

# Miami-Dade Water and Sewer Department

A DEPARTMENT OF MIAMI-DADE COUNTY, FL

## Comprehensive Annual Financial Report

FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 2018





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**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.





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Miami, Florida 33233-0316  
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March 29, 2019

Honorable Carlos A. Gimenez, Mayor  
Honorable Audrey M. 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, 2018 (FY2018). 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. 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, 2018, 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](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 FY 2018. The MD&A complements this Letter of Transmittal and should be read in conjunction with it.

## **PROFILE OF GOVERNMENT**

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

**COUNTY**



The Department's water system, considered the largest water utility in the Southeast United States, serving approximately 447,209 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 comprised of 95 production wells and five aquifer storage and recovery wells. These wells supply untreated water to the treatment plants. In addition, a proposed South Miami Heights WTP is planned to replace three of the small auxiliary treatment facilities.

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 363,444 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 2018 the Department reused 17.7 MGD of treated wastewater. Additional capacity for production of reclaimed water currently is available at the South District Plant, with 98.4 MGD of public access reuse quality



water produced in FY 2018. As part of the 20-Year Water Use Permit, the Department is committed to distributing about 117.5 MGD of additional reclaimed water for aquifer recharge, irrigation, power plant cooling and potentially coastal wetlands rehydration.

## **ECONOMIC CONDITION AND OUTLOOK**

This economic condition and outlook report outlines the level of economic activity throughout Fiscal Year (FY) 2018 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 the level of economic activity in Miami-Dade would continue to grow in FY 2018 at least at the levels achieved in FY 2017. The reasoning behind this outlook was that FY 2017 was negatively affected by Hurricane Irma and that the recently passed tax overhaul would boost economic activity.

Prospects for growth of the United States' economy were thought to accelerate to 2.5 percent as reported by the Organization for Economic Co-operation and Development (OECD) due to the structuring of the 2017 passed tax overhaul, investment spending would see a measurable increase, as well as more personal consumption derived from increased disposable income.

Economic growth in the emerging markets and more importantly Latin America was expected to improve as the world entered the first worldwide concerted bout of growth since 2010. Forecasts for Brazil, Mexico, Argentina, Chile and Colombia, all pointed to stronger growth in 2018. The recent pullback of the US dollar, the continued strengthening of Latin American economies, coupled with the increase in investments and consumer spending in the United States were expected to increase trade in the Miami Customs District. And, depending on which of these forces enacted a stronger influence, the District's trade surplus would have expanded or contracted.

Real estate and construction activity in FY 2018 were expected to continue to benefit from foreign buyers returning while at the same time suffer from the effects of years of real estate appreciation affecting 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, and a deficit financed tax overhaul would lead to higher wages and ultimately exert upward pressure on prices.

This forecast of FY 2017 turned out to be a fair assessment of what actually took place at the international, national and local levels.

At the national level FY 2017 saw an upswing in economic activity, with real gross domestic product (GDP) increasing at an annual rate of 2.7 percent, compared to an increase of 2.1 percent in the prior





year. The acceleration in GDP growth was brought about by a level of investment that went from 3.8 percent in FY 2017 to 5.4 percent in FY 2018 and by a more favorable Net Exports component going from negative 9.9 percent in FY 2017 to negative 6.5 percent in FY 2018. Alongside the increased economic activity, and due in part to energy prices rebounding somewhat, inflation increased from FY 2017 2.1 percent to 2.4 percent. This uptick in the level of inflation came on the heels of a decrease of the headline unemployment rate of 50 basis points to 4.0 percent, the lowest level in at least 15 years.

At the County level the signs of an economy functioning at or near the mature stage of the cycle were clearly visible. FY 2018 closed with the lowest unemployment rate since FY 2007 and after adding a smaller number of workers to payrolls, FY 2018 ended with the highest number of employed persons ever. The residential real estate market continued to moderate with permits for new residential construction remaining flat over the previous year and with single-family home sales declining for the third year in a row.

Several indicators rebounded from the effects of Hurricane Irma that negatively affected their values in FY 2017. Of note are taxable sales, number of visitors to Miami and passenger traffic moving through Miami International Airport, all of which expanded in FY 2018 compared to FY 2017.

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 2018 nonagricultural wage and salary employment (annual average) recorded an overall gain of approximately 18,000 jobs. This was an increase of 1.5 percent, to put total employment at a record high of 1,189,200 according to non-seasonally adjusted data from the Bureau of Labor Statistics. This gain in employment represented a slowdown from the prior fiscal year. It also represents the third consecutive year of deceleration, signaling a maturing labor market characterized by less slack. At the same time, 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 4.6 percent, compared to 5.0 percent a year earlier. Moreover, the unemployment rate for the month of September 2018 stood at 4.0 percent, 0.7 points lower than in September 2017 when it stood at 4.7 percent.

In contrast to a year prior when the growth of employment was experienced by government and most private industrial sectors, the current year saw a modest drop in half of the private industrial sectors as well as in government. Strong showing in the other half of private industrial sectors resulted in a net overall gain of 18,000 jobs for the county. All three goods producing sectors experienced employment growth in excess of 10 percent with manufacturing adding 4,800 jobs, construction, 4,700 and mining and logging 100 jobs. Among service-producing sectors, growth was in transportation, warehousing and utilities (+5,800), education and health services (+4,900), and professional and business services (+2,100).

## 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 2018, as prices continued to rise, single family home sales contracted for the third year in a row, while condominium sales increased, reversing a four-year decline, closing at just over 13,600 units. This is well below the peak of 17,221 in FY 2013. At the same time distressed market activity continued to decrease, as new foreclosure filings fell by more than 24 percent, continuing a downward trend now in its sixth year.

During FY 2018 sales of existing single-family homes decreased slightly compared to the prior fiscal year with just over 12,800 homes sold. Sales of condominiums increased 4.7 percent over the prior year with just over 13,600 units sold. Cash sales accounted for 52.3 percent of all condo sales in FY 2018 down from 56.4 percent in FY 2017. 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 prices continued their upward trend in FY 2018. The end of the fiscal year, September of 2018, saw the median sales price of an existing single-family home in Miami-Dade reach \$360,000, up over 7.4 percent from September of last year. Existing condominiums median sales price remained mostly flat, closing the fiscal year at \$237,500 in September of 2018.

Data from the County Clerk shows new foreclosure filings continued to drop, to levels below those of 2005 and 2006, prior to the housing bubble collapse. FY 2018 saw 4,802 new filings.

Mortgage rates on thirty-year fixed rate mortgages in the Miami metropolitan area averaged 4.42 percent in FY 2018, up 40 basis points from the previous year.

Following a 9 percent drop for residential units permitted in FY 2016, FY 2018 marked the second year in a row that saw permitting activity remain essentially flat. Over the year, permits were issued for the construction of 10,366 residential units.

The commercial/industrial components of the real estate market showed little change in FY 2018 compared to the previous year with the exception of retail rental rates. Office vacancy held steady at 8.1 percent, average rent rate per square foot inched higher, up 1.6 percent. The retail vacancy rate held steady at 3.6 percent. Average lease rates for retail stand-alone space were up 9.2 percent year over year to \$39.27 per square foot while average lease rates in shopping centers increased 8.3 percent from FY 2017 to \$32.78 per square foot. The industrial market saw an increase in vacancy rate from 3.6 percent in FY 2017 to 3.9 percent in FY 2018. Average lease rates for industrial space were up 6.1 percent in FY 2018 compared to FY 2017 to settle at \$12.19 per square foot.

## SALES INDICATORS

Taxable sales in FY 2018 reached \$55.2 billion dollars after increasing an inflation adjusted 4.6 percent from FY 2017. Part of this increase derives from sales in FY 2017 being negatively affected by Hurricane Irma.



After suffering losses in every category with the exception of business in FY 2017, taxable sales increased across the board in FY 2018, led by business with an increase of \$875 million or 8.4 percent, followed by tourism (+\$568 million, +4.6%) and consumer nondurables (+\$352 million, +2.2%). In percentage terms, the strongest performing sectors were business (+8.4%), construction (+6.3%) and consumer durables (+6.2%). Given the distorting effect of Hurricane Irma on the FY 2017 values and these values being almost across the board lower than those of FY 2016, it is worth comparing FY 2018 to FY 2016, and in this sense, the only category that remained below its FY 2016 level in FY 2018 was automobile by 4 percent. The strengthening of taxable sales was reflected in an Index of Retail Activity that increased by 3.6 percent in FY 2018 after staying flat between FY 2016 and FY 2017.

## 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 (\$135.3 billion 2018 inflation adjusted dollars) in FY 2013, merchandise trade passing through the Miami Customs District (that includes an area broader than Miami-Dade) has fallen 13.8 percent to \$116.6 billion in FY 2018.

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 had been broadening in the two years leading up to FY 2018. This trend can be seen in FY 2018 when exports registered an increase of 6.2 percent compared to an increase of 0.2 percent during the prior year. Imports decreased by 13.9 percent following a decrease of 8.5 percent in the prior year. 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, the majority of all U.S. imported perishables from South America, Central America, and the Caribbean are passing 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 5.2 percent, after a nearly flat growth the preceding year. At the Seaport, cargo tonnage figures were up by 3.3 percent after decreasing 2.7 percent the year before. PortMiami accounts for 87 percent of total County trade measured by weight.

## TOURISM

The state of Florida played host to more than 124 million overnight visitors for the first time in FY 2018. Miami-Dade accounted for just over 13 percent of all visitors to the state.

Visitors to the Miami area increased by 3.8 percent in FY 2018, after falling by 0.7 percent the previous year, mainly thanks to Hurricane Irma. In total, there were 16.3 million overnight visitors, up from 15.7

million recorded in FY 2017. The increase in visitors came from an increase in domestic and international visitors, both up by roughly 3.8 percent.

In conjunction with the increase in visitors, the Miami International Airport passenger levels stood at 44.9 million in FY 2018, representing an annual increase of 2.7 percent reversing a fall of 2.5 percent in the prior year. Passenger traffic at PortMiami increased by 4.7 percent to 5.59 million passengers in FY 2018 after a 7.2 percent increase in FY 2017.

After a lower number of visitors coupled with an increased hotel room inventory in FY 2017 led to a reduction in hotel occupancy rates to 75.2 percent, there was a recovery in FY 2018 reaching 77.7 surpassing the 77.3 percent level of FY 2016. The average hotel room rate increased 12 dollars between FY 2017 and FY 2018 to 196 dollars.

## **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 2019 will continue to operate under these same dynamics. This time, however, there is 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 is not a recently passed stimulative tax code overhaul but a government shutdown, uncertain international trade outlook and a possible hard Brexit on the horizon.

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 stimulative effect of the 2017 deficit financed tax overhaul is likely to start waning. This, coupled with government gridlock at the federal level due to the post-2018-elections-divided government and continued trade dispute-imposed tariffs, will pose significant headwinds to economic activity resulting in a slowdown of economic growth. These headwinds will likely give pause to the Federal Reserve resulting in little to no further interest rate hikes providing a backstop to the expected slowdown.

Prospects for growth of the United States' economy are 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, should improve in 2019. Forecasts for Brazil, Chile and Colombia point to stronger growth in 2019, while Argentina, Mexico and Venezuela are expected to perform worse than in 2018.



The slowing growth 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 2019 is expected to continue at FY 2018 levels with price appreciation softening after years of brisk increases that have affected affordability for residents.

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 2019, at a somewhat slower rate than during the previous fiscal year. The degree of expansion will depend upon the stability in government employment, the level of growth in investments by firms, the level of growth in tourism and growth rates in Central and South America and the Caribbean.

# Major Initiatives

## Water System

### **Water-Use Efficiency Plan**

The Water Use Efficiency Plan (Plan) is in its eleventh 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 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 the water saved through the Plan. This effort has allowed Miami Dade County (County) to capitalize on policy measures adopted as part of the plan including: permanent irrigation restrictions and construction requirements for water efficient fixtures as well as non-policy measures, for example high efficiency fixture financial rebate programs, water conservation information outreach campaigns to residents and businesses and water loss reduction programs. The results of these initiatives and the Plan BMPs has provided for a 19 MGD finished water demand reduction as of December 31, 2017 compared to the finished water demand prior to implementation of the Plan (December 31, 2006). The County's conservation efforts have resulted in the extension of its WUP, cancellation of two alternative water supply projects and deferral of several other water supply 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 Plan's objectives include improving water-use efficiency, reducing loss and waste, and complying with the State's legislative criteria and water conservation initiatives.



The following BMP projects are currently being implemented:

- ◆ High efficiency fixture financial rebates including toilets, faucets, and showerheads for single-family and multi-family properties
- ◆ Senior high efficiency toilet purchase and installation financial rebates
- ◆ High efficiency financial 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 financial 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.

## **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 from the wastewater system.

The Consent Decree requires the Department to upgrade its collection, transmission, and treatment facilities by completing more than 80 individual capital improvement projects throughout the wastewater system. It also requires the County to implement a Capacity, Management, Operations and Maintenance (CMOM) Program to document and enhance many of its existing programs.





As of September 30, 2018, the County has completed 26 capital improvement projects with an approximate total cost of \$322 million. Forty-five projects are currently in procurement and construction with an approximate total cost of \$1.35 billion, and 10 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. Nine 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 is in full compliance with all requirements.

### **Ocean Outfall Legislation Program (OOL)**

In 2008, the Florida Legislature approved, and the Governor signed a law requiring all wastewater utilities in southeast Florida utilizing ocean outfalls (OOL) for disposal of treated wastewater to reduce nutrient discharges by implementing advanced wastewater treatment by 2018 or equivalent, cease using the outfalls by 2025, and reuse 60 percent of the wastewater flows by 2025. Because of this law, the Department has analyzed several compliance options. Each option includes additional projected system capacity to meet future average daily and peak flow demands. The Compliance Plan selected an alternative which included a projected need for a new West District plant by 2025 and upgrades to the existing three wastewater treatment plants. The upgrades will include the addition of deep injection well and high-level disinfection treatment.

