# Water & Sewer System

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## MIAMI-DADE COUNTY, FLORIDA Water and Sewer System Revenue Bonds

## SECURITY FOR THE BONDS

#### **Pledged Revenues**

The payment of principal, premium if any, and interest on the Water and Sewer System Revenue Bonds (the "Bonds") is secured by a pledge and irrevocable lien on the Pledged Revenues which consist of Net Operating Revenues (Operating Revenues minus Operating Expenses as each is defines in the Master Ordinance) of the County's Water and Wastewater System (the "System") and investment income on moneys on deposit in the funds established pursuant to the Master Ordinance other than the Rebate Fund (the "Pledged Funds).

#### Limited Obligation

The Bonds are special and limited obligations of the County payable and secured by the Pledged Revenues, and the full faith and credit of the County are not pledged to the payments of the principal redemption premium if any, or interest on the Bonds. The issuance of the Bonds does not directly or indirectly or contingently obligate the County to levy any ad valorem taxes whatsoever to make any appropriation for their payments except from the Pledged Revenues. Neither the faith and credit nor the taxing power of the County, the State of Florida, or any political subdivision of each is pledged to the payments of the Bonds.

## THE MIAMI-DADE WATER AND SEWER DEPARTMENT

#### History

On October 3, 1972, the electorate of the County approved the formation of a new County-wide Ware 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 Department as a department within Miami-Dade government. On October 19, 1993, the Miami-Dade Water and Sewer Department changed its name to the Miami-Dade Water and Sewer Department.

## WATER AND SEWER SYSTEM

#### General

The system is divided into the Water System and Sewer System. The Miami-Dade Water and Sewer Department administers each on a unified basis for purposes of billing but separates the two of rates, capital improvements and accounting.

#### **Service Area**

The System currently provides water and wastewater treatment to substantially all the County either directly to retail customers or indirectly through wholesale contracts between the Miami-Dade Water and Sewer Department and various municipalities. The County is the largest county in the Southeastern United States in population. In 2022 the population of the County was estimated at 2,757,592.

The Miami-Dade Water and Sewer Department supplies treated water on a wholesale basis to 15 municipally owned water utilities in the County and to approximately 459,962 retail water customers. The only municipalities in the County which operate water treatment facilities for customers located within their municipal boundaries are the City of Homestead, Florida City, City of North Miami, and the City of North Miami Beach. The City of North Miami Beach operates a water treatment facility which serves approximately two-thirds of their customers who do not live within their municipal boundaries. The City of North Miami Beach is also an occasional wholesale customer on an as-needed basis. The Miami-Dade Water and Sewer Department also provides wastewater transmission treatment and disposal service on a wholesale basis to 12 municipally owned wastewater utilities, Homestead Air Reserve Base, and approximately 375,345 retail wastewater customers. The City of Homestead is the only municipality in the County, which owns and operates its own wastewater treatment plant.

#### Water System

The principal components of the Water System include 15 wellfields, 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 mains.

#### Sewer System

The Miami-Dade Water and Sewer Department's Wastewater System consists of collection sewers, manholes, lift stations, force mains, interceptors, pump stations and 3 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").

## Rates

For FY 2022-23 the adopted budget included water and wastewater retail and wholesale rate adjustments. The monthly bill for the median retail water and sewer residential customer which uses approximately 700 cubic feet (7 ccf.) per month (or 5,236 gallons) will be \$55.00, or \$2.64 higher from the current estimated bill of \$52.36; the FY 2022-23 adopted budget increases operating revenues to cover current and future operational and debt obligations.

## WATER TREATMENT PLANTS

## **Allocations, Rated Capacities and Flows**

<u>Component</u>	Hialeah/Preston	<u>Orr</u>	South Dade <u>Water System</u> <sup>(3)</sup>	<u>Hialeah RO<sup>(2)</sup></u>
Plant Permitted Capacity	225.00 mgd <sup>(4)</sup>	214.74 mgd <sup>(5)</sup>	14.19 mgd	10.0 mgd
Actual Flows <sup>(6)</sup> Average Daily Peak Day	136.32 mgd 156.8mgd	178.55 mgd 201.7 mgd	6.8 mgd 8.7 mgd	6.12 mgd 8.8 mgd

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

<sup>(2)</sup> Hialeah Floridian Aquifer Reverse Osmosis (RO) (Joint Participation - Miami-Dade County and City of Hialeah)

<sup>(3)</sup> Represents five smaller water treatment plants in southern Miami-Dade County.

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

<sup>(5)</sup> Orr Plant facility design capacity is 248 mgd but permitted capacity is only 214.74 mgd.

<sup>(6)</sup> For the 12 months ending September 2022; based on reports submitted to Department of Health.

SOURCE: Miami-Dade Water and Sewer Department

## WASTEWATER TREATMENT PLANTS Permit Parameters, Capacities and Flows

	<u>North</u>	<u>Central</u>	<u>South</u>	
	<b>District</b>	<b>District</b>	<b>District</b>	<u>Total</u>
Installed Treatment Capacity	120.0	143.0	112.5	375.5
Permit Parameters				
Annual Average Daily Flow, mgd	120.0	143.0	112.5	375.5
Effluent CBOD <sub>5</sub> , mgd/L <sup>(1)</sup>	25/20 (2)	25/20 (2)	20	
Effluent Total Suspended Solids mg/L	30/20 (3)	30/20 (3)	5 <sup>(4)</sup>	
Actual Effluent Flows / Quality 12-Month Averages for Fiscal Year 2022 <sup>(5)</sup>				
Annual Average Daily Influent Flow, mgd <sup>(6)</sup>	97.31	117.00	102.25	316.56
Effluent CBOD⁵, mg/L <sup>(6)</sup>	9.58	17.6	2.46	
Effluent Suspended Solids mg/L	14.95	28.18	2.60	

<sup>(1)</sup> "CBOD<sub>5</sub> "means Chemical Biological Oxygen Demand, 5 day; mg/L means milligrams per liter.

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

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

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

<sup>(5)</sup> Influent flows for the 12 months period up to September 2022.

<sup>(6)</sup> These levels are below those allowed by permit.

SOURCE: Miami-Dade Water and Sewer Department

The number of retail customers for the past five years is as follows:

## ACTIVE RETAIL CUSTOMERS FOR FISCAL YEAR ENDED SEPTEMBER 30,

	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
Water Sewer	447,209 363,444	449,985 366.069	451,509 367.618	457,286 372.681	459,962 375.345
Percent Ratio Wastewater	000,111	000,000	007,010	072,001	010,040
Customers to Water Customers	81.27%	81.36%	81.42%	81.50%	81.60%

SOURCE: Miami-Dade Water and Sewer Department

The current wholesale customers are:

## <u>WATER</u>

#### WASTEWATER

City of Hialeah	City of Hialeah
City of Miami Beach	City of Miami Beach
City of North Miami	City of North Miami
City of Opa-locka	City of Homestead
City of Hialeah Gardens	City of Coral Gables
City of Homestead	City of Opa-locka
City of Bal Harbour	City of Hialeah Gardens
City of North Bay Village	City of Medley
City of Medley	City of North Miami Beach
City of Surfside	City of Florida City
City of West Miami	City of North Bay Village
Bay Harbor Islands	City of West Miami
Indian Creek Village	Homestead Air Force Base
City of Virginia Gardens	
City of North Miami Beach	

SOURCE: Miami-Dade Water and Sewer Department.

The ten largest customers for the Water System and the Wastewater System, for Fiscal Year ended September 30, 2022 are:

# WATER SYSTEM

Name	Dollar Amount <u>(000)</u>	Percent of System Gross <u>Revenues</u>
City of Miami Beach	\$12,638	3.00%
Miami Int'l Airport	11,447	2.90%
City of Hialeah	11,203	2.60%
Miami Dade County Seaport	5,670	1.40%
City of North Miami	4,535	0.70%
Florida Department of Corrections	2,632	0.70%
FPL Turkey Point	1,800	0.50%
City of Homestead	1,686	0.40%
City of Opa-Locka	1,507	0.40%
City of Hialeah Gardens	1,449	0.30%

## WASTEWATER SYSTEM

Name	Dollar Amount <u>(000)</u>	Percent of System Gross <u>Revenues</u>
City of Hialeah	\$41,053	8.80%
City of Miami Beach	24,658	5.30%
City of North Miami	11,809	2.50%
City of Homestead	5,495	1.20%
City of Coral Gables	4,272	0.90%
Miami Int'l Airport	3,853	0.80%
City of North Miami Beach	3,779	0.80%
City of Opa-Locka	2,880	0.60%
City of Hialeah Gardens	2,478	0.50%
Florida Department of Corrections	2,221	0.50%

SOURCE: Miami-Dade Water and Sewer Department.

