

MIAMI-DADE WATER AND SEWER DEPARTMENT
A DEPARTMENT OF MIAMI-DADE COUNTY, FL



COMPREHENSIVE ANNUAL FINANCIAL REPORT
FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 2019



MIAMI-DADE WATER AND SEWER DEPARTMENT

A DEPARTMENT OF MIAMI-DADE COUNTY, FL

COMPREHENSIVE ANNUAL FINANCIAL REPORT

FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 2019

PREPARED BY: CONTROLLER DIVISION AND PUBLIC AFFAIRS SECTION

VISION STATEMENT

The continuous delivery of excellent, cost-effective water supply and wastewater services in compliance with all regulatory requirements.

MISSION STATEMENT

The Miami-Dade Water and Sewer Department is committed to serving the needs of Miami-Dade County residents, businesses, and visitors by providing high-quality drinking water and wastewater disposal services while providing for future economic growth via progressive planning; implementing water conservation measures; safeguarding public health and the environment; and providing for continuous process improvements and cost efficiencies.



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MIAMI-DADE COUNTY

Carlos A. Gimenez
Mayor



BOARD OF COUNTY COMMISSIONERS

Audrey M. Edmonson
Chairwoman

Rebeca Sosa
Vice Chairwoman

Barbara J. Jordan
District 1

Jean Monestime
District 2

Audrey M. Edmonson
District 3

Sally A. Heyman
District 4

Eileen Higgins
District 5

Rebeca Sosa
District 6

Xavier L. Suarez
District 7

Daniella Levine Cava
District 8

Dennis C. Moss
District 9

Senator Javier D. Souto
District 10

Joe A. Martinez
District 11

José "Pepe" Díaz
District 12

Esteban Bovo, Jr.
District 13

Harvey Ruvin
Clerk of the Circuit and County Courts

Pedro J. Garcia
Property Appraiser

Abigail Price-Williams
County Attorney

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 of the requirements of the Americans with Disabilities Act.

March 23, 2020

Honorable Carlos A. Gimenez, Mayor
Honorable Audrey Edmonson,
Chairwoman and Members of the Board of County Commissioners
Honorable Harvey Ruvin, Clerk of the Circuit and County Courts
Pedro J. Garcia, Property Appraiser
Abigail Price-Williams, County Attorney
Miami-Dade County, Florida

Ladies and Gentlemen:

We are pleased to present the Comprehensive Annual Financial Report (CAFR) of the Miami-Dade Water and Sewer Department (Department, a.k.a. WASD) for the fiscal year ended September 30, 2019 (FY2019). 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, 2019, 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 statements comprise the Management's Discussion and Analysis (MD&A), financial statements, notes to the financial statements, and Required Supplementary Information (RSI). 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 FY2019. 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 MiamiDade 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 Department’s water system, considered the largest water utility in the Southeast United States, serving approximately 449,985 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 rated treatment capacity of these three WTPs is 481 MGD (million gallons per day). There are fifteen wellfields 2 comprised of 95 production wells and five aquifer storage and recovery wells. These wells supply untreated water to the treatment plants.

Water distribution throughout the 400 square miles service area is performed via seven remote finished water storage and pumping facilities and more than 8,574 miles of water mains ranging in size from 2 inches to 72 inches in diameter.

The wastewater system serves approximately 366,069 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 6,300 miles of collection and transmission pipelines. 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 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 FY2014, 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 2019 the Department reused 15.3 MGD of treated wastewater. Additional capacity for production of reclaimed water currently is available at the South District Plant, with 94.6 MGD of public access reuse quality water produced in FY2019. The

Department is committed to distributing as much reclaimed water for aquifer recharge, irrigation, power plant cooling and potentially coastal wetlands rehydration as technically, environmentally, and economically feasible.

ECONOMIC CONDITION AND OUTLOOK

This economic condition and outlook report outline the level of economic activity throughout Fiscal Year (FY) 2019 and forecasts the area's economic outlook for next fiscal year.

One year ago, in the year-end outlook for the local economy it was anticipated that there would be a diminished likelihood of improvement and a higher likelihood of softening given that FY 2018 did not suffer from a negative shock as FY 2017 did with Hurricane Irma, and given that the economic news was no longer a recently passed stimulative tax code overhaul but a government shutdown, uncertain international trade outlook and a possible hard Brexit on the horizon.

Prospects for growth of the United States' economy were thought to decelerate to 2.3 percent in calendar year 2019 from 3.1 percent in calendar year 2018 according to the Congressional Budget Office and by a slightly lesser degree by the International Monetary Fund (IMF) and the Organization for Economic Co-operation and Development (OECD).

Economic conditions in Latin America, after underperforming expectations in 2018, were expected to improve in 2019. Forecasts for Brazil, Chile and Colombia pointed to stronger growth in 2019, while Argentina, Mexico and Venezuela were expected to perform worse than in 2018.

The deceleration in the US economy coupled with the sluggish recovery of the Latin American region were expected to result in little change in trade in the Miami Customs District.

Real estate and construction activity in FY 2019 were expected to continue at FY 2018 levels with price appreciation softening after years of brisk increases that had affected affordability for residents.

Miami-Dade's employment would continue to grow given the health of the overall economy, but at a slower pace given that both idle workers and economic resources would be harder to come by. The higher utilization rate of economic inputs coupled with a more restrictive immigration approach by the administration would lead to higher wages and ultimately exert upward pressure on prices.

This forecast of FY 2019 turned out to be a fair assessment of what took place at the international, national and local levels.

At the national level FY 2019 saw a deceleration in economic activity, with real gross domestic product (GDP) increasing at an annual rate of 2.4 percent, compared to an increase of 3.0 percent in the prior year. The deceleration in GDP growth was brought about by a growth in the level of investment that dropped from 5.0 percent in FY 2018 to 3.6 percent in FY 2019 and by a deceleration in personal consumption from 3.1 percent in FY 2018 to 2.6 percent in FY 2019. Alongside the deceleration in economic activity, and due in part to a drop in energy prices, inflation decreased from FY 2018 2.4 percent to 1.9 percent. This pullback in the level of inflation materialized even though there was a decrease of the headline unemployment rate of 30 basis points to 3.7 percent, the lowest level in at least 15 years.

At the County level, FY 2019 closed with the lowest unemployment rate since at least FY 2007 and after adding the largest number of workers to payrolls since FY 2016, FY 2019 ended with the highest number of employed persons ever. The residential real estate market picked up some steam after two years of moderation with permits for new

residential construction increasing 16 percent over the previous year and with single-family home sales increasing by 2 percent after declining for the three prior years.

Several indicators remained flat or contracted slightly, including taxable sales, international trade, number of visitors to Miami, hotel occupancy rates and average hotel room rates, all of which rose in FY 2019 compared to FY 2018.

What follows is an overview of the economic conditions throughout the past year and a brief discussion about the trends associated with the area's key economic drivers.

EMPLOYMENT

During FY 2019 nonagricultural wage and salary employment (annual average) recorded an overall gain of approximately 14,770 jobs. This was an increase of 2.1 percent, to put total employment at a record high of 1,215,100 according to non-seasonally adjusted data from the Bureau of Labor Statistics. This gain in employment represented an uptick from the prior fiscal year, reversing a three-year period of deceleration. At the same time, a slower expansion of the labor force compared to the expansion of employment resulted in a decrease in the unemployment rate. The average annual unemployment rate for the year stood at 3.4 percent, compared to 3.9 percent a year earlier. Moreover, the unemployment rate for the month of September 2019 stood at 3.1 percent, 0.7 points lower than in September 2018 when it stood at 3.8 percent.

In contrast to a year prior when the growth of employment was uneven with modest drops in half of the private industrial sectors as well as in government, FY2019 saw a decrease in employment in only two sectors, retail trade down 0.4 percent and finance down 0.6 percent. Gains in all the other private industrial sectors as well as government resulted in a net overall growth of 27,600 jobs for the county. Adding the most jobs were *education and health services* adding 7,300 jobs, *professional and business services*, 6,200 jobs, *trade, transportation and utilities*, 4,500, *construction*, 3,600 jobs and *leisure and hospitality*, 3,500 jobs.

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. In FY 2019, as price appreciation moderated, single family home sales rose after contracting for three years in a row. Condominium sales increased for the second year, after a four-year decline. At the same time foreclosure filings rebounded by 13 percent after falling by almost a quarter in FY 2018.

During FY 2019 sales of existing single-family homes increased slightly compared to the prior fiscal year with just over 13,000 homes sold. Sales of condominiums increased 2.9 percent over the prior year with just over 14,000 units sold. Cash sales accounted for 45.5 percent of all condo sales in FY 2019 down from 52.3 percent in FY 2018. Much of this investor-cash activity can be attributed to the foreign-based demand for housing, especially from South America.

In terms of valuation, housing price appreciation moderated in FY 2019. Median sales price for single family homes rose by 3.8 percent in FY 2019, the slowest increase since FY 2012. The median sales price for existing condominiums rose by 3.3 percent in FY 2019, the slowest increase since FY 2011.

Data from the County Clerk shows new foreclosure filings increasing for the first time in seven years, from 4,802 new filings in FY 2018 to 5,445 in FY 2019.

Following a 3 percent drop for residential units permitted in FY 2018, FY 2019 displayed the largest increase in permitting activity since 2013. With an increase of 16 percent, permits were issued for the construction of 11,905 residential units, the largest number in at least a decade.

The commercial/industrial components of the real estate market experienced a slight increase in vacancy rates in FY 2019 compared to the previous year. Office vacancy went up slightly to 8.8 percent, with average rent rate per square foot increasing by 6.9 percent. The retail vacancy rate increased to 4.3 percent from 3.8 percent in the prior year. Average lease rates for retail stand-alone space were up 6.0 percent year over year to \$41.24 per square foot while average lease rates in shopping centers remained virtually unchanged in FY 2019 at \$33.92 per square foot. The industrial market saw an increase in vacancy rates from 3.8 percent in FY 2018 to 4.0 percent in FY 2019. Average lease rates for industrial space were down 8.5 percent in FY 2019 compared to FY 2018 to settle at \$11.95 per square foot.

SALES INDICATORS

Taxable sales in FY 2019 stood at \$56.1 billion dollars after decreasing an inflation adjusted 0.2 percent from FY 2018.

After increases in every category in FY 2018, taxable sales decreased in four out of six categories in FY 2019, led by consumer durables with a decrease of \$347 million or 7.8 percent, followed by automobile (-\$163 million, -2.1%), consumer nondurables (-\$117 million, -0.7%) and construction (-\$42 million, -1.8%). The two categories that saw inflation adjusted increases in taxable sales were business (+\$531 million, +4.6%) and tourism (+\$46 million, +0.3%). The weakening of taxable sales was reflected in an Index of Retail Activity which after increasing by 7 points in FY2018, increased by just 3 points in FY2019 to a level of 186.

INTERNATIONAL TRADE AND COMMERCE

International trade and commerce is a key component of Miami-Dade's economy. Since achieving its highest level ever measured by value (\$138.0 billion 2019 inflation adjusted dollars) in FY 2013, merchandise trade passing through the Miami Customs District (that includes an area broader than Miami-Dade) has fallen 16 percent to \$113.7 billion in FY 2019.

In contrast to the recurring merchandise trade deficits that the United States maintains year after year, the Miami Customs District exports more than it imports resulting in a trade surplus. The surplus, after broadening for two years, narrowed in FY 2019. In FY 2019 exports decreased by 2.7 percent, outpacing a decrease of 2.2 percent in imports. Most of the Miami Customs District export markets are in South America, Central America, and Europe accounting for nearly 90 percent of the total. In addition, most of all U.S. imported perishables from South America, Central America, and the Caribbean pass through the Miami District.

Two of Miami-Dade County's barometers of trade activity are the freight tonnage moving through Miami International Airport ("MIA") and PortMiami ("the Seaport"). At the former, overall air freight tonnage increased 2.4 percent, after growing 5.2 percent the preceding year. At the Seaport, cargo tonnage figures were up by 8.6 percent after increasing by 3.3 percent the year before. PortMiami accounts for 88 percent of total County trade measured by weight.

TOURISM

The state of Florida played host to more than 130 million overnight visitors for the first time in FY 2019. Miami-Dade accounted for just over 12 percent of all visitors to the state.

Visitors to the Miami area stayed essentially flat in FY 2019, at a level of 16.2 million overnight visitors. A slight drop in international visitors was countered by a slight increase in domestic visitors.

Consistent with the trend in overnight visitors, the Miami International Airport passenger levels stood at 45.8 million in FY 2019, representing an annual increase of 1.9 percent, a slowdown from 2.7 percent in the prior year. A strong performance was recorded at PortMiami with its passenger traffic surging 22 percent to 6.82 million passengers in FY 2019 after a 4.7 percent increase in FY 2018.

The lack of growth in overnight visitors, coupled with an increase of 4 percent in hotel room inventory translated into a slight decrease in the hotel occupancy rate from 76.8 percent in FY 2018 to 75.6 percent in FY 2019. This drop in the occupancy rate was coupled with a slight decrease in the average room rate from 196 dollars in FY 2018 to 194 dollars in FY 2019.

FUTURE OUTLOOK

As mentioned in the introductory section, since FY 2016 the Miami-Dade economy has displayed signs of a mature phase of the economic cycle. In such a phase, employment is high and grows at a slow pace, the unemployment rate is low and if it drops, it does so, modestly, and prices tend to start rising. Going forward, FY 2020 will continue to operate under these same dynamics. The headlines that may foretell an economic slowdown have shifted from a government shutdown, uncertain international trade outlook and a possible hard Brexit on the horizon at the beginning of FY 2019 to expanded international travel restrictions, the fear of a worldwide pandemic, and uncertainties related to a presidential election year at the beginning of FY 2020.

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 economies.

On the domestic front, the United States economy is expected to continue to slow, although it is thought to avoid a contraction and outperform other regions of the world as capital seeks safety and flows into the country. Positive developments on trade agreements with Mexico and China at the beginning of the fiscal year will contend with expanded travel restrictions by the United States and other countries as well as disruptions to supply chains caused by the outbreak of the novel coronavirus (COVID 19).

Prospects for growth of the United States' economy are thought to decelerate to 2 percent in calendar year 2020 from 2.3 percent in calendar year 2019 according to the International Monetary Fund (IMF) and the Organization for Economic Co-operation and Development (OECD) and by a slightly lesser degree by the Congressional Budget Office.

Economic activity in Latin America, after experiencing no growth in 2019, should expand modestly in 2020. Forecasts for Brazil and Venezuela point to an uptick in 2020, while Argentina, Mexico and Chile are expected to perform worse than in 2019.

The slowdown in the US economy coupled with the sluggish recovery of the Latin American region is likely to result in little change in trade in the Miami Customs District.

Real estate and construction activity in FY 2020 is expected to continue at FY 2019 levels with price appreciation continuing to soften, as affordability for residents continues to weigh on the market.

Employment should continue to grow, but at a slower pace given that both idle workers and economic resources are harder to come by. The higher utilization rate of economic inputs coupled with a more restrictive immigration approach by the administration, should lead to higher wages and ultimately exert upward pressure on prices.

Evaluating all the likely developments in major areas of the economy leads to a forecast that the Miami-Dade economy appears poised to continue growing through FY 2020, at a somewhat slower rate than during the previous fiscal year. The degree of expansion will depend upon the level of international tourism and trade, level of actual construction in the county, the rates of economic growth in Central and South America and the Caribbean, and the severity of the impact of the novel coronavirus (COVID19) on tourism, trade and the world economy at large

Water System

Water-Use Efficiency Plan

The Water Use Efficiency Plan (Plan) is in its twelfth year of operation as required by the 20-year Water Use Permit (WUP) issued in 2007 by South Florida Water Management District and approved by the Miami Dade County (County) Board of County Commissioners. The Plan requires the implementation of water conservation Best Management Practices (BMPs) through a quantifiable process that provides for accountability of water saved through the Plan. BMPs include rebates for purchase and installation of high efficiency fixtures for toilets, faucets and showerheads and rebates for upgrades to irrigation systems for single family homes and large properties. Non-BMP measures in the Plan include the adoption of a permanent two day/week landscape irrigation rule, mandating requirements for the installation of water efficient fixtures in new construction, water conservation information outreach campaigns to residents and businesses and utility water loss reduction efforts. The result of these initiatives has reduced finished water demand by 14 MGD as of December 31, 2018 compared to the finished water demand in 2006, the year prior to Plan implementation. The County's conservation efforts have resulted in the extension of its WUP, cancellation of alternative water supply projects and deferral of several other projects making water conservation the least expensive form of alternative water supply. The County was the first in the state to use the Florida Department of Environmental Protection's Conserve Florida "EZ GUIDE," a web-based application that facilitated the development of goal-based water conservation planning. 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 BMP projects are currently implemented:

- High efficiency fixture rebates including toilets, faucets, and showerheads for single-family and multi-family properties;
- Senior high efficiency toilet purchase and installation 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 ordinances requiring the use of drought tolerant plants;
- Implementation of a county-wide permanent two day a week landscape irrigation ordinance;
- Tiered rate 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 including in-school education efforts to promote water conservation;
- Continuation of a leak detection survey and repair of the entire water distribution system on an annual basis.

Water Reclamation

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. 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, as well as the landscape irrigation system at two of the Department's wastewater treatment plants. The Department 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 for the environment, irrigate landscaping, and serve industrial water demands for electrical production.

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 Integrated Water, Wastewater, and Reclaimed Water planning. WASD's Planning Division develops forecasts for water and sewer demands to ensure that all future needs can be met.

Wastewater System Consent Decree Program

The County negotiated a Consent Decree with the 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 81 individual 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, 2019, the County has completed 35 capital improvement projects with an approximate total cost of \$422 million. Thirty-nine projects are currently in procurement and construction with an approximate total cost of \$1.369 billion, and 7 projects are in the planning, design and permitting phases.

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 of these plans have been approved by EPA/FDEP and are currently in the implementation phase. 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 in 2027.

Ocean Outfall Legislation Program (OOL)

In 2008, the Florida Legislature approved, and the Governor signed a law requiring all wastewater utilities in south-east 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 the existing three 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, and capacity upgrades at the South District WWTP.