The Department has recently updated its analysis of average daily flows, peak flows and solid loadings. The updated projections have pushed the need for a new plant beyond the initial 2025 target. The Department is in the process of modifying the timelines and scope for this new facility.

The nutrient reduction by 2018 can be met by reducing the outfall baseline loadings of total nitrogen and total phosphorus, which would be equivalent to that which would be achieved by Advanced Wastewater Technology (AWT) if the requirements were fully implemented beginning December 31, 2018 and continued through December 31, 2025. Since 2008, the Department has been using the existing deep injection wells at the North District Wastewater Plant 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 Wastewater Treatment Plant, which will be able to reduce nutrient loading to meet the criteria by removing the waste stream from the centrate process, the gas scrubbers, and the treated effluent from the ocean outfall discharge and injecting into a deep injection well. The industrial deep injection wells are expected to start operational testing in April 2019 once the corresponding deep injection well pump station is complete.





### **The Pump Station Improvement Program (PSIP)**

The Miami-Dade Water and Sewer Department (WASD) has created a Pump Station Improvement Program (PSIP), with an investment of \$168 million, to upgrade its Wastewater Collection and Transmission System. Specifically, the PSIP was created to evaluate and improve the operation and transmission capacity of 112 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 112 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 drinking water wellfield protection areas. Since the program's inception in January 2014, a total of 87 projects have been completed or certified. An additional 12 projects have been substantially completed and are pending final certification.

### **Infiltration and Inflow (I & I) Reduction Program**

The Department continues to perform sanitary sewer evaluation surveys on approximately 34 million feet (6,443 miles) of sewage collection mains and laterals. During FY2018, more than 6,051 repairs were performed to the gravity system; 527,162 feet of gravity sewers and 5,225 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.

### **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.

### **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 Department continues to achieve cost savings as a result of the implementation of innovative ideas submitted by our employees. During FY 2018, WASD employees made suggestions through the County's Idea Machine program resulting in approximately \$52,000 in savings to the Department.

Exceptional and outstanding service demonstrated by WASD employees is recognized through the Department's Pebble Program. Nominations for award are submitted by internal and external customers and ranked by an internal review committee based on the information submitted through the nomination process and in accordance with the Pebble Program criteria. Quarterly and annual winners are rewarded with cash and other prizes.

### **Rate Increase**

On September 28, 2017, the Board of County Commissioners adopted County Budget Ordinance Number 17-65 authorizing a modification to the Department's retail tiered-based structure that will generate enough revenues to support costs and to minimize the impact to the retail water and sewer user. During the last eight years the average water usage has decreased due to proactive conservation and low flow water fixtures. This modification 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 \$42.53. A new rate category for mixed-use buildings with one meter serving both residential and non-residential areas was established within the adopted budget. Resolution #R-1258-17, later amended Ordinance #17-65, to set the rates for the established Mixed-Use Buildings rate category, effective January 1, 2018.

In addition, the County Budget Ordinance increased the water wholesale rate by \$0.10 per thousand gallons from \$1.7341 to \$1.8341, and the wastewater wholesale rate by \$0.146 per thousand gallons from \$2.944 to \$3.0937. Wholesale water and wastewater rates per thousand gallons rates are based on cost recovery.

## Recent Developments

### **Commercial Paper (CP) Implementation**

The Department has utilized \$400 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**

The United States Environmental Protection Agency (“EPA”) has selected the Department to be one of the 12 entities invited to apply for funding through the inaugural Water Infrastructure Finance and Innovation Act (“WIFIA”) loan program. The Department has been invited to apply for approximately \$79 million in WIFIA funding for its Ocean Outfall Reduction and Resiliency Enhancement project. WIFIA will fund up to 49% of this project’s costs. The Department is currently completing the final Agreement to be approved by the EPA and the Board. In addition to the first invitation, the Department submitted a second Letter of Interest for the Ocean Outfall Electrical Buildings for which it was selected to apply. This second loan will also fund 49%, or \$326 million of the total Switchgear Buildings projects.

### **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 11 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 will be addressed by two Low Pressure Sewer System projects and is underway. Also, Basis of Design Report for ten (10) areas within the com-





mercial corridor began in FY 2016 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 FY 2019, the Department will have access to \$10 million dollars of funding for GOB projects.

## **GROWING WITH INFORMATION TECHNOLOGY (IT)**

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 is 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, working closely with WASD Business Units, other County Departments and various specialized vendors, has introduced 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 GIS tools to support better analysis of the department's infrastructure; Big Data Analytics solution based on Microsoft Azure Cloud to handle the SCADA data; 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 Skype provide for better management of emails, video conference, audio conferencing and files were implemented.

During this past year the County's Geographic Information Systems (GIS) was upgraded from ArcGIS v10.2.2 Oracle database to v10.4.1 SQL database, which provided significant cost savings to the County. In conjunction, WASD's infrastructure GIS, all production applications, web viewers and ArcMap desktop users were successfully migrated to the new environment as well. Minimal disruption was achieved, and normal business processes were re-established ahead of schedule.

The deployment of SharePoint Online and 2016 for content management and collaboration continued. This includes the migration of SharePoint 2007 and 2013 sites and the decommissioning of related infrastructure. Additionally, a new Intranet using SharePoint Online was implemented. This provided a more flexible and responsive system leading to the decommissioning of the existing intranet infrastructure based on obsolete technology.

### **Big Data / Business Intelligence**

In FY 2018, 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. Additionally, staff migrated all historical and archived SCADA data to leverage the cloud platform providing high availability, advanced security, dynamic environment, and providing the foundation for analytical reporting.

### **Meter to Cash**

During the past year, the WASD Internet Self-Service application continues to expand. New features, such as the Stop Service Request and Pool Credit Request were implemented. Both features automate the process end-to-end in real-time and have helped minimize the volume of calls and visits to WASD's Customer Service office locations.

Other enhancements to the Customer Service experience included ability for customers to make partial payments in order to obtain a payment extension. This feature was implemented in the Automated Virtual Assistant (AVA) Chatbox, using a new interface to the ACI WASD Payment Processor.

Internally, WASD users have benefited from new To-Do dashboards that were developed for them as well as enhanced Cashiering Reconciliation reports.

On-going projects include the Opa-locka project to migrate their customers to WASD's billing and meter reading systems, upgrade of Mobile Workforce Management (MWM) application to version 12, upgrade of Itron Meter Reading application to version 4.0, development of additional features for the Self-Service application and implementation of CCB Data Warehouse to produce dashboards and more effective reporting.

Future projects include electronic transmission of WASD bills to EnergyCap County enterprise system, capability for WASD customers to donate to the WASD Cares program and implementation of Advanced Metering Infrastructure (AMI) for meter reading.





### **Enterprise Resource Planning (ERP) Financials**

In FY 2018, various enhancements to improve processes and financial reporting were implemented. This included replacing the manual capital inventory process by implementing mobile ERP solutions, to include barcode scanning technology. The ability for customers to make online payments and payment at kiosks was expanded for Job Orders and for construction fees invoices. Various custom development efforts to include incorporating wholesale billing and support the capital budgeting process in ERP were initiated during FY 2018.

### **Enterprise Asset Management System (EAMS)**

Deployment of new mobile tablet solution was expanded to the water and wastewater plants, SCADA, and meter divisions and sections. Currently, mobile application is deployed to about 500 field staff. In addition, new functionality was implemented to include parts requests and meter reading inspections from the mobile solution. Upgrade to EAMS was postponed to next fiscal year to leverage 11.4 version which meets County security requirements.

### **eBuilder Implementation**

A soft launch of the eBuilder solution took place to support the processes associated with the WASD development projects or 'donations' projects. In addition, implementation of the product to support the Capital Improvement Projects is underway. Project IT tasks included providing technical direction in discovery/design sessions, project management /steering committee meetings; single sign-on implementation; data conversion; integration development for ERP and GIS and deployment of mobile devices. Full deployment of eBuilder is expected for next fiscal year.

### **Geographic Information System (GIS) Solutions**

GIS to EAMS Synchronization: System provides automatic synchronization to EAMS for common assets that have been updated in GIS. The process comprises of WASD specific validation rules to ensure data integrity between the two WASD core system of record and has proven to effectively reduce processing time significantly, while increasing data accuracy in both enterprise systems and providing for digital transformation allowing staff to shift from manual synchronization to mainly focus in the GIS infrastructure maintenance.

### **90-Day CD Dashboard**

System provides data analytics reporting based on several operational dashboards for 90-day Consent Decree compliance project monitoring. The Consent Decree requirement specifies that all WASD assets must be digitized in a geographic information system (GIS) within 90 days of their activation in the field. The system provides filtering tools for selecting date ranges and project information, which displays the results via various dynamic charts and graphs on the dashboard.

### **myWASD ECD**

System provides the Engineering and Construction Division (ECD) with a quick review of the division specific Capital Improvement Program (CIP) information layer created from WASD internal project management tool.

## 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. This outreach program earned WASD one of its eight National Association of Counties (Nacho) awards for government excellence. The winning photo will be featured in WASD's 2018 Drinking Water Week advertisements, as well as other departmental marketing campaigns.

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 2018 winning PSA was aired County-wide in various movie theaters as part of the department's advertising campaigns during the Summer of 2018. The second-place PSA was scheduled to air in theaters in December 2018. The contest earned the Department a National Association of Counties (NACo) award in 2018 for excellence in government programs.



# 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, 2017. 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 35 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 acknowledgment 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**

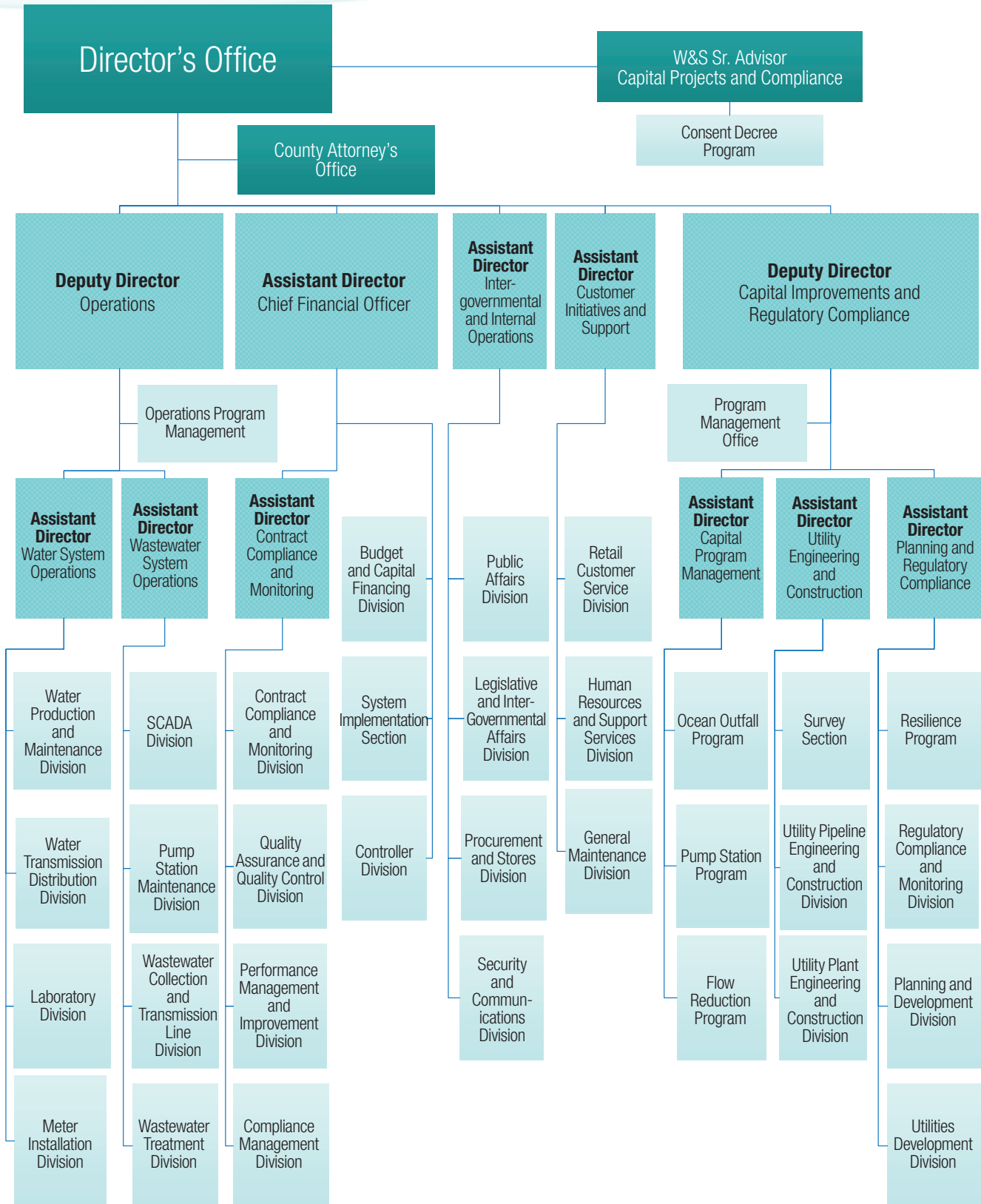
For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended

**September 30, 2017**

*Christopher P. Morill*

Executive Director/CEO

# Organizational Chart



# Financial Section



## INDEPENDENT AUDITORS' REPORT

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, 2018 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, 2018, 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, 2018, 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 29-32, 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 63-65 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 29, 2019 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 29, 2019



# 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, 2018. 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 three major categories: operating, 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, 2018 and 2017 is shown on the following page. The unrestricted portion of net position (available to meet ongoing and future obligations of the Department) decreased by \$23.0 million, or 9.0% in 2018.