#### MIAMI-DADE WATER AND SEWER DEPARTMENT SCHEDULE OF RATES

#### RESIDENTIAL CUSTOMER

WATER		Effective
Monthly		October 1, 2022
the second s		Marshie Charges
Meter Charge: Meter Size		Monthly Charge
Meter Size		
5/8" plus 2,244 gallons (3ccf)		\$4.43
1" plus 2,244 gallons (3ccf)		\$14.43
1.5" plus 2,244 gallons (3ccf)		\$27.90
2" plus 2,244 gallons (3ccf)		\$44.06
3" plus 2,244 gallons (3ccf)		\$87.18
Flow Rate All Usage:		Monthly Charge
Usage per 100 cubic feet (ccf):		
4 to 17 ccf		\$3.5930
18 ccf and over		\$8.6910
Usage per 1,000 gallons:		
2,245 to 12,716 gallons		\$4.8034
12,717 gallons and over		\$11.6190
Quarterly		
Meter Charge:		Quarterly Charge
Meter Size:		
5/8" plus 6,732 gallons (9ccf)		\$13.29
1" plus 6,732 gallons (9ccf)		\$43.29
1.5" plus 6,732 gallons (9ccf)		\$83.70
2" plus 6,732 gallons (9ccf)		\$132.18
3" plus 6,732 gallons (9ccf)		\$261.54
Flow Rate All Usage:		Quarterly Charge
Usage per 100 cubic feet (ccf):		
10 to 51 ccf		\$3.5930
52 ccf and over		\$8.6910
11		
Usage per 1,000 gallons:		
6,733 to 38,148 gallons		\$4.8034
38,149 gallons and over		\$11.6190
	NOTE: 100 cubic feet (ccf) equals 748 gallons	

Residential: a retail customer/account consisting of a single family residence or duplex being served by a common meter

#### MIAMI-DADE WATER AND SEWER DEPARTMENT SCHEDULE OF RATES

#### **RESIDENTIAL CUSTOMERS**

WASTEWATER DISPOSAL Monthly	Effective October 1, 2022
Base Facility Charge (based on water meter size):	Monthly Charge
Meter Size	
5/8" plus 2,244 gallons (3ccf)	\$7.55
1" plus 2,244 gallons (3ccf)	\$20.63
1.5" plus 2,244 gallons (3ccf)	\$39.22
2" plus 2,244 gallons (3ccf)	\$61.52
3" plus 2,244 gallons (3ccf)	\$120.96
Flow Rate All Usage:	Monthly Charge
Usage per 100 cubic feet (ccf):	
4 ccf and over	\$7.1581
Usage per 1,000 gallons:	
2,245 gallons and over	\$9.5696
Quarterly	
Base Facility Charge (based on water meter size):	Quarterly Charge
Meter Size	
5/8" plus 6,732 gallons (9ccf)	\$22.65
1" plus 6,732 gallons (9ccf)	\$61.89
1.5" plus 6,732 gallons (9ccf)	\$117.66
2" plus 6,732 gallons (9ccf)	\$184.56
3" plus 6,732 gallons (9ccf)	\$362.88
Flow Rate All Usage:	Quarterly Charge
Usage per 100 cubic feet (ccf):	
10 ccf and over	\$7.1581
Usage per 1,000 gallons:	
6,733 gallons and over	\$9.5696

NOTE: 100 cubic feet (ccf) equals 748 gallons

Residential: a retail customer/account consisting of a single family residence or duplex being served by a common meter

## **Rate Comparison**

The combined water and sewer bills of the Miami-Dade Water and Sewer Department are generally lower than those of comparable water and sewer utilities in other parts of the U.S. as shown in the following table:

# COMPARISON OF COMBINED WATER AND SEWER CHARGES (6.750 Gallons of Residential Water Use) (Rates Effective October 1, 2022)

	Monthly
<u>City/County</u>	<b>Charge</b>
San Francisco, California	191.52
Atlanta, Georgia	138.34
Honolulu, Hawaii	132.52
Cape Coral, Florida	106.30
Boston, Massachusetts	100.68
Philadelphia, Pennsylvania	98.66
St. Petersburg, Florida	98.50
Hollywood, Florida	94.02
Houston, Texas	93.65
Broward County, Florida	73.50
Tampa, Florida	67.04
Palm Beach County, Florida	61.37
Jacksonville, Florida	61.31
Orange County, Florida	58.78
Miami-Dade County, Florida	55.00
Dallas, Texas	53.72

SOURCE: Miami-Dade Water and Sewer Department

## Historic Coverage of Debt Service and Operating Results

The following table summarizes historic debt service coverage based on historical Pledged Revenues.

	<u>2018</u>	<u>2019</u>	2020	<u>2021</u>	<u>2022</u>
Net Operating Revenues Available for Debt Service	\$298,107	\$307,583	\$301,216	\$351,957	\$365,204
Senior Debt Service Requirements	164,449	173,198	188,003	202,029	223,846
Senior Debt Service Coverage	<u>1.81X</u>	<u>1.78x</u>	<u>1.60x</u>	<u>1.74x</u>	<u>1.63x</u>

SOURCE: Miami-Dade Water and Sewer Department



## **COMBINED DEBT SERVICE SCHEDULE**

## \$4,140,400,000

## Miami-Dade County, Florida Water and Sewer System Revenue and Revenue Refunding Bonds, Series 2008A, 2008B, 2015, 2017A, 2017B, 2019, 2019B, 2019C, and Series 2021 Subordinate Water and Sewer System Revenue Bonds, Series 2021

Fiscal Year Ending September 30,		Principal		Interest	Total Debt Service	Outstanding Principal Balance	Percent of Outstanding Principal
2023	\$	86,510,000	\$	149,080,465	\$ 235,590,465	\$ 3,579,895,000	97.64%
2024		89,340,000		144,643,277	233,983,277	3,490,555,000	95.20
2025		93,735,000		140,066,402	233,801,402	3,396,820,000	92.65
2026		98,615,000		135,257,652	233,872,652	3,298,205,000	89.96
2027		102,545,000		130,228,652	232,773,652	3,195,660,000	87.16
2028		104,425,000		125,654,849	230,079,849	3,091,235,000	84.31
2029		93,475,000		121,908,842	215,383,842	2,997,760,000	81.76
2030		83,680,000		118,683,102	202,363,102	2,914,080,000	79.48
2031		89,070,000		115,131,631	204,201,631	2,825,010,000	77.05
2032		93,295,000		110,901,131	204,196,131	2,731,715,000	74.51
2033		97,750,000		106,451,698	204,201,698	2,633,965,000	71.84
2034		102,320,000		101,877,112	204,197,112	2,531,645,000	69.05
2035		109,535,000		97,450,153	206,985,153	2,422,110,000	66.06
2036		113,960,000		93,018,612	206,978,612	2,308,150,000	62.95
2037		119,090,000		88,427,588	207,517,588	2,189,060,000	59.71
2038		125,140,000		83,600,644	208,740,644	2,063,920,000	56.29
2039		130,990,000		78,439,323	209,429,323	1,932,930,000	52.72
2040		138,335,000		73,252,904	211,587,904	1,794,595,000	48.95
2041		143,505,000		68,080,199	211,585,199	1,651,090,000	45.03
2042		148,980,000		62,616,637	211,596,637	1,502,110,000	40.97
2043		154,800,000		56,802,730	211,602,730	1,347,310,000	36.75
2044		163,890,000		50,410,694	214,300,694	1,183,420,000	32.28
2045		171,065,000		43,237,494	214,302,494	1,012,355,000	27.61
2046		178,405,000		35,892,613	214,297,613	833,950,000	22.75
2047		185,720,000		28,581,844	214,301,844	648,230,000	17.68
2048		193,180,000		21,130,566	214,310,566	455,050,000	12.41
2049		180,520,000		13,844,300	194,364,300	274,530,000	7.49
2050		160,345,000		7,242,325	167,587,325	114,185,000	3.11
2051		56,045,000		3,156,825	59,201,825	58,140,000	1.59
2052		58,140,000		1,063,950	59,203,950	-	
Totals*	\$ 3	3,666,405,000	\$ 2	2,406,134,213	\$ 6,072,539,213		

\*Totals may not add due to rounding.



