash		NR
20	Hospitals		NR
21	Hotels and Motels		NR
22	House of Worship		NR
23	<u>Industrial:</u> (a) Warehouse/ Spec. Bldg. (b) Self-Service Storage Units (c) Industrial - Wet (d) Industrial - Dry		NR

***This table is for Fees for VF, OL and UAE, based on Section 24-43.1(5) of the County Code, which provides for gallonages per day based on land use.**

MIAMI-DADE WATER AND SEWER DEPARTMENT
Table 1- TYPES OF LAND USE

No.	Types of Building Usages		Verification Form (VF), Ordinance Letter (OL), and/or Utility Analysis Evaluation (UAE) Form Fee Listing
24	Kennels		NR
25	Marinas		NR
26	Motor Vehicle Service Stations		NR
27	Nursing or Convalescent Homes		NR
28	Office Buildings		NR
29	Other Residential Facility/ Institution: (a) Congregate Living Facility (CLF) (b) Jail (c) Other		NR
30	Pet Grooming		NR
31	Physician Offices		NR
32	Public Park: (a) With toilets only (b) With toilets and showers		NR
33	Public Swimming Facilities		NR
34	Restaurants: (a) full service (b) fast food service (c) take-out service		NR
35	Retail		NR
36	Schools a) day care/nursery b) regular schools		NR DADE COUNTY SCHOOL BOARD IS EXEMPT
37	Shopping Center/ Mall: (Shell/ Common Area)		NR
38	Stadiums, Ballparks, Racetracks, Frontons, Auditoriums, Etc.		NR
39	Theaters a) Indoor b) Outdoor c) Drive-in		NR
40	Trailer or Tourist Park		NR
41	Veterinarian Offices		NR

***This table is for Fees for VF, OL and UAE, based on Section 24-43.1(5) of the County Code, which provides for gallonages per day based on land use.**

Note:

gpd = gallons per day
R-A = Residential

NR= Non-residential
R-B = Multi-family Residential

PROPOSED FORM OF OPINION OF BOND COUNSEL

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PROPOSED FORM OF OPINION OF BOND COUNSEL

_____, 2024

To: Board of County Commissioners of
Miami-Dade County, Florida
Miami, Florida

We have served as bond counsel to our client Miami-Dade County, Florida (the “County”) in connection with the issuance by the County of its \$ _____ aggregate principal amount of Miami-Dade County, Florida Water and Sewer System Revenue Bonds, Series 2024A (the “Series 2024A Bonds”) and \$ _____ aggregate principal amount of Miami-Dade County, Florida Water and Sewer System Revenue Refunding Bonds, Series 2024B (together with the Series 2024A Bonds, the “Series 2024 Bonds”), dated the date of this letter.

The Series 2024 Bonds are issued pursuant to Ordinance No. 93-134 enacted by the Board of County Commissioners of the County (the “Board”) on November 16, 1993, as amended by Ordinance No. 13-47 enacted by the Board on June 4, 2013 (the “2013 Ordinance”), the 2013 Ordinance with respect to the Series 2024A Bonds, and Resolution No. R-317-24 adopted by the Board on April 16, 2024 (collectively, the “Bond Ordinance”). Capitalized terms not otherwise defined in this letter are used as defined in the Bond Ordinance.

In our capacity as bond counsel, we have examined the transcript of proceedings relating to the issuance of the Series 2024 Bonds, a copy of the signed and authenticated Series 2024 Bond of the first maturity of each Series, the Bond Ordinance and such other documents, matters and law as we deem necessary to render the opinions set forth in this letter.