Total expenses increased by \$64.0 million, or by 10.3%, in 2018. The increase is primarily due to an increase in interest expense attributable to the decrease on capitalized interest, issuance of refunding bonds 2017A and 2017B, higher level of depreciation, chemical and administrative support charges, and improvements in the water purification process.

Total net position as of September 30, 2018 is approximately \$2.5 billion. The Department's total net position increased by \$53.0 million, or by 2.1%.



# Management's Discussion & Analysis

(In thousands)

	2018	2017
<b><u>SUMMARY OF NET POSITION</u></b>		
Current and Other Assets	\$ 1,023,412	\$ 1,046,074
Capital Assets, net	4,525,216	4,239,832
Total Assets	<u>5,548,628</u>	<u>5,285,906</u>
Deferred Outflows of Resources	<u>186,972</u>	145,737
Total Assets and Deferred Outflows of Resources	<u>5,735,600</u>	<u>5,431,643</u>
Current liabilities	317,519	317,708
Long-term Liabilities	<u>2,879,014</u>	<u>2,635,660</u>
Total Liabilities	<u>3,196,533</u>	<u>2,953,368</u>
Deferred Inflows of Resources	<u>17,779</u>	9,795
Total Liabilities and Deferred Inflows of Resources	<u>3,214,312</u>	<u>2,963,163</u>
Net Position		
Net Investment in Capital Assets	1,941,144	1,851,041
Restricted	342,400	356,540
Unrestricted	<u>237,744</u>	<u>260,899</u>
Total Net Position	<u>\$ 2,521,288</u>	<u>\$ 2,468,480</u>
<b><u>SUMMARY OF CHANGES IN NET POSITION</u></b>		
Water operating revenues	\$ 323,744	\$ 316,045
Wastewater operating revenues	388,105	391,287
Investment income (loss)	1,407	(9,649)
Other nonoperating revenues	<u>35,491</u>	<u>29,457</u>
Total Revenues	<u>748,747</u>	<u>727,140</u>
Water source of supply	9,578	14,193
Water power and pumping	1,927	1,976
Water purification	62,707	60,387
Water transmission and distribution	35,783	31,228
Wastewater collection system	34,049	33,457
Wastewater pumping	43,499	42,543
Wastewater treatment	100,728	92,347
Customer accounting	10,842	9,737
Customer service	23,945	24,423
General and Administrative	100,250	88,239
Depreciation	199,694	187,921
Interest expense	42,861	25,978
Other nonoperating expenses	<u>19,416</u>	<u>8,958</u>
Total Expenses	<u>685,279</u>	<u>621,387</u>
Income before contributions	63,468	105,753
Capital contributions	<u>28,330</u>	<u>35,109</u>
Increase in net position	91,798	140,862
Net position at beginning of year	2,468,480	2,327,618
GASB 75 Restatement <sup>(1)</sup>	<u>(38,990)</u>	-
Net position at end of year	<u>\$ 2,521,288</u>	<u>\$ 2,468,480</u>

<sup>(1)</sup> 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, 2018 and 2017 (in thousands). Total capital assets increased by \$285.4 million, or 6.7%. This increase was due to an increase in capital additions, net of plant retirements and reclassifications of \$499.1 million, offset by \$49.6 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 33.

	(In thousands)	
	2018	2017
Land	\$ 78,524	\$ 75,155
Structures and improvements	2,855,093	2,743,072
Equipment	320,745	293,058
Construction work in progress	1,270,854	1,128,547
Total capital assets	<u>\$ 4,525,216</u>	<u>\$ 4,239,832</u>

This year's major expenditures in capital assets included:

### *Water projects:*

- Transmission mains, meters, and services (\$70.2 million)
- Treatment facilities and equipment (\$9.0 million)
- Wells (\$5.7 million)
- Transportation equipment (\$4.1 million)
- Construction equipment (\$4.1 million)

### *Wastewater Projects:*

- Treatment facilities (\$129.2 million)
- Force mains (\$68.9 million)
- Pump stations (\$53.0 million)
- Inflow/infiltration/exfiltration (\$16.5 million)
- Gravity mains and services (\$12.4 million)

Budgeted capital expenditures for fiscal year 2019 amount to \$545.2 million and include \$175.5 million in water projects and \$369.7 million in wastewater projects.

## **LONG-TERM DEBT**

Long-term debt outstanding (including current portion) at September 30, 2018 and 2017 is presented in the following table (in thousands). FY2018 shows an increase of \$202.9 million from FY2017.

	(In thousands)	
	2018	2017
Revenue Bonds	\$ 2,366,854	\$ 1,980,348
State Loan Obligations	156,833	165,449
Commercial Paper	200,000	375,000
Total long-term debt	<u>\$ 2,723,687</u>	<u>\$ 2,520,797</u>



# Management's Discussion & Analysis

In December 2017, the Department issued the Water and Sewer System Revenue Bonds, Series 2017A and the Water and Sewer System Revenue Refunding Bonds, Series 2017B for \$381.3 million and \$548.0 million, respectively. 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 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.

During FY2018, draws made on state revolving loan commitments, recorded as debt, including capitalized interest, totaled \$4.5 million. Current long-term debt maturities were met in the amount of \$89.7 million. Additional long-term debt details can be found in Note 7 on pages 33-38 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 1.81 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 5.85 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,	<u>2018</u>
		(In thousands)
<b>ASSETS</b>		
<i>CURRENT ASSETS:</i>		
Cash and cash equivalents	\$	22,418
Investments		89,927
Accounts receivable (net of allowance for uncollectible accounts of \$19.5 million)		149,664
Inventory of materials and supplies		39,848
Other current assets		1,871
Restricted cash and cash equivalents		226,611
Total current assets		<u>530,339</u>
<i>NONCURRENT RESTRICTED ASSETS:</i>		
Cash and cash equivalents		45,121
Investment derivative instrument		22,585
Investments		393,520
Long-term receivable - General Fund		10,000
Grants receivable		247
Total restricted assets		<u>471,473</u>
<i>OTHER ASSETS:</i>		
Bond insurance		1,134
Other charges, net		20,466
Total other assets		<u>21,600</u>
<i>CAPITAL ASSETS:</i>		
Land		78,524
Structures and improvements		5,214,460
Equipment		1,253,429
Utility plant in service before depreciation		6,546,413
Less accumulated depreciation		<u>(3,292,051)</u>
Net utility plant in service		3,254,362
Construction work in progress		1,270,854
Total capital assets		<u>4,525,216</u>
Total noncurrent assets		<u>5,018,289</u>
Total assets		<u>5,548,628</u>
<i>DEFERRED OUTFLOWS OF RESOURCES:</i>		
Loss on refundings		124,612
Outflow related to pension		62,360
Total deferred outflows of resources		<u>186,972</u>
Total assets and deferred outflows of resources	\$	<u><u>5,735,600</u></u>

(Continued)



# Statement of Net Position

(Continued)	September 30,	<u>2018</u>
		(In thousands)
<b>LIABILITIES</b>		
<i>CURRENT LIABILITIES (PAYABLE FROM UNRESTRICTED CURRENT ASSETS):</i>		
Accounts payable and accrued expenses	\$	52,610
Customer and developer deposits		18,751
Current portion of long-term debt		7,961
Liability for compensated absences		10,420
Other liabilities		<u>1,166</u>
Total current liabilities (payable from unrestricted current assets)		<u>90,908</u>
 <i>CURRENT LIABILITIES (PAYABLE FROM RESTRICTED CURRENT ASSETS):</i>		
Accounts payable and accrued expenses		73,126
Retainage payable		24,520
Current portion of long-term debt		76,193
Accrued interest payable		51,740
Liability for self insurance		<u>1,032</u>
Total current liabilities (payable from restricted current assets)		<u>226,611</u>
 Total current liabilities		 <u>317,519</u>
 <i>NONCURRENT LIABILITIES:</i>		
Revenue bonds payable, net		2,295,799
State loan obligations, net		143,734
Commercial Paper		200,000
Liability for self-insurance		2,241
Liability for compensated absences		34,829
Liability for post-employment benefits		43,290
Net pension liability		<u>159,121</u>
Total noncurrent liabilities		<u>2,879,014</u>
 Total liabilities		 <u>3,196,533</u>
 <i>DEFERRED INFLOWS OF RESOURCES:</i>		
Inflow related to pension		15,532
Inflow related to post-employment benefits		<u>2,247</u>
Total deferred inflows of resources		<u>17,779</u>
 Total liabilities and deferred inflows of resources		 <u>3,214,312</u>
 <b>NET POSITION</b>		
Net investment in capital assets		1,941,144
Restricted for:		
Capital projects		202,871
Debt service		139,529
Unrestricted		<u>237,744</u>
Total net position		<u>2,521,288</u>
 Total liabilities, deferred inflows of resources and net position	\$	 <u>5,735,600</u>

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,	<u>2018</u>
(In thousands)	
<i>OPERATING REVENUES:</i>	
Water	\$ 323,744
Wastewater	388,105
Total operating revenues	<u>711,849</u>
<i>OPERATING AND MAINTENANCE EXPENSES:</i>	
Water source of supply	9,578
Water power and pumping	1,927
Water purification	62,707
Water transmission and distribution	35,783
Wastewater collection system	34,049
Wastewater pumping	43,499
Wastewater treatment	100,728
Customer accounting	10,842
Customer service	23,945
General and administrative	100,250
Total operating and maintenance expenses	<u>423,308</u>
Operating income before depreciation	288,541
<i>DEPRECIATION EXPENSE</i>	<u>199,694</u>
Operating income	88,847
<i>NON-OPERATING REVENUES (EXPENSES):</i>	
Investment income	1,407
Interest expense	(42,861)
Amortization of insurance costs	(13,411)
Customer connection fees	35,491
Other revenues	(204)
Other expenses	(5,801)
Income before contributions	63,468
Capital contributions	<u>28,330</u>
Increase in net position	91,798
Net position at beginning of year, as previously reported	<u>2,468,480</u>
GASB No. 75 Restatement <sup>(1)</sup>	<u>(38,990)</u>
Net position at beginning of year, restated	<u>2,429,490</u>
Net position at end of year	<u>\$ 2,521,288</u>

<sup>(1)</sup> 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.



# Statement of Cash Flows

For the fiscal year ended September 30, 2018  
(In thousands)

*CASH FLOWS FROM OPERATING ACTIVITIES:*

Cash received from customers	\$ 756,925
Cash paid to suppliers for goods and services	(198,423)
Cash paid to employees for services	<u>(225,926)</u>
Net cash provided by operating activities	<u>332,576</u>

*CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:*

Proceeds from bond issues, loan agreements and notes	590,751
Principal payments - bond, loans and notes	(481,556)
Bond premium	(55,413)
Interest paid	62,320
Acquisition and construction of capital assets	<u>(447,952)</u>
Net cash used by capital and related financing activities	<u>(331,850)</u>

*CASH FLOWS FROM INVESTING ACTIVITIES:*

Purchase of investment securities	(1,206,812)
Proceeds from sale and maturity of investment securities	1,297,387
Interest on investments	<u>(61,456)</u>
Net cash provided by investing activities	<u>29,119</u>

Net increase in cash and cash equivalents	29,845
Cash and cash equivalents at beginning of year	<u>264,305</u>
Cash and cash equivalents at end of year	<u>\$ 294,150</u>

(Continued)



# Statement of Cash Flows

(Continued)	For the fiscal years ended September 30,	<u>2018</u>
		(In thousands)
<i>RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES:</i>		
Operating income	\$	88,847
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation		199,694
Provision for uncollectible accounts		2,931
Non-operating other, net		25,379
(Increase) decrease in assets and deferred outflows:		
Accounts receivable		10,004
Inventory of materials and supplies		(569)
Other current assets		1,970
Contracts receivable		(41)
Other charges		(22,386)
Deferred outflows related to pension		768
Increase (decrease) in liabilities and deferred inflows:		
Accounts payable and accrued expenses		(16,979)
Customer and developer deposits		(108)
Accrued interest payable		3,935
Liability for compensated absences		3,053
Other liabilities		(12,379)
Liability for other post-employment benefits		36,534
Liability for self-insurance		1,328
Net pension liability		2,612
Deferred Inflows		7,983
		<u>7,983</u>
Net cash provided by operating activities	\$	<u>332,576</u>

## *NONCASH INVESTING, CAPITAL AND FINANCING ACTIVITIES*

Property, plant and equipment contributions were received in amounts of \$28.3 million in fiscal year 2018.

The change in the fair value of investments was a \$0.2 million decrease in fiscal year 2018.

The change in the fair value of swaps was an \$9.2 million decrease in fiscal year 2018.

## *RECONCILIATION OF CASH AND CASH EQUIVALENTS AT END OF YEAR*

Unrestricted Current Cash and Cash Equivalents	\$	22,418
Restricted Current Cash and Cash Equivalents		226,611
Restricted Noncurrent Cash and Cash Equivalents		45,121
	\$	<u>294,150</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 the financing of 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 2018 were approximately \$46.9 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 2018, 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, 2018. 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, 2018 was \$199.7 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*

Interest is charged to expense, as incurred, except for interest related to borrowings used for construction projects which is capitalized, net of interest earned on construction funds borrowed. For fiscal year ended September 30, 2018 interest expense incurred was \$105.0 million and capitalized interest was \$62.2 million.

For interest rate swap agreements, the amounts recorded in the financial statements are the net interest expense along with amortization of fees paid or received resulting from these agreements. The Department recorded an upfront payment for the swap option that was terminated during FY2009 and is amortizing the payment, net of interest expense, in the financial statements.

## *BOND DISCOUNT AND PREMIUM*

Discounts and premiums on bonds and notes payable are amortized using the straight-line method over the life of the related bond issuances or term of the notes. 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.