## \$68,300,000 Miami-Dade County, Florida Water and Sewer System Revenue Bonds Series 2008A

Dated: July 15, 2008

Final Maturity: October 1, 2022

### Purpose:

The Series 2008A Bonds were issued pursuant to Ordinance No. 93-134 and Resolution Nos. R-411-08 and R-717-08 to: (i) pay the termination payment due in connection with the termination of the Interest Swap Agreement associated with the Series 1994 Bonds and; (ii) pay the cost of allocable share of premiums for a municipal bond insurance policy and a Reserve Account Credit Facility.

### Security:

The Series 2008A Bonds are limited obligations of the County payable solely from and secured by Net Operating Revenues of the System and any funds and accounts established on behalf of the Bondholders and investments earnings on those funds and accounts.

#### Form:

The Series 2008A Bonds were issued as fully registered bonds in denominations of \$5,000 or any integral multiples of \$5,000. The Series 2008A Bonds are in book-entry only form and are registered initially to The Depository Trust Company, New York, New York. Interest is payable semi-annually on April 1 and October 1, commencing October 1, 2008.

#### Agents:

Registrar: Paying Agent: Bond Counsel:	The Bank of New York Mellon, New York, New York The Bank of New York, Mellon New York, New York Squire, Sanders & Dempsey L.L.P., Miami, Florida KnoxSeaton, Miami, Florida
Disclosure Counsel:	Hogan & Hartson L.L.P., Miami, Florida McGhee & Associates LLC, Miami, Florida Law Offices Jose A. Villalobos, P.A., Miami, Florida
Insurance Provider: Reserve Fund Surety Provider:	Financial Security Assurance Inc. Financial Security Assurance Inc.
<b>Original Insured Ratings:</b> Moody's: Standard & Poor's: Fitch:	Aaa AAA AAA
<b>Original Underlying Ratings:</b> Moody's: Standard & Poor's: Fitch: A+	A1 A+
<b>Current Ratings:</b> Moody's: Standard & Poor's: Fitch:	Aa3 AA- A+

**Call Provisions:** 

## **Optional Redemption:**

The Series 2008A Bonds are not subject to Optional Redemption prior to their maturity.

Mandatory Redemption:	The	Series	2008A	Bonds	are	not	subject	to	Mandatory
Redemption.									

Projects Funded with Proceeds:	Proceeds of the Series 2008A Bonds, along with other available revenues of the Department, were used to pay the termination payment for the interest rate swap associated with the Series 1994 Bonds refunded by the Series 2008B Bonds.

Refunded Bonds: NOT APPLICABLE

Refunded Bonds Call Date: NOT APPLICABLE

## \$68,300,000 Miami-Dade County, Florida Water and Sewer System Revenue Bonds Series 2008A

## Debt Service Schedule

	Fiscal Year Ending Sept. 30,	Туре	CUSIP Number	Interest Rate	Principal	Interest	Total Debt Service
-	2023	Serial	59334DDY7	4.375%	\$ 6,930,000	\$ 151,594	\$ 7,081,594
	Totals				\$ 6,930,000	\$ 151,594	\$ 7,081,594



## \$374,555,000 Miami-Dade County, Florida Water and Sewer System Revenue Refunding Bonds Series 2008B

Dated: July 15, 2008

## Final Maturity: October 1, 2022

## **Purpose:**

The Series 2008B Bonds were issued pursuant to Ordinance No. 93-134 and Resolution Nos. R-411-08 and R-717-08 to: (i) refund all of the County's Water and Sewer System Revenue Bonds, Series 1994 and; (ii) pay the cost of allocable share of premiums for a municipal bond insurance policy and a Reserve Account Credit Facility.

#### Security:

The Series 2008B Bonds are limited obligations of the County payable solely from and secured by Net Operating Revenues of the System and any funds and accounts established on behalf of the Bondholders and investments earnings on those funds and accounts.

#### Form:

The Series 2008B Bonds were issued as fully registered bonds in denominations of \$5,000 or any integral multiples of \$5,000. The Series 2008B Bonds are in book-entry only form and are registered initially to The Depository Trust Company, New York, New York. Interest is payable semi-annually on April 1 and October 1, commencing October 1, 2008.

#### Agents: Registrar: The Bank of New York Mellon, New York, New York Paying Agent: The Bank of New York, Mellon New York, New York Bond Counsel: Squire, Sanders & Dempsey L.L.P., Miami, Florida KnoxSeaton, Miami, Florida **Disclosure Counsel:** Hogan & Hartson L.L.P., Miami, Florida McGhee & Associates LLC, Miami, Florida Law Offices Jose A. Villalobos, P.A., Miami, Florida Insurance Provider: Financial Security Assurance Inc. **Reserve Fund Surety Provider:** Financial Security Assurance Inc. **Original Insured Ratings:** Moody's: Aaa Standard & Poor's: AAA Fitch: AAA **Original Underlying Ratings:** Moody's: A1 Standard & Poor's: A+ Fitch: A+ **Current Ratings:** Moodv's: Aa3 Standard & Poor's: AA-Fitch: A+

#### Call Provisions:

## **Optional Redemption:**

The Series 2008B Bonds are not subject to Optional Redemption prior to their maturity.

## Mandatory Redemption:

The Series 2008B Bonds are not subject to Mandatory Redemption.

## **Projects Funded with Proceeds:**

Not applicable.

## **Refunded Bonds:**

Water and Sewer System Revenue Bonds, Series 1994.

## Refunded Bonds Call Date:

The Water and Sewer System Revenue Bonds, Series 1994 were called for redemption on July 15, 2008.

## \$374,555,000 Miami-Dade County, Florida Water and Sewer System Revenue Refunding Bonds Series 2008B

## Debt Service Schedule

Fiscal Year Ending Sept. 30,	Туре	CUSIP Number	Interest Rate	Principal	Interest	Total Debt Service
2023	Serial	59334D EP5	5.250%	\$ 50,075,000	\$ 1,314,469	\$ 51,389,469
Totals				\$ 50,075,000	\$ 1,314,469	\$ 51,389,469



## \$481,175,000 Miami-Dade County, Florida Water and Sewer System Revenue Bonds Series 2015

Dated: June 3, 2015

## Final Maturity: October 1, 2026

Aa3

AA-

A+

## Purpose:

The Series 2015 Bonds were issued pursuant to Ordinance Nos. 93-134 and 09-67, and Resolution No. R-417-13 to advance refund \$244,355,000 aggregate principal amount of the Series 2007 Bonds maturing on and after October 1, 2018, and \$255,730,000 aggregate principal amount of the Series 2008C Bonds maturing on and after October 1, 2019, to make a deposit of the Reserve Account; and pay costs of issuance.

#### Security:

The Series 2015 Bonds are limited obligations of the County payable solely from and secured by Net Operating Revenues of the System and any funds and accounts established on behalf of the Bondholders and investment earnings on those funds and accounts.

#### Form:

The Series 2015 Bonds were issued as fully registered bonds in denominations of \$5,000 or any integral multiples of \$5,000. The Series 2015 Bonds are in book-entry form and are registered initially to the Depository Trust Company, New York, New York. Interest is payable semi-annually on April 1 and October 1, commencing October 1, 2015. The principal is payable October 1, for each maturity, commencing October 1, 2018.

### Agents:

Registrar: Paying Agent: Bond Counsel:	U.S. Bank Trust Company, National Association, Fort Lauderdale, Florida U.S. Bank Trust Company, National Association, Fort Lauderdale, Florida Squire Patton Boggs (US) L.L.P., Miami, Florida
Disclosure Counsel:	D. Seaton and Associates, Miami, Florida Locke Lord LLP, West Palm Beach, Florida Rasco Klock Perez & Nieto, P.L. Coral Gables, Florida
<b>Original Ratings:</b> Moody's: Standard & Poor's: Fitch:	Aa3 A+ A+

#### Current Ratings:

Moody's: Standard & Poor's: Fitch:

#### **Call Provisions:**

#### **Optional Redemption:**

The Series 2015 Bonds maturing on or before October 1, 2025 shall not be subject to optional redemption prior to maturity. The Series 2015 Bonds maturing on October 1, 2026 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, 2025, and if in part, by lot, at a redemption price equal to 100% of the principal amount of the Series 2015 Bonds to be redeemed, plus accrued interest to the date of redemption and without premium.

## Mandatory Redemption:

The Series 2015 Bonds are not subject to mandatory redemption.