Based on that examination and subject to the limitations stated below, we are of the opinion that under existing law:

1. The Series 2024 Bonds and the Bond Ordinance are valid and binding obligations of the County, enforceable in accordance with their respective terms.
2. The Series 2024 Bonds constitute special, limited obligations of the County, and the principal of and interest on (collectively, “debt service”) the Series 2024 Bonds, together with debt service on any other obligations issued and outstanding on a parity with the Series 2024 Bonds as provided in the Bond Ordinance, are payable from and secured solely by the Pledged Revenues. The payment of debt service on the Series 2024 Bonds is not secured by an obligation or pledge of any money raised by taxation, and the Series 2024 Bonds do not represent or constitute a general obligation or a pledge of the faith and credit of the County, the State of Florida or any of its political subdivisions.
3. Interest on the Series 2024 Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986, as amended, and is not an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals. The Series 2024 Bonds and the income thereon are exempt from taxation under the laws of the State of Florida, except estate taxes imposed by Chapter 198, Florida Statutes, as amended, and net income and franchise taxes imposed by Chapter 220, Florida Statutes, as amended. We express no opinion as to any other tax consequences regarding the Series 2024 Bonds.

The opinions stated above are based on an analysis of existing laws, regulations, rulings and court decisions and cover certain matters not directly addressed by such authorities. In rendering all such opinions, we assume, without independent verification, and rely upon (i) the accuracy of the factual matters represented, warranted or certified in the proceedings and documents we have examined and (ii) the due and legal authorization, execution and delivery of those documents by, and the valid, binding and enforceable nature of those documents upon, any parties other than the County.

We express no opinion herein regarding the priority of the lien on Pledged Revenues or other funds created by the Bond Ordinance.

In rendering those opinions with respect to the treatment of the interest on the Series 2024 Bonds under the federal tax laws, we further assume and rely upon compliance with the covenants in the proceedings and documents we have examined, including those of the County. Failure to comply with certain of those covenants subsequent to issuance of the Series 2024 Bonds may cause interest on the Series 2024 Bonds to be included in gross income for federal income tax purposes retroactively to their date of issuance.

The rights of the owners of the Series 2024 Bonds and the enforceability of the Series 2024 Bonds and the Bond Ordinance are subject to bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance or transfer, and other laws relating to or affecting the rights and remedies of creditors generally; to the application of equitable principles, whether considered in a proceeding at law or in equity; to the exercise of judicial discretion; and to limitations on legal remedies against public entities.

No opinions other than those expressly stated herein are implied or shall be inferred as a result of anything contained in or omitted from this letter. The opinions expressed in this letter are stated only as of the time of its delivery, and we disclaim any obligation to revise or supplement this letter thereafter. Our engagement as bond counsel in connection with the original issuance and delivery of the Series 2024 Bonds is concluded upon delivery of this letter.

Respectfully submitted,

PROPOSED FORM OF OPINION OF DISCLOSURE COUNSEL

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PROPOSED FORM OF OPINION OF DISCLOSURE COUNSEL

_____, 2024

Board of County Commissioners
of Miami-Dade County, Florida
Miami, Florida

MIAMI-DADE COUNTY, FLORIDA

\$ _____
Water and Sewer System
Revenue Bonds,
Series 2024A

\$ _____
Water and Sewer System
Revenue Refunding Bonds,
Series 2024B

Ladies and Gentlemen:

We have served as Disclosure Counsel to Miami-Dade County, Florida (the “County”), in connection with the issuance by the County of its \$ _____ Water and Sewer System Revenue Bonds, Series 2024A (the “Series 2024A Bonds”), and its \$ _____ Water and Sewer System Revenue Refunding Bonds, Series 2024B (the “Series 2024B Bonds” and, together with the Series 2024A Bonds, the “Series 2024 Bonds”).

In this capacity, we have examined a copy of the Preliminary Official Statement dated April 29, 2024 (the “Preliminary Official Statement”), and the Official Statement dated _____, 2024 (the “Official Statement”), each relating to the Series 2024 Bonds. We have reviewed the Preliminary Official Statement and Official Statement generally and have discussed certain information and statements therein with representatives of the County from the Finance Department, the Water and Sewer Department (the “Department”), and the County Attorney’s Office; Public Resources Advisory Group, Financial Advisors to the Department; and Squire Patton Boggs (US) LLP and D. Seaton and Associates, P.A., Bond Counsel.

In connection with the issuance of the Series 2024 Bonds, and pursuant to Resolution No. R-317-24, adopted by the Board of County Commissioners of the County, on April 16, 2024, the County covenanted to comply with the continuing disclosure requirements of the Securities and Exchange Commission Rule 15c2-12.