## *COMPENSATED ABSENCES*

The Department accounts for compensated absences by accruing a liability for employees' compensation for future absences.

## *PENSIONS*

In March 2016, the GASB issued Statement No. 82, *an amendment of GASB Statement No. 67, No. 68 and No. 73*. The objective of this Statement is to address certain issues that have been raised with respect to Statements No. 67, *Financial Reporting for Pension Plans*, No. 68, *Accounting and Financial Reporting for Pensions*, and No. 73, *Accounting and Financial Reporting for Pensions and Related Assets That Are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68*. Specifically, this Statement addresses issues regarding (1) the presentation of payroll-related measures in required supplementary information, (2) the selection of assumptions and the treatment of deviations from the guidance in an Actuarial Standard of Practice



# Notes to Financial Statements

for financial reporting purposes, and (3) the classification of payments made by employers to satisfy employee (plan member) contribution requirements. The Department adopted this standard in fiscal year 2017.

In June 2015, the GASB issued Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*. The primary objective of this Statement is to improve accounting and financial reporting by state and local governments for postemployment benefits other than pensions (other postemployment benefits or OPEB). It also improves information provided by state and local governmental employers about financial support for OPEB that is provided by other entities. Specifically, this statement requires governments to report a liability on the face of the financial statements for the OPEB that they provide. This Statement replaces the requirements of Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*. The Department adopted this standard in fiscal year 2018.

## *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 account groups 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, 2018 was \$115.7 million. The bank balances at local depositories were \$122.9 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, 2018 was approximately \$115.9 million.



# Notes to Financial Statements

## INVESTMENTS

The below hierarchy is based on the valuation input used to measure the fair value of the asset with Level 1 assets being those where quoted prices in an active market for identical assets can be readily obtained, and Level 2 assets valued using a matrix pricing technique of quoted prices for similar assets or liabilities in active markets. Level 3 is for assets that have unobservable valuation inputs and should only be used when Level 1 and Level 2 inputs are unavailable. The County does not have any Level 1 or Level 3 inputs.

The Department's carrying value of cash equivalents and investments include the following as of September 30, 2018:

	Fair Value 2018
<b><u>Investments Level 2</u></b>	
Commercial Paper	\$ 201,539
Federal Home Loan Bank	124,446
Federal Home Loan Mortgage Corporation	120,077
Federal Farm Credit Bank	93,912
Federal National Mortgage Association	91,321
Treasury Notes	25,631
Jubilee Issue Bonds	2,486
Total Investments	<u>\$ 659,412</u>
 <b><u>Cash Equivalents</u></b>	
Interest Bearing	2,304
Total Investments and Cash Equivalents	<u>\$ 661,716</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, 2018:

	Credit Ratings 2018
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+

## *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, 2018, all of 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, 2018, the following issuers held 5% or more of the investment portfolio:

	% of Portfolio 2018
Commercial Paper	30.46
Federal Home Loan Bank	18.81
Federal Home Loan Mortgage Corporation	18.15
Federal Farm Credit Bank	14.19
Federal National Mortgage Association	13.80
Treasury Notes	-

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, 2018, the Department had the following investments with the weighted average maturity in years.

	Weighted Average in Years 2018
Jubilee Issue Bonds	0.93
Federal Home Loan Mortgage Corporation	0.65
Federal National Mortgage Association	0.50
Federal Farm Credit Bank	0.43
Federal Home Loan Bank	0.27
Treasury Notes	0.20
Commercial Paper	0.18

## *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, 2018 was as follows (in thousands):

	2018
Trade Accounts	\$ 160,613
Non-retail accounts	7,796
Grants & Contracts	247
Other County funds	10,766
Gross receivables	179,422
Less: allowance for doubtful accounts	(19,511)
Net receivables	\$ 159,911

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 will be five years, no interest, with repayments of \$5 million per year to begin at the end of fiscal year 2014. As of September 30, 2018, the Department received \$15 million with a balance due of \$10 million.



# Notes to Financial Statements

## 4. OTHER CURRENT ASSETS

Other current assets for fiscal year ended September 30, 2018 were as follows (in thousands):

	2018
Beginning Balance	\$ 3,841
Prepaid Expenses	788
Advance to City of Hialeah	<u>(2,758)</u>
Ending Balance	<u>\$ 1,871</u>

The County entered 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 2018, no monies were contributed to the City of Hialeah and the Department incurred \$2.8 million in operating expenses. As of September 30, 2018, 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, 2018 is represented in the following table (in thousands):

	2018
Debt Service	\$ 203,640
Construction	132,096
Other	129,040
Plant Expansion	124,567
Renewal and Replacement	102,151
Self-Insurance	<u>6,590</u>
Total Restricted Assets	<u>\$ 698,084</u>



# Notes to Financial Statements

## 6. CAPITAL ASSETS

Capital asset activity during fiscal year 2018 was as follows (in thousands):

	Balance	2018		Balance
	9/30/2017	Additions	Deletions	9/30/2018
Capital assets, not being depreciated:				
Land	\$ 75,155	\$ 3,369	\$ -	\$ 78,524
Construction work in progress	1,128,547	475,651	(333,344)	1,270,854
Total capital assets, not being depreciated	1,203,702	479,020	(333,344)	1,349,378
Capital assets, being depreciated:				
Structures and improvements	5,073,477	278,663	(137,680)	5,214,460
Equipment	1,205,066	76,477	(28,114)	1,253,429
Total capital assets, being depreciated	6,278,543	355,140	(165,794)	6,467,889
Less accumulated depreciation:				
Structures and improvements	(2,330,406)	(150,998)	122,037	(2,359,367)
Equipment	(912,007)	(48,696)	28,019	(932,684)
Total accumulated depreciation	(3,242,413)	(199,694)	150,056	(3,292,051)
Total capital assets, being depreciated, net	3,036,130	155,446	(15,738)	3,175,838
Total capital assets, net	\$ 4,239,832	\$ 634,466	\$ (349,082)	\$ 4,525,216

## 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 34. 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 at September 30, 2018.

### *MIAMI-DADE COUNTY REVENUE BONDS, SERIES 2007*

On September 29, 2007, \$344.7 million of Miami-Dade County Water and Sewer System Revenue Refunding Bonds, Series 2007 were issued to refund the Miami- Dade County Water and Sewer System Revenue Bonds, Series 1997 maturing after October 1, 2009, and to pay issue costs. 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 \$244.4 aggregate principal of Series 2007.

The Series 2007 Refunding Bonds are collateralized by the net operating revenues of the Department and are due serially on October 1 starting in 2008 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 2018.



# Notes to Financial Statements

## CHANGES IN LONG-TERM LIABILITIES

A summary of long-term liability activity during fiscal year 2018 is presented in the following table (in thousands):

Description	Outstanding Rate	Balance 9/30/2017	2018		Balance 9/30/2018	Due in 2019
			Additions	Deletions		
<i>Dade County Revenue Bonds</i>						
Series 2007	4.00%-5.00%	\$ 14,335	\$ -	\$ 14,335	\$ -	\$ -
Series 2008A & B	3.25%-5.25%	\$ 301,660	-	43,965	\$ 257,695	46,350
Series 2008C	4.00%-6.00%	\$ 15,715	-	7,650	\$ 8,065	8,065
Series 2010	2.00%-5.00%	\$ 580,340	-	570,620	\$ 9,720	3,135
Series 2013A	5.00%	\$ 340,265	-	-	\$ 340,265	-
Series 2013B	5.00%	\$ 152,400	-	-	\$ 152,400	-
Series 2015	4.00%-5.00%	\$ 481,175	-	-	\$ 481,175	13,505
Series 2017A	4.00%-5.00%	\$ -	381,355	-	\$ 381,355	-
Series 2017B	3.00%-5.00%	\$ -	548,025	-	\$ 548,025	-
Less: Unamortized Discount		\$ (83)	-	(83)	\$ -	-
Plus: Unamortized Premium		\$ 94,541	101,233	7,620	\$ 188,154	-
Total revenue bonds		\$ 1,980,348	\$ 1,030,613	\$ 644,107	\$ 2,366,854	\$ 71,055
<i>State Loan Obligations</i>						
State Revolving Fund	2.56%-4.17%	165,449	4,512	13,128	\$ 156,833	13,099
Total State Revolving Funds		\$ 165,449	\$ 4,512	\$ 13,128	\$ 156,833	\$ 13,099
<i>Commercial Paper</i>						
Commercial Paper		375,000	225,000	400,000	\$ 200,000	-
Total long-term debt		\$ 2,520,797	\$ 1,260,125	\$ 1,057,235	\$ 2,723,687	\$ 84,154
<i>Other liabilities</i>						
Compensated Absences		42,195	13,114	10,061	\$ 45,248	10,420
Self-Insurance		1,945	1,328	-	\$ 3,273	1,032
Other post-employment benefits		6,756	36,534	-	\$ 43,290	-
Net pension liability		156,510	2,611	-	\$ 159,121	-
Total long-term liabilities		\$ 2,728,203	\$ 1,313,712	\$ 1,067,296	\$ 2,974,619	\$ 95,606

## DEBT SERVICE REQUIREMENTS

As of September 30, 2018, the Department's debt service requirements to maturity for their term were as follows (in thousands):

Maturing in Fiscal Year	Revenue Bonds		State Loans		Total		Debt
	Principal	Interest	Principal	Interest	Principal	Interest	
2019	71,055	100,241	13,099	2,709	84,154	102,950	187,104
2020	74,720	96,595	12,440	2,443	87,160	99,038	186,198
2021	81,655	92,755	12,677	2,182	94,332	94,937	189,269
2022	82,370	88,706	12,368	1,948	94,738	90,654	185,392
2023	86,685	84,424	9,476	1,736	96,161	86,160	182,321
2024-2028	491,555	352,608	41,987	7,047	533,542	359,655	893,197
2029-2033	378,500	249,086	45,136	3,285	423,636	252,371	676,007
2034-2038	380,330	168,906	9,650	418	389,980	169,324	559,304
2039-2043	421,785	81,865	-	-	421,785	81,865	503,650
2044-2047	110,045	12,726	-	-	110,045	12,726	122,771
	2,178,700	1,327,912	156,833	21,768	2,335,533	1,349,680	3,685,213
Unamortized Discount & Premium Amounts	188,154	-	-	-	188,154	-	188,154
Total	\$ 2,366,854	\$ 1,327,912	\$ 156,833	\$ 21,768	\$ 2,523,687	\$ 1,349,680	\$ 3,873,367





# 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 2018.

## *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 of 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 2018.

## *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 of 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 2018.

## *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 2018.



# 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 2018.

## *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 2018.

## *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 2018.

## *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 2018.



# 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, 2018, are detailed in the following table (in thousands).

<u>Loan #</u>	<u>Draws</u>	<u>Closed Out Date</u>
377500	801	12/1/2003
377650	116	8/8/2003
377670	536	10/27/2003
377860	1,034	9/20/2006
377870	1,340	9/20/2006
37788P	1,303	9/27/2004
37789A	313	8/1/2007
37789L	613	9/26/2006
300010	10,531	8/4/2008
300080	934	4/28/2003
377900	106,642	Active
130200	131	Active
130201	69	Active
130230	15,183	Active
130240	17,287	Active
	<u>\$ 156,833</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 2018.

## *COMMERCIAL PAPER*

The Department established a commercial paper (CP) program to provide interim financing for the Department’s capital improvement program. Two series of notes have been issued 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 October 1, 2019.

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.

## *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-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.



# Notes to Financial Statements

During fiscal year 2010, Statement No. 53 of the Governmental Accounting Standards Board, *Accounting and Financial Reporting for Derivative Instruments*, (GASB 53) became effective. 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, 2018 was a decrease of \$9.2 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 decrease brings the total fair value to \$22.6 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 <sup>(2)</sup>	Start Date	Termination Date	Counterparty Payment	County Payment	Fair Value at 09/30/18	Fair Value at 09/30/17
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)	\$10,742,079	\$12,356,593
Series 2013B <sup>(1)</sup>	\$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)	\$11,842,618	\$19,421,631

<sup>(1)</sup> The underlying debt for the swap has been replaced with the Series 2013B Bonds.  
<sup>(2)</sup> Moody's, S&P, Fitch.

## Risk Disclosure

**Credit Risk.** Because all of 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, 2018, the Department had no variable rate debt outstanding.

**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.



# Notes to Financial Statements

## 8. PAYABLES

Payables and accrued expenses for fiscal year ended September 30, 2018 were as follows (in thousands):

	2018
Other County funds	\$ 15,661
Vendors	24,888
Other governments	19,429
Salaries and benefits	6,831
Contractors	58,671
Other	256
Total payables	<u>\$ 125,736</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](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 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



# Notes to Financial Statements

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. For fiscal year ended September 30, 2018, employees were required to contribute 3% of their gross salary. Employer contribution is based on class. For fiscal year ended September 30, 2018, the contribution rate for FRS Regular and DROP were 7.92% and 13.26% respectively. The Department's contributions for FRS totaled \$12.7 million and employee contributions totaled \$4.0 million.

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

At September 30, 2018, the Department reported a liability of \$124.0 million for its proportionate share of the Plan's net pension liability. The net pension liability was measured as of June 30, 2018, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of July 1, 2018.