## **Projects Funded with Proceeds:**

The proceeds from the Series1997. which were refunded by the Series 2007, and the proceeds from Series 1995, which were refunded by Series 2005 which in turn were refunded by Series 2008C, were used for the design, construction and construction management expenses associated with the capital improvements related to the expansion of the wastewater treatment and collection facilities, the expansion and improvements to the water treatment plants and facilities including pumping stations, water and main rehabilitation, and other similar projects.

**Refunded Bonds:** A portion of County's outstanding Series 2007 in the amount of \$244,355,000 and maturing on and after October 1, 2018 and a portion of outstanding Series 2008C in the amount of \$255,730,000 and maturing on and after October 1, 2019.

## \$481,175,000 Miami-Dade County, Florida Water and Sewer System Revenue Refunding Bonds Series 2015

## Debt Service Schedule

Fiscal Year Ending			Interest			Total Debt
Sept. 30,	Туре	CUSIP Number	Rate	Principal	Interest	Service
2023	Serial	59334DHV9	5.000%	\$ 26,325,000	\$ 19,146,625	\$ 45,471,625
2024	Serial	59334DHW7	5.000	85,985,000	16,338,875	102,323,875
2025	Serial	59334DHX5	5.000	90,210,000	11,934,000	102,144,000
2026	Serial	59334DHY3	5.000	94,915,000	7,305,875	102,220,875
2027	Serial	59334DHZ0	5.000	98,660,000	2,466,500	101,126,500
Totals				\$ 396,095,000	\$ 57,191,875	\$ 453,286,875



## \$381,355,000 Miami-Dade County, Florida Water and Sewer System Revenue Bonds Series 2017A

Dated: December 19, 2017

Final Maturity: October 1, 2047

#### **Purpose:**

The Series 2017A Bonds were issued pursuant to Ordinance Nos. 93-134 and 09-67, and Resolution No. R-417-13 to refund all of the outstanding County's Water and Sewer Commercial Paper Notes, Series A-1 (Tax-Exempt) and all of the County's Water and Sewer Commercial Paper Notes, Series B-1 ((Tax-Exempt); make a deposit to the Reserve Account; and pay the costs of issuance.

#### Security:

The Series 2017A Bonds are limited obligations of the County payable solely from and secured by Net Operating Revenues of the System and any funds and accounts established on behalf of the Bondholders and investment earnings on those funds and accounts.

#### Form:

The Series 2015 Bonds were issued as fully registered bonds in denominations of \$5,000 or any integral multiples of \$5,000. The Series 2017A Bonds are in book-entry form and are registered initially to the Depository Trust Company, New York, New York. Interest is payable semi-annually on April 1 and October 1, commencing April 1, 2018. The principal is payable October 1, for each maturity, commencing October 1, 2030.

## Agents:

Agents.	
Registrar:	U.S. Bank Trust Company, National Association, Fort Lauderdale, Florida
Paying Agent:	U.S. Bank Trust Company, National Association, Fort Lauderdale, Florida
Bond Counsel:	Squire Patton Boggs (US) L.L.P., Miami, Florida
	D. Seaton and Associates, P.A., Miami, Florida
Disclosure Counsel:	Nabors, Giblin & Nickerson, P.A., Tampa, Florida
	Lieber, Gonzalez & Portuondo. Miami, Florida
Original Ratings:	
Moody's:	Aa3
Standard & Poor's:	A+
Fitch:	A+
Current Ratings:	
Moody's:	Aa3
Standard & Poor's:	AA-
Fitch:	A+

#### **Call Provisions:**

## **Optional Redemption:**

The Series 2017A Bonds maturing on October 1, 2030 through October 1, 2034 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, 2025, 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 2017A Bonds to be redeemed, plus accrued interest to the date of redemption and without premium.

The Series 2017A Bonds maturing on or after October 1, 2035 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, 2027, 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 2017A Bonds to be redeemed, plus accrued interest to the date of redemption and without premium

## Mandatory Redemption:

The Series 2017A Bonds maturing on October 1, 2044 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 2017A bonds, commencing on October 1, 2041 and on each October 1 thereafter, in the year's amounts set forth below:

Redemption Date	Amount
2041	\$ 23,065,000
2042	24,005,000
2043	24,985,000
2044 (Final Maturity)	26,005,000

The Series 2017A Bonds maturing on October 1, 2047 and bearing interest at 3.375% 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 2017A Bonds to be redeemed, commencing on October 1, 2045, and on each October 1 thereafter, in the years and principal amounts set forth below:

Redemption Date	Amount
2045	\$ 17,270,000
2046	17,860,000
2047 (Final Maturity)	18,475,000

The Series 2017A Bonds maturing on October 1, 2047 and bearing interest at 4.000% 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 2017A Bonds to eb redeemed, commencing on October 1, 2045, and on each October 1 thereafter, in the years and principal amounts set forth below:

Redemption Date	Amount
2045	\$ 9,740,000
2046	10,140,000
2047 (Final Maturity)	10,555,000

#### **Projects Funded with Proceeds:**

The proceeds from the Series 2017A were used to refund all the outstanding County's Water and Sewer System Commercial Paper Notes, Series A-1 and Series B-1.

## \$381,355,000 Miami-Dade County, Florida Water and Sewer System Revenue Bonds Series 2017A

## Debt Service Schedule

Fiscal Year Ending			Interest				Total Debt
Sept. 30,	Туре	CUSIP Number	Rate	F	Principal	Interest	Service
2023						\$ 15,705,869	\$ 15,705,869
2024						15,705,869	15,705,869
2025						15,705,869	15,705,869
2026						15,705,869	15,705,869
2027						15,705,869	15,705,869
2028						15,705,869	15,705,869
2029						15,705,869	15,705,869
2030						15,705,869	15,705,869
2031	Serial	59334DJD7	5.000%	\$	14,200,000	15,350,869	29,550,869
2032	Serial	59334DJE5	5.000		14,930,000	14,622,619	29,552,619
2033	Serial	59334DJF2	5.000		15,695,000	13,856,994	29,551,994
2034	Serial	59334DJG0	5.000		16,500,000	13,052,119	29,552,119
2035	Serial	59334DJH8	5.000		17,345,000	12,205,994	29,550,994
2036	Serial	59334DJJ4	4.000		18,140,000	11,409,569	29,549,569
2037	Serial	59334DJK1	4.000		18,885,000	10,669,069	29,554,069
2038	Serial	59334DJL9	4.000		19,655,000	9,898,269	29,553,269
2039	Serial	59334DJM7	4.000		20,455,000	9,096,069	29,551,069
2040	Serial	59334DJN5	4.000		21,290,000	8,261,169	29,551,169
2041	Serial	59334DJP0	4.000		22,160,000	7,392,169	29,552,169
2042	Term	59334DJQ8	4.000		23,065,000	6,487,669	29,552,669
2043	Term	59334DJQ8	4.000		24,005,000	5,546,269	29,551,269
2044	Term	59334DJQ8	4.000		24,985,000	4,566,469	29,551,469
2045	Term	59334DJQ8	4.000		26,005,000	3,546,669	29,551,669
2046	Term	59334DJR6	3.375		27,010,000	2,540,338	29,550,338
2047	Term	59334DJR6	3.375		28,000,000	1,549,919	29,549,919
2048	Term	59334DJS4	4.000		29,030,000	522,866	29,552,866
Totals				\$ 3	381,355,000	\$ 276,222,053	\$ 657,577,053



## \$548,025,000 Miami-Dade County, Florida Water and Sewer System Revenue Bonds Series 2017B

Dated: December 17, 2017

Final Maturity: October 1, 2039

## Purpose:

The Series 2017B Bonds were issued pursuant to Ordinance Nos. 93-134 and 09-67, and Resolution No. R-417-13 to advance refund \$567,580,000 principal amount of the outstanding Series 2010 Bonds maturing on and after October 1, 2021; make a deposit of the Reserve Account; and pay costs of issuance.

## Security:

The Series 2017B Bonds are limited obligations of the County payable solely from and secured by Net Operating Revenues of the System and any funds and accounts established on behalf of the Bondholders and investment earnings on those funds and accounts.

## Form:

The Series 2017B Bonds were issued as fully registered bonds in denominations of \$5,000 or any integral multiples of \$5,000. The Series 2017B Bonds are in book-entry form and are registered initially to the Depository Trust Company, New York, New York. Interest is payable semi-annually on April 1 and October 1, commencing April 1, 2018. The principal is payable October 1, for each maturity, commencing October 1, 2030.