We also have examined certain proceedings of the County, and originals or copies identified to our satisfaction of such agreements, instruments, opinions, certificates and other documents as we have deemed necessary for purposes of the advice contained in this letter. We have assumed the genuineness of signatures on documents submitted to us as originals, the authenticity thereof and the conformity with the originals of any documents submitted to us as copies or specimens. We also have assumed the accuracy of the opinion of Bond Counsel.

On the basis of the foregoing and subject to the limitations stated herein, and in accordance with customary legal opinion practice, we advise you as follows:

1. We have not verified and are not passing upon, and we do not assume any responsibility for, the accuracy or completeness of the statements contained in the Official Statement. Nothing, however, has come to our attention during the course of our review and discussion of the Official Statement that would cause us to believe that the Official Statement, on the date thereof or on this date, contains any untrue statement of a material fact or omits to state any material fact necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

2. Our advice in paragraph 1 does not apply to the financial statements and financial or statistical data contained or incorporated by reference in the Official Statement, including the Appendices.

3. In our opinion, with respect to the issuance of the Bonds, the continuing disclosure undertaking of the County complies as to form in all material respects with the requirements for such an agreement in paragraph (b)(5) of Securities and Exchange Commission Rule 15c2-12.

Very truly yours,

CONTINUING DISCLOSURE UNDERTAKING

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CONTINUING DISCLOSURE UNDERTAKING

The following is an excerpt from the Series 2024 Resolution.

(a) The County agrees, in accordance with the provisions of, and to the degree necessary to comply with, the continuing disclosure requirements of the Rule to provide or cause to be provided for the benefit of the beneficial owners of the Series 2024A/B Bonds (the “Beneficial Owners”) to the Municipal Securities Rulemaking Board (“MSRB”) in an electronic format prescribed by the MSRB and such other municipal securities information repository as may be required by law or applicable legislation, from time to time (each such information repository, a “MSIR”), the following annual financial information (the “Annual Information”), commencing with the Fiscal Year ending after the issuance of the Series 2024A/B Bonds:

(i) Operating Revenues and Pledged Revenues in a form which is generally consistent with the presentation of such information in the Official Statement; and

(ii) The Department’s Annual Comprehensive Financial Report utilizing generally accepted accounting principles applicable to local governments.

The information in clauses (i) and (ii) above is expected to be available on or before June 1 of each year for the preceding Fiscal Year. The Department’s Annual Comprehensive Financial Report referred to in clause (ii) above is expected to be available separately from the information in clause (i) above and shall be provided by the County as soon as practical after acceptance of the audited financial statements from the auditors by the Department. If not available within eight (8) months from the end of the Fiscal Year, unaudited information will be provided in accordance with the time frame set forth above and audited financial statements will be provided as soon after such time as they become available.

(b) The County agrees to provide or cause to be provided to each MSIR in the appropriate format required by law or applicable regulation, in a timely manner not in excess of ten business days after the occurrence of the event, notice of the occurrence of any of the following events with respect to the Series 2024A/B Bonds:

(i) principal and interest payment delinquencies;

(ii) non-payment related defaults, if material;

(iii) unscheduled draws on debt service reserves reflecting financial difficulties;

(iv) unscheduled draws on credit enhancements reflecting financial difficulties;

(v) substitution of credit or liquidity providers, or their failure to perform;

(vi) adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701 TEB) or other material notices or determinations with respect to the tax status of the Series 2024A/B Bonds, or other material events affecting the tax status of the Series 2024A/B Bonds;

(vii) modifications to rights of holders of the Series 2024A/B Bonds, if material;

(viii) bond calls, if material, and tender offers;

(ix) defeasances;

(x) release, substitution, or sale of any property securing repayment of the Series 2024A/B Bonds, if material;

(xi) rating changes;

(xii) bankruptcy, insolvency, receivership or similar event of the County (which is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent or similar officer for the County 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 County, 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 County);

(xiii) the consummation of a merger, consolidation, or acquisition involving the County or the sale of all or substantially all of the assets of the County, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material;

(xiv) the appointment of a successor or additional trustee or the change of name of a trustee, if material;

(xv) incurrence of a financial obligation of the County, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a financial obligation of the County, any of which affect security holders, if material; and

(xvi) default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a financial obligation of the County, any of which reflect financial difficulties.