For the fiscal year ended September 30, 2018, the Department recognized pension expense of \$8.4 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):

<b>Description</b>	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Differences between expected and actual experience	\$ 10,510	\$ 381
Change of assumptions	40,539	
Net difference between projected and actual earnings on FRS pension plan investments		9,586
Changes in proportion and differences between Miami Dade County FRS contributions and proportionate share of contributions	2,165	1,580
Miami Dade County contributions subsequent to measurement date	3,369	
<b>Total</b>	<b>\$ 56,583</b>	<b>\$ 11,548</b>



# Notes to Financial Statements

For fiscal year ended September 30, 2018, the deferred outflows of resources related to pensions of approximately \$3.4 million, resulting from the Department's contributions to the Plan subsequent to the measurement date, will be recognized as a reduction of the net pension liability in the fiscal year ended September 30, 2019. 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
2019	\$ 15,334
2020	10,977
2021	2,014
2022	7,597
2023	4,991
Thereafter	755

## Actuarial Assumptions

The FRS 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
Investment Rate of Return	7.00%, net of pension plan investment expense, including inflation

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

The actuarial assumptions used in the July 1, 2018 valuations were based on the results of an actuarial experience study for the period July 1, 2008 through June 30, 2013.

## Long-Term Expected Rate of Return

For fiscal years ended September 30, 2018, the long-term expected rate of return on the Plan investments was not based on historical returns, but instead was based on a forward-looking 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, 2018, the target allocation and best estimates of arithmetic and geometric real rates of return for each major asset class are summarized in the following table:

Asset Class	Target Allocation <sup>1</sup>	Annual Arithmetic Return	Compound Annual (Geometric) Return	Standard Deviation
Cash	1.0%	2.9%	2.9%	1.8%
Fixed income	18.0%	4.4%	4.3%	4.0%
Global equity	54.0%	7.6%	6.3%	17.0%
Real estate (property)	11.0%	6.6%	6.0%	11.3%
Private equity	10.0%	10.7%	7.8%	26.5%
Strategic investments	6.0%	6.0%	5.7%	8.6%
	100.0%			
Assumed inflation-Mean		2.6%		1.9%

Note: (1) As outlined in the Plan's investment policy

## Discount Rate

For fiscal year ended September 30, 2018, the discount rate used to measure the net pension liability of the Plan was 7.00 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.



# Notes to Financial Statements

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

For fiscal year ended September 30, 2018, the following represents the Department's proportionate share of the net pension liability calculated using the discount rate of 7.00 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 (6.00 percent) or one percentage point higher (8.00 percent) than the current rate (in thousands):

<b>Miami Dade County's proportionate share of net pension liability allocated to the Department</b>	<b>1% Decrease 6.00%</b>	<b>Current Discount Rate 7.00%</b>	<b>1% Increase 8.00%</b>
	\$ 226,427	\$ 124,066	\$ 39,050

## *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, 2018 were allocated as follows (in thousands):

<b>Water and Sewer</b>	<b>FRS PLAN</b>				
	<b>Percent Allocation</b>	<b>Net Pension Liability</b>	<b>Deferred Outflow of Resources</b>	<b>Deferred Inflow of Resources</b>	<b>Pension Expense/Adjustment</b>
2018	5.26%	\$ (124,066)	\$ 56,583	\$ (11,548)	\$ 8,405

## *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, 2018, 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, 2018, 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 available funds fail to provide full subsidy benefits to all participants, benefits may be reduced or canceled.

For the fiscal year ended September 30, 2018, the Department's contributions to the HIS Plan totaled \$1.8 million.





# Notes to Financial Statements

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

At September 30, 2018, the Department reported a net pension liability of \$35.0 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, 2018 and was recalculated and projected to the measurement date of June 30, 2018 using a standard actuarial roll-forward technique.

For the fiscal year ended September 30, 2018, the Department recognized pension expense of \$0.7 million related to the HIS Plan. In addition, the Department reported, deferred outflows or resources and deferred inflows of resources related to the HIS Plan from the following sources (in thousands):

Description	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 537	\$ 60
Change of assumptions	3,899	3,706
Net difference between projected and actual earnings on HIS pension plan investments	21	
Changes in proportion and differences between County HIS contributions and proportionate share of HIS contributions	828	219
Miami Dade County contributions subsequent to measurement date	493	
<b>Total</b>	<b>\$ 5,777</b>	<b>\$ 3,984</b>

For fiscal year ended September 30, 2018, 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, 2018. 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
2019	\$ 559
2020	557
2021	452
2022	181
2023	(422)
Thereafter	(28)

## *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	3.87%

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

The actuarial assumptions used in the June 30, 2018 valuations were based on the results of an actuarial experience study for the period July 1, 2008 through June 30, 2013.

## *Discount Rate*

For fiscal year ended September 30, 2018, the discount rate used to measure the total pension liability for the HIS Plan was 3.87 percent. In general, the discount rate for calculating the total pension liability is equal to the single rate



# Notes to Financial Statements

equivalent to discounting at the long-term expected rate of return for benefit payments prior to the projected depletion date. Because the HIS benefit is essentially funded on a pay-as-you-go basis, the depletion date is considered to be immediate, and the single equivalent discount rate is equal to the municipal bond rate selected by the HIS Plan sponsor. The Bond Buyer General Obligation 20-Bond Municipal Bond Index was adopted as the applicable municipal bond index.

### *Sensitivity of the Department's Proportionate Share of the Net Pension Liability to Changes in the Discount Rate*

For fiscal year ended September 30, 2018, the following represents the Department's proportionate share of the net pension liability calculated using the discount rate of 3.87 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 (2.87 percent) or one percentage point higher (4.87 percent) than the current rate (in thousands):

Miami Dade County's proportionate share of net pension liability allocated to the Department	1% Decrease 2.87%	Current Discount Rate 3.87%	1% Increase 4.87%
	\$ 39,925	\$ 35,055	\$ 30,995

### *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, 2018 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	
2018	5.26%	\$ (35,055)	\$ 5,777	\$ (3,984)	\$ 711	

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	
2018	5.26%	\$ (159,121)	\$ 62,360	\$ (15,532)	\$ 9,116	

### *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 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



# Notes to Financial Statements

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, 2018, 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, 2018, 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, 2018, 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 2018 and 2017 were as follows (in thousands):

	2018	2017
Balance at beginning of year	\$ 1,945	\$ 2,807
Claims and changes in estimates	1,749	493
Less: Payments	(421)	(1,355)
Balance at end of year	<u>\$ 3,273</u>	<u>\$ 1,945</u>

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 \$3.3 million at September 30, 2018



# Notes to Financial Statements

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 \$5.6 million as of September 30, 2018.

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 2018 are presented as follows (in thousands):

	<u>2018</u>
Contributed Facilities:	
Developers	<u>\$28,330</u>

## 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, 2018 (in thousands):

	<u>2018</u>
General Fund	\$ 19,898
Other County Departments	39,388
Regulatory	21,522
Information Technology	20,957
Internal Services Department	16,691
Solid Waste	16,599

In addition to the payments, the Department had related payables of \$15.7 million at September 30, 2018. The Department also has receivables from other County departments amounting to \$10.8 million at September 30, 2018. 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.

## 13. COMMITMENTS AND CONTINGENCIES

### *CONSTRUCTION*

For fiscal year ended September 30, 2018, the Department had contractual commitments of \$518.9 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.



# Notes to Financial Statements

## *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, 2018, 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.

## *SETTLEMENT AGREEMENTS AND CONSENT DECREES*

In 1993, the Department entered into a Settlement Agreement with the Florida Department of Environmental Protection (FDEP) resulting in very limited restriction on new sewer construction in certain areas of the County until adequate capacity became available in the wastewater system. Subsequently, in 1994 and 1995, two consent decrees, the First Partial Consent Decree (FPCD) and the Second and Final Partial Consent Decree (SFPCD), were entered into with the United States of America whereby the Department accelerated its improvement program of the wastewater system. All requirements of the Settlement Agreement were satisfied, and the Agreement was closed by FDEP on September 1, 2011.

On May 21, 2013, the Board of County Commissioners approved a Resolution authorizing execution of a new Consent Decree between Miami-Dade County, the United States of America, the State of Florida and Florida Department of Environmental Protection (FDEP). It was lodged with the Clerk of the Court for the U.S. District Court for the Southern District of Florida on June 6, 2013 and became effective on December 6, 2013. The new Consent Decree was subsequently approved by The Court; the date of entry is recorded as April 9, 2014. Upon the Date of Entry, the previous FPCD and SFPCD were terminated with the Department having maintained compliance with all the provision, incurring no penalties. The terms and conditions of the new Consent Decree are intended to replace and supersede the terms and provisions of the FPCD and SFPCD and recognize that appropriate modifications and updates are warranted due to the fact that conditions within and circumstances surrounding the Miami-Dade's Wastewater Collection and Transmission System (WCTS) have changed since entry of the FPCD and SFPCD in the middle of the 1990s. The Department is in compliance with the provisions of the new Consent Decree.

## **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



# Notes to Financial Statements

Post-65 retirees are able to select from three medical plans, as follows. The County only contributes to post-65 retirees electing an AvMed Medicare Supplement Plan.

- AvMed Medicare Supplement Low Option with prescription drug coverage
- AvMed Medicare Supplement High Option with prescription drug coverage
- AvMed Medicare Supplement High Option without prescription drug coverage

## *FUNDING POLICY*

The County contributes to both the pre-65 and post-65 retiree medical coverage. Medical contributions vary based on plan and tier. Retirees pay the full cost of dental coverage. The postretirement medical is currently funded on a pay-as-you go basis. Contributions are required for both retiree and dependent coverage. Retirees contribute a portion of the full active premium equivalent rates for health coverage. The County subsidy is assumed to remain flat.

The 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 \$43.3 million was measured as of September 30, 2018 and was determined by an actuarial valuation as of that date.

## *Actual assumptions and other inputs*

The total OPEB liability in the September 30, 2018 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, 2018
Discount Rate	3.63% 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 7.0% initial to 4.5% ultimate
Retiree's Share of Benefit-Related Costs	43.1%
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, 2018 valuation were based on the Florida Retirement System's valuation assumptions and Miami Dade County's claims experience for the period of October 1, 2017 to September 30, 2018.



# Notes to Financial Statements

## CHANGES IN TOTAL OPEB LIABILITY

Changes in the Department's total OPEB liability for the fiscal year ended September 30, 2018 were as follows (in thousands):

	<b>Total OPEB Liability</b>
<b>Balance at September 30, 2017</b>	\$ 45,746
Changes for the Year:	
Service Cost	821
Interest	1,540
Change of Benefit Terms	(2,463)
Difference Between Expected and Actual Experience	-
Benefits Payments	(2,354)
<b>Balance at September 30, 2018</b>	<b>\$ 43,290</b>

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.

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

For fiscal year ended September 30, 2018, 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):

	<b>1% Decrease (3.24%)</b>	<b>Current Discount Rate (4.24%)</b>	<b>1% Increase (5.24%)</b>
<b>Total OPEB Liability</b>	\$ 47,426	\$ 43,290	\$ 39,648

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

For fiscal year ended September 30, 2018, 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):

	<b>1% Decrease</b>	<b>Current Trend</b>	<b>1% Increase</b>
<b>Total OPEB Liability</b>	\$ 39,390	\$ 43,290	\$ 48,058

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

For fiscal year ended September 30, 2018, the Department recognized negative OPEB expense of \$0.2 million. At September 30, 2018, the Department reported Deferred Inflow of Resources related to OPEB from the following sources (in thousands):

	<b>Deferred Outflow of Resources</b>	<b>Deferred Inflow of Resources</b>
Differences between expected and actual experience	\$ -	\$ -
Changes in assumptions / inputs	-	2,247
Net difference between projected and actual investments	-	-
<b>Total</b>	<b>\$ -</b>	<b>\$ 2,247</b>



# Notes to Financial Statements

Amounts reported as Deferred Outflow of resources and Deferred Inflows of resources related to OPEB will be recognized in OPEB expense as follows (in thousands):

Fiscal Year Ending September 30,	Deferred <u>outflows/(inflows), net</u>
2019	\$ 216
2020	216
2021	216
2022	216
2023	216
Thereafter	1,165

## 15. SUBSEQUENT EVENTS

On September 20, 2018, the Board of County Commissioners adopted County Budget Ordinance Number 18-102 authorizing a modification of \$1.80 to wastewater retail bills for customers with a 5/8-inch meter to continue to strengthen revenue generation that support fixed-costs. The median monthly bill of the residential customer using 5,236 gallons (7 ccf) per month will be \$44.33 or \$1.80 higher from the current estimated bill of \$42.53. In addition to changes to retail customers rate schedules, the County Budget Ordinance will decrease the wholesale water rate to \$1.7628 from \$1.8341, or by \$0.0713 per thousand gallons; the wastewater wholesale rate will remain at \$3.0937 per thousand gallons. Wholesale customers' bills will include a true-up adjustment to recover actual cost for FY 2016-17. All changes will be effective October 1, 2018.