#### Agents:

Registrar:	U.S. Bank Trust Company, National Association, Fort Lauderdale, Florida
Paying Agent:	U.S. Bank Trust Company, National Association, Fort Lauderdale, Florida
Bond Counsel:	Squire Patton Boggs (US) L.L.P., Miami, Florida
	D. Seaton and Associates, P.A., Miami, Florida
Disclosure Counsel:	Nabors, Giblin & Nickerson, P.A., Tampa, Florida
	Lieber, Gonzalez & Portuondo. Miami, Florida

Original Ratings: Moody's: Standard & Poor's: Fitch:	Aa3 A+ A+
<b>Current Ratings:</b> Moody's: Standard & Poor's: Fitch:	Aa3 AA- A+

## **Call Provisions:**

## **Optional Redemption:**

The Series 2017A Bonds maturing on or before October 1, 2027 shall not be subject to optional redemption prior to maturity. The Series 2017B Bonds maturing on October 1, 2028, October 1, 2029 and on or after October 1, 2034 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, 2027, and if in part, in maturities determined by the County and by lot within a maturity, at a redemption equal to 100% of the principal amount of the Series 2017B to be redeemed, plus accrued interest to the date of redemption and without premium.

The Series 2017B Bonds maturing on October 1, 2030 through October 1, 2033 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, 2025, 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 to be redeemed, plus accrued interest to the date of the redemption and without premium.

## Mandatory Redemption:

The Series 2017A Bonds are not subject to mandatory redemption.

## **Projects Funded with Proceeds:**

The proceeds from the Series 2010 Bonds were used for the design, construction and construction management expenses associated with the capital improvements related to the expansion of the waste water treatment and collection facilities, the expansion and improvements to the water treatment plants and facilities including pumping stations, water and main rehabilitation, and other similar projects.

## **Refunded Bonds:**

A portion of County's outstanding Series 2010 in the amount of \$567,580,000 and maturing on and after October 1, 2021.

## \$548,025,000 Miami-Dade County, Florida Water and Sewer System Revenue Refunding Bonds Series 2017B

## Debt Service Schedule

Fiscal Year			Interest				Total Dabt
Ending	Tuno	CUSIP Number	Rate	Bringing		Interest	Total Debt Service
Sept. 30,	Type			Principal	•		
2023	Serial	59334DJU9	5.000%	\$ 3,180,000	\$	23,694,144	\$ 26,874,144
2024	Serial	59334DJV7	5.000	3,355,000		23,530,769	26,885,769
2025	Serial	59334DJW5	5.000	3,525,000		23,358,769	26,883,769
2026	Serial	59334DJX3	5.000	3,700,000		23,178,144	26,878,144
2027	Serial	59334DJY1	5.000	3,885,000		22,988,519	26,873,519
2028	Serial	59334DJZ8	5.000	30,370,000		22,132,144	52,502,144
2029	Serial	59334DKA1	5.000	31,890,000		20,575,644	52,465,644
2030	Serial	59334DKB9	5.000	33,485,000		18,941,269	52,426,269
2031	Serial	59334DKC7	5.000	35,225,000		17,223,519	52,448,519
2032	Serial	59334DKD5	5.000	36,920,000		15,419,894	52,339,894
2033	Serial	59334DKE3	5.000	38,765,000		13,527,769	52,292,769
2034	Serial	59334DKF0	5.000	40,705,000		11,541,019	52,246,019
2035	Serial	59334DKG8	3.000	24,500,000		9,797,994	52,192,994
	Serial	59334DKH6	4.000	17,895,000			
2036	Serial	59334DKJ2	4.000	43,945,000		8,193,694	52,138,694
2037	Serial	59334DKK9	4.000	45,685,000		6,401,094	52,086,094
2038	Serial	59334DKL7	4.000	47,485,000		4,537,694	52,022,694
2039	Serial	59334DKM5	4.000	49,360,000		2,600,794	51,960,794
2040	Serial	59334DKP8	3.125	37,335,000		806,797	51,891,797
	Serial	59334DKN3	3.250	 13,750,000			
Totals				\$ 544,960,000	\$	268,449,666	\$ 813,409,666



## \$233,305,000 Miami-Dade County, Florida Water and Sewer System Revenue Bonds Series 2019

## Dated: January 31, 2019

Final Maturity: October 1, 2048

#### Purpose:

The Series 2019 Bonds were issued pursuant to Ordinance Nos. 93-134 and 09-67, and Resolution No. R-417-13 to refund all of the outstanding Miami-Dade County, Florida Water and Sewer System Commercial Paper Notes, Series A-1 (Tax-Exempt) and all of the outstanding Miami-Dade County, Florida, Water and Sewer System Commercia Paper Notes, Series B-1 (Tax-Exempt); (ii) make a deposit to the Reserve Account; and (iii) pay the costs of issuance of the Series 2019 Bonds.

#### Security:

The Series 2019 Bonds are limited obligations of the County payable solely from and secured by Net Operating Revenues of the System and any funds and accounts established on behalf of the Bondholders and investment earnings on those funds and accounts.

#### Form:

The Series 2019 Bonds were issued as fully registered bonds in denominations of \$5,000 or any integral multiples of \$5,000. The Series 2019 Bonds are in book-entry form and are registered initially to the Depository Trust Company, New York, New York. Interest is payable semi-annually on April 1 and October 1, commencing April 1, 2019. The principal is payable October 1, for each maturity, commencing October 1, 2021.

#### Agents:

Registrar:	U.S. Bank Trust Company, National Association, Fort Lauderdale, Florida
Paying Agent:	
Bond Counsel:	
	D. Seaton and Associates, P.A., Miami, Florida
Disclosure Cou	unsel: Hunton Andrews Kurth L.L.P, Miami, Florida
	DiFalco & Fernandez L.L.L.P, Miami, Florida
Original Ratin	ngs:
Moody's:	Aa3
Standard & Po	por's: AA-
Fitch:	A+
Current Ratin	igs
Moody's:	Aa3
Standard & Po	por's: AA-
Fitch:	A+

#### **Call Provisions:**

#### **Optional Redemption:**

The Series 2019 Bonds shall be subject to optional redemption prior to maturity, at the option of the County, in whole or in part at any time, on of after October 1, 2028, 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 2019 Bonds to be redeemed, plus accrued interest to the date of redemption and without premium.

## Mandatory Redemption:

The Series 2019 Bonds maturing on October 1, 2043, 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 2019 Bonds to be redeemed, commencing on October 1, 2039, and on each October 1 thereafter, in the years and principal amounts set forth below:

Redemption Date	Amount
2039	\$ 7,080,000
2040	12,470,000
2041	13,110,000
2042	13,780,000
2043 (Final Maturity)	14,485,000

The Series 2019 Bonds maturing on October 1, 2046, 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 2019 Bonds to be redeemed, commencing on October 1, 2044, and on each October 1 thereafter, in the years and principal amounts set forth below:

Redemption Date	Amount
2044	\$ 15,230,000
2045	16,010,000
2046 (Final Maturity)	8,400,000

The Series 2019 Bonds maturing on October 1, 2048, 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 2019 Bonds to be redeemed, commencing on October 1, 2046, and on each October 1 thereafter, in the years and principal amounts set forth below:

Redemption Date	Amount
2046	\$ 8,390,000
2047	17,520,000
2048 (Final Maturity)	18,230,000