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, and the Department is in the process of modifying the timelines and scope for this new facility.

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 expected to start operational testing in 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 continues to look at reuse options that are economically, environmentally, and technically feasible to meet forecasted water supply needs. Current collaboration with Florida Power and Light has led to a promising opportunity to reuse water for cooling towers and freshen the canals at the Turkey Point Nuclear Power Plant.

The Pump Station Improvement Program (PSIP)

In 2014, the Miami-Dade Water and Sewer Department created a Pump Station Improvement Program (PSIP), with an investment of \$182 million, to upgrade its Wastewater Collection and Transmission System. Specifically, the PSIP was created to evaluate and improve the operation and transmission capacity of 118 sanitary sewer service areas located throughout Miami-Dade County, which are owned and/or operated by the Department. Projects include the upgrade of sewer pump stations, including the installation of new pumps, electrical upgrades, reduction of infiltration/inflow, and the construction of new force mains.

The PSIP Program Manager has validated Remedial Action Plans (RAPs) for all 118 service areas and developed a comprehensive master schedule for the entire program. This validation took into consideration several factors, including required regulatory milestones, development industry needs, sanitary sewer overflow locations, absolute moratorium stations, reserved capacity, roadway moratoria, and stations within the drinking water wellfield protection areas. Since the program's inception, a total of 93 projects have been completed or certified. An additional three (3) projects have been substantially completed and are pending final certification.

Infiltration and Inflow (I & I) Reduction Program

Miami-Dade Water and Sewer Department 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, reduction on treatment and pumping costs, and overall effective service delivery. The FRP aims to significantly and cost effectively reduced average and peak flows in the sewer system. In addition, this reduction of flow into the conveyance system provides 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 infiltration and inflow 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 2019, more than 4,000 repairs were performed to the gravity system; and over 280 miles of gravity sewers and 5,400 manholes were inspected with closed circuit television. These activities help reduce the amount of miscellaneous water that enters the wastewater collection system through defects in existing pipe systems. This in return 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 94 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, 2019, the Board of County Commissioners adopted County Budget Ordinance Number 18-102 authorizing an increase to the wastewater base facility charge paid by all wastewater systems users. This wastewater base facility increase will help to stabilize revenues that support fixed-costs. The median monthly bill of the residential customer using 5,236 gallons (7ccf) per month will be \$44.33.

In addition, the County Budget Ordinance decreased the water wholesale rate by \$0.0713 per thousand gallons to \$1.7628 from \$1.8341; the wastewater wholesale rate will remain at \$3.0937 per thousand gallons. Wholesale water and wastewater rates per thousand gallons rates are based on cost recovery.

Commercial Paper (CP) Implementation

The Department has utilized \$950 million of its Commercial Paper program since its establishment in May 2016. The CP program has allowed the Department to fund its capital program as needed and reduce negative arbitrage.

WIFIA Loan

In 2014, the federal Water Infrastructure Finance and Innovation Act (WIFIA) program was established by Congress to 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.

In 2017, the United States Environmental Protection Agency (EPA) selected the Department to be one of the 12 entities invited to apply for funding through the inaugural 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. The remainder of the costs is being funded through the State Revolving Fund Loan Program and the Department's cash on hand.

The Department was also invited to apply for approximately \$326.2 million in funding as part of the 2018 WIFIA loan program for 49% of cost of the design and construction of five new electrical distribution buildings at three wastewater treatment plants. The Department submitted the application and is negotiating terms of agreement to close by the end of the calendar year.

In 2019, The Department submitted a Letter of Interest (WIFIA LOI) to partially fund (49%), of the total project cost of \$413.6 million in upgrades to the South District Wastewater Treatment Plant. Approximately \$203.7 million in funding will come from the 2019 WIFIA loan program, with the remainder of the project anticipating funding from subordinate debt.

Building Better Communities General Obligation Bonds (GOB)

In November 2004, Miami-Dade County voters approved a \$2.9 billion bond program which allows the County to issue long-term bonds to fund numerous neighborhood and regional capital projects to be completed over the next 10 years. The General Obligation Bonds are legally backed by the full faith and credit of the County which has committed future taxes over the next 40 years to repay the bonds. General Obligation Bonds typically are the least expensive type of debt available to government. Among the GOB funded capital projects are several addressing current and future water and wastewater infrastructure needs. Resolution R-537-14 adopted by the Board of County Commissioners on June 3, 2014 allocated funding for "Extension of Sewer System to Developed Commercial and Industrial Corridors of the County," aka Commercial Corridor Project. Commercial Corridor Projects will be the largest single GOB project in Miami Dade Water and Sewer Department. The commercial corridor on Bird Road and the Industrial Park Area that will be addressed by two Low Pressure Sewer System projects and is underway. Also, Basis of Design Report for ten (10) areas within the commercial corridor began in FY2016 and is ongoing. Other planned projects include countywide water and wastewater main installations; pump station rehabilitation projects; reclaimed water facilities and infrastructure. GOB funding continues to be used to mediate the risk associated with Dieldrin contamination of private wells in the Falls area at Caribbean Estates and currently an extensive area at Continental Park. In FY2019, the Department will have access to \$12.1 million dollars of funding for GOB projects.

GROWING WITH INFORMATION TECHNOLOGY

Technology continues to be at the forefront of WASD operations to improve productivity, including budget and accounting, customer information, geographic information systems, enterprise asset management, system control data, project tracking, schedules, security, billing and metering, and construction initiatives of the utility. The Department continues to be committed to using the latest and best-available information technology to carry out operations and serve the expanding needs of customers. For functions from researching client records to managing assets, the Department has sought to develop and manage computer software that will significantly raise efficiency levels. Technology changes have been introduced by hardware and software suppliers, internal business improvements, regulations, and expanded customer expectations. The driving force in all initiatives is to meet WASD's operational goals while creating efficiencies with innovative technologies that position the Department in alignment with the Smart-City vision of the County.

The Information Technology Department (ITD), working closely with WASD Business Units, other County Departments and various specialized vendors, continues to introduce innovative solutions and technologies that extend the department's capabilities by improving productivity, efficiency, and enabling better data analysis to improve decision-making; foster continued improvements by enhancing data and systems access through mobile and cloud solutions; proactively manage infrastructure; and diversify customer channels of communication thus improving customer service and satisfaction. Among these are new and enhanced GIS tools to support better analysis of the department's infrastructure; Enhanced Big Data Analytics solution based on Microsoft Azure Cloud to handle the SCADA data; improved asset management mobile solutions to support field and warehouse operations; Microsoft SharePoint platform along with Office 365 that encourage better business collaboration anytime, anywhere, and from any device; Business Intelligence architecture and tools to analyze and visually present disparate data using intuitive dashboards; and AVA (Watson) Chatbox, which allows customers to ask questions using natural language, and to request payment extensions.

Systems Infrastructure

The upgrade of WASD computing and technology infrastructure continues. This includes upgrades to servers, storage, switches, Wi-Fi upgrades, and replacement of obsolete computers. In addition, Windows 10 and Office 365 with accompanying applications: OneDrive, OneNote and Teams provide for better management of emails, video conference, audio conferencing and files were implemented.

Big Data / Business Intelligence

In FY 2019, there were 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 Customer Service Division, Meter Division, New Business Division, and Budget Division.

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.

SharePoint/Intranets

All WASD Intranet sites are being 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.

Legacy intranet sites (MyWASD) were migrated to SharePoint Online (WaterHub) and officially decommissioned in Sept 2019. This project included the modernization of the WASD main landing page and numerous webpages providing departmental information. The development team worked closely with divisions to update, convert and modernize pages for each division into team sites. Additionally, several existing legacy SharePoint applications were modernized such as HR Training Self Service, Consent Decree Public Repository, BCC Agenda Coordination, GIS Map Gallery and others.

The next phase of the conversion is to modernize and migrate all existing SharePoint 2007 legacy sites to SharePoint Online. This project is ongoing, and we estimate to be fully cloud based (SPO) by Jan. 2020.

In-house Development

We continue to support existing application portfolio by modernizing existing applications, consolidating and decommissioning legacy applications that are no longer supported or meet security requirements. In FY 2019, the water allocation application was upgraded to meet the construction management application and business changes; started the Building Backup application to capture customer building backups to satisfy Consent Decree requirements; and began the analysis/market research for the Plant MORS Application which will provide plants with operational dashboards to meet reporting mandates by EPA and other external entities.

Meter to Cash

WASD Internet Self-Service application continued to expand. New features, such as the High Bill Investigation Request, was implemented. This feature automates the process end-to-end in real-time and has helped minimize the volume of calls and visits to WASD's Customer Service office locations. Technically, the application was fully migrated to DevOps, thus facilitating agile development.

Other completed projects include the Opa-locka project, which migrated their customers to WASD's billing and meter reading systems, the upgrade of Mobile Workforce Management (MWM) system to version 2.3, the upgrade of Itron Meter Reading application to version 4.0 and capability for WASD customers to donate towards WASD Cares program.

On-going projects include iNovah upgrade to version 2.6, implementation of WASD bills within the County's EnergyCap enterprise system, extending donation capability to non-WASD customers as well as additional Self Service functionality.

Future projects include implementation of Advanced Metering Infrastructure (AMI) for meter reading and upgrade of Customer Care and Billing (CCB) system.

Enterprise Resource Planning (ERP) Financials

In FY 2019, the implementation of wholesale billing in ERP was completed, replacing the old ACPAC system. Most of the work related to the upgrade to PUM 31 and PeopleTools v8.57 was completed, to include technical retrofit, unit, system, and user acceptance testing. Go-live is scheduled for February 2020. Various enhancements were also implemented to improve/correct purchase order and contract workflow processes. In addition, the countywide ERP implementation project was initiated this fiscal year, with plans to replace ADPICS and FAMIS. WASD's current ERP implementation will not be folded yet to the County's ERP implementation. However, existing integrations to ADPICS will need to be replaced. Discovery meetings and design sessions are underway.

Enterprise Asset Management System (EAMS)

In FY2019, EAMS expanded to the Sidewalk Restoration group in the Meter Section and Cyan Work Management was implemented to the Diesel group in the Pump Station Division. Numerous enhancements were completed as well as the MQ middleware upgrade. In line with WASD's Asset Management Framework, aimed at implementing

best practices and methods that align to ISO 55000 standards, the integration to SCADA run time to optimize maintenance for high service pumps at the Water Plants was completed. Improvements to the EAMS implementation for the Pump Station Division are underway. The EAMS Upgrade to v11.4 started this fiscal year. The Department is currently working with the product vendor on some issues.

eBuilder Implementation

WASD officially went live with eBuilder for the processes associated with the WASD development projects or 'donations' projects this fiscal year. To facilitate GIS/eBuilder integration and BI efforts, the development of database and APIs was completed. Also completed was the eBuilder integration with the new Public Works portal in support of Dry Run/Construction Permits processes. For the Capital Improvement Projects (CIP) Instance, the ERP/eBuilder integration development was completed and the Microsoft Project Online was implemented.

Geographic Information System (GIS) Solutions

GIS eBuilder Projects Auto-Digitizing: The application automates the process for digitizing Agreements, Verification Forms, Ordinance Letters, Letter of Availability into the Enterprise Geographic Information System. This GIS solution seamlessly integrates with eBuilder for extracting project records for auto-digitize and comprises of geo-specific validation rules to identify errors and potential issues within the project data, which will then be emailed to stakeholders for correction. This process effectively eliminates the previous manual digitizing procedures while ensuring data accuracy between both enterprise systems.

myWASD/iWASD eBuilder Integration:

In FY2019, a roll out of enhancements to all WASD internet and intranet web applications that includes more robust functionality and project information was completed. Intranet web applications include a project link that will spawn eBuilder and display all corresponding information associated with the project.

WASD Map Gallery:

Modernization of the Map Gallery in WASD Hub was completed this fiscal year in order to provide better access to GIS resources and migrate to a state-of-the-art platform. The new gallery incorporates improved search and communication tools to assist users in navigating through the hub.

Digitizing Donations and Capital Improvement Projects:

WASD Data Maintenance has been working with business teams to take over responsibility for digitizing proposed donations and capital improvement projects to make new infrastructure available in GIS sooner and reduce the backlogged projects in Plans Review. The new workload will initially be handled without additional resources. The impact to GIS Data Maintenance will be reviewed to determine if additional resources will be required.

COMMUNITY OUTREACH

The Department's Public Affairs Office sponsors and participates in several programs aimed at educating the public on the quality of its drinking water, its operations, under-utilized customer services, water conservation and the Department's 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, Public Affairs also utilizes Facebook, Twitter, Instagram, YouTube, and movie theaters to capture a wider and more diverse audience.

The Office also revamped and revised its internal and external websites making them more user-friendly and more transaction-oriented for customers to conduct their business 24-hours-a-day. The website has become a central point for customers to conduct business with the Department. The website was redesigned to improve customer contact and transactions.

There is now a self-service component to the Department website that streamlines many features, making conducting WASD on-line account business more user-friendly, as well as convenient to the customer because they can access this information 24-hours-a-day.

Furthermore, informational videos (currently posted on the Miami-Dade County portal and YouTube) promote the County's drinking water, the proper disposal of grease, how to read your meter, and how to check for leaks.

To promote the department's Multi-Year Capital Improvement Program including the Consent Decree and Pump Station Improvement Program, an advertising campaign has been developed to educate the community of the need for upgrades throughout the system as well as the need for funding.

To promote Drinking Water Week, Public Affairs continued the Drinking Water Week Photo contest. Submissions were sent to WASD through the department's social media accounts – Facebook, Twitter, and Instagram – by posting the photo with the hash tag #miamidadewater.

Public Affairs debuted in FY2017, the Value of Water PSA Contest where high school students are encouraged to use creative writing, video production skills, and imagination to submit a 20 to 30 second Public Service Announcement to demonstrate the Value of Water. The 2019 winning PSA was aired County-wide in various movie theaters as part of the department's advertising campaigns during the Summer of 2019.

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 Comprehensive Annual Financial Report for the fiscal year ended September 30, 2018. 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 comprehensive annual 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 36 fiscal years. We believe our current report continues to conform to the Certificate of Achievement program requirements and are submitting it to the GFOA.

ACKNOWLEDGEMENTS

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 Public Affairs Section, and the County's Internal Services Department's Printing and Graphics Section, 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.



Kevin T. Lynskey
Director



Frances G. Morris
Chief Financial Officer



Government Finance Officers Association

**Certificate of
Achievement
for Excellence
in Financial
Reporting**

Presented to

**Miami-Dade Water and Sewer
Department, Florida**

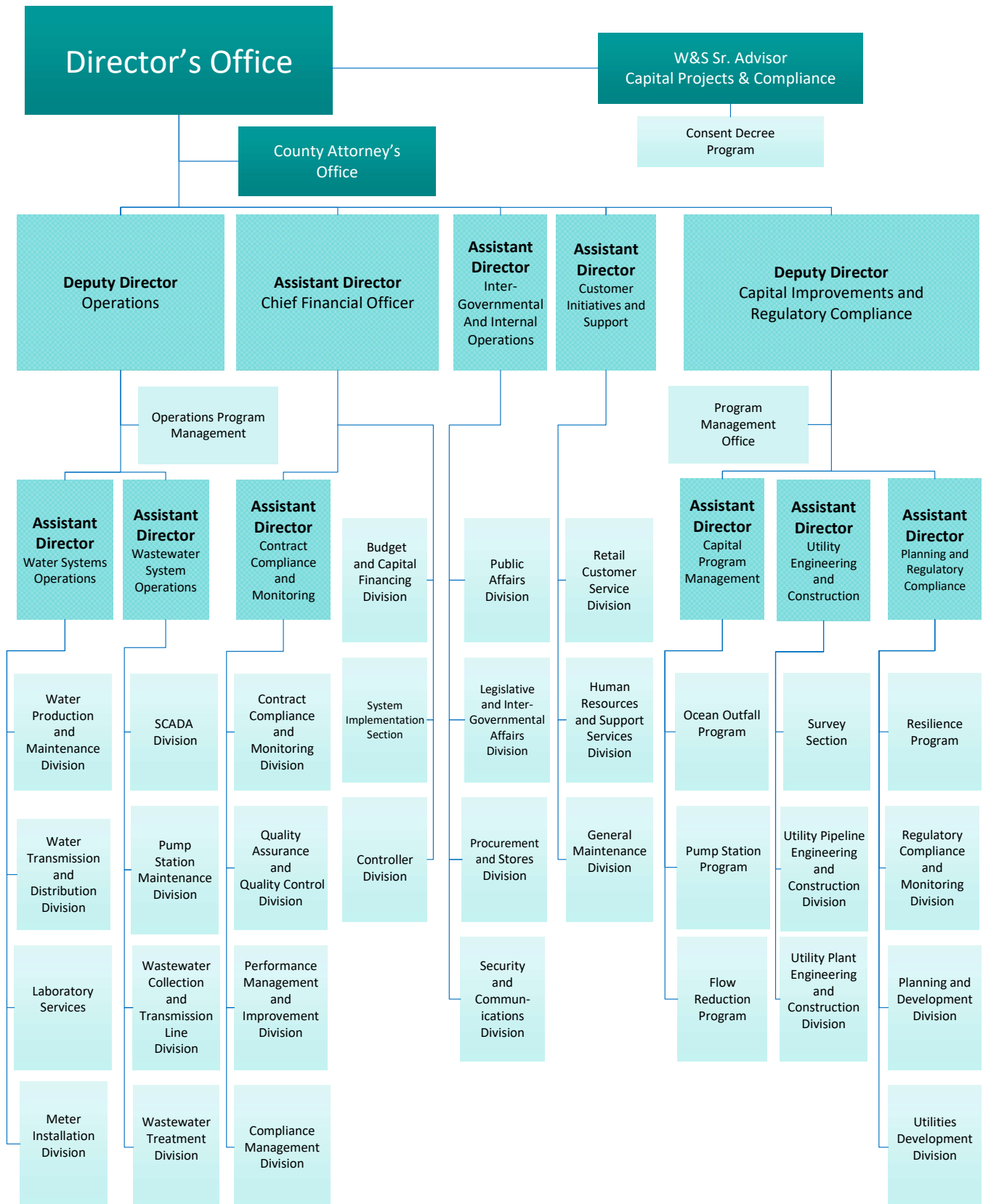
For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

September 30, 2018

Christopher P. Morill

Executive Director/CEO

ORGANIZATIONAL CHART



Financial Section





INDEPENDENT AUDITORS' REPORT

To the Honorable Carlos A. Gimenez, Mayor, and
Honorable Chairperson and Members of the
Board of County Commissioners
Miami-Dade County, Florida

Report on the Financial Statements

We have audited the accompanying financial statements of the Miami-Dade Water and Sewer Department, a department of Miami-Dade County, Florida (the Department), which comprise the statement of net position as of September 30, 2019 and the related statements of revenues, expenses and changes in net position, and cash flows for the fiscal year then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes 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.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements 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 entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.