# Required Supplementary Information

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

	<b>2018</b>
<b>Total OPEB Liability</b>	
Changes for the Year:	
Service Cost	\$ 821
Interest	1,540
Change of Benefit Terms	(2,463)
Difference Between Expected and Actual Experience	-
Benefits Payments	(2,354)
<b>Net Change in Total OPEB Liability</b>	\$ (2,456)
<b>Total OPEB Liability - Beginning</b>	\$ 45,746
<b>Total OPEB Liability - Ending</b>	\$ 43,290
<b>Covered - Employee Payroll</b>	161,279
<b>Total OPEB Liability as a Percentage of Covered - Employee Payroll</b>	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:

2018 4.24%  
2017 3.63%

Currently, only data for fiscal year 2018 is 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)**

<b>JUNE 30th,</b>	<u><b>2018</b></u>	<u><b>2017</b></u>	<u><b>2016</b></u>	<u><b>2015</b></u>	<u><b>2014</b></u>
Department's proportion of the County's FRS net pension liability	5.26%	5.29%	5.65%	5.93%	5.93%
Department's proportionate share of the County's FRS net pension liability	\$ 124,066	\$ 121,477	\$ 111,748	\$ 56,648	\$ 27,104
Department's covered payroll	\$ 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	69.12%	72.16%	66.20%	42.95%	21.41%
FRS Plan fiduciary net position as a percentage of the total pension liability	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)**

<b>SEPTEMBER 30th,</b>	<u><b>2018</b></u>	<u><b>2017</b></u>	<u><b>2016</b></u>	<u><b>2015</b></u>	<u><b>2014</b></u>
Contractually required FRS contribution	\$ 10,637	\$ 10,691	\$ 10,534	\$ 10,693	\$ 9,730
FRS contribution in relation to the contractually required contribution	<u>10,637</u>	<u>10,691</u>	<u>10,534</u>	<u>10,693</u>	<u>9,730</u>
FRS contribution deficiency (excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Department's covered payroll	\$ 183,327	\$ 169,397	\$ 174,697	\$ 141,267	\$ 126,719
FRS contribution as a percentage of covered payroll	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)**

<b>JUNE 30th,</b>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Department's proportion of the County's HIS net pension liability	5.26%	5.29%	5.65%	5.93%	5.93%
Department's proportionate share of the County's HIS net pension liability	\$ 35,055	\$ 35,033	\$ 42,010	\$ 37,204	\$ 33,960
Department's covered payroll	\$ 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	24.42%	26.00%	31.15%	22.66%	21.71%
HIS Plan fiduciary net position as a percentage of the total pension liability	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)**

<b>SEPTEMBER 30th,</b>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>
Contractually required HIS contribution	\$ 1,725	\$ 1,734	\$ 1,770	\$ 1,394	\$ 1,244
HIS contribution in relation to the contractually required contribution	<u>1,725</u>	<u>1,734</u>	<u>1,770</u>	<u>1,394</u>	<u>1,244</u>
HIS contribution deficiency (excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Department's covered payroll	\$ 146,648	\$ 135,685	\$ 139,403	\$ 162,174	\$ 156,889
HIS contribution as a percentage of covered payroll	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, <u>2018</u>
	(In thousands)
<b>ASSETS</b>	
<i>CURRENT ASSETS:</i>	
Cash and cash equivalents	\$ 11,468
Investments	38,788
Accounts receivable (net of allowance for uncollectible accounts of \$8.9 million)	65,976
Inventory of materials and supplies	16,292
Other current assets	1,871
Restricted cash and cash equivalents	57,308
Total current assets	<u>191,703</u>
 <i>NONCURRENT RESTRICTED ASSETS:</i>	
Cash and cash equivalents	36,852
Investment derivative instrument	11,293
Investments	184,201
Long-term receivable - General Fund	10,000
Grants receivable	247
Total restricted assets	<u>242,593</u>
 <i>OTHER ASSETS:</i>	
Bond insurance	213
Other charges, net	3,824
Total other assets	<u>4,037</u>
 <i>CAPITAL ASSETS:</i>	
Land	23,316
Structures and improvements	2,030,159
Equipment	377,229
Utility plant in service before depreciation	2,430,704
Less accumulated depreciation	(1,137,932)
Net utility plant in service	1,292,772
Construction work in progress	291,162
Total capital assets	<u>1,583,934</u>
Total noncurrent assets	<u>1,830,564</u>
Total assets	<u>2,022,267</u>
 <i>DEFERRED OUTFLOWS OF RESOURCES:</i>	
Loss on refundings	23,946
Outflow related to pension	28,850
Total deferred outflows of resources	<u>52,796</u>
Total assets and deferred outflows of resources	<u>\$ 2,075,063</u>

(Continued)

# Water System

## SCHEDULE OF NET POSITION

(Continued)	September 30,	<u>2018</u>
		(In thousands)
<b>LIABILITIES</b>		
<i>CURRENT LIABILITIES (PAYABLE FROM UNRESTRICTED CURRENT ASSETS):</i>		
Accounts payable and accrued expenses		\$ 18,080
Customer and developer deposits		12,000
Current portion of long-term debt		2,970
Liability for compensated absences		2,656
Other liabilities		<u>1,083</u>
Total current liabilities (payable from unrestricted current assets)		<u>36,789</u>
 <i>CURRENT LIABILITIES (PAYABLE FROM RESTRICTED CURRENT ASSETS):</i>		
Accounts payable and accrued expenses		19,361
Retainage payable		5,475
Current portion of long-term debt		14,409
Accrued interest payable		17,031
Liability for self insurance		<u>1,032</u>
Total current liabilities (payable from restricted current assets)		<u>57,308</u>
Total current liabilities		<u>94,097</u>
 <i>NONCURRENT LIABILITIES:</i>		
Revenue bonds payable, net		554,300
State loan obligations, net		22,318
Commercial paper		40,000
Liability for self-insurance		2,241
Liability for compensated absences		14,065
Liability for post-employment benefits		43,290
Net pension liability		<u>76,297</u>
Total noncurrent liabilities		<u>752,511</u>
Total liabilities		<u>846,608</u>
 <i>DEFERRED INFLOWS OF RESOURCES:</i>		
Inflow related to pension		8,026
Inflow related to post-employment benefits		<u>2,247</u>
Total deferred inflows of resources		<u>10,273</u>
Total liabilities and deferred inflows of resources		<u>856,881</u>
 <b>NET POSITION</b>		
Net investment in capital assets		986,573
Restricted for:		
Capital projects		81,483
Debt service		26,861
Unrestricted		<u>123,265</u>
Total net position		<u>1,218,182</u>
Total liabilities, deferred inflows of resources and net position		<u>\$ 2,075,063</u>



# Water System

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

	For the fiscal year ended September 30,	<u>2018</u>
		(In thousands)
<i>OPERATING REVENUES:</i>		
Retail	\$	268,275
Wholesale		39,310
Other Revenues		16,159
Total operating revenues		<u>323,744</u>
<i>OPERATING AND MAINTENANCE EXPENSES:</i>		
Source of supply		9,578
Power and pumping		1,927
Treatment		62,707
Transmission and distribution		35,783
Customer accounting		5,891
Customer service		13,409
General and administrative		45,077
Total operating and maintenance expenses		<u>174,372</u>
Operating income before depreciation		149,372
<i>DEPRECIATION EXPENSE</i>		<u>74,858</u>
Operating income		74,514
<i>NON-OPERATING REVENUES (EXPENSES):</i>		
Investment income		5
Interest expense		(16,158)
Amortization of insurance costs		(2,758)
Customer connection fees		7,669
Other revenues		7,423
Other expenses		(5,173)
Income before contributions		65,522
Capital contributions		16,895
Transfer (to) Wastewater System		(71,867)
Increase in net position		10,550
Net position at beginning of year, as previously reported		1,227,127
GASB No. 75 Restatement <sup>(1)</sup>		(19,495)
Net position at beginning of year, restated		<u>1,207,632</u>
Net position at end of year	\$	<u><u>1,218,182</u></u>

<sup>(1)</sup> 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.



# Water System

## SCHEDULE OF CASH FLOWS

For the fiscal year ended September 30,

**2018**

(In thousands)

*CASH FLOWS FROM OPERATING ACTIVITIES:*

Cash received from customers	\$ 336,587
Cash paid to suppliers for goods and services	(81,067)
Cash paid to employees for services	(76,189)
Transfer from Wastewater System	<u>(71,867)</u>
Net cash provided by operating activities	<u>107,464</u>

*CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:*

Proceeds from bond issues, loan agreements and notes	121,113
Principal payments - bond, loans and notes	(95,578)
Bond premium	(11,874)
Interest paid	2,548
Acquisition and construction of capital assets	<u>(107,635)</u>
Net cash used by capital and related financing activities	<u>(91,426)</u>

*CASH FLOWS FROM INVESTING ACTIVITIES:*

Purchase of investment securities	(197,158)
Proceeds from sale and maturity of investment securities	302,332
Interest on investments	<u>(121,735)</u>
Net cash used by investing activities	<u>(16,561)</u>

Net decrease in cash and cash equivalents	(523)
Cash and cash equivalents at beginning of year	<u>106,151</u>
Cash and cash equivalents at end of year	<u>\$ 105,628</u>

(Continued)





# Water System

## SCHEDULE OF CASH FLOWS

(Continued)	For the fiscal year ended September 30,	<u>2018</u>
		(In thousands)
<i>RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES:</i>		
Operating income		\$ 74,514
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation		74,858
Provision for uncollectible accounts		1,461
Non-operating other, net		8,992
Transfer to/from reserves		(71,867)
(Increase) decrease in assets and deferred outflows:		
Accounts Receivable		(1,293)
Inventory of materials and supplies		(93)
Other current assets		1,970
Contracts receivable		(41)
Other charges		1,967
Deferred outflows related to pension		346
Increase (decrease) in liabilities and deferred inflows:		
Accounts payable and accrued expenses		(8,594)
Customer and developer deposits		(860)
Accrued interest payable		(2,328)
Liability for compensated absences		1,160
Other liabilities		(16,593)
Liability for other post-employment benefits		36,534
Liability for self-insurance		1,328
Net pension liability		1,175
Deferred inflows related to pension and OPEB		4,828
Net cash provided by operating activities		<u>\$ 107,464</u>

### *NONCASH INVESTING, CAPITAL AND FINANCING ACTIVITIES*

Property, plant and equipment contributions were received in amounts of \$16.9 million in fiscal year 2018.

The change in the fair value of investments was a \$0.1 million decrease in fiscal year 2018.

The change in the fair value of swaps was a \$4.6 million decrease in fiscal year 2018.

### *RECONCILIATION OF CASH AND CASH EQUIVALENTS AT END OF YEAR*

Unrestricted current cash and cash equivalents	\$ 11,468
Restricted current cash and cash equivalents	57,308
Restricted noncurrent cash and cash equivalents	36,852
Total cash and cash equivalents at end of year	<u>\$ 105,628</u>

# Water System

## SCHEDULE OF OPERATING AND MAINTENANCE EXPENSES

Budget and Actual  
For the fiscal year ended September 30, 2018  
(In thousands)

	<b>Budget</b>	<b>Actuals</b>	<b>Variance under (over)</b>
Source of Supply	\$ 12,437	\$ 9,578	\$ 2,859
Power and pumping	1,826	1,927	(101)
Treatment	69,690	62,707	6,983
Transmission and distribution	36,962	35,783	1,179
Customer accounting	4,846	5,891	(1,045)
Customer service	15,335	13,409	1,926
General and administrative	52,011	45,077	6,934
Totals	\$ 193,107	\$ 174,372	\$ 18,735



# Wastewater System

## SCHEDULE OF NET POSITION

	September 30,	<u>2018</u>
		(In thousands)
<b>ASSETS</b>		
<i>CURRENT ASSETS:</i>		
Cash and cash equivalents	\$	10,950
Investments		51,139
Accounts receivable (net of allowance for uncollectible accounts of \$10.6 million)		83,688
Inventory of materials and supplies		23,556
Restricted cash and cash equivalents		<u>169,303</u>
Total current assets		<u>338,636</u>
 <i>NONCURRENT RESTRICTED ASSETS:</i>		
Cash and cash equivalents		8,269
Investment derivative instrument		11,292
Investments		<u>209,319</u>
Total restricted assets		<u>228,880</u>
 <i>OTHER ASSETS:</i>		
Bond insurance		921
Other charges, net		<u>16,642</u>
Total other assets		<u>17,563</u>
 <i>CAPITAL ASSETS:</i>		
Land		55,208
Structures and improvements		3,184,301
Equipment		<u>876,200</u>
Utility plant in service before depreciation		4,115,709
Less accumulated depreciation		<u>(2,154,119)</u>
Net utility plant in service		1,961,590
Construction work in progress		<u>979,692</u>
Total capital assets		<u>2,941,282</u>
Total noncurrent assets		<u>3,187,725</u>
Total assets		<u>3,526,361</u>
 <i>DEFERRED OUTFLOWS OF RESOURCES:</i>		
Loss on refundings		100,666
Outflow related to pension		<u>33,510</u>
Total deferred outflows of resources		<u>134,176</u>
Total assets and deferred outflows of resources	\$	<u><u>3,660,537</u></u>

(Continued)

# Wastewater System

## SCHEDULE OF NET POSITION

(Continued)	September 30,	<u>2018</u>
		(In thousands)
<b>LIABILITIES</b>		
<i>CURRENT LIABILITIES (PAYABLE FROM UNRESTRICTED CURRENT ASSETS):</i>		
Accounts payable and accrued expenses	\$	34,530
Customer and developer deposits		6,751
Current portion of long-term debt		4,991
Liability for compensated absences		7,764
Other liabilities		<u>83</u>
Total current liabilities (payable from unrestricted current assets)		<u>54,119</u>
 <i>CURRENT LIABILITIES (PAYABLE FROM RESTRICTED CURRENT ASSETS):</i>		
Accounts payable and accrued expenses		53,765
Retainage payable		19,045
Current portion of long-term debt		61,784
Accrued interest payable		34,709
Other Restricted Liabilities		<u>-</u>
Total current liabilities (payable from restricted current assets)		<u>169,303</u>
Total current liabilities		<u>223,422</u>
 <i>NONCURRENT LIABILITIES:</i>		
Revenue bonds payable, net		1,741,499
State loan obligations, net		121,416
Commercial Paper		160,000
Liability for compensated absences		20,764
Net pension liability		<u>82,824</u>
Total noncurrent liabilities		<u>2,126,503</u>
Total liabilities		<u>2,349,925</u>
 <i>DEFERRED INFLOWS OF RESOURCES:</i>		
Inflow related to pension		<u>7,506</u>
Total deferred inflows of resources		<u>7,506</u>
Total liabilities and deferred inflows of resources		<u>2,357,431</u>
 <b>NET POSITION</b>		
Net investment in capital assets		954,571
Restricted for:		
Capital projects		121,388
Debt service		112,668
Unrestricted		<u>114,479</u>
Total net position		<u>1,303,106</u>
Total liabilities, deferred Inflows of resources and net position	\$	<u><u>3,660,537</u></u>



# Wastewater System

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

For the fiscal year ended September 30,	<u>2018</u>
	(In thousands)
<i>OPERATING REVENUES:</i>	
Retail	\$ 295,564
Wholesale	78,425
Other Revenues	14,116
Total operating revenues	<u>388,105</u>
<i>OPERATING AND MAINTENANCE EXPENSES:</i>	
Collection system	34,049
Pumping	43,499
Treatment	100,728
Customer accounting	4,951
Customer service	10,536
General and administrative	55,173
Total operating and maintenance expenses	<u>248,936</u>
Operating income before depreciation	139,169
<i>DEPRECIATION EXPENSE</i>	<u>124,836</u>
Operating Income	14,333
<i>NON-OPERATING REVENUES (EXPENSES):</i>	
Investment income	1,402
Interest expense	(26,703)
Amortization of insurance costs	(10,653)
Customer connection fees	27,822
Other revenues	(7,627)
Other expenses	(628)
Income before contributions	(2,054)
Capital contributions	11,435
Transfer from Water System	71,867
Increase in net position	81,248
Net position at beginning of year, as previously reported	<u>1,241,353</u>
GASB No. 75 Restatement <sup>(1)</sup>	<u>(19,495)</u>
Net position at beginning of year, restated	<u>1,221,858</u>
Net position at end of year	<u>\$ 1,303,106</u>

<sup>(1)</sup> 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.