# \$233,305,000 Miami-Dade County, Florida Water and Sewer System Revenue Bonds Series 2019

Fiscal Year Ending			Interest				Total Debt
Sept. 30,	Туре	CUSIP Number	Rate		Principal	Interest	Service
2023					•	\$ 11,223,850	\$ 11,223,850
2024						11,223,850	11,223,850
2025						11,223,850	11,223,850
2026						11,223,850	11,223,850
2027						11,223,850	11,223,850
2028						11,223,850	11,223,850
2029						11,223,850	11,223,850
2030						11,223,850	11,223,850
2031	Serial	59334DKU7	5.000%	\$	7,560,000	11,034,850	18,594,850
2032	Serial	59334DKV5	5.000		7,950,000	10,647,100	18,597,100
2033	Serial	59334DKW3	5.000		8,360,000	10,239,350	18,599,350
2034	Serial	59334DKX1	5.000		8,785,000	9,810,725	18,595,725
2035	Serial	59334DKY9	5.000		9,235,000	9,360,225	18,595,225
2036	Serial	59334DKZ6	5.000		9,710,000	8,886,600	18,596,600
2037	Serial	59334DLA0	5.000		10,210,000	8,388,600	18,598,600
2038	Serial	59334DLB8	5.000		10,730,000	7,865,100	18,595,100
2039	Serial	59334DLC6	5.000		11,280,000	7,314,850	18,594,850
2040	Serial	59334DLD4	5.000		4,780,000	6,736,350	18,596,350
	Term1	59334DLE2	5.000		7,080,000		
2041	Term1	59334DLE2	5.000		12,470,000	6,128,100	18,598,100
2042	Term1	59334DLE2	5.000		13,110,000	5,488,600	18,598,600
2043	Term1	59334DLE2	5.000		13,780,000	4,816,350	18,596,350
2044	Term1	59334DLE2	5.000		14,485,000	4,109,725	18,594,725
2045	Term2	59334DLF9	5.000		15,230,000	3,366,850	18,596,850
2046	Term2	59334DLF9	5.000		16,010,000	2,585,850	18,595,850
2047	Term2	59334DLF9	5.000		8,400,000	1,807,800	18,597,800
	Term3	59334DLG7	4.000		8,390,000		
2048	Term3	59334DLG7	4.000		17,520,000	1,079,600	18,599,600
2049	Term3	59334DLG7	4.000		18,230,000	364,600	18,594,600
Totals				\$ 2	233,305,000	\$ 209,822,025	\$ 443,127,025



## \$663,860,000 Miami-Dade County, Florida Water and Sewer System Revenue Bonds Series 2019B

Dated: November 6, 2019

Final Maturity: October 1, 2049

Aa3

AA-

A+

#### Purpose:

The Series 2019B Bonds were issued pursuant to Ordinance No. 13-47 and Resolution No. R-1005-19, and the proceeds, together with certain other available funds of the Miami-Dade County Water and Sewer Department were used to (i) refund all of the outstanding Miami Dade County, Florida Water and Server System Commercial Paper Notes, Series A-1 (Tax-Exempt) and all of the outstanding Miami-Dade County, Florida, Water and Sewer System Commercial Paper Notes, Series B-1 (Tax-Exempt); (ii) pay the costs of the Series 2019B Project (iii) make a deposit to the Reserve Account, and (iv) pay the costs of issuance of the Series 2019B Bonds.

### Security:

The Series 2019B Bonds are limited obligations of the County payable solely from and secured by Net Operating Revenues of the System and any funds and accounts established on behalf of the Bondholders and investment earnings on those funds and accounts.

#### Form:

The Series 2019B Bonds were issued as fully registered bonds in denominations of \$5,000 or any integral multiples of \$5,000. The Series 2019B Bonds are in book-entry form and are registered initially to the Depository Trust Company, New York, New York. Interest is payable semi-annually on April 1 and October 1, commencing April 1, 2020. The principal is payable October 1, for each maturity, commencing October 1, 2043.

### Agents:

Agenta.	
Registrar:	U.S. Bank Trust Company, National Association, Fort Lauderdale, Florida
Paying Agent:	U.S. Bank Trust Company, National Association, Fort Lauderdale, Florida
Bond Counsel:	Squire Patton Boggs (US) LLP, Miami, Florida
	D. Seaton and Associates, P.A., Miami, Florida
Disclosure Counsel:	Gray Robison, P.A., Miami, Florida
	Law Offices Thomas H, Williams, Jr., P.L., Miami, Florida
Original Ratings:	
Moody's:	Aa3
Standard & Poor's:	AA-
Fitch:	A+

Cur	rent	Ratings:

Moody's: Standard & Poor's: Fitch:

## **Call Provisions:**

### **Optional Redemption:**

The Series 2019 Bonds shall be subject to optional redemption prior to maturity, at the option of the County, in whole or in part at any time, on of after October 1, 2029, 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 2019B Bonds to be redeemed, plus accrued interest to the date of redemption and without premium.

The Series 2019B Bonds maturing on October 1, 2044, and bearing interest at 4.00% 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 2019B Bonds to be redeemed, commencing on October 1, 2043, and on each October 1 thereafter, in the years and principal amounts set forth below:

Redemption Date	Amount
2043	\$ 50,000,000
2044 (Final Maturity)	50,000,000

The Series 2019B Bonds maturing on October 1, 2044, and bearing interest at 5.00% 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 2019B Bonds to be redeemed, commencing on October 1, 2043, and on each October 1 thereafter, in the years and principal amounts set forth below:

Redemption Date	Amount
2043	\$ 32,175,000
2044 (Final Maturity)	35,875,000

The Series 2019B Bonds maturing on October 1, 2049, and bearing interest at 3.00% 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 2019B Bonds to be redeemed, commencing on October 1, 2045, and on each October 1 thereafter, in the years and principal amounts set forth below:

Redemption Date	Amount
2045	\$ 13,000,000
2046	13,000,000
2047	13,000,000
2048	13,000,000
2049 (Final Maturity)	13,000,000

The Series 2019B Bonds maturing on October 1, 2049, and bearing interest at 4.00% 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 2019B Bonds to be redeemed, commencing on October 1, 2045, and on each October 1 thereafter, in the years and principal amounts set forth below:

Redemption Date	Amount				
2045	\$ 76,495,000				
2046	80,015,000				
2047	83,680,000				
2048	97,300,000				
2049 (Final Maturity)	93,320,000				

# \$663,860,000 Miami-Dade County, Florida Water and Sewer System Revenue Bonds Series 2019B

Fiscal Year Ending			Interest						Total Debt
Sept. 30,	Туре	CUSIP Number	Rate		Principal		Interest		Service
2023					-	\$	26,584,900	\$	26,584,900
2024							26,584,900		26,584,900
2025							26,584,900		26,584,900
2026							26,584,900		26,584,900
2027							26,584,900		26,584,900
2028							26,584,900		26,584,900
2029							26,584,900		26,584,900
2030							26,584,900		26,584,900
2031							26,584,900		26,584,900
2032							26,584,900		26,584,900
2033							26,584,900		26,584,900
2034							26,584,900		26,584,900
2035							26,584,900		26,584,900
2036							26,584,900		26,584,900
2037							26,584,900		26,584,900
2038							26,584,900		26,584,900
2039							26,584,900		26,584,900
2040							26,584,900		26,584,900
2041							26,584,900		26,584,900
2042							26,584,900		26,584,900
2043							26,584,900		26,584,900
2044	Term1	59334DLT9	4.000%	\$	50,000,000		24,780,525		106,955,525
	Term2	59334DLU6	5.000		32,175,000				
2045	Term1	59334DLT9	4.000		50,000,000		21,079,275		106,954,275
	Term2	59334DLU6	5.000		35,875,000				
2046	Term3	59334DLW2	3.000		13,000,000		17,457,500		106,952,500
	Term4	59334DLV4	4.000		76,495,000				
2047	Term3	59334DLW2	3.000		13,000,000		13,937,300		106,952,300
	Term4	59334DLV4	4.000		80,015,000				
2048	Term3	59334DLW2	3.000		13,000,000		10,273,400		106,953,400
	Term4	59334DLV4	4.000		83,680,000		,,		,,
2049	Term3	59334DLW2	3.000		13,000,000		6,263,800		116,563,800
	Term4	59334DLV4	4.000		97,300,000		0,200,000		110,000,000
2050	Term3	59334DLW2	3.000		13,000,000		2,061,400		108,381,400
2000	Term4	59334DLV/2	4.000		93,320,000		2,001,400		100,001,400
Totals	101114	0000+DLV4	4.000	\$	663,860,000	\$	654,136,100	\$	1,317,996,100
101015				ψ	003,000,000	φ	0.04, 130, 100	φ	1,017,990,100



## \$548,090,000 Miami-Dade County, Florida Water and Sewer System Revenue Bonds Series 2019C

Dated: November 6, 2019

Final Maturity: October 1, 2042

#### Purpose:

The Series 2019C Bonds were issued pursuant to Ordinance No. 93-134, as amended by Ordinance No. 13-47, and Resolution No. R-1005-19, and the proceeds, together with certain other available funds of the Miami-Dade County Water and Sewer Department were used to (i) refund all of the outstanding Miami Dade County, Florida Water and Server System Revenue Bonds, Series 2013A and all the outstanding Miami Dade County Florida Water and Sewer System Revenue Refunding Bonds 2013B; and (ii) pay the costs of issuance of the Series 2019C Bonds.

### Security:

The Series 2019C Bonds are limited obligations of the County payable solely from and secured by Net Operating Revenues of the System and any funds and accounts established on behalf of the Bondholders and investment earnings on those funds and accounts.