We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Department as of September 30, 2019, and the changes in its financial position and its cash flows for the fiscal year then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As described in Note 1, the financial statements present only the Department and do not purport to, and do not, present fairly the financial position of Miami-Dade County as of September 30, 2019, the changes in its financial position, or, where applicable, its cash flows for the fiscal year then ended in conformity with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 27-30, 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 schedules of Department contributions on pages 62-64 be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audit of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary and Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Department's financial statements. The information identified in the table of contents as supplementary financial data is presented for purposes of additional analysis and is not a required part of the financial statements.

The supplementary financial data is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. Such information has been subjected to the auditing procedures applied in the audits of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the 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 financial statements as a whole.

The introductory and statistical sections have not been subjected to the auditing procedures applied in the audits of the financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated March 23, 2020 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 the Department's internal control over financial reporting and compliance.

Marcum LLP

Miami, FL
March 23, 2020

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 (Department) for the fiscal year ended September 30, 2019. 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 financial statements include the statement of net position; statement of revenues, expenses, and changes in net position; statement of cash flows; notes to the financial statements; and required supplementary information.

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, 2019 and 2018 is shown on the following page. The unrestricted portion of net position (available to meet ongoing and future obligations of the Department) decreased by \$18.9 million, or 8% in 2019.

Total expenses increased by \$82 million, or by 12.03%, in 2019. The increase is primarily due to an increase in interest expense attributable to the decrease on capitalized interest, higher level of depreciation and improvements in the water purification process.

Total net position as of September 30, 2019 is approximately \$2.6 billion. The Department's total net position increased by \$79.2 million, or by 3.14%.

Management's Discussion & Analysis

(In thousands)

SUMMARY OF NET POSITION

	2019	2018
Current and Other Assets	\$ 1,159,272	\$ 1,023,412
Capital Assets, net	4,799,255	4,525,216
Total Assets	5,958,527	5,548,628
Deferred Outflows of Resources	180,309	186,972
Total Assets and Deferred Outflows of Resources	6,138,836	5,735,600
Current liabilities	343,260	317,519
Long-term Liabilities	3,181,747	2,879,014
Total Liabilities	3,525,007	3,196,533
Deferred Inflows of Resources	13,344	17,779
Total Liabilities and Deferred Inflows of Resources	3,538,351	3,214,312
Net Position		
Net Investment in Capital Assets	1,962,557	1,941,144
Restricted	419,134	342,400
Unrestricted	218,794	237,744
Total Net Position	\$ 2,600,485	\$ 2,521,288

SUMMARY OF CHANGES IN NET POSITION

Water operating revenues	\$ 328,052	\$ 323,744
Wastewater operating revenues	406,399	388,105
Investment income	27,955	1,407
Other nonoperating revenues	50,832	35,491
Total Revenues	813,238	748,747
Water source of supply	13,966	9,578
Water power and pumping	2,224	1,927
Water purification	68,717	62,707
Water transmission and distribution	39,058	35,783
Wastewater collection system	32,481	34,049
Wastewater pumping	47,938	43,499
Wastewater treatment	100,523	100,728
Customer accounting	8,790	10,842
Customer service	24,632	23,945
General and Administrative	103,896	100,250
Depreciation	201,173	199,694
Interest expense	111,875	42,861
Other nonoperating expenses	12,475	19,416
Total Expenses	767,748	685,279
Income before contributions	45,490	63,468
Capital contributions	33,707	28,330
Increase in net position	79,197	91,798
Net position at beginning of year	2,521,288	2,468,480
GASB 75 Restatement ⁽¹⁾	-	(38,990)
Net position at end of year	\$ 2,600,485	\$ 2,521,288

⁽¹⁾ The Department implemented GASB Statement No. 75 in fiscal year 2018. As a result, the Department's beginning net position in fiscal year 2018 was restated to account for the effects of disclosing OPEB costs.

Management's Discussion & Analysis

CAPITAL ASSETS

The following table summarizes the Department's capital assets, net of accumulated depreciation, for the fiscal years ended September 30, 2019 and 2018 (in thousands). Total capital assets increased by \$274.0 million, or 6.1%. This increase was due to an increase in capital additions, net of plant retirements and reclassifications of \$427.0 million, offset by \$153 million net increase in accumulated depreciation. Additional information on changes in capital assets can be found in Note 6 to the financial statements on page 45.

	(In thousands)	
	2019	2018
Land	\$ 79,835	\$ 78,524
Structures and improvements	2,878,366	2,855,093
Equipment	361,956	320,745
Construction work in progress	1,479,098	1,270,854
Total capital assets	<u>\$ 4,799,255</u>	<u>\$ 4,525,216</u>

This year's major expenditures in capital assets included:

Water projects:

- Transmission mains, meters, and services (\$74.5 million)
- Treatment facilities and equipment (\$17.0 million)
- Land (\$5.4 million)
- Transportation equipment (\$3.6 million)
- Construction equipment (\$2.8 million)

Wastewater Projects:

- Treatment facilities (\$192.3 million)
- Force mains (\$61.4 million)
- Pump stations (\$43.9 million)
- Inflow/infiltration/exfiltration (\$16.0 million)
- Gravity mains and services (\$12.7 million)

Budgeted capital expenditures for fiscal year 2020 amount to \$641.4 million and include \$195.9 million in water projects and \$445.5 million in wastewater projects.

LONG-TERM DEBT

Long-term debt outstanding (including current portion) at September 30, 2019 and 2018 is presented in the following table (in thousands). FY2019 shows an increase of \$284.7 million from FY2018.

	(In thousands)	
	2019	2018
Revenue Bonds	\$ 2,548,020	\$ 2,366,854
State Loan Obligations	160,430	156,833
Commercial Paper	300,000	200,000
Total long-term debt	<u>\$ 3,008,450</u>	<u>\$ 2,723,687</u>

Management's Discussion & Analysis

In June of 2019, the Department issued the Water and Sewer System Revenue Bonds, Series 2019 for \$233.0 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.

During FY2019, draws made on state revolving loan commitments, recorded as debt, including capitalized interest, totaled \$16.5 million. Current long-term debt maturities were met in the amount of \$94.8 million. Additional long-term debt details can be found in Note 7 on pages 43-49 of this report.

The Department is required to maintain rates and charges sufficient to meet two 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 1.8 percent. Second, adjusted net operating revenues, after payment of revenue bond debt service, must be at least equal to 1.15 percent of the debt service for the subordinate state loan obligations. The Department met the secondary debt service coverage with a ratio of 5.84 percent.

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,	2019
		(In thousands)
ASSETS		
<i>CURRENT ASSETS:</i>		
Cash and cash equivalents	\$	18,172
Investments		104,677
Accounts receivable (net of allowance for uncollectible accounts of \$15.9 million)		149,283
Inventory of materials and supplies		41,438
Other current assets		1,339
Restricted cash and cash equivalents		238,232
Total current assets		553,141
<i>NONCURRENT RESTRICTED ASSETS:</i>		
Cash and cash equivalents		120,891
Investment derivative instrument		32,526
Investments		432,780
Long-term receivable		4,000
Grants receivable		77
Total restricted assets		590,274
<i>OTHER ASSETS:</i>		
Bond insurance		850
Other charges, net		15,007
Total other assets		15,857
<i>CAPITAL ASSETS:</i>		
Land		79,835
Structures and improvements		5,357,490
Equipment		1,327,875
Utility plant in service before depreciation		6,765,200
Less accumulated depreciation		(3,445,043)
Net utility plant in service		3,320,157
Construction work in progress		1,479,098
Total capital assets		4,799,255
Total noncurrent assets		5,405,386
Total assets		5,958,527
<i>DEFERRED OUTFLOWS OF RESOURCES:</i>		
Loss on refundings		118,296
Outflow related to pension		62,013
Total deferred outflows of resources		180,309
Total assets and deferred outflows of resources	\$	6,138,836

(Continued)

Statement of Net Position

(Continued)	September 30,	2019
		(In thousands)
LIABILITIES		
<i>CURRENT LIABILITIES (PAYABLE FROM UNRESTRICTED CURRENT ASSETS):</i>		
Accounts payable and accrued expenses	\$	63,931
Customer and developer deposits		19,773
Current portion of long-term debt		8,942
Liability for compensated absences		11,042
Other liabilities		1,340
Total current liabilities (payable from unrestricted current assets)		105,028
<i>CURRENT LIABILITIES (PAYABLE FROM RESTRICTED CURRENT ASSETS):</i>		
Accounts payable and accrued expenses		73,766
Retainage payable		26,870
Current portion of long-term debt		80,737
Accrued interest payable		55,815
Liability for self insurance		1,044
Total current liabilities (payable from restricted current assets)		238,232
Total current liabilities		343,260
<i>NONCURRENT LIABILITIES:</i>		
Revenue bonds payable, net		2,473,300
State loan obligations, net		145,471
Commercial Paper		300,000
Liability for self-insurance		2,123
Liability for compensated absences		36,768
Liability for post-employment benefits		49,346
Net pension liability		174,739
Total noncurrent liabilities		3,181,747
Total liabilities		3,525,007
<i>DEFERRED INFLOWS OF RESOURCES:</i>		
Inflow related to pension		11,332
Inflow related to post-employment benefits		2,012
Total deferred inflows of resources		13,344
Total liabilities and deferred inflows of resources		3,538,351
NET POSITION		
Net investment in capital assets		1,962,557
Restricted for:		
Capital projects		260,499
Debt service		158,635
Unrestricted		218,794
Total net position		2,600,485
Total liabilities, deferred inflows of resources and net position	\$	6,138,836

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,

2019

(In thousands)

OPERATING REVENUES:

Water	\$ 328,052
Wastewater	406,399
Total operating revenues	<u>734,451</u>

OPERATING AND MAINTENANCE EXPENSES:

Water source of supply	13,966
Water power and pumping	2,224
Water purification	68,717
Water transmission and distribution	39,058
Wastewater collection system	32,481
Wastewater pumping	47,938
Wastewater treatment	100,523
Customer accounting	8,790
Customer service	24,632
General and administrative	103,896
Total operating and maintenance expenses	<u>442,225</u>

Operating income before depreciation	292,226
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DEPRECIATION EXPENSE

Operating income	<u>91,053</u>
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NON-OPERATING REVENUES (EXPENSES):

Investment income	27,955
Interest expense	(111,875)
Amortization of insurance costs	(9,194)
Customer connection fees	40,589
Other revenues	10,243
Other expenses	<u>(3,281)</u>

Income before contributions	45,490
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Capital contributions	<u>33,707</u>
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Increase in net position	79,197
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Net position at beginning of year	<u>2,521,288</u>
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Net position at end of year	<u><u>\$ 2,600,485</u></u>
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The accompanying notes to financial statements are an integral part of this statement.

Statement of Cash Flows

	For the fiscal year ended September 30,	2019
		(In thousands)
<i>CASH FLOWS FROM OPERATING ACTIVITIES:</i>		
Cash received from customers	\$	786,055
Cash paid to suppliers for goods and services		(189,989)
Cash paid to employees for services		(224,472)
Net cash provided by operating activities		<u>371,594</u>
<i>CASH FLOWS FROM NON-CAPITAL FINANCING ACTIVITIES:</i>		
Loan repayment from County's General Fund		10,000
Long Term Receivable		(4,000)
Net cash provided by non-capital financing activities		<u>6,000</u>
<i>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:</i>		
Proceeds from bond issues, loan agreements and Commercial Paper		611,297
Principal payments - bond, loans		(345,450)
Loss on Refundings		(2,879)
Interest paid		(82,921)
Acquisition and construction of capital assets		(438,499)
Net cash used by capital and related financing activities		<u>(258,452)</u>
<i>CASH FLOWS FROM INVESTING ACTIVITIES:</i>		
Purchase of investment securities		(1,273,040)
Proceeds from sale and maturity of investment securities		1,220,775
Interest on investments		16,268
Net cash used by investing activities		<u>(35,997)</u>
Net increase in cash and cash equivalents, and restricted cash and cash equivalents		83,145
Cash and cash equivalents, including restricted cash and cash equivalents, at beginning of year		<u>294,150</u>
Cash and cash equivalents, including restricted cash and cash equivalents, at end of year	\$	<u><u>377,295</u></u>

Statement of Cash Flows

(Continued)

For the fiscal year ended September 30,

2019
(In thousands)

RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES:

Operating income	\$ 91,053
Adjustments to reconcile operating income to net cash provided by operating activities:	
Depreciation	201,173
Provision for uncollectible accounts	295
Non-operating other, net	58,100
(Increase) decrease in assets and deferred outflows:	
Accounts receivable	88
Inventory of materials and supplies	(1,590)
Other current assets	532
Contracts receivable	170
Other charges	10,856
Deferred outflows related to pension	347
Increase (decrease) in liabilities and deferred inflows:	
Accounts payable and accrued expenses	11,320
Customer and developer deposits	1,022
Accrued interest payable	4,074
Liability for compensated absences	2,563
Other liabilities	(25,542)
Liability for other post-employment benefits	6,056
Liability for self-insurance	(106)
Net pension liability	15,618
Deferred Inflows	(4,435)
Net cash provided by operating activities	<u>\$ 371,594</u>

NONCASH INVESTING, CAPITAL AND FINANCING ACTIVITIES

Property, plant and equipment contributions were received in amounts of \$33.7 million in fiscal year 2019.

The change in the fair value of investments was a \$1.7 million increase in fiscal year 2019.

The change in the fair value of swaps was an \$9.9 million decrease in fiscal year 2019.

RECONCILIATION OF CASH AND CASH EQUIVALENTS AT END OF YEAR

Unrestricted Current Cash and Cash Equivalents	\$ 18,172
Restricted Current Cash and Cash Equivalents	238,232
Restricted Noncurrent Cash and Cash Equivalents	120,891
	<u>\$ 377,295</u>

The accompanying notes to financial statements are an integral part of these statements.

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 comprehensive annual financial report and its financial statements are combined in the County's comprehensive annual 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 2019 were approximately \$51.1 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 \$100,000 are recorded as an asset (threshold determinations are based on aggregate cost). For fiscal year 2019, no separately identifiable intangible assets met the threshold for recording.

Annualized depreciation expense, expressed as a percent of depreciable capital assets, was 3.0% for fiscal year ended September 30, 2019. The Department utilizes the single-unit straight-line depreciation method with normal retirements charged to accumulated depreciation and gain or loss is recognized on retirements. Assets with a change in estimated life are depreciated based on net book value over the remaining life of the asset. Estimated useful lives of capital assets in service are as follows:

	Water System	Wastewater System
	(Years)	
Structures and improvements	25-45	25-45
Equipment	3-20	3-20

Total depreciation expense for the fiscal year ended September 30, 2019 was \$201.1 million.

Notes to Financial Statements

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 market 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 statements of revenues, expenses, and changes in net position.

The Department categorizes its fair value measurements within the fair value hierarchy established by Generally Accepted Accounting Principles. 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.

IMPLEMENTATION OF NEW ACCOUNTING STANDARDS

In November 2016, GASB issued Statement No. 83, *Certain Asset Retirement Obligations*, which is effective for reporting periods beginning after June 15, 2018. This statement addresses accounting and financial reporting for certain asset retirement obligation (AROs). The adoption of GASB 83 in fiscal year 2019 did not have a material effect on the Miami-Dade Water & Sewer Department's basic financial statement and related disclosures.

In April 2018, GASB issued Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*, which is effective for reporting periods beginning after June 15, 2018. This statement defines debt for purposes of disclosure in notes to financial statements and establishes additional financial statement note disclosure requirements related to debt obligations of governments, including direct borrowings. The Department adopted GASB 88 in fiscal year 2019 and the results are reflected in the financial statements, in Note 7. At September 30, 2019 the Department had a direct borrowing line of credit/Commercial Paper of \$400 million dollars.

In June 2018, GASB issued Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*, which is effective for reporting periods beginning after December 15, 2019. This statement establishes accounting requirements for interest cost incurred before the end of a construction period. This statement requires that interest cost before the end of a construction period be recognized as an expense in the period in which the cost is incurred for financial statements prepared using the economic resources measurement focus. The Department early implemented GASB 89 in fiscal year 2019.

Notes to Financial Statements

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

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. 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 carrying amounts of the Department's local deposits as of September 30, 2019 was \$14.9 million. The bank balances at local depositories were \$25.5 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, 2019 was approximately \$15.2 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.

Notes to Financial Statements

The Department's carrying value of cash equivalents and investments include the following as of September 30, 2019:

	Fair Value 2019
<u>Investments Level 2</u>	
Commercial Paper	\$ 278,583
Federal Home Loan Bank	202,771
Federal Home Loan Mortgage Corporation	141,898
Federal Farm Credit Bank	90,180
Federal National Mortgage Association	32,053
Treasury Notes	88,256
Jubilee Issue Bonds	1,968
Total Investments	<u>\$ 835,709</u>
<u>Cash Equivalents</u>	
Interest Bearing	64,774
Total Investments and Cash Equivalents	<u><u>\$ 900,483</u></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 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.