# Wastewater System

## SCHEDULE OF CASH FLOWS

For the fiscal year ended September 30,

	<b>2018</b>
	(In thousands)
<i>CASH FLOWS FROM OPERATING ACTIVITIES:</i>	
Cash received from customers	\$ 420,338
Cash paid to suppliers for goods and services	(117,356)
Cash paid to employees for services	(149,737)
Transfer to Wastewater System	71,867
Net cash provided by operating activities	225,112
 <i>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:</i>	
Proceeds from bond issues, loan agreements and notes	469,638
Principal payments - bond, loans and notes	(385,978)
Bond premium	(43,539)
Interest paid	59,772
Acquisition and construction of capital assets	(340,317)
Net cash used by capital and related financing activities	(240,424)
 <i>CASH FLOWS FROM INVESTING ACTIVITIES:</i>	
Purchase of investment securities	(1,009,654)
Proceeds from sale and maturity of investment securities	995,055
Interest on investments	60,279
Net cash provided by investing activities	45,680
Net increase in cash and cash equivalents	30,368
Cash and cash equivalents at beginning of year	158,154
Cash and cash equivalents at end of year	\$ 188,522

(Continued)



# Wastewater System

## SCHEDULE OF CASH FLOWS

(Continued)	For the fiscal year ended September 30,	<u>2018</u>
		(In thousands)
<i>RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES:</i>		
Operating income		\$ 14,333
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation		124,836
Provision for uncollectible accounts		1,470
Non-operating other, net		16,387
Transfer to/from reserves		71,867
(Increase) decrease in assets and deferred outflows:		
Accounts Receivable		11,297
Inventory of materials and supplies		(476)
Other charges		(24,353)
Deferred outflows related to pension		422
Increase (decrease) in liabilities and deferred inflows:		
Accounts payable and accrued expenses		(8,385)
Customer and developer deposits		752
Accrued interest payable		6,263
Liability for compensated absences		1,893
Other liabilities		4,214
Net pension liability		1,437
Deferred Inflows related to pension		3,155
Net cash provided by operating activities		<u>\$ 225,112</u>

### *NONCASH INVESTING, CAPITAL AND FINANCING ACTIVITIES*

Property, plant and equipment contributions were received in amounts of \$11.4 million in fiscal year 2018.

The change in the fair value of investments was a \$0.1 million decrease in fiscal year 2018.

The change in the fair value of swaps was a \$4.6 million decrease in fiscal year 2018.

### *RECONCILIATION OF CASH AND CASH EQUIVALENTS AT END OF YEAR*

Unrestricted current cash and cash equivalents	\$ 10,950
Restricted current cash and cash equivalents	169,303
Restricted noncurrent cash and cash equivalents	8,269
Total cash and cash equivalents at end of year	<u>\$ 188,522</u>



# Wastewater System

## SCHEDULE OF OPERATING AND MAINTENANCE EXPENSES

Budget and Actual  
For the fiscal year ended September 30, 2018  
(In thousands)

	<u>Budget</u>	<u>Actuals</u>	<u>Variance under (over)</u>
Collection system	\$ 33,277	\$ 34,049	\$ (772)
Pumping	43,334	43,499	(165)
Treatment	108,596	100,728	7,868
Customer accounting	3,915	4,951	(1,036)
Customer service	10,027	10,536	(509)
General and administrative	52,938	55,173	(2,235)
Totals	<u>\$ 252,087</u>	<u>\$ 248,936</u>	<u>\$ 3,151</u>





# 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)	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
<i>COMBINED WATER AND WASTEWATER SYSTEMS:</i>										
Net investment in capital assets	\$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	\$1,590,038
Restricted	342,400	356,540	330,257	340,066	321,122	273,623	223,887	243,292	279,576	150,114
Unrestricted	237,744	260,899	266,833	266,597	355,635	449,515	431,933	413,233	379,683	436,651
Total net position	\$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	\$2,176,803
<i>WATER SYSTEM</i>										
Net investment in capital assets	\$986,573	\$975,646	\$965,055	\$1,013,229	\$988,585	\$943,883	\$971,727	\$947,539	\$936,355	\$911,206
Restricted	108,344	111,646	80,115	80,841	93,302	96,841	73,822	84,993	110,491	50,571
Unrestricted	123,265	139,835	137,622	146,403	189,084	252,612	222,278	214,739	193,724	233,984
Total net position	\$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	\$1,195,761
<i>WASTEWATER SYSTEM</i>										
Net investment in capital assets	\$954,571	\$875,395	\$765,473	\$577,424	\$554,345	\$530,314	\$595,728	\$582,557	\$599,400	\$678,832
Restricted	234,056	244,894	250,142	259,225	227,820	176,782	150,065	158,298	169,086	99,543
Unrestricted	114,479	121,064	129,211	120,194	166,551	196,903	209,655	198,495	185,958	202,667
Total net position	\$1,303,106	\$1,241,353	\$1,144,826	\$956,843	\$948,716	\$903,999	\$955,448	\$939,350	\$954,444	\$981,042

# Combined Water and Wastewater System

## SCHEDULE OF REVENUES AND EXPENSES - LAST TEN FISCAL YEARS

(in thousands)	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
<i>OPERATING REVENUES:</i>										
Retail	\$ 563,839	\$ 554,546	\$ 520,146	\$ 486,201	\$ 465,057	\$ 437,778	\$ 429,003	\$ 428,832	\$ 393,420	\$ 372,265
Wholesale	117,735	123,854	110,951	98,810	85,771	88,754	82,710	90,671	84,489	68,178
Other	30,275	28,932	28,685	28,305	28,022	21,876	24,589	26,157	40,486	38,293
<b>Total operating revenues</b>	<b>711,849</b>	<b>707,332</b>	<b>659,782</b>	<b>613,316</b>	<b>578,850</b>	<b>548,408</b>	<b>536,302</b>	<b>545,660</b>	<b>518,395</b>	<b>478,736</b>
<i>OPERATING AND MAINTENANCE EXPENSES:</i>										
Source of supply	9,578	14,193	14,284	10,931	10,788	10,874	10,705	13,558	12,354	14,208
Collection system	34,049	33,457	26,866	27,634	22,500	21,638	20,150	20,385	21,523	15,987
Pumping	45,426	44,519	41,532	39,384	37,355	36,508	35,883	32,892	31,919	32,611
Treatment	163,435	152,734	160,186	156,229	145,513	139,555	134,178	134,650	130,010	134,454
Transmission and distribution	35,783	31,228	30,554	30,892	28,844	27,882	27,423	27,929	28,459	25,428
Customer accounting and service	34,787	34,160	30,239	28,068	23,180	25,155	23,574	24,231	28,003	27,572
General and administrative	100,250	88,239	84,827	75,769	81,662	78,552	73,164	79,165	97,364	78,669
<b>Total operating and maintenance expense</b>	<b>423,308</b>	<b>398,530</b>	<b>388,488</b>	<b>368,907</b>	<b>349,842</b>	<b>340,164</b>	<b>325,077</b>	<b>332,810</b>	<b>349,632</b>	<b>328,929</b>
Operating income before depreciation	288,541	308,802	271,294	244,409	229,008	208,244	211,225	212,850	168,763	149,807
<i>DEPRECIATION EXPENSE</i>	199,694	187,921	184,424	188,909	183,557	177,570	163,315	159,158	160,469	152,428
Operating income (loss)	88,847	120,881	86,870	55,500	45,451	30,674	47,910	53,692	8,294	(2,621)
<i>NON-OPERATING REVENUES(EXPENSES):</i>										
Investment income (loss)	1,407	(9,649)	(4,853)	20,557	3,933	(18,351)	21,797	6,193	18,160	13,440
Interest expense	(42,861)	(25,978)	(46,369)	(75,728)	(89,678)	(78,538)	(85,478)	(85,511)	(71,229)	(63,787)
Other income	16,075	20,499	41,043	36,186	42,670	28,572	24,269	15,897	18,588	33,857
<b>Income (loss) before contributions and transfers</b>	<b>63,468</b>	<b>105,753</b>	<b>76,691</b>	<b>36,515</b>	<b>2,376</b>	<b>(37,643)</b>	<b>8,498</b>	<b>(9,729)</b>	<b>(26,187)</b>	<b>(19,111)</b>
Capital contributions	28,330	35,109	53,611	46,692	35,810	19,459	28,156	33,556	30,487	56,415
Transfers to County's General Fund	-	-	-	-	-	-	-	(32,220)	-	-
<b>Increase (decrease) in net position</b>	<b>\$ 91,798</b>	<b>\$ 140,862</b>	<b>\$ 130,302</b>	<b>\$ 83,207</b>	<b>\$ 38,186</b>	<b>\$ (18,184)</b>	<b>\$ 36,654</b>	<b>\$ (8,393)</b>	<b>\$ 4,300</b>	<b>\$ 37,304</b>



# Water System

## SCHEDULE OF REVENUES AND EXPENSES - LAST TEN FISCAL YEARS

(in thousands)	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
<i>OPERATING REVENUES:</i>										
Retail	\$ 268,275	\$ 265,636	\$ 247,088	\$ 233,464	\$ 219,880	\$ 207,117	\$ 202,633	\$ 202,189	\$ 193,632	\$ 169,568
Wholesale	39,310	34,916	28,572	37,008	28,815	29,210	35,330	37,990	38,554	29,041
Other	16,159	15,493	15,383	14,966	14,908	11,985	13,167	13,517	12,936	27,102
<b>Total operating revenues</b>	<b>323,744</b>	<b>316,045</b>	<b>291,043</b>	<b>285,438</b>	<b>263,603</b>	<b>248,312</b>	<b>251,130</b>	<b>253,696</b>	<b>245,122</b>	<b>225,711</b>
<i>OPERATING AND MAINTENANCE EXPENSES:</i>										
Source of supply	9,578	14,193	14,284	10,931	10,788	10,874	10,705	13,558	12,354	14,208
Pumping	1,927	1,976	1,982	2,054	1,911	1,816	1,798	1,942	2,003	2,407
Treatment	62,707	60,387	68,272	63,921	58,741	60,188	59,811	62,138	61,967	64,457
Transmission and distribution	35,783	31,228	30,554	30,892	28,844	27,882	27,423	27,929	28,459	25,428
Customer accounting and service	19,300	19,066	16,859	15,651	13,025	13,908	12,841	13,325	15,602	15,325
General and administrative	45,077	39,683	37,983	34,078	36,711	35,292	32,936	35,644	43,860	35,380
<b>Total operating and maintenance expenses</b>	<b>174,372</b>	<b>166,533</b>	<b>169,934</b>	<b>157,527</b>	<b>150,020</b>	<b>149,960</b>	<b>145,514</b>	<b>154,536</b>	<b>164,245</b>	<b>157,205</b>
Operating income before depreciation	149,372	149,512	121,109	127,911	113,583	98,352	105,616	99,160	80,877	68,506
<i>DEPRECIATION EXPENSE</i>	<i>74,858</i>	<i>74,142</i>	<i>72,180</i>	<i>66,642</i>	<i>65,456</i>	<i>69,581</i>	<i>61,158</i>	<i>61,122</i>	<i>62,604</i>	<i>59,028</i>
Operating income (loss)	74,514	75,370	48,929	61,269	48,127	28,771	44,458	38,038	18,273	9,478
<i>NON-OPERATING REVENUES/EXPENSES:</i>										
Investment income (loss)	5	(5,178)	(2,650)	10,127	1,769	(8,574)	10,980	3,061	8,383	6,713
Interest expense	(16,158)	(17,434)	(16,290)	(19,169)	(21,731)	(14,203)	(17,437)	(18,932)	(14,088)	(15,313)
Other income	7,161	2,463	11,843	9,812	13,090	6,461	10,024	8,602	8,374	19,491
Income (loss) before contributions and transfers	65,522	55,221	41,832	62,039	41,255	12,455	48,025	30,769	20,942	20,369
Capital contributions	16,895	21,632	28,860	27,918	21,370	11,490	15,749	24,108	18,245	28,896
Transfers to County's General Fund	-	-	-	-	-	-	-	(14,499)	-	-
Transfer (to) from Wastewater System	(71,867)	(32,520)	(128,373)	(67,666)	(80,939)	1,564	(43,218)	(33,677)	(1,333)	(16,238)
<b>Increase (decrease) in net position</b>	<b>\$ 10,550</b>	<b>\$ 44,333</b>	<b>\$ (57,681)</b>	<b>\$ 22,291</b>	<b>\$ (18,314)</b>	<b>\$ 25,509</b>	<b>\$ 20,556</b>	<b>\$ 6,701</b>	<b>\$ 37,854</b>	<b>\$ 33,027</b>