#### Form:

The Series 2019C Bonds were issued as fully registered bonds in denominations of \$5,000 or any integral multiples of \$5,000. The Series 2019C Bonds are in book-entry form and are registered initially to the Depository Trust Company, New York, New York. Interest is payable semi-annually on April 1 and October 1, commencing April 1, 2020. The principal is payable October 1, for each maturity, commencing October 1, 2027.

### Agents:

Agents.	
Registrar:	U.S. Bank Trust Company, National Association, Fort Lauderdale, Florida
Paying Agent:	U.S. Bank Trust Company, National Association, Fort Lauderdale, Florida
Bond Counsel:	Squire Patton Boggs (US) LLP, Miami, Florida
	D. Seaton and Associates, P.A., Miami, Florida
Disclosure Counsel:	Gray Robison, P.A., Miami, Florida
	Law Offices Thomas H, Williams, Jr., P.L., Miami, Florida
Original Ratings:	
Moody's:	Aa3
Standard & Poor's:	AA-
Fitch:	A+
Current Ratings:	
Moody's:	Aa3
Standard & Poor's:	AA-
Fitch:	A+
Original Ratings: Moody's: Standard & Poor's: Fitch: Current Ratings: Moody's: Standard & Poor's:	Gray Robison, P.A., Miami, Florida Law Offices Thomas H, Williams, Jr., P.L., Miami, Florida Aa3 AA- A+ Aa3 AA-

#### **Call Provisions:**

### **Optional Redemption:**

The Series 2019C Bonds maturing on or after October 1, 2030 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, 2029, 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 2019C Bonds to be redeemed, plus accrued interest to the date of redemption and without premium.

The Series 2019C Bonds maturing on October 1, 2042, 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 2019C Bonds to be redeemed, commencing on October 1, 2035, and on each October 1 thereafter, in the years and principal amounts set forth below:

Redemption Date	Amount
2035	\$ 17,295,000
2036	17,960,000
2037	18,670,000
2038	19,400,000
2039	20,160,000
2040	73,690,000
2041	76,315,000
2042 (Final Maturity)	79,035,000

#### **Projects Funded with Proceeds:**

Proceeds of the Series 2013A Bonds were used to pay the costs of acquiring certain improvements under the departments Multi Year Plan, pay capitalized interest, make a deposit to the Reserve Account, and pay costs of issuance. Proceeds of the Series 2013B Bonds were used to current refund all of the County's Water and Sewer Revenue Bonds, Series 1999A, make a deposit to the Reserve Account, and pay costs of issuance, including the cost of the premium for a municipal bond insurance policy.

#### **Refunded Bonds:**

Series 2013A and Series 2013B

#### **Refunded Bonds Call Date:**

Series 2013A were called for redemption on October 1, 2022 at 100% and Series 2013B were called for redemption on October 1, 2023 at 100%.

# \$548,090,000 Miami-Dade County, Florida Water and Sewer System Revenue Refunding Bonds Series 2019C (Taxable)

Fiscal Year Ending			Interest			Total Debt
Sept. 30,	Туре	CUSIP Number	Rate	Principal	Interest	Service
2023					\$ 17,285,515	\$ 17,285,515
2024					17,285,515	17,285,515
2025					17,285,515	17,285,515
2026					17,285,515	17,285,515
2027					17,285,515	17,285,515
2028	Serial	59334DLJ1	2.501%	\$ 48,055,000	16,684,587	64,739,587
2029	Serial	59334DLK8	2.551	49,085,000	15,457,580	64,542,580
2030	Serial	59334DLL6	2.601	50,195,000	14,178,715	64,373,715
2031	Serial	59334DLM4	2.741	14,625,000	13,325,493	27,950,493
2032	Serial	59334DLN2	2.841	15,140,000	12,909,994	28,049,994
2033	Serial	59334DLP7	2.911	15,630,000	12,467,436	28,097,436
2034	Serial	59334DLQ5	2.981	16,145,000	11,999,300	28,144,300
2035	Serial	59334DLR3	3.011	16,690,000	11,507,390	28,197,390
2036	Term	59334DLS1	3.490	17,295,000	10,954,325	28,249,325
2037	Term	59334DLS1	3.490	17,960,000	10,339,125	28,299,125
2038	Term	59334DLS1	3.490	18,670,000	9,699,932	28,369,932
2039	Term	59334DLS1	3.490	19,400,000	9,035,610	28,435,610
2040	Term	59334DLS1	3.490	20,160,000	8,345,288	28,505,288
2041	Term	59334DLS1	3.490	73,690,000	6,707,606	80,397,606
2042	Term	59334DLS1	3.490	76,315,000	4,090,018	80,405,018
2043	Term	59334DLS1	3.490	79,035,000	1,379,161	80,414,161
Totals				\$ 548,090,000	\$ 255,509,131	\$ 803,599,131



# \$605,600,000 Miami-Dade County, Florida Water and Sewer System Revenue Bonds Series 2021

Dated: April 20, 2021

#### Final Maturity: October 1, 2051

#### Purpose:

The Series 2021 Bonds were issued pursuant to Ordinance No. 93-134, as amended by Ordinance No. 13-47, and Resolution No. R-207-21, and proceeds of the Series 2021 Bonds will be used to (i) fund certain costs of the Department's multi-year capital plan; (ii) make a deposit to the Reserve Account; and (iii) pay the costs of issuance of the Series 2021 Bonds.

#### Security:

The Series 2021 Bonds are limited obligations of the County payable solely from and secured by Net Operating Revenues of the System and any funds and accounts established on behalf of the Bondholders and investment earnings on those funds and accounts.

#### Form:

The Series 2021 Bonds were issued as fully registered bonds in denominations of \$5,000 or any integral multiples of \$5,000. The Series 2021 Bonds are in book-entry form and are registered initially to the Depository Trust Company, New York, New York. Interest is payable semi-annually on April 1 and October 1, commencing October 1, 2021. The principal is payable October 1, commencing October 1, 2030.

### Agents:

- genter	
Registrar:	The Bank of New York Mellon, New York, New York
Paying Agent:	The Bank of New York Mellon, New York, New York
Bond Counsel:	Squire Patton Boggs (US) LLP, Miami, Florida
	D. Seaton and Associates, P.A., Miami, Florida
Disclosure Counsel:	Nabors, Giblin & Nickerson, P.A., Tampa, Florida
	Manuel Alonso-Poch, PA., Miami, Florida
Original Dational	

Original Ratings:	
Moody's:	Aa3
Standard & Poor's:	AA-
Fitch:	A+

#### **Call Provisions:**

#### **Optional Redemption:**

The Series 2021 Bonds maturing on October 1, 2030 shall not be subject to optional redemption prior to maturity. The Series 2021 Bonds maturing on and after October 1, 2031 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 April 1, 2031, 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 2021 Bonds to be redeemed, plus accrued interest to the date of redemption and without premium.

The Series 2021 Bonds maturing on October 1, 2046, 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 2021 Bonds to be redeemed, commencing on October 1, 2045, in the years and principal amounts set forth below:

Redemption Date	Amount
2045	\$ 31,665,000
2046 (Final Maturity)	32,950,000

The Series 2021 Bonds maturing on October 1, 2048, 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 2021 Bonds to be redeemed, commencing on October 1, 2047, in the years and principal amounts set forth below:

Redemption Date	Amount
2047	\$ 34,295,000
2048 (Final Maturity)	35,695,000

The Series 2021 Bonds maturing on October 1, 2051, bearing interest at 3.00% 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 2021 Bonds to be redeemed, commencing on October 1, 2049, and on each October 1 thereafter, in the years and principal amounts set forth below:

Redemption Date	Amount
2049	\$ 17.065,000
2050	18,395,000
2051 (Final Maturity)	19,770,000

The Series 2021 Bonds maturing on October 1, 2051, and bearing interest at 4.00% 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 2021 Bonds to be redeemed, commencing on October 1, 2049, and on each October 1 thereafter, in the years and principal amounts set forth below:

Redemption Date	Amount
2049	\$ 20,000,000
2050	20,000,000
2051 (Final Maturity)	20,000,000