Notes to Financial Statements

The following table summarizes the investments by type and credit ratings at September 30, 2019:

	Credit Ratings 2019
Federal Home Loan Mortgage Corporation	AA+/A-1+
Federal Home Loan Bank	AA+/A-1+
Federal Farm Credit Bank	AA+/A-1+
Federal National Mortgage Association	AA+/A-1+
Treasury Notes	AA+/A-1+
Jubilee Issue Bonds	AA-/A-1+

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, 2019, 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 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, 2019, the following issuers held 5% or more of the investment portfolio:

	% of Portfolio 2019
Commercial Paper	30.94
Federal Home Loan Bank	22.52
Federal Home Loan Mortgage Corporation	15.76
Federal Farm Credit Bank	10.01
Treasury Notes	9.80

The schedule excludes investments issued or explicitly guaranteed by the U.S. government.

Notes to Financial Statements

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, 2019, the Department had the following investments with the weighted average maturity in years.

	Weighted Average in Years 2019
Jubilee Issue Bonds	1.34
Federal Home Loan Mortgage Corporation	1.61
Federal National Mortgage Association	1.11
Federal Farm Credit Bank	1.46
Federal Home Loan Bank	0.94
Treasury Notes	0.98
Commercial Paper	0.92

FOREIGN CURRENCY RISK

The Policy limits the County's foreign currency risk by excluding foreign investments as an investment option.

3. RECEIVABLES

Receivables for fiscal year ended September 30, 2019 was as follows (in thousands):

	2019
Trade Accounts	\$ 153,495
Non-retail accounts	10,544
Grants & Contracts	4,077
Other County funds	1,224
Gross receivables	169,340
Less: allowance for doubtful accounts	(15,981)
Net receivables	\$ 153,359

On September 22, 2011, the Department signed a Memorandum of Understanding (MOU) establishing a \$25 million loan to the County's General Fund as adopted in the fiscal year 2012 Budget Ordinance.

The Department transferred \$25 million cash to the General Fund and booked a receivable from the County. The term of this loan was for five years, no interest, with repayments of \$5 million per year to begin at the end of fiscal year 2014. As of September 30, 2019, the Department received the remaining balance due of \$10 million.

Notes to Financial Statements

4. OTHER CURRENT ASSETS

Other current assets activity for fiscal year ended September 30, 2019 was as follows (in thousands):

	2019
Beginning Balance	\$ 1,871
Prepaid Expenses	(4)
Prepaid Paving	(595)
Prepaid Property Insurance	67
Ending Balance	<u>\$ 1,339</u>

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 2019, no monies were contributed to the City of Hialeah and the Department incurred \$2.4 million in operating expenses. As of September 30, 2019, the Department contributed approximately \$47.8 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, 2019 is represented in the following table (in thousands):

	2019
Debt Service	\$ 217,763
Construction	223,413
Other	143,915
Plant Expansion	101,298
Renewal and Replacement	135,641
Self-Insurance	6,476
Total Restricted Assets	<u>\$ 828,506</u>

Notes to Financial Statements

6. CAPITAL ASSETS

Capital asset activity during fiscal year 2019 was as follows (in thousands):

	Balance		2019		Balance
	9/30/2018	Additions	Deletions		9/30/2019
Capital assets, not being depreciated:					
Land	\$ 78,524	\$ 5,565	\$ (4,255)	\$	79,835
Construction work in progress	1,270,854	452,140	(243,895)		1,479,098
Total capital assets, not being depreciated	1,349,378	457,705	(248,150)		1,558,933
Capital assets, being depreciated:					
Structures and improvements	5,214,460	177,709	(34,679)		5,357,490
Equipment	1,253,429	91,197	(16,751)		1,327,875
Total capital assets, being depreciated	6,467,889	268,906	(51,430)		6,685,365
Less accumulated depreciation:					
Structures and improvements	(2,359,367)	(152,280)	32,521		(2,479,126)
Equipment	(932,684)	(48,894)	15,661		(965,917)
Total accumulated depreciation	(3,292,051)	(201,174)	48,182		(3,445,043)
Total capital assets, being depreciated, net	3,175,838	67,732	(3,248)		3,240,322
Total capital assets, net	\$ 4,525,216	\$ 525,437	\$ (251,398)	\$	4,799,255

7. 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 44. 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, 2019.

Notes to Financial Statements

CHANGES IN LONG-TERM LIABILITIES

A summary of long-term liability activity during fiscal year 2019 is presented in the following table (in thousands):

Description	Outstanding Rate	Balance 9/30/2018	<u>2019</u>		Balance 9/30/2019	Due in 2020
			Additions	Deletions		
<i>Dade County Revenue Bonds</i>						
Series 2008A & B	3.25%-5.25%	\$ 257,695	-	46,350	\$ 211,345	48,810
Series 2008C	4.00%-6.00%	8,065	-	8,065	-	-
Series 2010	2.00%-5.00%	9,720	-	3,135	6,585	3,235
Series 2013A	5.00%	340,265	-	-	340,265	-
Series 2013B	5.00%	152,400	-	-	152,400	-
Series 2015	4.00%-5.00%	481,175	-	13,505	467,670	22,675
Series 2017A	4.00%-5.00%	381,355	-	-	381,355	-
Series 2017B	3.00%-5.00%	548,025	-	-	548,025	-
Series 2019	5.00%	-	233,305	-	233,305	-
Less: Unamortized Discount		-	-	-	-	-
Plus: Unamortized Premium		188,154	29,826	10,910	207,070	-
Total revenue bonds		\$ 2,366,854	\$ 263,131	\$ 81,965	\$ 2,548,020	\$ 74,720
<i>State Loan Obligations</i>						
State Revolving Fund	2.56%-4.17%	\$ 156,833	16,515	12,918	\$ 160,430	14,958
Total State Revolving Funds		\$ 156,833	\$ 16,515	\$ 12,918	\$ 160,430	\$ 14,958
<i>Direct Borrowing:</i>						
<i>Commercial Paper</i>						
Commercial Paper		\$ 200,000	350,000	250,000	\$ 300,000	-
Total long-term debt		\$ 2,723,687	\$ 629,646	\$ 344,883	\$ 3,008,450	\$ 89,678
<i>Other liabilities:</i>						
Compensated Absences		\$ 45,248	2,561	-	\$ 47,809	11,041
Self-Insurance		3,273	-	106	\$ 3,167	1,044
Other post-employment benefits		43,289	6,057	-	\$ 49,346	-
Net pension liability		159,121	15,618	-	\$ 174,739	-
Total long-term liabilities		\$ 2,974,618	\$ 653,882	\$ 344,989	\$ 3,283,511	\$ 101,763

DEBT SERVICE REQUIREMENTS

As of September 30, 2019, the Department's debt service requirements to maturity for their term were as follows (in thousands):

Maturing in Fiscal Year	<u>Revenue Bonds</u>		<u>State Loans</u>		<u>Total</u>		Debt
	Principal	Interest	Principal	Interest	Principal	Interest	
2020	74,720	107,819	14,958	2,840	89,678	110,659	200,337
2021	78,590	103,979	13,403	2,562	91,993	106,541	198,534
2022	82,255	99,929	13,099	2,285	95,354	102,214	197,568
2023	86,510	95,648	10,212	2,051	96,722	97,698	194,420
2024	89,340	91,210	9,184	1,906	98,524	93,116	191,640
2025-2029	456,405	385,854	46,079	7,393	502,484	393,247	895,731
2030-2034	370,630	284,872	45,835	3,088	416,465	287,960	704,425
2035-2039	434,345	194,904	7,660	525	442,005	195,429	637,434
2040-2044	474,330	89,583	-	-	474,330	89,583	563,913
2045-2049	193,825	17,365	-	-	193,825	17,365	211,190
	2,340,950	1,471,163	160,430	22,650	2,501,380	1,493,813	3,995,193
Unamortized Discount & Premium Amounts	207,070	-	-	-	207,070	-	207,070
Total	\$ 2,548,020	\$ 1,471,163	\$ 160,430	\$ 22,650	\$ 2,708,450	\$ 1,493,813	\$ 4,202,263

Notes to Financial Statements

MIAMI-DADE COUNTY WATER AND SEWER SYSTEM REVENUE BONDS, SERIES 2008A

On July 15, 2008, 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 the year 2022 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 2019.

MIAMI-DADE COUNTY WATER AND SEWER SYSTEM REVENUE REFUNDING BONDS, SERIES 2008B

On 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 the year 2022 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 2019.

MIAMI-DADE COUNTY WATER AND SEWER SYSTEM REVENUE REFUNDING BONDS, SERIES 2008C

On December 18, 2008, \$306.8 million of Miami-Dade County Water and Sewer System Revenue Refunding Bonds, Series 2008C were issued to redeem all the County's Water and Sewer System Revenue Refunding Variable Rate Demand Bonds, Series 2005 and to pay issuance and surety costs. The aggregate difference between the refunding and refunded debt resulted in a gain of \$13.8 million. On June 3, 2015, \$481.2 million of Miami-Dade County Water and Sewer System Revenue Refunding Bonds, Series 2015 were issued to advance refund \$255.7 aggregate principal of Series 2008C.

The Series 2008C Refunding Bonds are collateralized by the net operating revenues of the Department and are due serially on October 1 starting in 2009 through the year 2026 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 2019.

MIAMI-DADE COUNTY WATER AND SEWER SYSTEM REVENUE BONDS, SERIES 2010

On March 10, 2010, \$594.3 million of Miami-Dade County Water and Sewer System Revenue Bonds, Series 2010 were issued to finance capital improvements under the Department's Multi-Year Capital plan, repay the Regions Bank Line of Credit and to pay issue costs.

The Series 2010 Revenue Bonds are collateralized by the net operating revenues of the Department and are due serially on October 1 starting in 2010 through the year 2040 with semi-annual interest due on April 1 and October 1 of each year. In December 2017, \$381.3 and \$548.0 million of Miami Dade County Water and Sewer System Refunding bonds, Series 2017A and 2017B, respectively, were issued to advance refund of \$567.6 million aggregate principal of Series 2010.

MIAMI-DADE COUNTY WATER AND SEWER SYSTEM REVENUE BONDS, SERIES 2013A

On August 2, 2013, the County issued \$340.3 million of Miami-Dade County Water and Sewer System Revenue Bonds, Series 2013A to pay cost of constructing and acquiring certain improvements under the Department's Multi-Year Capital Plan, pay capitalized interest on the bonds, make a deposit to the Reserve Account and to pay issue costs.

The Series 2013A Revenue Bonds are collateralized by the net operating revenues of the Department and are due serially on October 1 through the year 2043 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 2019.

Notes to Financial Statements

MIAMI-DADE COUNTY WATER AND SEWER SYSTEM REVENUE REFUNDING BONDS, SERIES 2013B

On August 2, 2013, the County issued \$152.4 million of Miami-Dade County Water and Sewer System Revenue Refunding Bonds, Series 2013B to refund all the County's outstanding Water and Sewer System Revenue Bonds, Series 1999A, to make a deposit to the Reserve Account and pay issue costs.

The Series 2013B Revenue Bonds are collateralized by the net operating revenues of the Department and are due serially on October 1 through the year 2030 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 2019.

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 2026 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 2019.

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 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 2040 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 2019.

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 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 maturing October 1, 2021 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 2019.

MIAMI-DADE COUNTY WATER AND SEWER SYSTEM REVENUE BONDS, SERIES 2019

On January 31, 2019, the Department issued the Water and Sewer System Revenue Bonds, Series 2019 and the Water and Sewer System Revenue Refunding 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.

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, 2019, are detailed in the following table (in thousands).

<u>Loan #</u>	<u>Draws</u>	<u>Closed Out Date</u>
377650	71	8/8/2003
377670	363	10/27/2003
377860	817	9/20/2006
377870	1,058	9/20/2006
37788P	1,102	9/27/2004
37789A	264	8/1/2007
37789L	518	9/26/2006
300010	8,016	8/4/2008
300080	633	4/28/2003
377900	100,649	Active
130200	122	Active
130201	65	Active
130230	16,833	Active
130240	18,436	Active
130260	11,483	Active
	<u>\$ 160,430</u>	

Related payments of principal and interest are due through the year 2038. 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 2019.

COMMERCIAL PAPER- (DIRECT BORROWING)

The Department established a commercial paper (CP) program to provide interim financing for the Department’s capital improvement program. Three series of notes have been issued, as direct borrowing; under the commercial paper program: The Series A CP Notes in an aggregate principal amount not to exceed \$200.0 million and Series B CP Notes in an aggregate principal amount not to exceed \$200.0 million. Resolution No. R-347-16 adopted by the Board on May 17, 2016, authorizes issuance, from time to time, of the Notes in the aggregate principal amount not exceeding \$400.0 million outstanding at any time, maturing no later than the earliest of 270 days or the second business day prior to the expiry of the applicable letter of credit. Barclay’s Capital Inc. and Citigroup Global Markets Inc. have been designated as the initial dealers with respect to the offering and sale of the notes. The letters of credit expire May 17, 2021. As of year end September 30, 2019, of the accessible \$400 million in commercial paper debt, the Department’s outstanding balance is \$300.0 million.

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. Payment of principal and interest on maturing Series A Notes and Series B Notes are supported by an irrevocable transferrable direct-pay letter of credit issued by Barclays Bank PLC and Sumitomo Mitsui Banking Corp respectively.

Notes to Financial Statements

INTEREST RATE SWAP AGREEMENTS

The Department is currently a party to two interest rate swap agreements related to the various revenue bonds issued by the Department. The fair value of a swap is determined annually at September 30th based on an estimated mark-to-mid market assessment.

On June 15, 2008, Merrill Lynch Capital Services, Inc. exercised their option to terminate a fixed to variable rate swap option with a notional amount of \$215 million with respect to the Series 2007 Bonds at no cost to either party.

On August 2, 2013, the Department issued fixed rate bonds refunding the Miami-Dade County Revenue Bonds, Series 1999A. With the refunding of all outstanding obligations of the Series 1999A Bonds by the issuance of the fixed rate debt, the Series 2013B Bonds, the Department recognizes the swap association with the 2013B Bonds.

The Department follows Statement No. 53 of the Governmental Accounting Standards Board, *Accounting and Financial Reporting for Derivative Instruments*, (GASB 53). This statement refers to the recognition, measurement and disclosure of information regarding derivative instruments entered into by the Department and reported at fair value. In accordance with GASB 53, Swap Financial Group, LLC evaluated the Department's swaps to determine whether they are effective hedging derivative instruments. It was determined that both swaps are basis swaps. Given that there is no identified financial risk being hedged by the swaps that can be expressed in terms of exposure to adverse changes in cash flows or fair values, the swaps are treated as investment derivative instruments, and not hedging derivative instruments. Accordingly, the change in fair value at September 30, 2019 was an increase of \$9.9 million. This change in fair value is reflected in the investment income line item of the statement of revenues, expenses, and changes in net position. This increase brings the total fair value to \$32.5 million which is reflected in the Investment Derivative Instrument line item of the noncurrent asset section of the Statement of Net Position.

INTEREST RATE SWAP AGREEMENTS

Below is a recap of each of the interest rate swap agreements that the Department has entered into:

Associated Series of Bonds	Notional Amount	Counterparty	Counterparty Ratings ⁽²⁾	Start Date	Termination Date	Counterparty Payment	County Payment	Fair Value at 09/30/19	Fair Value at 09/30/18
Series 2007	\$200,000,000	Bank of New York Mellon	Guarantor-Aa2, AA-, AA	7/18/2002	10/1/2026	Variable-USD-Libor-BBA+1.465%	Variable-(USD-SIFMA Municipal Swap Index/.0604)	\$ 13,726,253	\$10,742,079
Series 2013B ⁽¹⁾	\$205,070,000	Bank of New York Mellon	Guarantor- Aa2, AA-, AA	3/6/2006	10/1/2029	Variable-(USD-ISDA-Swap Rate) x 90.15% + 1.58%	Variable - (USD-SIFMA Municipal Swap Index/.0604)	\$ 18,799,451	\$11,842,618

⁽¹⁾ The underlying debt for the swap has been replaced with the Series 2013B Bonds.

⁽²⁾ Moody's, S&P, Fitch.

Risk Disclosure

Credit Risk. Because all the swaps rely upon the performance of the third parties who serve as swap counterparties, the Department is exposed to credit risk or the risk that the counterparty fails to perform according to its contractual obligations. The appropriate measurement of this risk at the reporting date is the fair value of the swaps, as shown and labeled fair value on the Interest Rate Swap Agreements chart above. All fair values have been calculated using the mark-to-mid-market method. To mitigate credit risk, the County maintains strict credit standards for swap counterparties. All swap counterparties for longer term swaps are rated at least in the double- A category by both Moody's and Standard & Poor's. To further mitigate credit risk, the Department swap documents require counterparties to post collateral for the Department's benefit if they are downgraded below a designated threshold.

Basis Risk. The Department's swap agreements expose the County to basis risk. Should the relationship between the variable rates the Department receives on the swap fall short of the variable rate on the associated bonds, the expected savings may not be realized. As of September 30, 2019, the Department had no variable rate debt outstanding.

Notes to Financial Statements

Tax Risk. For basis swaps, the interplay between the taxable index and the tax-exempt index may be affected by changes to the marginal tax rates, the elimination of tax preferences or a flat tax. The Department considers these risks to be remote.

Termination Risk. The Department swap agreements do not contain any out-of-ordinary terminating events that would expose it to significant termination risk. In keeping with the market standards, the Department or the counterparty may terminate each swap if the other party fails to perform under the terms of the contract. In addition, the swap documents allow either party to terminate in the event of a significant loss of creditworthiness. If at the time of the termination, a swap has a negative value, the Department would be liable to the counterparty for a payment equal to the fair value of such swap unless the counterparty is the defaulting party. The Department is subject to Bank of New York Mellon's 10-year call provision, whereby Bank of New York Mellon has a one-time termination option.

8. PAYABLES.

Accounts payables and accrued expenses for fiscal year ended September 30, 2019 were as follows (in thousands):

	2019
Other County funds	\$ 21,083
Vendors	23,346
Other governments	22,982
Salaries and benefits	8,156
Contractors	61,900
Other	230
Total payables	<u>\$ 137,697</u>

9. 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 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. A comprehensive annual 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 a Deferred Retirement Option Program (DROP) for eligible employees.

Employees enrolled in the Plan prior to July 1, 2011, vest at six years of creditable service and employees enrolled in the Plan on or after July 1, 2011, vest at eight 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

Notes to Financial Statements

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 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.

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 60 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.