For purposes of clauses (xv) and (xvi) above, “financial obligation” shall have the meaning set forth in the Rule.

(c) The County agrees to provide or cause to be provided, in a timely manner, to each MSIR, in the appropriate format required by law or applicable regulation, notice of its failure to provide the Annual Information with respect to itself on or prior to June 1 following the end of the preceding Fiscal Year.

(d) The obligations of the County under this Section 18 shall remain in effect only so long as the Series 2024A/B Bonds are Outstanding. The County reserves the right to terminate its obligations to provide the Annual Information and notices of the occurrence of the events specified in subsection (b) above if and when the County no longer remains an “obligated person” with respect to the Series 2024A/B Bonds within the meaning of the Rule.

(e) The County agrees that its undertaking pursuant to the Rule set forth in this Section 18 is intended to be for the benefit of the Beneficial Owners of the Series 2024A/B Bonds and shall be enforceable by the Beneficial Owners if the County fails to cure a breach within a reasonable time after receipt of written notice from a Beneficial Owner that a breach exists; provided, however, that any Beneficial Owner’s right to enforce the provisions of this undertaking shall be on behalf of all Beneficial Owners and shall be limited to a right to obtain specific performance of the County’s obligations under this Section 18 in a federal or state court located within the County and any failure by the County to comply with the provisions of this undertaking shall not be a default with respect to the Series 2024A/B Bonds.

(f) Notwithstanding the foregoing, each MSIR to which information shall be provided shall include each MSIR approved by the Securities and Exchange Commission prior to the issuance of the Series 2024A/B Bonds. In the event that the Securities and Exchange Commission approves any additional MSIRs after the date of issuance of the Series 2024A/B Bonds, the County shall, if the County is notified of such additional MSIRs, provide such information to the additional MSIRs. Failure to provide information to any new MSIR whose status as a MSIR is unknown to the County shall not constitute a breach of this covenant.

(g) The requirements of subsection (a) above do not necessitate the preparation of any separate annual report addressing only the Series 2024A/B Bonds. The requirements of subsection (a) may be met by the filing of an annual information statement or the County's Annual Comprehensive Financial Report, provided such report includes all of the required Annual Information and is available by June 1 of each year for the preceding Fiscal Year. Additionally, the County may incorporate any information in any prior filing with each MSIR or included in any final official statement of the County, provided such final official statement is filed with the MSRB.

(h) The County reserves the right to modify from time to time the specific types of information provided or the format of the presentation of such information, to the extent necessary or appropriate in the judgment of the County, provided that the County agrees that any such modification will be done in a manner consistent with the Rule.

(i) Except to cure any ambiguity, inconsistency or formal defect or omission in the provisions of this Section 18, the County's covenants as to continuing disclosure (the "Covenants") may only be amended if:

(i) the amendment is made in connection with a change in circumstances that arises from a change in legal requirements, a change in law or a change in the identity, nature or status of the County or type of business conducted; the Covenants, as amended, would have complied with the requirements of the Rule at the time of award of the Series 2024A/B Bonds, after taking into account any amendments or change in circumstances; and the amendment does not materially impair the interests of the Beneficial Owners, as determined by Disclosure Counsel or other independent counsel knowledgeable in the area of federal securities laws and regulations; or

(ii) all or any part of the Rule, as interpreted by the staff of the Securities and Exchange Commission at the date of adoption of this Series 2024A/B Resolution, ceases to be in effect for any reason, and the County elects that the Covenants shall be deemed amended accordingly.

(j) Any assertion of beneficial ownership must be filed with the County, along with full documentary support as part of the written request described above.