# \$605,600,000 Miami-Dade County, Florida Water and Sewer System Revenue Bonds Series 2021

Fiscal Year						
Ending			Interest			Total Debt
Sept. 30,	Туре	CUSIP Number	Rate	Principal	Interest	Service
2023					\$ 23,439,700	\$ 23,439,700
2024					23,439,700	23,439,700
2025					23,439,700	23,439,700
2026					23,439,700	23,439,700
2027					23,439,700	23,439,700
2028					23,439,700	23,439,700
2029					23,439,700	23,439,700
2030					23,439,700	23,439,700
2031	Serial	59334DLZ5	5.000%	\$ 17,460,000	23,003,200	40,463,200
2032	Serial	59334DMA9	5.000	18,355,000	22,107,825	40,462,825
2033	Serial	59334DMB7	5.000	19,300,000	21,166,450	40,466,450
2034	Serial	59334DMC5	4.000	20,185,000	20,280,250	40,465,250
2035	Serial	59334DMD3	4.000	21,010,000	19,456,350	40,466,350
2036	Serial	59334DME1	4.000	21,865,000	18,598,850	40,463,850
2037	Serial	59334DMF8	3.000	22,645,000	17,821,875	40,466,875
2038	Serial	59334DMG6	4.000	23,450,000	17,013,200	40,463,200
2039	Serial	59334DMH4	4.000	24,410,000	16,056,000	40,466,000
2040	Serial	59334DMJ0	4.000	25,405,000	15,059,700	40,464,700
2041	Serial	59334DMK7	3.000	26,305,000	14,157,025	40,462,025
2042	Serial	59334DML5	4.000	27,245,000	13,217,550	40,462,550
2043	Serial	59334DMM3	4.000	28,360,000	12,105,450	40,465,450
2044	Serial	59334DMN1	4.000	29,365,000	11,097,775	40,462,775
2045	Serial	59334DMP6	4.000	30,415,000	10,049,000	40,464,000
2046	Term1	59334DMQ4	4.000	31,655,000	8,807,600	40,462,600
2047	Term1	59334DMQ4	4.000	32,950,000	7,515,500	40,465,500
2048	Term2	59334DMR2	4.000	34,295,000	6,170,600	40,465,600
2049	Term2	59334DMR2	4.000	35,695,000	4,770,800	40,465,800
2050	Term3	59334DMQ8	3.000	17,065,000	3,400,925	40,465,925
	Term4	59334DMQ9	4.000	20,000,000		
2051	Term3	59334DMS0	3.000	18,395,000	2,069,025	40,464,025
	Term4	59334DMT8	4.000	20,000,000	, ,	
2052	Term3	59334DMS0	3.000	19,770,000	696,550	40,466,550
	Term4	59334DMT8	4.000	20,000,000	,-••	, ,
Totals				\$ 605,600,000	\$ 472,139,100	\$ 1,077,739,100



## \$236,135,000 Miami-Dade County, Florida Subordinate Water and Sewer System Revenue Bonds Series 2021

Dated: July 8, 2021

### Final Maturity: October 1, 2051

#### Purpose:

The Subordinate Series 2021 Bonds were issued pursuant to Ordinance No. 20-1 and Resolution No. R-520-21, and proceeds of the Subordinate Series 2021 Bonds will be used to (i) fund a portion of the costs of the Department's Multi-Year Capital Plan, and (ii) pay the costs of issuance of the Series 2021 Subordinate Bonds.

#### Security:

The Series 2021 Subordinate Bonds: (a) constitute "Subordinate Obligations" as defined in the senior Obligations Bond Ordinance and "Additional Subordinate Obligations" as defined in the Subordinate Obligations Ordinance, (b) are subordinate to the Outstanding Senior Bonds (as defined) and any future Additional Bonds, Completion Bonds, and Refunding Bonds issued pursuant to the Senior Obligations Bond Ordinance and with any future Hedge Obligations (each as defined in the Senior Obligations Bond Ordinance)(collectively, the "Senior Obligations") as to the pledge of, and lien upon, the Pledged Revenues, which consist of the Net Operating Revenues (as such terms as defined) of the County's water and sewer utility system (the "Utility"), and (c) are on a parity with certain Outstanding Bonds issued pursuant to the Subordinate Obligations (as defined) and any future additional Bonds, Completion Bonds, and Refunding Bonds are NOT secured by the Reserve Account or by any subaccount therein.

#### Form:

The Series 2021 Subordinate Bonds were issued as fully registered bonds in denominations of \$5,000 or any integral multiples of \$5,000. The Series 2021 Subordinate Bonds are in book-entry form and are registered initially to the Depository Trust Company, New York, New York. Interest is payable semi-annually on April 1 and October 1, commencing October 1, 2021. The principal is payable October 1, commencing October 1, 2021.

#### Agents:

Registrar: Paying Agent: Bond Counsel:

Disclosure Counsel:

### **Original Ratings:.**

Moody's: Standard & Poor's: U.S. Bank Trust Company, National Association, Fort Lauderdale, FL U.S. Bank Trust Company, National Association, Fort Lauderdale, FL Squire Patton Boggs (US) LLP, Miami, Florida D. Seaton and Associates, P.A., Miami, Florida Nabors, Giblin & Nickerson, P.A., Plantation, Florida Manuel Alonso-Poch, P.A., Miami, Florida

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#### **Call Provisions:**

#### **Optional Redemption:**

The Series 2021 Subordinate Bonds maturing on or before October 1, 2028 are not subject to optional redemption prior to maturity. The Series 2021 Subordinate Bonds maturing on and after October 1, 2034 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, 2031, 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 2021 Subordinate Bonds to be redeemed, plus accrued interest to the date of redemption and without premium.

The Series 2021 Bonds maturing on October 1, 2046, 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 2021 Subordinate Bonds to be redeemed, commencing on October 1, 2043, in the years and principal amounts set forth below:

Redemption Date	Amount
2043	\$ 12,880,000
2044	13,540,000
2045	14,235,000
2046 (Final Maturity)	14,965,000

The Series 2021 Bonds maturing on October 1, 2051, 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 2021 Subordinate Bonds to be redeemed, commencing on October 1, 2047, in the years and principal amounts set forth below:

Redemption Date	Amount			
2047	\$ 15,655,000			
2048	16,295,000			
2049	16,290,000			
2050	17,650,000			
2051 (Final Maturity)	18,370,000			

# \$236,135,000 Miami-Dade County, Florida Subordinate Water and Sewer System Revenue Bonds Series 2021

Ending			Interest			Total Debt
Sept. 30,	Туре	CUSIP Number	Rate	Principal	Interest	Service
2023					\$ , ,	\$ 10,533,800
2024					10,533,800	10,533,800
2025					10,533,800	10,533,800
2026					10,533,800	10,533,800
2027					10,533,800	10,533,800
2028	Serial	59334DMU5	5.000%	\$ 26,000,000	9,883,800	35,883,800
2029	Serial	59334DMV3	5.000	12,500,000	8,921,300	21,421,300
2030					8,608,800	8,608,800
2031					8,608,800	8,608,800
2032					8,608,800	8,608,800
2033					8,608,800	8,608,800
2034					8,608,800	8,608,800
2035	Serial	59334DMW1	5.000	2,860,000	8,537,300	11,397,300
2036	Serial	59334DMX9	5.000	3,005,000	8,390,675	11,395,675
2037	Serial	59334DMY7	5.000	3,705,000	8,222,925	11,927,925
2038	Serial	59334DMZ4	5.000	5,150,000	8,001,550	13,151,550
2039	Serial	59334DNA8	4.000	6,085,000	7,751,100	13,836,100
2040	Serial	59334DNB6	4.000	8,535,000	7,458,700	15,993,700
2041	Serial	59334DNC4	4.000	8,880,000	7,110,400	15,990,400
2042	Serial	59334DND2	4.000	9,245,000	6,747,900	15,992,900
2043	Serial	59334DNE0	4.000	9,620,000	6,370,600	15,990,600
2044	Term1	59334DNF7	5.000	12,880,000	5,856,200	18,736,200
2045	Term1	59334DNF7	5.000	13,540,000	5,195,700	18,735,700
2046	Term1	59334DNF7	5.000	14,235,000	4,501,325	18,736,325
2047	Term1	59334DNF7	5.000	14,965,000	3,771,325	18,736,325
2048	Term2	59334DNG5	4.000	15,655,000	3,084,100	18,739,100
2049	Term2	59334DNG5	4.000	16,295,000	2,445,100	18,740,100
2050	Term2	59334DNG5	4.000	16,960,000	1,780,000	18,740,000
2051	Term2	59334DNG5	4.000	17,650,000	1,087,800	18,737,800
2052	Term2	59334DNG5	4.000	18,370,000	367,400	18,737,400
Totals				\$ 236,135,000	\$	\$ 447,333,200