Contributions

The Florida Legislature establishes contribution rates for participating employers and employees. Contributions rates in effect from July 1, 2018 through June 30, 2019 were as follows:

Class	Effective July 1, 2018 through June 30, 2019		Effective July 1, 2019 through June 30, 2020	
	Percentage of Gross Salary		Percentage of Gross Salary	
	Employee	Employer (*)	Employee	Employer (*)
FRS, Regular	3.00	8.26	3.00	8.47
FRS, Elected County Officers	3.00	48.70	3.00	48.82
FRS, Senior Management Service	3.00	24.06	3.00	25.41
FRS, Special Risk Regular	3.00	24.50	3.00	25.48
DROP - Applicable to members from all of the above classes	N/A	14.03	N/A	14.60

*Employer rates include 1.66% for the postemployment Health Insurance Subsidy, and employer rates, other than for DROP participants and 0.06% for administrative costs.

The Department's contributions for FRS totaled \$11.4 million and employee contributions totaled \$4.0 million for the fiscal year ended September 30, 2019.

Notes to Financial Statements

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

At September 30, 2019, the Department reported a liability of \$138.7 million for its proportionate share of the Plan's net pension liability. The net pension liability was measured as of June 30, 2019, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of July 1, 2019.

For the fiscal year ended September 30, 2019, the Department recognized pension expense of \$17.9 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	\$ 8,225	\$ 86
Change of assumptions	35,616	
Net difference between projected and actual earnings on FRS pension plan investments		7,672
Changes in proportion and differences between the Department FRS contributions and proportionate share of contributions	2,527	444
The Department contributions subsequent to measurement date	3,532	
Total	\$ 49,901	\$ 8,201

For fiscal year ended September 30, 2019, the deferred outflows of resources related to pensions of approximately \$3.5 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 subsequent fiscal period. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions would be recognized in pension expense as follows (in thousands):

Fiscal Year Ending September 30,	Deferred Outflows/(Inflows), Net
2020	\$ 13,373
2021	4,607
2022	10,066
2023	7,521
2024	2,068
Thereafter	533
	\$ 38,168

Actuarial Assumptions

The FRS pension actuarial assumptions that determined the total pension liability as of June 30, 2019, were based on the results of an actuarial experience study for the period July 1, 2013 – June 30, 2018.

Inflation	2.60%
Salary Increases	3.25% average, including inflation
Investment Rate of Return	6.90% net of pension plan investment expense

Mortality rates were based on the PUB2010 base tables (varies by member category and sex). Projected generationally with scale MP-2018 details.

Notes to Financial Statements

Long-Term Expected Rate of Return

For fiscal year ended September 30, 2019, 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, 2019, 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 Allocation¹	Annual Arithmetic Return	Compound Annual (Geometric) Return	Standard Deviation
Cash	1.0%	3.3%	3.3%	1.2%
Fixed income	18.0%	4.1%	4.1%	3.5%
Global equity	54.0%	8.0%	6.8%	16.5%
Real estate (property)	10.0%	6.7%	6.1%	11.7%
Private equity	11.0%	11.2%	8.4%	25.8%
Strategic investments	6.0%	5.9%	5.7%	6.7%
	<u>100.0%</u>			
Assumed Inflation - Mean			2.6%	1.7%

¹As outlined in the Plan's investment policy.

Discount Rate

For fiscal year ended September 30, 2019, the discount rate used to measure the net pension liability of the Plan was 6.90 percent. The 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.

Sensitivity of the Department's Proportionate Share of the Net Position Liability to Changes in the Discount Rate

For fiscal year ended September 30, 2019, the following represents the Department's proportionate share of the net pension liability calculated using the discount rate of 6.90 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 (5.90 percent) or one percentage point higher (7.90 percent) than the current rate (in thousands):

	1% Decrease 5.90%	Current Discount Rate 6.90%	1% Increase 7.90%
Miami Dade County's proportionate share of net pension liability allocated to the Department	\$ 239,713	\$ 138,668	\$ 54,281

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 Comprehensive Annual 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 / adjustment for the fiscal year ended September 30, 2019 were allocated as follows (in thousands):

Notes to Financial Statements

FRS PLAN						
Water and Sewer	Percent Allocation	Net Pension Liability	Deferred Outflow of Resources	Deferred Inflow of Resources	Pension Expense/Adjustment	
2019	5.07%	\$ (138,669)	\$ 49,901	\$ (8,201)	\$	17,939

The Retiree Health Insurance Subsidy Program (HIS)

Plan Description

The Retiree Health Insurance Subsidy Program (HIS Plan) is a 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, 2019, eligible retirees and beneficiaries received a monthly HIS payment of \$5 for each year of creditable service completed at the time of retirement, 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, 2019, the HIS contribution for the periods July 1 through June 30, and from July 1, through September 30, was 1.66%. The County contributed 100 percent of its statutorily required contributions for the current year and preceding three years. The HIS Plan contributions are deposited in a separate trust fund from which payments are authorized. HIS Plan benefits are not 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, 2019, the Department's contributions to the HIS Plan totaled \$1.8 million.

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

At September 30, 2019, the Department reported a net pension liability of \$36.0 million for its proportionate share of the HIS Plan's net pension liability. The total pension liability was determined by an actuarial valuation date as of June 30, 2019 and was recalculated and projected to the measurement date of June 30, 2019 using a standard actuarial roll-forward technique.

For the fiscal year ended September 30, 2019, the Department recognized a negative pension expense of \$0.12 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):

Notes to Financial Statements

Description	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 438	\$ 44
Change of assumptions	4,177	2,948
Net difference between projected and actual earnings on HIS pension plan investments	23	
Changes in proportion and differences between the Department HIS contributions and proportionate share of HIS contributions	931	138
The Department contributions subsequent to measurement date	487	
Total	\$ 6,056	\$ 3,130

For fiscal year ended September 30, 2019, the deferred outflows of resources related to pensions of approximately \$0.5 million, 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, 2019. 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):

Fiscal Year Ending September 30,	Deferred Outflows/(Inflows), Net
2020	\$ 820
2021	718
2022	459
2023	(54)
2024	168
Thereafter	327
	\$ 2,438

Actuarial Assumptions

The HIS pension as of July 1, 2018 actuarial valuations were determined using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.60%
Salary Increases	3.25% average, including inflation
Municipal Bond Rates - Investment Rate of Return	3.50%

Mortality rates were based on the Generational RP-2000 with Projection Scale BB tables.

The actuarial assumptions used in the June 30, 2019 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, 2019, the discount rate used to measure the total pension liability for the HIS Plan was 3.50 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.

Notes to Financial Statements

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, 2019, the following represents the Department's proportionate share of the net pension liability calculated using the discount rate of 3.50 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 (2.50 percent) or one percentage point higher (4.50 percent) than the current rate (in thousands):

Miami Dade County's proportionate share of net pension liability allocated to the Department	1% Decrease	Current Discount Rate	1% Increase
	2.50%	3.50%	4.50%
	\$ 41,175	\$ 36,070	\$ 31,817

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 Comprehensive Annual 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, 2019 were allocated as follows (in thousands):

HIS PLAN					
Water and Sewer	Percent Allocation	Net Pension Liability	Deferred Outflow of Resources	Deferred Inflow of Resources	Pension Expense/Adjustment
2019	5.07%	\$ (36,070)	\$ 6,056	\$ (3,130)	\$ (118)

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.

FRS & HIS PLAN					
Water and Sewer	Percent Allocation	Net Pension Liability	Deferred Outflow of Resources	Deferred Inflow of Resources	Pension Expense/Adjustment
2019	5.07%	\$ (174,739)	\$ 55,957	\$ (11,332)	\$ 17,821

FRS – Defined Contribution Pension 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 Comprehensive Annual 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

Notes to Financial Statements

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, 2019, 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, 2019, 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; the member may either transfer the account balance to the FRS Pension Plan when approved for disability retirement to receive guaranteed lifetime monthly benefits under the FRS Pension Plan or remain in the Investment Plan and rely upon that account balance for retirement income.

For the fiscal year ended September 30, 2019, the Department's Investment Plan pension contributions totaled \$1.2 million.

10. 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-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 2019 and 2018 were as follows (in thousands):

	2019	2018
Balance at beginning of year	\$ 3,273	\$ 1,945
Claims and changes in estimates	464	1,749
Less: Payments	(570)	(421)
Balance at end of year	<u>\$ 3,167</u>	<u>\$ 3,273</u>

Notes to Financial Statements

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 \$2.4 million at September 30, 2019 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 \$5.5 million as of September 30, 2019.

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 \$35,000,00 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.

11. CONTRIBUTIONS

Contributions during fiscal year 2019 are presented as follows (in thousands):

	2019
Contributed Facilities:	
Developers	\$33,707

12. 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, 2019 (in thousands):

	2019
General Fund	\$ 20,221
Other County Departments	26,765
Regulatory	22,870
Information Technology	22,224
Internal Services Department	16,332
Solid Waste	13,032

In addition to the payments, the Department had related payables of \$21.1 million at September 30, 2019. The Department also has receivables from other County departments amounting to \$1.2 million at September 30, 2019. 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.

Notes to Financial Statements

13. COMMITMENTS AND CONTINGENCIES

CONSTRUCTION

For fiscal year ended September 30, 2019, the Department had contractual commitments of \$497.0 million.

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.

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, 2019, 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.

14. 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 Florida Retirement System (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-

Notes to Financial Statements

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 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 \$49.3 million was measured as of September 30, 2019 and was determined by an actuarial valuation as of that date.

Actual assumptions and other inputs

The total OPEB liability in the September 30, 2019 actuarial valuation was determined using the following actuarial assumptions and other inputs, applied to all periods included in the measurement unless otherwise specified:

Actual Valuation Date	September 30, 2019
Discount Rate	2.66% per annum (BOY) 4.24% per annum (EOY)
Salary Increase Rate	3.5% per annum
Medical Consumer Price Index Trend	2.0% per annum
Inflation Rate	3.0% per annum
Actuarial Cost Method	Entry Age Normal based on percentage of projected salary
Amortization Method	11.4 years
Healthcare Cost Trend Rates	Medical/Rx 6.5% initial to 4.5% ultimate
Retiree's Share of Benefit-Related Costs	41.1%
Mortality Tables	RP-2014 generational table scaled using MP-18 and applied on a gender

The discount rate was based on a Bond Buyer 20-Bond GO index.

The actuarial assumptions used in the September 30, 2019 valuation were based on the Florida Retirement System's valuation assumptions and Miami Dade County's claims experience for the period of October 1, 2018 to September 30, 2019.

CHANGES IN TOTAL OPEB LIABILITY

Changes in the Department's total OPEB liability for the fiscal year ended September 30, 2019 were as follows (in thousands):

	Total OPEB Liability
Balance at September 30, 2018	\$ 43,289
Changes for the Year:	
Service Cost	795
Interest	1,682
Change in Assumptions	6,225
Benefits Payments	(2,645)
Balance at September 30, 2019	\$ 49,346

The decrease in the total OPEB liability is mostly due to: (1) a change in the actuarial cost method from Projected Unit Credit to Entry Age Normal, (2) a change to the chained CPI, which is used to calculate the excise tax, and (3) resetting the base trend.

Notes to Financial Statements

Sensitivity of the Total OPEB Liability to Changes in the Discount Rate

For fiscal year ended September 30, 2019, 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 (1.66%)	Current Discount Rate (2.66%)	1% Increase (3.66%)
Total OPEB Liability	\$ 54,074	\$ 49,346	\$ 45,206

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

For fiscal year ended September 30, 2019, 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 5.5% initial to 3.5%	Current Trend 6.5% initial to 4.5%	1% increase 7.5% initial to 5.5%
Total OPEB Liability	\$ 44,911	\$ 49,346	\$ 54,795

OPEB EXPENSE, DEFERRED OUTFLOWS OF RESOURCES AND DEFERRED INFLOWS OF RESOURCES TO OPEB

For fiscal year ended September 30, 2019, the Department recognized negative OPEB expense of \$0.24 million. At September 30, 2019, the Department reported 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	\$ -	\$ -
Changes in assumptions / inputs	6,057	2,012
Net difference between projected and actual investments	-	-
Total	\$ 6,057	\$ 2,012

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
2019	\$ 369
2020	369
2021	369
2022	369
2023	369
Thereafter	2,200
Total	\$ 4,045

Notes to Financial Statements

15. SUBSEQUENT EVENTS

On September 20, 2019, the Board of County Commissioners adopted County Budget Ordinance Number 18-102 authorizing an increase to the wastewater base facility charge paid by all wastewater systems users. This wastewater base facility increase will help to stabilize revenues that support fixed-costs. The median monthly bill of the residential customer using 5,236 gallons (7ccf) per month will be \$44.33.

In addition, the County Budget Ordinance decreased the water wholesale rate by \$0.0713 per thousand gallons to \$1.7628 from \$1.8341; the wastewater wholesale rate will remain at \$3.0937 per thousand gallons. Wholesale water and wastewater rates per thousand gallons rates are based on cost recovery.

On November 6, 2019 Miami-Dade County closed on the issuance of Water and Sewer System Revenue Bonds, (Series 2019B) and System Revenue Refunding Bonds, (Taxable Series 2019C) in the amount of \$1,211,950,000. The Delivery date was 11/06/2019, and the last maturity 10/01/2046. The coupon rate is 3.756786% with an Average life (years) of 22.94. The Par Amount is \$1,211,950,000 with a Bond Proceed of \$1,278,630,527. On the day of closing the County wired \$757,161.09 to pay Commercial Paper program interest due and \$600.00 in draw fees due on the maturing Commercial Paper. These funds came from the new operating revenue of the Water and Sewer Department.

On January 24, 2020 Miami-Dade County in conjunction with The Bank of New York Mellon, Swap Financial Group, LLC. terminated the interest rate swap transaction (WASD Series 2007). It was agreed between parties on the Termination Pricing Date that in exchange for terminating the Swap, BNY will make a termination payment to the County in the amount of \$12,630,000 (the Termination Payment) due on January 28, 2020. BNY represented at the time of trading that \$390,000 of execution costs were included in the transaction and the observed mid-market level was \$13,020,000. The funds were received by the county on the due date.

On February 6, 2020 Miami-Dade County in conjunction with The Bank of New York Mellon, Swap Financial Group, LLC. terminated the interest rate swap transaction (WASD Series 2013B). It was agreed between parties on the Termination Pricing Date that in exchange for terminating the Swap, BNY will make a termination payment to the County in the amount of \$18,615,000 (the Termination Payment) due on February 10, 2020. BNY represented at the time of trading that \$700,000 of execution costs were included in the transaction and the observed mid-market level was \$19,315,000. The funds were received by county on the due date.

Required Supplementary Information

MIAMI DADE WATER & SEWER DEPARTMENT SCHEDULE OF CHANGES IN TOTAL OPEB LIABILITY AND RELATED RATIOS (in thousands)

	<u>2019</u>	<u>2018</u>
Total OPEB Liability		
Changes for the Year:		
Service Cost	\$ 795	\$ 821
Interest	1,682	1,540
Change of Benefit Terms	6,225	(2,463)
Benefits Payments	<u>(2,645)</u>	<u>(2,354)</u>
Net Change in Total OPEB Liability	\$ 6,056	\$ (2,456)
Total OPEB Liability - Beginning	<u>\$ 43,290</u>	<u>\$ 45,746</u>
Total OPEB Liability - Ending	<u>\$ 49,346</u>	<u>\$ 43,290</u>
Covered - Employee Payroll	193,094	161,279
Total OPEB Liability as a Percentage of Covered - Employee Payroll	25.6%	26.8%

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:

2019 2.66%
2018 4.24%
2017 3.63%

No assets are accumulated in a trust that meets the criteria in paragraph 4 of GASB Statement No. 75 to pay related benefits. There were no changes to benefit terms during the measurement period. The discount rate is the only applicable change in the actuarial valuation. All other assumptions for this update report are the same as the prior valuation.