(k) The Board further authorizes and directs the County Mayor to cause all other agreements to be made or action to be taken as required in connection with meeting the County's obligations as to the Covenants. The County Mayor shall further be authorized to make such additions, deletions and modifications to the Covenants as he shall deem necessary or desirable in consultation with the County Attorney, Bond Counsel and Disclosure Counsel.

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**DESCRIPTION OF THE DEPOSITORY TRUST COMPANY
AND THE BOOK-ENTRY SYSTEM**

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DESCRIPTION OF THE DEPOSITORY TRUST COMPANY AND THE BOOK-ENTRY SYSTEM

The description which follows of the procedures and recordkeeping with respect to beneficial ownership interests in the Bonds, payments of principal of and interest on the Series 2024 Bonds to The Depository Trust Company (“DTC”), New York, New York, its nominee, Participants, defined below, or Beneficial Owners, defined below, confirmation and transfer of beneficial ownership interests in the Series 2024 Bonds and other related transactions by and among DTC, Participants and Beneficial Owners is based solely on information furnished by DTC.

DTC will act as securities depository for the Series 2024 Bonds. The Series 2024 Bonds will be issued as fully registered Series 2024 Bonds registered in the name of Cede & Co. (DTC’s partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully registered Series 2024 Bond will be issued in the aggregate principal amount of each maturity of the Series 2024 Bonds and will be deposited with DTC.

DTC, the world’s largest depository, is a limited-purpose trust company organized under the New York Banking Law, a “banking organization” within the meaning of the New York Banking Law, a member of the Federal Reserve System, a “clearing corporation” within the meaning of the New York Uniform Commercial Code and a “clearing agency” registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues and money market instruments (from over 100 countries) that DTC’s participants (“Direct Participants”) deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities through electronic computerized transfers and pledges between Direct Participants’ accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation (“DTCC”). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as U.S. and non-U.S. securities brokers and dealers, banks, trust companies and clearing companies that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly (“Indirect Participants”). DTC has a Standard & Poor’s rating of AA+. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com.

Purchases of Series 2024 Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Series 2024 Bonds on DTC’s records. The ownership interest of each actual purchaser of each Series 2024 Bond (“Beneficial Owner”) is in turn to be recorded on the Direct and Indirect Participants’ records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Series 2024 Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in the Series 2024 Bonds, except in the event that use of the book-entry system for the Series 2024 Bonds is discontinued.

To facilitate subsequent transfers, all Series 2024 Bonds deposited by Direct Participants with DTC are registered in the name of DTC’s partnership nominee, Cede & Co., or such other name as requested by an authorized representative of DTC. The deposit of Series 2024 Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Series 2024 Bonds; DTC’s records reflect only the identity of the Direct Participants to whose accounts such Series 2024 Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time.

Redemption notices shall be sent to DTC. If less than all of the Series 2024 Bonds within an issue are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

Neither DTC nor Cede & Co. (nor such other DTC nominee) will consent or vote with respect to the Series 2024 Bonds unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the County as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the Series 2024 Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Principal and interest payments on, and the payment of redemption proceeds of, the Series 2024 Bonds will be made to Cede & Co. or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the County or the Registrar and Paying Agent on the payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name", and will be the responsibility of such Participant and not of DTC, the County or the Registrar and Paying Agent, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of principal and interest to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the County or the Registrar and Paying Agent, disbursement of such payments to Direct Participants will be the responsibility of DTC and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

DTC may discontinue providing its services as securities depository with respect to the Series 2024 Bonds at any time by giving reasonable notice to the County or to the Registrar and Paying Agent. Under such circumstances, in the event that a successor securities depository is not obtained, Series 2024 Bond certificates are required to be printed and delivered.

The County may decide to discontinue use of the system of book-entry transfers through DTC (or a successor securities depository). In that event, Series 2024 Bond certificates will be printed and delivered.

The information in this Appendix I concerning DTC and DTC's book-entry system has been obtained from sources that the County believes to be reliable, but the County takes no responsibility for the accuracy thereof.

DESCRIPTION OF REFUNDED BONDS

[This appendix will be completed in the final Official Statement.]

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