Note: Schedule is intended to show information for 10 years. Currently, only data for fiscal years ending September 30, 2018 and 2019 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,	2019	2018	2017	2016	2015	2014
Department's proportion of the County's FRS net pension liability	5.07%	5.26%	5.29%	5.65%	5.93%	5.93%
Department's proportionate share of the County's FRS net pension liability	\$ 138,669	\$ 124,066	\$ 121,477	\$ 111,748	\$ 56,648	\$ 27,104
Department's covered payroll	\$ 185,240	\$ 179,491	\$ 168,335	\$ 168,798	\$ 131,903	\$ 126,610
Department's proportionate share of the County's FRS net pension liability as a percentage of its covered payroll	74.86%	69.12%	72.16%	66.20%	42.95%	21.41%
FRS Plan fiduciary net position as a percentage of the total pension liability	83%	84%	84%	85%	92%	96%

**MIAMI-DADE WATER & SEWER DEPARTMENT
REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF THE DEPARTMENT'S CONTRIBUTIONS-
FLORIDA RETIREMENT SYSTEM PENSION PLAN
(dollars in thousands)**

SEPTEMBER 30th,	2019	2018	2017	2016	2015	2014
Contractually required FRS contribution	\$ 12,485	\$ 10,637	\$ 10,691	\$ 10,534	\$ 10,693	\$ 9,730
FRS contribution in relation to the contractually required contribution	12,485	10,637	10,691	10,534	10,693	9,730
FRS contribution deficiency (excess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Department's covered payroll	\$ 186,248	\$ 183,327	\$ 169,397	\$ 174,697	\$ 141,267	\$ 126,719
FRS contribution as a percentage of covered payroll	6.70%	5.80%	6.31%	6.03%	7.57%	7.68%

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,	2019	2018	2017	2016	2015	2014
Department's proportion of the County's HIS net pension liability	5.07%	5.26%	5.29%	5.65%	5.93%	5.93%
Department's proportionate share of the County's HIS net pension liability	\$ 36,069	\$ 35,055	\$ 35,033	\$ 42,010	\$ 37,204	\$ 33,960
Department's covered payroll	\$ 148,448	\$ 143,553	\$ 134,720	\$ 134,855	\$ 164,213	\$ 156,448
Department's proportionate share of the County's HIS net pension liability as a percentage of its covered payroll	24.30%	24.42%	26.00%	31.15%	22.66%	21.71%
HIS Plan fiduciary net position as a percentage of the total pension liability	2.63%	2.15%	1.64%	0.97%	0.50%	0.99%

**MIAMI-DADE WATER & SEWER DEPARTMENT
REQUIRED SUPPLEMENTARY INFORMATION
SCHEDULE OF THE DEPARTMENT'S CONTRIBUTIONS-
HEALTH INSURANCE SUBSIDY PENSION PLAN
(dollars in thousands)**

SEPTEMBER 30th,	2019	2018	2017	2016	2015	2014
Contractually required HIS contribution	\$ 1,790	\$ 1,725	\$ 1,734	\$ 1,770	\$ 1,394	\$ 1,244
HIS contribution in relation to the contractually required contribution	1,790	1,725	1,734	1,770	1,394	1,244
HIS contribution deficiency (excess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Department's covered payroll	\$ 148,970	\$ 146,648	\$ 135,685	\$ 139,403	\$ 162,174	\$ 156,889
HIS contribution as a percentage of covered payroll	1.20%	1.18%	1.28%	1.27%	0.86%	0.79%

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, 2019
(In thousands)

ASSETS

CURRENT ASSETS:

Cash and cash equivalents	\$ 139
Investments	54,976
Accounts receivable (net of allowance for uncollectible accounts of \$7.3 million)	61,391
Inventory of materials and supplies	16,275
Other current assets	1,339
Restricted cash and cash equivalents	52,120
Total current assets	<u>186,240</u>

NONCURRENT RESTRICTED ASSETS:

Cash and cash equivalents	109,636
Investment derivative instrument	16,263
Investments	162,985
Grants receivable	77
Total restricted assets	<u>288,961</u>

OTHER ASSETS:

Bond insurance	159
Other charges, net	2,803
Total other assets	<u>2,962</u>

CAPITAL ASSETS:

Land	28,483
Structures and improvements	2,069,896
Equipment	385,334
Utility plant in service before depreciation	2,483,713
Less accumulated depreciation	(1,202,595)
Net utility plant in service	1,281,118
Construction work in progress	361,035
Total capital assets	<u>1,642,153</u>

Total noncurrent assets 1,934,076

Total assets 2,120,316

DEFERRED OUTFLOWS OF RESOURCES:

Loss on refundings	22,746
Outflow related to pension	32,025
Total deferred outflows of resources	<u>54,771</u>

Total assets and deferred outflows of resources \$ 2,175,087

(Continued)

Water System

SCHEDULE OF NET POSITION

(Continued)

September 30,

2019

(In thousands)

LIABILITIES

CURRENT LIABILITIES (PAYABLE FROM UNRESTRICTED CURRENT ASSETS):

Accounts payable and accrued expenses	\$ 22,943
Customer and developer deposits	12,736
Current portion of long-term debt	4,430
Liability for compensated absences	2,776
Other liabilities	1,265
Total current liabilities (payable from unrestricted current assets)	<u>44,150</u>

CURRENT LIABILITIES (PAYABLE FROM RESTRICTED CURRENT ASSETS):

Accounts payable and accrued expenses	16,545
Retainage payable	5,689
Current portion of long-term debt	15,990
Accrued interest payable	12,851
Liability for self insurance	1,044
Total current liabilities (payable from restricted current assets)	<u>52,119</u>
Total current liabilities	<u>96,269</u>

NONCURRENT LIABILITIES:

Revenue bonds payable, net	591,022
State loan obligations, net	30,479
Commercial paper	60,000
Liability for self-insurance	2,123
Liability for compensated absences	14,918
Liability for post-employment benefits	49,346
Net pension liability	83,325
Total noncurrent liabilities	<u>831,213</u>
Total liabilities	<u>927,482</u>

DEFERRED INFLOWS OF RESOURCES:

Inflow related to pension	6,136
Inflow related to post-employment benefits	2,012
Total deferred inflows of resources	<u>8,148</u>
Total liabilities and deferred inflows of resources	<u>935,630</u>

NET POSITION

Net investment in capital assets	989,270
Restricted for:	
Capital projects	104,865
Debt service	37,016
Unrestricted	108,306
Total net position	<u>1,239,457</u>
Total liabilities, deferred inflows of resources and net position	<u>\$ 2,175,087</u>

Water System

SCHEDULE OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

For the fiscal year ended September 30,	<u>2019</u>
	(In thousands)
<i>OPERATING REVENUES:</i>	
Retail	\$ 277,305
Wholesale	34,810
Other Revenues	15,937
Total operating revenues	<u>328,052</u>
<i>OPERATING AND MAINTENANCE EXPENSES:</i>	
Source of supply	13,966
Power and pumping	2,224
Treatment	68,717
Transmission and distribution	39,058
Customer accounting	5,056
Customer service	13,794
General and administrative	46,754
Total operating and maintenance expenses	<u>189,569</u>
Operating income before depreciation	138,483
<i>DEPRECIATION EXPENSE</i>	<u>73,078</u>
Operating income	65,405
<i>NON-OPERATING REVENUES (EXPENSES):</i>	
Investment income	12,536
Interest expense	(26,497)
Amortization of insurance costs	(1,940)
Customer connection fees	7,869
Other revenues	3,170
Other expenses	(1,939)
Income before contributions	58,604
Capital contributions	21,115
Transfer (to) Wastewater System	<u>(58,444)</u>
Increase in net position	21,275
Net position at beginning of year	<u>1,218,182</u>
Net position at end of year	<u><u>\$ 1,239,457</u></u>

Water System

SCHEDULE OF CASH FLOWS

For the fiscal year ended September 30,

2019
(In thousands)

CASH FLOWS FROM OPERATING ACTIVITIES:

Cash received from customers	\$ 344,090
Cash paid to suppliers for goods and services	(81,519)
Cash paid to employees for services	(95,403)
Transfer to Wastewater System	(58,444)
Net cash provided by operating activities	<u>108,724</u>

CASH FLOWS FROM NON-CAPITAL FINANCING ACTIVITIES:

Loan repayment from County's General Fund	<u>10,000</u>
Net cash provided by non-capital financing activities	<u>10,000</u>

CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:

Proceeds from bond issues, loan agreements and Commercial Paper	133,185
Principal payments - bond and loans	(69,069)
Loss on Refundings	(740)
Interest paid	(25,657)
Acquisition and construction of capital assets	(112,769)
Net cash used by capital and related financing activities	<u>(75,050)</u>

CASH FLOWS FROM INVESTING ACTIVITIES:

Purchase of investment securities	(353,337)
Proceeds from sale and maturity of investment securities	314,738
Interest on investments	51,192
Net cash provided by investing activities	<u>12,593</u>

Net increase in cash and cash equivalents	56,267
Cash and cash equivalents at beginning of year	<u>105,628</u>

Cash and cash equivalents at end of year	<u><u>\$ 161,895</u></u>
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Water System

SCHEDULE OF CASH FLOWS

(Continued)	For the fiscal year ended September 30,	<u>2019</u>
		(In thousands)
<i>RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES:</i>		
Operating income	\$	65,405
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation		73,078
Provision for uncollectible accounts		299
Non-operating other, net		19,336
Transfer to/from reserves		(58,444)
(Increase) decrease in assets and deferred outflows:		
Accounts Receivable		4,286
Inventory of materials and supplies		17
Other current assets		532
Contracts receivable		170
Other charges		1,072
Deferred outflows related to pension		(3,175)
Increase (decrease) in liabilities and deferred inflows:		
Accounts payable and accrued expenses		4,863
Customer and developer deposits		736
Accrued interest payable		(4,180)
Liability for compensated absences		974
Other liabilities		(7,098)
Liability for other post-employment benefits		6,056
Liability for self-insurance		(106)
Net pension liability		7,028
Deferred inflows related to pension and OPEB		(2,125)
Net cash provided by operating activities	\$	<u>108,724</u>

NONCASH INVESTING, CAPITAL AND FINANCING ACTIVITIES

Property, plant and equipment contributions were received in amounts of \$21.1 million in fiscal year 2019.

The change in the fair value of investments was a \$.7 million increase in fiscal year 2019.

The change in the fair value of swaps was a \$4.9 million decrease in fiscal year 2019.

RECONCILIATION OF CASH AND CASH EQUIVALENTS AT END OF YEAR

Unrestricted current cash and cash equivalents	\$	139
Restricted current cash and cash equivalents		52,120
Restricted noncurrent cash and cash equivalents		109,636
Total cash and cash equivalents at end of year	\$	<u>161,895</u>

Water System

SCHEDULE OF OPERATING AND MAINTENANCE EXPENSES

Budget and Actual
For the fiscal year ended September 30, 2019
(In thousands)

	<u>Budget</u>	<u>Actuals</u>	<u>Variance under (over)</u>
Source of Supply	\$ 16,068	\$ 13,966	\$ 2,102
Power and pumping	1,810	2,224	(414)
Treatment	70,060	68,717	1,343
Transmission and distribution	41,914	39,058	2,856
Customer accounting	5,099	5,056	43
Customer service	14,716	13,794	922
General and administrative	51,634	46,754	4,880
Totals	<u>\$ 201,301</u>	<u>\$ 189,569</u>	<u>\$ 11,732</u>

Wastewater System

SCHEDULE OF NET POSITION

	September 30,	<u>2019</u>
		(In thousands)
ASSETS		
<i>CURRENT ASSETS:</i>		
Cash and cash equivalents	\$	18,033
Investments		49,701
Accounts receivable		
(net of allowance for uncollectible accounts of \$8.6 million)		87,892
Inventory of materials and supplies		25,163
Restricted cash and cash equivalents		<u>186,112</u>
Total current assets		<u>366,901</u>
 <i>NONCURRENT RESTRICTED ASSETS:</i>		
Cash and cash equivalents		11,255
Investment derivative instrument		16,263
Investments		269,795
Long-term receivable		<u>4,000</u>
Total restricted assets		<u>301,313</u>
 <i>OTHER ASSETS:</i>		
Bond insurance		691
Other charges, net		<u>12,204</u>
Total other assets		<u>12,895</u>
 <i>CAPITAL ASSETS:</i>		
Land		51,352
Structures and improvements		3,287,594
Equipment		<u>942,541</u>
Utility plant in service before depreciation		4,281,487
Less accumulated depreciation		<u>(2,242,448)</u>
Net utility plant in service		2,039,039
Construction work in progress		<u>1,118,063</u>
Total capital assets		<u>3,157,102</u>
 Total noncurrent assets		<u>3,471,310</u>
 Total assets		<u>3,838,211</u>
 <i>DEFERRED OUTFLOWS OF RESOURCES:</i>		
Loss on refundings		95,550
Outflow related to pension		<u>29,988</u>
Total deferred outflows of resources		<u>125,538</u>
Total assets and deferred outflows of resources	\$	<u><u>3,963,749</u></u>

(Continued)

Wastewater System

SCHEDULE OF NET POSITION

(Continued)	September 30,	<u>2019</u>
		(In thousands)
LIABILITIES		
<i>CURRENT LIABILITIES (PAYABLE FROM UNRESTRICTED CURRENT ASSETS):</i>		
Accounts payable and accrued expenses	\$	40,988
Customer and developer deposits		7,037
Current portion of long-term debt		4,512
Liability for compensated absences		8,266
Other liabilities		75
Total current liabilities (payable from unrestricted current assets)		<u>60,878</u>
<i>CURRENT LIABILITIES (PAYABLE FROM RESTRICTED CURRENT ASSETS):</i>		
Accounts payable and accrued expenses		57,221
Retainage payable		21,181
Current portion of long-term debt		64,747
Accrued interest payable		42,964
Total current liabilities (payable from restricted current assets)		<u>186,113</u>
Total current liabilities		<u>246,991</u>
<i>NONCURRENT LIABILITIES:</i>		
Revenue bonds payable, net		1,882,278
State loan obligations, net		114,992
Commercial Paper		240,000
Liability for compensated absences		21,850
Net pension liability		91,414
Total noncurrent liabilities		<u>2,350,534</u>
Total liabilities		<u>2,597,525</u>
<i>DEFERRED INFLOWS OF RESOURCES:</i>		
Inflow related to pension		5,196
Total deferred inflows of resources		<u>5,196</u>
Total liabilities and deferred inflows of resources		<u>2,602,721</u>
NET POSITION		
Net investment in capital assets		973,287
Restricted for:		
Capital projects		155,634
Debt service		121,619
Unrestricted		110,488
Total net position		<u>1,361,028</u>
Total liabilities, deferred Inflows of resources and net position	\$	<u>3,963,749</u>

Wastewater System

SCHEDULE OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

For the fiscal year ended September 30,	2019
	(In thousands)
<i>OPERATING REVENUES:</i>	
Retail	\$ 308,853
Wholesale	83,450
Other Revenues	14,096
Total operating revenues	<u>406,399</u>
<i>OPERATING AND MAINTENANCE EXPENSES:</i>	
Collection system	32,481
Pumping	47,938
Treatment	100,523
Customer accounting	3,734
Customer service	10,838
General and administrative	57,142
Total operating and maintenance expenses	<u>252,656</u>
Operating income before depreciation	153,743
<i>DEPRECIATION EXPENSE</i>	<u>128,095</u>
Operating Income	25,648
<i>NON-OPERATING REVENUES (EXPENSES):</i>	
Investment income	15,419
Interest expense	(85,378)
Amortization of insurance costs	(7,254)
Customer connection fees	32,720
Other revenues	7,073
Other expenses	(1,342)
Income before contributions	(13,114)
Capital contributions	12,592
Transfer from Water System	58,444
Increase in net position	57,922
Net position at beginning of year	<u>1,303,106</u>
Net position at end of year	<u><u>\$ 1,361,028</u></u>

Wastewater System

SCHEDULE OF CASH FLOWS

For the fiscal year ended September 30,	<u>2019</u>
	(In thousands)
<i>CASH FLOWS FROM OPERATING ACTIVITIES:</i>	
Cash received from customers	\$ 441,965
Cash paid to suppliers for goods and services	(108,470)
Cash paid to employees for services	(129,069)
Transfer from Water System	58,444
Net cash provided by operating activities	<u>262,870</u>
 <i>CASH FLOWS FROM NON-CAPITAL FINANCING ACTIVITIES:</i>	
Long Term Receivable	(4,000)
Net cash used by non-capital financing activities	<u>(4,000)</u>
 <i>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:</i>	
Proceeds from bond issues, loan agreements and Commercial Paper	478,112
Principal payments - bond and loans	(276,381)
Loss on Refundings	(2,139)
Interest paid	(57,264)
Acquisition and construction of capital assets	(325,730)
Net cash used by capital and related financing activities	<u>(183,402)</u>
 <i>CASH FLOWS FROM INVESTING ACTIVITIES:</i>	
Purchase of investment securities	(919,703)
Proceeds from sale and maturity of investment securities	906,037
Interest on investments	(34,924)
Net cash used by investing activities	<u>(48,590)</u>
 Net increase in cash and cash equivalents	26,878
Cash and cash equivalents at beginning of year	<u>188,522</u>
 Cash and cash equivalents at end of year	<u><u>\$ 215,400</u></u>

Wastewater System

SCHEDULE OF CASH FLOWS

(Continued)

For the fiscal year ended September 30,

2019

(In thousands)

RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES:

Operating income	\$ 25,648
Adjustments to reconcile operating income to net cash provided by operating activities:	
Depreciation	128,095
Provision for uncollectible accounts	(4)
Non-operating other, net	38,764
Transfer to/from reserves	58,444
(Increase) decrease in assets and deferred outflows:	
Accounts Receivable	(4,198)
Inventory of materials and supplies	(1,607)
Other charges	9,784
Deferred outflows related to pension	3,522
Increase (decrease) in liabilities and deferred inflows:	
Accounts payable and accrued expenses	6,457
Customer and developer deposits	286
Accrued interest payable	8,254
Liability for compensated absences	1,589
Other liabilities	(18,444)
Net pension liability	8,590
Deferred Inflows related to pension	(2,310)
Net cash provided by operating activities	<u>\$ 262,870</u>

NONCASH INVESTING, CAPITAL AND FINANCING ACTIVITIES

Property, plant and equipment contributions were received in amounts of \$12.6 million in fiscal year 2019.

The change in the fair value of investments was a \$0.9 million decrease in fiscal year 2019.

The change in the fair value of swaps was \$5.0 million decrease in fiscal year 2019.

RECONCILIATION OF CASH AND CASH EQUIVALENTS AT END OF YEAR

Unrestricted current cash and cash equivalents	\$ 18,033
Restricted current cash and cash equivalents	186,112
Restricted noncurrent cash and cash equivalents	11,255
Total cash and cash equivalents at end of year	<u>\$ 215,400</u>

Wastewater System

SCHEDULE OF OPERATING AND MAINTENANCE EXPENSES

Budget and Actual
For the fiscal year ended September 30, 2019
(In thousands)

	<u>Budget</u>	<u>Actuals</u>	<u>Variance under (over)</u>
Collection system	\$ 35,636	\$ 32,481	\$ 3,155
Pumping	42,963	47,938	(4,975)
Treatment	110,368	100,523	9,845
Customer accounting	4,113	3,734	379
Customer service	11,102	10,838	264
General and administrative	63,109	57,142	5,967
Totals	<u>\$ 267,291</u>	<u>\$ 252,656</u>	<u>\$ 14,635</u>

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Statistical Section



Statistical Section

This part of the Department's comprehensive annual 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 81-84, 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 85-87, contain information to help the reader assess the factors affecting the Department's ability to generate revenue.

Debt Capacity

These schedules, found on pages 88-89, 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 90-96, 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 97-99, 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)	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
<i>COMBINED WATER AND WASTEWATER SYSTEMS:</i>										
Net investment in capital assets	\$1,962,557	\$1,941,144	\$1,851,041	\$1,730,528	\$1,590,653	\$1,542,930	\$1,474,197	\$1,567,455	\$1,530,096	\$1,535,755
Restricted	419,134	342,400	356,540	330,257	340,066	321,122	273,623	223,887	243,292	279,576
Unrestricted	218,794	237,744	260,899	266,833	266,597	355,635	449,515	431,933	413,233	379,683
Total net position	\$2,600,485	\$2,521,288	\$2,468,480	\$2,327,618	\$2,197,316	\$2,219,687	\$2,197,335	\$2,223,275	\$2,186,621	\$2,195,014
<i>WATER SYSTEM</i>										
Net investment in capital assets	\$989,270	\$986,573	\$975,646	\$965,055	\$1,013,229	\$988,585	\$943,883	\$971,727	\$947,539	\$936,355
Restricted	141,881	108,344	111,646	80,115	80,841	93,302	96,841	73,822	84,993	110,491
Unrestricted	108,306	123,265	139,835	137,622	146,403	189,084	252,612	222,278	214,739	193,724
Total net position	\$1,239,457	\$1,218,182	\$1,227,127	\$1,182,792	\$1,240,473	\$1,270,971	\$1,293,336	\$1,267,827	\$1,247,271	\$1,240,570
<i>WASTEWATER SYSTEM</i>										
Net investment in capital assets	\$973,287	\$954,571	\$875,395	\$765,473	\$577,424	\$554,345	\$530,314	\$595,728	\$582,557	\$599,400
Restricted	277,253	234,056	244,894	250,142	259,225	227,820	176,782	150,065	158,298	169,086
Unrestricted	110,488	114,479	121,064	129,211	120,194	166,551	196,903	209,655	198,495	185,958
Total net position	\$1,361,028	\$1,303,106	\$1,241,353	\$1,144,826	\$956,843	\$948,716	\$903,999	\$955,448	\$939,350	\$954,444

Combined Water and Wastewater Systems

SCHEDULE OF REVENUE AND EXPENSES - LAST TEN FISCAL YEARS

(in thousands)	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
OPERATING REVENUES:										
Retail	\$ 586,158	\$ 563,839	\$ 554,546	\$ 520,146	\$ 486,201	\$ 465,057	\$ 437,778	\$ 429,003	\$ 428,832	\$ 393,420
Wholesale	\$ 118,260	117,735	123,854	110,951	98,810	85,771	88,754	82,710	90,671	84,489
Other	\$ 30,033	30,275	28,932	28,685	28,305	28,022	21,876	24,589	26,157	40,486
Total operating revenues	734,451	711,849	707,332	659,782	613,316	578,850	548,408	536,302	545,660	518,395
OPERATING AND MAINTENANCE EXPENSES:										
Source of supply	\$ 13,966	9,578	14,193	14,284	10,931	10,788	10,874	10,705	13,558	12,354
Collection system	32,481	34,049	33,457	26,866	27,634	22,500	21,638	20,150	20,385	21,523
Pumping	50,162	45,426	44,519	41,532	39,384	37,355	36,508	35,883	32,892	31,919
Treatment	169,240	163,435	152,734	160,186	156,229	145,513	139,555	134,178	134,650	130,010
Transmission and distribution	39,058	35,783	31,228	30,554	30,892	28,844	27,882	27,423	27,929	28,459
Customer accounting and service	33,422	34,787	34,160	30,239	28,068	23,180	25,155	23,574	24,231	28,003
General and administrative	103,896	100,250	88,239	84,827	75,769	81,662	78,552	73,164	79,165	97,364
Total operating and maintenance expense	442,225	423,308	398,530	388,488	368,907	349,842	340,164	325,077	332,810	349,632
Operating income before depreciation	292,226	288,541	308,802	271,294	244,409	229,008	208,244	211,225	212,850	168,763
DEPRECIATION EXPENSE	201,173	199,694	187,921	184,424	188,909	183,557	177,570	163,315	159,158	160,469
Operating income (loss)	91,053	88,847	120,881	86,870	55,500	45,451	30,674	47,910	53,692	8,294
NON-OPERATING REVENUES(EXPENSES):										
Investment income (loss)	27,954	1,407	(9,649)	(4,853)	20,557	3,933	(18,351)	21,797	6,193	18,160
Interest expense	(111,875)	(42,861)	(25,978)	(46,369)	(75,728)	(89,678)	(78,538)	(85,478)	(85,511)	(71,229)
Other income	38,358	16,075	20,499	41,043	36,186	42,670	28,572	24,269	15,897	18,588
Income (loss) before contributions and transfers	45,490	63,468	105,753	76,691	36,515	2,376	(37,643)	8,498	(9,729)	(26,187)
Capital contributions	33,707	28,330	35,109	53,611	46,692	35,810	19,459	28,156	33,556	30,487
Transfers to County's General Fund	-	-	-	-	-	-	-	-	(32,220)	-
Increase (decrease) in net position	\$ 79,197	\$ 91,798	\$ 140,862	\$ 130,302	\$ 83,207	\$ 38,186	\$ (18,184)	\$ 36,654	\$ (8,393)	\$ 4,300

Water System

SCHEDULE OF REVENUE AND EXPENSES - LAST TEN FISCAL YEARS

(in thousands)	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
<i>OPERATING REVENUES:</i>										
Retail	\$ 277,305	\$ 268,275	\$ 265,636	\$ 247,088	\$ 233,464	\$ 219,880	\$ 207,117	\$ 202,633	\$ 202,189	\$ 193,632
Wholesale	34,810	39,310	34,916	28,572	37,008	28,815	29,210	35,330	37,990	38,554
Other	15,937	16,159	15,493	15,383	14,966	14,908	11,985	13,167	13,517	12,936
Total operating revenues	328,052	323,744	316,045	291,043	285,438	263,603	248,312	251,130	253,696	245,122
<i>OPERATING AND MAINTENANCE EXPENSES:</i>										
Source of supply	13,966	9,578	14,193	14,284	10,931	10,788	10,874	10,705	13,558	12,354
Pumping	2,224	1,927	1,976	1,982	2,054	1,911	1,816	1,798	1,942	2,003
Treatment	68,717	62,707	60,387	68,272	63,921	58,741	60,188	59,811	62,138	61,967
Transmission and distribution	39,058	35,783	31,228	30,554	30,892	28,844	27,882	27,423	27,929	28,459
Customer accounting and service	18,850	19,300	19,066	16,859	15,651	13,025	13,908	12,841	13,325	15,602
General and administrative	46,754	45,077	39,683	37,983	34,078	36,711	35,292	32,936	35,644	43,860
Total operating and maintenance expenses	189,569	174,372	166,533	169,934	157,527	150,020	149,960	145,514	154,536	164,245
Operating income before depreciation	138,483	149,372	149,512	121,109	127,911	113,583	98,352	105,616	99,160	80,877
DEPRECIATION EXPENSE	73,078	74,858	74,142	72,180	66,642	65,456	69,581	61,158	61,122	62,604
Operating income (loss)	65,405	74,514	75,370	48,929	61,269	48,127	28,771	44,458	38,038	18,273
<i>NON-OPERATING REVENUES(EXPENSES):</i>										
Investment income (loss)	12,535	5	(5,178)	(2,650)	10,127	1,769	(8,574)	10,980	3,061	8,383
Interest expense	(26,497)	(16,158)	(17,434)	(16,290)	(19,169)	(21,731)	(14,203)	(17,437)	(18,932)	(14,088)
Other income	7,161	7,161	2,463	11,843	9,812	13,090	6,461	10,024	8,602	8,374
Income (loss) before contributions and transfers	58,604	65,522	55,221	41,832	62,039	41,255	12,455	48,025	30,769	20,942
Capital contributions	21,115	16,895	21,632	28,860	27,918	21,370	11,490	15,749	24,108	18,245
Transfers to County's General Fund	-	-	-	-	-	-	-	-	(14,499)	-
Transfer (to) from Wastewater System	(58,444)	(71,867)	(32,520)	(128,373)	(67,666)	(80,939)	1,564	(43,218)	(33,677)	(1,333)
Increase (decrease) in net position	\$ 21,275	\$ 10,550	\$ 44,333	\$ (57,681)	\$ 22,291	\$ (18,314)	\$ 25,509	\$ 20,556	\$ 6,701	\$ 37,854

Wastewater System

SCHEDULE OF REVENUE AND EXPENSES - LAST TEN FISCAL YEARS

(in thousands)	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
OPERATING REVENUES:										
Retail	\$ 308,853	\$ 295,564	\$ 288,910	\$ 273,058	\$ 252,737	\$ 245,167	\$ 230,661	\$ 226,370	\$ 226,643	\$ 215,945
Wholesale	83,450	78,425	88,938	82,380	61,802	56,956	59,544	47,380	52,681	45,936
Other	14,096	14,116	13,439	13,301	13,339	13,114	9,891	11,422	12,640	11,392
Total operating revenues	406,399	388,105	391,287	368,739	327,878	315,237	300,096	285,172	291,964	273,273
OPERATING AND MAINTENANCE EXPENSES:										
Collection system	32,481	34,049	33,457	26,866	27,634	22,500	21,638	20,150	20,385	21,523
Pumping	47,938	43,499	42,543	39,549	37,330	35,444	34,692	34,085	30,950	29,916
Treatment	100,523	100,728	92,347	91,915	92,308	86,772	79,367	74,367	72,512	68,043
Customer accounting and service	14,572	15,487	15,094	13,380	12,417	10,155	11,247	10,733	10,906	12,401
General and administrative	57,142	55,173	48,556	46,844	41,691	44,951	43,260	40,228	43,521	53,504
Total operating and maintenance expenses	252,656	248,936	231,997	218,554	211,380	199,822	190,204	179,563	178,274	185,387
Operating income before depreciation	153,743	139,169	159,290	150,185	116,498	115,415	109,892	105,609	113,690	87,886
DEPRECIATION EXPENSE	128,095	124,836	113,779	112,244	122,267	118,101	107,989	102,157	98,036	97,865
Operating income (loss)	25,648	14,333	45,511	37,941	(5,769)	(2,686)	1,903	3,452	15,654	(9,979)
NON-OPERATING REVENUES(EXPENSES)										
Investment income (loss)	15,419	1,402	(4,471)	(2,203)	10,430	2,164	(9,777)	10,817	3,132	9,777
Interest expense	(85,378)	(26,703)	(8,544)	(30,079)	(56,559)	(67,947)	(64,335)	(68,041)	(66,579)	(57,141)
Other income	31,197	8,914	18,034	29,200	26,374	29,580	22,111	14,245	7,295	10,214
Income (loss) before contributions and transfers	(13,114)	(2,054)	50,530	34,859	(25,524)	(38,889)	(50,098)	(39,527)	(40,498)	(40,129)
Capital contributions	12,592	11,435	13,477	24,751	18,774	14,440	7,969	12,407	9,448	12,242
Transfers to County's General Fund	-	-	-	-	-	-	-	-	(17,721)	-
Transfer (to) from Water System	58,444	71,867	32,520	128,373	67,666	80,939	(1,564)	43,218	33,677	1,333
Increase (decrease) in net position	\$ 57,922	\$ 81,248	\$ 96,527	\$ 187,983	\$ 60,916	\$ 56,490	\$ (43,693)	\$ 16,098	\$ (15,094)	\$ (26,554)

Water and Wastewater System Rates

LAST TEN FISCAL YEARS

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
<i>WATER RATES:</i>										
Meter Size Rate										
5/8"	\$3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
1"	\$12.38	12.38	12.38	11.42	10.77	10.16	9.41	9.41	9.41	8.96
1.5"	\$24.76	24.76	24.76	22.84	21.55	20.33	18.82	18.82	18.82	17.92
2"	\$39.60	39.60	39.60	36.53	34.46	32.51	30.10	30.10	30.10	28.67
3"	\$79.21	79.21	79.21	73.07	68.93	65.03	60.21	60.21	60.21	57.34
4"	\$123.76	123.76	123.76	114.17	107.71	101.61	94.08	94.08	94.08	89.60
6"	\$247.50	247.50	247.50	228.32	215.40	203.21	188.16	188.16	188.16	179.20
8"	\$396.02	396.02	396.02	365.33	344.65	325.14	301.06	301.06	301.06	286.72
10"	\$569.28	569.28	569.28	525.16	495.43	467.39	432.77	432.77	432.77	412.16
12"	\$1,064.30	1,064.30	1,064.30	981.83	926.25	873.82	809.09	809.09	809.09	770.56
14"	\$1,980.07	1,980.07	1,980.07	1,826.63	1,723.24	1,625.70	1,505.28	1,505.28	1,505.28	1,433.60
16"	\$2,722.61	2,722.61	2,722.61	2,511.63	2,369.46	2,235.34	2,069.76	2,069.76	2,069.76	1,971.20
Composite rate (revenues/flows)	4.47	4.30	4.09	3.85	3.66	3.46	2.99	2.93	2.95	2.75
<i>WASTEWATER RATES:</i>										
Base rate (per 1,000 gallons)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Meter Size Rate										
5/8"	\$5.05	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25
1"	\$17.07	12.57	12.53	11.60	10.94	10.32	9.56	9.56	9.56	9.10
1.5"	\$34.14	25.14	25.05	23.19	21.88	20.64	19.11	19.11	19.11	18.20
2"	\$54.63	40.23	40.08	37.11	35.01	33.03	30.58	30.58	30.58	29.12
3"	\$109.23	80.43	80.14	74.20	70.00	66.04	61.15	61.15	61.15	58.24
4"	\$170.68	125.68	125.22	115.94	109.38	103.19	95.55	95.55	95.55	91.00
6"	\$341.38	251.38	250.46	231.90	218.77	206.39	191.10	191.10	191.10	182.00
8"	\$546.20	402.20	400.72	371.03	350.03	330.22	305.76	305.76	305.76	291.20
10"	\$785.20	578.16	576.03	533.36	503.17	474.69	439.53	439.53	439.53	418.60
12"	\$1,467.92	1,080.92	1,076.93	997.16	940.72	887.47	821.73	821.73	821.73	782.60
14"	\$2,731.02	2,011.02	2,003.59	1,855.18	1,750.17	1,651.10	1,528.80	1,528.80	1,528.80	1,456.00
16"	\$3,755.15	2,765.15	2,754.95	2,550.88	2,406.49	2,270.27	2,102.10	2,102.10	2,102.10	2,002.00
Composite rate (revenues/flows)	6.41	6.10	5.74	5.51	5.16	4.98	4.69	4.64	4.67	4.38

Increases in Water and Wastewater rates must be approved by the Board of County Commissioners.

Water Treatment

LAST TEN FISCAL YEARS

(millions of gallons)	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
<i>WATER PUMPED:</i>										
Water treatment plants:										
Alexander Orr, Jr.	66,620	66,096	66,190	65,968	62,566	60,183	58,666	59,805	60,191	59,969
John E. Preston	30,138	26,555	27,891	26,789	27,044	26,942	30,586	27,232	26,555	27,632
Hialeah	16,939	20,467	20,093	20,142	19,488	19,248	21,241	22,688	23,685	24,335
South Dade Water System	3,790	3,920	3,752	3,921	3,570	2,607	2,670	2,658	2,580	2,274
Purchase water	99	116	116	192	164	124	178	152	179	145
Total water pumped	117,586	117,154	118,042	117,013	112,832	109,104	113,341	112,535	113,190	114,355
<i>WATER SOLD:</i>										
Wholesale:										
Miami Beach	8,109	8,381	8,566	8,249	8,346	7,615	7,903	7,918	8,410	6,952
Hialeah	6,376	6,566	7,040	6,857	6,623	7,285	9,429	9,121	9,598	9,103
North Miami	2,792	3,468	2,313	1,538	2,096	1,693	1,655	1,374	1,331	1,175
Opa-Locka	998	909	894	993	950	895	876	876	887	788
Hialeah Gardens	764	703	742	768	694	638	576	591	693	654
Homestead ⁽¹⁾	668	723	668	684	520	188	151	40	-	-
Bal Harbor	437	455	487	506	503	407	494	430	486	455
North Bay Village	404	419	435	419	430	405	415	391	387	395
Medley	368	389	378	381	365	470	516	479	328	400
Bay Harbor Islands	319	338	319	291	328	318	309	310	302	317
Surfside	358	386	389	325	326	303	299	312	317	328
West Miami	321	334	344	319	251	278	236	292	275	293
Indian Creek Village	179	154	143	119	134	117	120	122	133	121
Virginia Gardens	86	80	80	84	82	91	95	93	91	98
North Miami Beach	-	-	83	-	3	-	-	-	-	100
Total wholesale	22,179	23,305	22,881	21,533	21,651	20,703	23,074	22,349	23,238	21,179
Retail	62,051	62,421	64,968	64,108	63,783	63,539	63,386	63,169	62,937	64,430
Total water sold	84,230	85,726	87,849	85,641	85,434	84,242	86,460	85,518	86,175	85,609
Non-account water	33,357	31,428	30,193	31,373	27,398	24,862	26,881	27,017	27,015	28,746
Non-account water as a percentage of total water pumped	28.37%	26.83%	25.58%	26.81%	24.28%	22.79%	23.72%	24.01%	23.87%	25.14%
Unaccounted for water as a percentage of total water pumped	9.18%	5.65%	6.69%	10.10%	8.37%	5.67%	8.88%	3.02%	10.46%	8.27%

⁽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)	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
<i>WASTEWATER PLANT FLOWS:</i>										
North District Plant	32,998	32,785	34,251	30,734	32,745	34,296	32,000	35,141	27,403	31,810
Central District Plant	41,449	40,344	40,000	46,432	40,662	44,044	43,696	45,014	37,653	41,654
South District Plant	34,515	36,415	38,207	38,115	33,413	37,382	36,274	41,472	33,036	33,997
Total wastewater plant flows	108,962	109,544	112,458	115,281	106,820	115,722	111,970	121,627	98,092	107,461
<i>WASTEWATER TREATED:</i>										
Wholesale:										
Miami Beach	8,058	8,082	8,054	8,797	8,399	8,312	8,141	7,452	6,983	7,870
Hialeah	8,994	9,144	9,203	8,943	7,169	7,102	7,050	7,002	6,084	6,903
North Miami	3,400	3,544	3,654	3,711	3,722	3,619	3,745	3,699	3,418	3,523
Coral Gables	1,074	906	1,477	1,432	1,231	1,041	1,088	1,144	987	1,060
Homestead	1,117	1,106	1,763	1,643	938	1,374	736	946	879	419
Opa-Locka	893	703	702	729	861	1,174	733	684	653	492
Hialeah Gardens	661	679	704	700	757	877	865	940	817	801
North Miami Beach	1,258	1,250	580	510	505	499	622	727	718	859
Medley	464	438	456	617	477	644	544	708	628	504
Florida City	449	458	425	458	464	420	457	494	412	404
North Bay Village ⁽¹⁾	322	353	409	457	433	418	408	316	39	-
West Miami	199	184	169	185	147	147	162	202	163	144
Homestead Air Force Base	79	73	86	98	78	79	69	65	47	98
Total wholesale	26,968	26,920	27,682	28,281	25,181	25,706	24,620	24,379	21,828	23,077
Retail	48,167	48,492	50,334	49,550	48,998	49,247	49,345	48,752	48,547	49,315
Unaccounted for wastewater	33,827	34,131	34,442	37,450	32,641	40,769	38,005	48,496	27,717	35,069
Total wastewater treated	108,962	109,544	112,458	115,281	106,820	115,722	111,970	121,627	98,092	107,461
Unaccounted for wastewater as a percentage of total wastewater treated	31.04%	31.16%	30.63%	32.49%	30.56%	35.23%	33.94%	39.87%	28.26%	32.63%
<i>ANNUAL RAINFALL (inches): ⁽²⁾</i>	61.28	73.02	78.33	75.11	47.22	73.70	60.60	97.90	58.70	68.60

⁽¹⁾ North Bay Village was added as a new wholesale customer beginning in fiscal year 2011.

⁽²⁾ 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)	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
<i>PRIMARY DEBT SERVICE COVERAGE</i>										
Net operating revenues	\$292,226	\$288,541	\$308,802	\$271,293	\$244,409	\$229,007	\$208,432	\$211,225	\$212,850	\$168,763
Investment earnings ⁽¹⁾	15,355	9,566	3,144	1,823	1,198	1,166	1,479	1,336	2,111	2,550
Net transfers from (to) Rate Stabilization Fund	-	-	-	-	-	-	-	-	-	-
Net revenues available for debt service	\$307,581	\$298,107	\$311,946	\$273,116	\$245,607	\$230,173	\$209,911	\$212,561	\$214,961	\$171,313
Debt service requirements ⁽²⁾	\$173,198	\$164,449	\$161,194	\$157,036	\$153,211	\$143,622	\$138,711	\$137,625	\$115,198	\$114,653
Actual coverage	1.78	1.81	1.94	1.74	1.60	1.60	1.51	1.54	1.87	1.49
Required coverage	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.10	1.10	1.10
<i>SUBORDINATE DEBT SERVICE COVERAGE</i>										
Net revenues available for debt service	\$307,581	\$298,107	\$311,946	\$273,116	\$245,607	\$230,173	\$209,911	\$212,561	\$214,961	\$171,313
Less: Maximum principal and interest ⁽³⁾	182,569	171,345	161,195	161,195	161,195	163,181	161,340	146,270	146,270	146,270
Adjusted net revenues	\$125,012	\$126,762	\$150,751	\$111,921	\$84,412	\$66,992	\$48,571	\$66,291	\$68,691	\$25,043
<i>STATE REVOLVING FUND LOANS DEBT SERVICE COVERAGE</i>										
Net revenues available for debt service	\$307,581	\$298,107	\$311,946	\$273,116	\$245,607	\$230,173	\$209,911	\$212,561	\$214,961	\$171,313
Less: revenue required for primary debt service coverage ⁽⁴⁾	216,498	205,561	201,493	196,295	191,514	179,528	173,389	151,388	126,718	126,119
Adjusted net revenues	\$91,083	\$92,546	\$110,453	\$76,821	\$54,093	\$50,646	\$36,522	\$61,173	\$88,243	\$45,194
Debt service requirements ⁽⁵⁾	15,589	15,822	15,973	16,819	18,081	15,369	\$11,386	\$13,501	\$13,501	\$13,479
Actual coverage	5.84	5.85	6.92	4.57	2.99	3.30	3.21	4.53	6.54	3.35
Required coverage	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15

⁽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 110% of primary debt service requirements.

⁽⁵⁾ Represents debt service requirements on outstanding State Revolving Fund Loans for such fiscal year.

Note: Debt Service requirements are on "Cash" basis.

Ratio of Outstanding Debt by Types

LAST TEN FISCAL YEARS (IN THOUSANDS)

Fiscal Year	Revenue Bonds	Loans	Line of Credit	Commercial Paper ⁽¹⁾	Total Outstanding Debt	Total Per Customer
2019	\$ 2,548,020	\$ 160,430	\$ -	\$ 300,000	\$ 3,008,450	\$ 3.69
2018	2,366,854	156,833	-	200,000	2,723,687	3.41
2017	1,980,348	165,449	-	375,000	2,520,797	3.16
2016	2,053,731	161,272	-	100,000	2,315,003	2.90
2015	2,024,019	164,698	-	-	2,188,717	2.77
2014	2,132,906	175,796	-	-	2,308,702	2.95
2013	2,193,562	154,873	-	-	2,348,435	3.03
2012	1,896,641	143,843	-	-	2,040,484	2.66
2011	1,932,611	124,162	-	-	2,056,773	2.70
2010	1,980,844	119,255	-	-	2,100,099	2.77

⁽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

<u>Name</u>	Dollar Amount ⁽¹⁾ (in thousands)	Percent of System Gross Revenues
<i>WATER SYSTEM:</i>		
City of Miami Beach	\$ 14,295	4.4%
City of Hialeah	11,239	3.4%
City of North Miami	4,921	1.5%
Dade County Aviation	4,609	1.4%
FL Dept of Corrections	1,948	0.6%
City of Opa-Locka	1,758	0.5%
Florida Power & Light Company	1,548	0.5%
Hialeah Gardens	1,346	0.4%
City of Homestead	1,178	0.4%
Jackson Memorial Hospital	892	0.3%
<i>WASTEWATER SYSTEM:</i>		
City of Hialeah	\$ 28,058	6.9%
City of Miami Beach	25,023	6.2%
City of North Miami	10,586	2.6%
City of North Miami Beach	3,942	1.0%
City of Homestead	3,535	0.9%
City of Coral Gables	3,404	0.8%
Miami Int'l Airport	3,236	0.8%
City of Opa-Locka	2,790	0.7%
City of Hialeah Gardens	2,051	0.5%
FL Dep't of Corrections	2,038	0.5%

October 2010 - September 2011

<u>Name</u>	Dollar Amount (in thousands)	Percent of System Gross Revenues
<i>WATER SYSTEM:</i>		
City of Hialeah	\$ 15,675	6.2%
City of Miami Beach	14,417	5.7%
Dade County Aviation	4,099	1.6%
City of North Miami	2,281	0.9%
City of Opa Locka	1,521	0.6%
Florida Power & Light Company	1,293	0.5%
Hialeah Gardens	1,188	0.5%
Bal Harbour	832	0.3%
North Bay Village	663	0.3%
Medley	562	0.2%
<i>WASTEWATER SYSTEM:</i>		
City of Miami Beach	\$ 14,385	4.9%
City of Hialeah	12,565	4.3%
City of North Miami	7,072	2.4%
City of Homestead	5,267	1.8%
Dade County Aviation	2,232	0.8%
City of Coral Gables	2,048	0.7%
Hialeah Gardens	1,679	0.6%
City of North Miami Beach	1,468	0.5%
City of Opa Locka	1,336	0.5%
Medley	1,291	0.4%

⁽¹⁾ Using billed flows in place of net amount

Customer Statistics

NUMBER OF CUSTOMERS AT END OF FISCAL YEAR-END - LAST TEN FISCAL YEARS

Fiscal Year	Number of Customers		Ratio of Wastewater Customers to Water
	Water	Wastewater	
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%
2013	428,631	346,285	80.8%
2012	424,764	342,539	80.6%
2011	422,016	339,927	80.5%
2010	420,367	338,368	80.5%

Building Permits

NUMBER OF BUILDING PERMITS ISSUED FOR HOUSEKEEPING UNITS MIAMI-DADE COUNTY, FLORIDA - LAST TEN FISCAL YEARS

Calendar Year	<u>Number of Permits Issued</u>		Value of Permits Issued Residential Construction (in thousands)
	Single Family Houses	Multi-family Buildings	
2019 ⁽¹⁾	(1)	(1)	(1)
2018 ⁽¹⁾	(1)	(1)	(1)
2017	2,285	8,269	(1)
2016	2,873	6,279	(1)
2015	2,800	9,817	(1)
2014	2,077	5,654	(1)
2013	2,266	8,050	(1)
2012	1,819	3,250	(1)
2011	962	1,656	(1)
2010	941	2,262	395,139

Source: University of Florida, Bureau of Economic and Business Research, Building Permit Activity in Florida

(1) Information unavailable as of the date of this report.

Population

MIAMI-DADE COUNTY, FLORIDA - LAST TEN FISCAL YEARS

Fiscal Year	Annual Resident Population	Increase (Decrease)	Percent Change
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%
2013	2,565,685	14,430	0.6%
2012	2,551,255	(44,759)	-1.8%
2011	2,596,014	32,129	1.2%
2010	2,563,885	31,885	1.2%

Source: U.S. Bureau of the Census figures 2010; Miami-Dade County
Department of Regulatory and Economic Resources, Research Section.

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)
2019 ^(a)	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
2013	105	81,734	2,387	309,243
2012	95	130,148	1,535	187,533
2011	120	54,001	1,963	182,480
2010	231	184,566	1,453	129,129

Source: Miami-Dade County Building Department. Includes only Unincorporated Area.

^(a) For FY2019, Real Property Value, total actual and assessed values reflect the Final 2018 Tax Roll certified on June 26, 2018.

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
2019	(1)	(1)	2.9%	1,462,938
2018	138,138,976	50,022	3.6%	1,363,766
2017	126,715,595	46,048	4.7%	1,386,660
2016	123,276,064	45,440	5.8%	1,334,404
2015	116,553,169	43,278	6.2%	1,321,033
2014	111,528,866	43,123	7.2%	1,282,854
2013	104,373,301	40,680	8.9%	1,289,617
2012	100,688,604	39,466	9.7%	1,290,751
2011	96,657,710	37,834	12.7%	1,300,030
2010	92,227,399	36,846	12.0%	1,257,324

Source: U.S. Department of Commerce, Economics and Statistics Administration, Economic Analysis/Regional 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.

Principal Employers

MIAMI-DADE COUNTY, FLORIDA - CURRENT YEAR AND NINE YEARS AGO

Employer	2019			2010		
	Employees	Rank	Percentage of Total County Employment	Employees	Rank	Percentage of Total County Employment
Miami-Dade County Public Schools	33,477	1	2.29%	48,571	1	381.00%
Miami-Dade County	25,502	2	1.74%	29,000	2	2.28%
U.S. Federal Government	19,200	3	1.31%	19,500	3	1.53%
Florida State Government	17,100	4	1.17%	17,100	4	1.34%
University of Miami	12,818	5	0.88%	10,800	8	0.85%
Baptist Health South Florida	11,353	6	0.78%	13,376	6	1.05%
American Airlines	11,031	7	0.75%	9,000	9	0.71%
Jackson Health System	9,797	8	0.67%	12,571	7	0.99%
City of Miami	3,997	9	0.27%	3,840	14	0.30%
Florida International University	3,534	10	0.24%	-	-	0.00%
Carnival Cruise Line	3,500	11	0.24%	-	-	-
Miami Children's Hospital	3,500	12	0.24%	-	-	-
Mount Sinai Medical Center	3,321	13	0.23%	-	-	-
Homestead AFB	3,250	14	0.22%	-	-	-
Florida Power & Light Company	3,011	15	0.21%	3,500	15	0.27%
Royal Caribbean Intl./Celebrity Cruise	-	-	-	-	-	-
Miami-Dade College	-	-	-	8,000	10	0.63%
Bell South Corporation - Florida	-	-	-	5,000	12	0.39%
Publix Super Markets	-	-	-	16,000	5	1.26%
UM Health	-	-	-	-	-	0.00%
United Parcel Services	-	-	-	-	-	0.00%
Precision Response Corporation	-	-	-	6,200	11	0.49%
Winn Dixie Stores	-	-	-	4,309	13	0.34%
	<u>164,391</u>		<u>11.24%</u>	<u>206,767</u>		<u>393.43%</u>

Source: The Beacon Council, Miami, Florida, Miami Business Profile

Employees by Identifiable Activity

LAST TEN FISCAL YEARS

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
<i>WATER:</i>										
Water Distribution	224	222	222	230	221	220	205	206	210	206
Water Production and Maintenance	232	224	231	243	240	241	231	226	240	232
Laboratory Services	55	57	57	59	59	59	56	55	49	51
Meter ⁽¹⁾	97	96	-	-	-	-	-	-	-	-
<i>SEWER:</i>										
Sewer Collection	217	217	210	206	194	194	183	187	175	189
Wastewater Treatment and Maintenance	362	372	370	367	358	358	340	337	341	329
Pump Station Maintenance	226	228	230	208	195	197	193	192	193	187
SCADA ⁽²⁾	46	48	-	-	-	-	-	-	-	-
<i>ENGINEERING:</i>										
Utility Pipeline and Plant Engineering & Construction	78	77	66	71	71	71	70	75	75	75
Surveying	14	16	14	-	-	-	-	-	-	15
Utilities Development	110	111	107	105	104	94	73	73	74	89
Capital Improvements Program	27	26	29	55	50	69	65	71	71	77
<i>ADMINISTRATION:</i>										
Office of Director	29	20	21	24	17	32	15	30	30	33
Office of Deputy Director of Regulatory Compliance and Capital Improvements	11	15	16	21	9	6	5	6	8	13
Office of Deputy Director of Operations	12	14	3	4	47	45	43	13	12	11
Office of Assistant Director of Utility Engineering and Construction	4	3	2	1	1	1	1	1	1	1
Office of Chief Financial Officer	42	42	40	41	66	38	53	36	37	38
Office of Assistant Director of Customer Initiatives and Support Services	76	79	73	77	114	114	112	143	136	155
Office of Assistant Director of Water	2	2	104	108	108	110	106	109	109	111
Office of Assistant Director of Wastewater	1	-	41	43	46	48	46	48	47	38
Office of Assistant Director of Regulatory Compliance and Planning	9	8	9	5	5	5	5	5	5	5
Attorney's Office	4	4	4	4	4	4	4	4	4	4
Controller	114	119	118	125	106	112	110	114	114	134
Information Technology	-	-	-	76	71	69	65	68	69	70
Retail Customer Service	247	248	219	238	255	243	227	224	216	253
Planning	23	22	25	25	19	19	17	17	17	22
Regulatory Compliance and Monitoring	14	15	15	17	17	16	14	15	16	18
General Maintenance	122	127	112	124	114	114	110	116	113	120
Human Resources Division	46	46	44	44	-	-	-	-	-	-
Security and Communications Division	40	40	43	44	-	-	-	-	-	-
Office of Assistant Contracts Compliance and Quality Assurance	3	3	3	4	-	-	-	-	-	-
Quality Assurance and Control Division	13	14	4	13	-	-	-	-	-	-
Performance Improvements & Managment Division	12	12	13	17	-	-	-	-	-	-
Contract Compliance and Monitoring Division	22	26	20	27	-	-	-	-	-	-
Total	2,534	2,553	2,465	2,626	2,491	2,479	2,349	2,371	2,362	2,476

⁽¹⁾ Previously included in the Office of Assistant Director of Water

⁽²⁾ Previously included in the Office of Assistant Director of Wastewater

Capital Indicators

LAST TEN FISCAL YEARS

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
<i>WATER:</i>										
Water mains ⁽¹⁾ (miles)	6,271	6,269	6,264	6,131	6,035	6,004	5,988	5,969	5,922 ⁽²⁾	5,907
Water treatment plants	9	9	9	9	9	9	9	8	8	8
Permitted water treatment capacity (million gallons per day)	464	464	461	461	464	464	454	454	452	452
Water supply wells	100	100	100	100	100	100	100	100	100	100
<i>WASTEWATER:</i>										
Sanitary sewers ⁽¹⁾ (miles)	4,191	4,191	4,184	4,165	4,110	4,072	4,048	4,027	3,995 ⁽²⁾	3,975
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	368	368
Wastewater pump stations	1,041	1,052	1,049	1,049	1,047	1,047	1,042	1,039	1,039	1,039

⁽¹⁾ Does not include laterals.

⁽²⁾ In fiscal year 2010 & 2011, the measurements for water mains and sanitary sewers do not include miscellaneous and private pipes.

Insurance in Force

Type of Coverage and Insurance Company	Policy Period	Details of Coverage	Limits of Liability
Crime Policy: Fidelity & Deposit Co. of Maryland	08/19/19- 08/19/20	Employee Dishonesty	\$1,000,000
Money and Securities: Fidelity & Deposit Co. of Maryland	11/25/19- 11/25/20	Theft of money and securities	Values scheduled per location
Accidental Death: Minnesota Life	01/01/19- 01/01/20	Accidental death and dismemberment	\$25,000
Property Insurance: Ace American Ins. Co. Aspen Specialty Ins. Co. Liberty International Undwtrs Arch Specialty Ins. Co Colony Ins. Co. Landmark American Ins. Co. Liberty Surplus Ins. Co. Steadfast Ins. Co. Alterra E & S Ins. Co. Hiscox, Inc. Lloyds of London Chubb Custom Ins. Co. Evanston Ins. Co.	03/02/19 – 03/02/20	"All risk" coverage on real and personal property and outfalls	\$200,000,000
Automobile Liability:	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)
General Liability:	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)
Workers' Compensation:	Continuous	Self-Insured	Statutory coverage pursuant to F.S. 440

A dynamic water splash graphic in shades of blue and white, originating from the bottom left and curving upwards and to the right, with numerous water droplets suspended in the air.

QUALITY. VALUE. ECONOMIC GROWTH.

WWW.MIAMIDADE.GOV/WATER



MIAMI-DADE WATER AND SEWER DEPARTMENT

A DEPARTMENT OF MIAMI-DADE COUNTY, FLORIDA

3071 S.W. 38 AVENUE • MIAMI, FLORIDA 33146

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