# Wastewater System

## SCHEDULE OF REVENUES AND EXPENSES - LAST TEN FISCAL YEARS

(in thousands)	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
<i>OPERATING REVENUES:</i>										
Retail	\$ 295,564	\$ 288,910	\$ 273,058	\$ 252,737	\$ 245,167	\$ 230,661	\$ 226,370	\$ 226,643	\$ 215,945	\$ 202,697
Wholesale	78,425	88,938	82,380	61,802	56,956	59,544	47,380	52,681	45,936	39,137
Other	14,116	13,439	13,301	13,339	13,114	9,891	11,422	12,640	11,392	11,191
<b>Total operating revenues</b>	<b>388,105</b>	<b>391,287</b>	<b>368,739</b>	<b>327,878</b>	<b>315,237</b>	<b>300,096</b>	<b>285,172</b>	<b>291,964</b>	<b>273,273</b>	<b>253,025</b>
<i>OPERATING AND MAINTENANCE EXPENSES:</i>										
Collection system	34,049	33,457	26,866	27,634	22,500	21,638	20,150	20,385	21,523	15,987
Pumping	43,499	42,543	39,549	37,330	35,444	34,692	34,085	30,950	29,916	30,204
Treatment	100,728	92,347	91,915	92,308	86,772	79,367	74,367	72,512	68,043	69,997
Customer accounting and service	15,487	15,094	13,380	12,417	10,155	11,247	10,733	10,906	12,401	12,247
General and administrative	55,173	48,556	46,844	41,691	44,951	43,260	40,228	43,521	53,504	43,289
<b>Total operating and maintenance expenses</b>	<b>248,936</b>	<b>231,997</b>	<b>218,554</b>	<b>211,380</b>	<b>199,822</b>	<b>190,204</b>	<b>179,563</b>	<b>178,274</b>	<b>185,387</b>	<b>171,724</b>
Operating income before depreciation	139,169	159,290	150,185	116,498	115,415	109,892	105,609	113,690	87,886	81,301
<i>DEPRECIATION EXPENSE</i>	124,836	113,779	112,244	122,267	118,101	107,989	102,157	98,036	97,865	93,400
Operating income (loss)	14,333	45,511	37,941	(5,769)	(2,686)	1,903	3,452	15,654	(9,979)	(12,099)
<i>NON-OPERATING REVENUES(EXPENSES)</i>										
Investment income (loss)	1,402	(4,471)	(2,203)	10,430	2,164	(9,777)	10,817	3,132	9,777	6,727
Interest expense	(26,703)	(8,544)	(30,079)	(56,559)	(67,947)	(64,335)	(68,041)	(66,579)	(57,141)	(48,474)
Other income	8,914	18,034	29,200	26,374	29,580	22,111	14,245	7,295	10,214	14,366
<b>Income (loss) before contributions and transfers</b>	<b>(2,054)</b>	<b>50,530</b>	<b>34,859</b>	<b>(25,524)</b>	<b>(38,889)</b>	<b>(50,098)</b>	<b>(39,527)</b>	<b>(40,498)</b>	<b>(40,129)</b>	<b>(39,480)</b>
Capital contributions	11,435	13,477	24,751	18,774	14,440	7,969	12,407	9,448	12,242	27,519
Transfers to County's General Fund	-	-	-	-	-	-	-	(17,721)	-	-
Transfer (to) from Water System	71,867	32,520	128,373	67,666	80,939	(1,564)	43,218	33,677	1,333	16,238
<b>Increase (decrease) in net position</b>	<b>\$ 81,248</b>	<b>\$ 96,527</b>	<b>\$ 187,983</b>	<b>\$ 60,916</b>	<b>\$ 56,490</b>	<b>\$ (43,693)</b>	<b>\$ 16,098</b>	<b>\$ (15,094)</b>	<b>\$ (26,554)</b>	<b>\$ 4,277</b>



# Water and Wastewater System Rates

LAST TEN FISCAL YEARS

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
<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	11.42	10.77	10.16	9.41	9.41	9.41	8.96	8.00
1.5"	24.76	24.76	22.84	21.55	20.33	18.82	18.82	18.82	17.92	16.00
2"	39.60	39.60	36.53	34.46	32.51	30.10	30.10	30.10	28.67	25.60
3"	79.21	79.21	73.07	68.93	65.03	60.21	60.21	60.21	57.34	51.20
4"	123.76	123.76	114.17	107.71	101.61	94.08	94.08	94.08	89.60	80.00
6"	247.50	247.50	228.32	215.40	203.21	188.16	188.16	188.16	179.20	160.00
8"	396.02	396.02	365.33	344.65	325.14	301.06	301.06	301.06	286.72	256.00
10"	569.28	569.28	525.16	495.43	467.39	432.77	432.77	432.77	412.16	368.00
12"	1,064.30	1,064.30	981.83	926.25	873.82	809.09	809.09	809.09	770.56	688.00
14"	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	1,280.00
16"	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	1,760.00
Composite rate (revenues/flows)	4.30	4.09	3.85	3.66	3.46	2.99	2.93	2.95	2.75	2.57
<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	3.25
Meter Size Rate										
5/8"	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25
1"	12.57	12.53	11.60	10.94	10.32	9.56	9.56	9.56	9.10	8.13
1.5"	25.14	25.05	23.19	21.88	20.64	19.11	19.11	19.11	18.20	16.25
2"	40.23	40.08	37.11	35.01	33.03	30.58	30.58	30.58	29.12	26.00
3"	80.43	80.14	74.20	70.00	66.04	61.15	61.15	61.15	58.24	52.00
4"	125.68	125.22	115.94	109.38	103.19	95.55	95.55	95.55	91.00	81.25
6"	251.38	250.46	231.90	218.77	206.39	191.10	191.10	191.10	182.00	162.50
8"	402.20	400.72	371.03	350.03	330.22	305.76	305.76	305.76	291.20	260.00
10"	578.16	576.03	533.36	503.17	474.69	439.53	439.53	439.53	418.60	373.75
12"	1,080.92	1,076.93	997.16	940.72	887.47	821.73	821.73	821.73	782.60	698.75
14"	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	1,300.00
16"	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	1,787.50
Composite rate (revenues/flows)	6.10	5.74	5.51	5.16	4.98	4.69	4.64	4.67	4.38	4.08

Increases in Water and Wastewater rates must be approved by the Board of County Commissioners.  
Beginning fiscal year 2009, base rate is no longer used for Wastewater; Meter size rate is now used for the two systems.

# Water Treatment

LAST TEN FISCAL YEARS

(millions of gallons)	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
<i>WATER PUMPED:</i>										
Water treatment plants:										
Alexander Orr, Jr.	66,096	66,190	65,968	62,566	60,183	58,666	59,805	60,191	59,969	57,025
John E. Preston	26,555	27,891	26,789	27,044	26,942	30,586	27,232	26,555	27,632	30,638
Hialeah	20,467	20,093	20,142	19,488	19,248	21,241	22,688	23,685	24,335	23,880
South Dade Water System	3,920	3,752	3,921	3,570	2,607	2,670	2,658	2,580	2,274	2,502
Purchase water	116	116	192	164	124	178	152	179	145	386
Total water pumped	117,154	118,042	117,013	112,832	109,104	113,341	112,535	113,190	114,355	114,431
<i>WATER SOLD:</i>										
Wholesale:										
Miami Beach	8,381	8,566	8,249	8,346	7,615	7,903	7,918	8,410	6,952	6,489
Hialeah	6,566	7,040	6,857	6,623	7,285	9,429	9,121	9,598	9,103	8,110
North Miami	3,468	2,313	1,538	2,096	1,693	1,655	1,374	1,331	1,175	1,502
Opa-Locka	909	894	993	950	895	876	876	887	788	845
Hialeah Gardens	703	742	768	694	638	576	591	693	654	695
Homestead <sup>(1)</sup>	723	668	684	520	188	151	40	-	-	-
Bal Harbor	455	487	506	503	407	494	430	486	455	466
North Bay Village	419	435	419	430	405	415	391	387	395	365
Medley	389	378	381	365	470	516	479	328	400	393
Bay Harbor Islands	338	319	291	328	318	309	310	302	317	329
Surfside	386	389	325	326	303	299	312	317	328	343
West Miami	334	344	319	251	278	236	292	275	293	290
Indian Creek Village	154	143	119	134	117	120	122	133	121	140
Virginia Gardens	80	80	84	82	91	95	93	91	98	100
North Miami Beach <sup>(2)</sup>	-	83	-	3	-	-	-	-	100	107
Total wholesale	23,305	22,881	21,533	21,651	20,703	23,074	22,349	23,238	21,179	20,174
Retail	62,421	64,968	64,108	63,783	63,539	63,386	63,169	62,937	64,430	66,086
Total water sold	85,726	87,849	85,641	85,434	84,242	86,460	85,518	86,175	85,609	86,260
Non-account water	31,428	30,193	31,373	27,398	24,862	26,881	27,017	27,015	28,746	28,171
Non-account water as a percentage of total water pumped	26.83%	25.58%	26.81%	24.28%	22.79%	23.72%	24.01%	23.87%	25.14%	24.62%
Unaccounted for water as a percentage of total water pumped	5.65%	6.69%	10.10%	8.37%	5.67%	8.88%	3.02%	10.46%	8.27%	9.90%

<sup>(1)</sup> Homestead usage of water is limited to an as needed basis. Their usage is not consistent to that of a wholesale customer.

<sup>(2)</sup> North Miami Beach constructed their own water plant and beginning fiscal year 2009, has not had the need to purchase water.





# Wastewater Treatment

LAST TEN FISCAL YEARS

(millions of gallons)	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
<i>WASTEWATER PLANT FLOWS:</i>										
North District Plant	32,785	34,251	30,734	32,745	34,296	32,000	35,141	27,403	31,810	31,984
Central District Plant	40,344	40,000	46,432	40,662	44,044	43,696	45,014	37,653	41,654	45,095
South District Plant	36,415	38,207	38,115	33,413	37,382	36,274	41,472	33,036	33,997	32,241
Total wastewater plant flows	109,544	112,458	115,281	106,820	115,722	111,970	121,627	98,092	107,461	109,320
<i>WASTEWATER TREATED:</i>										
Wholesale:										
Miami Beach	8,082	8,054	8,797	8,399	8,312	8,141	7,452	6,983	7,870	8,733
Hialeah	9,144	9,203	8,943	7,169	7,102	7,050	7,002	6,084	6,903	7,373
North Miami	3,544	3,654	3,711	3,722	3,619	3,745	3,699	3,418	3,523	3,533
Coral Gables	906	1,477	1,432	1,231	1,041	1,088	1,144	987	1,060	1,114
Homestead	1,106	1,763	1,643	938	1,374	736	946	879	419	529
Opa-Locka	703	702	729	861	1,174	733	684	653	492	627
Hialeah Gardens	679	704	700	757	877	865	940	817	801	618
North Miami Beach	1,250	580	510	505	499	622	727	718	859	940
Medley	438	456	617	477	644	544	708	628	504	619
Florida City	458	425	458	464	420	457	494	412	404	412
North Bay Village <sup>(1)</sup>	353	409	457	433	418	408	316	39	-	-
West Miami	184	169	185	147	147	162	202	163	144	128
Homestead Air Force Base	73	86	98	78	79	69	65	47	98	185
Total wholesale	26,920	27,682	28,281	25,181	25,706	24,620	24,379	21,828	23,077	24,811
Retail	48,492	50,334	49,550	48,998	49,247	49,345	48,752	48,547	49,315	49,671
Unaccounted for wastewater	34,131	34,442	37,450	32,641	40,769	38,005	48,496	27,717	35,069	34,838
Total wastewater treated	109,544	112,458	115,281	106,820	115,722	111,970	121,627	98,092	107,461	109,320
Unaccounted for wastewater as a percentage of total wastewater treated	31.16%	30.63%	32.49%	30.56%	35.23%	33.94%	39.87%	28.26%	32.63%	31.87%
<i>ANNUAL RAINFALL (inches): <sup>(2)</sup></i>	73.02	78.33	75.11	47.22	73.70	60.60	97.90	58.70	68.60	51.30

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

<sup>(2)</sup> Source: National Weather Service Forecast Office in Miami for rainfall recorded in inches at Miami International Airport.



# Debt Service Coverage

LAST TEN FISCAL YEARS

(in thousands)	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
<i>PRIMARY DEBT SERVICE COVERAGE</i>										
Net operating revenues	\$288,541	\$308,802	\$271,293	\$244,409	\$229,007	\$208,432	\$211,225	\$212,850	\$168,763	\$149,807
Investment earnings <sup>(1)</sup>	9,566	3,144	1,823	1,198	1,166	1,479	1,336	2,111	2,550	12,596
Net transfers from (to) Rate Stabilization Fund	-	-	-	-	-	-	-	-	-	-
Net revenues available for debt service	\$298,107	\$311,946	\$273,116	\$245,607	\$230,173	\$209,911	\$212,561	\$214,961	\$171,313	\$162,403
Debt service requirements <sup>(2)</sup>	\$164,449	\$161,194	\$157,036	\$153,211	\$143,622	\$138,711	\$137,625	\$115,198	\$114,653	\$103,627
Actual coverage	1.81	1.94	1.74	1.60	1.60	1.51	1.54	1.87	1.49	1.57
Required coverage	1.25	1.25	1.25	1.25	1.25	1.25	1.10	1.10	1.10	1.10
<i>SUBORDINATE DEBT SERVICE COVERAGE</i>										
Net revenues available for debt service	\$298,107	\$311,946	\$273,116	\$245,607	\$230,173	\$209,911	\$212,561	\$214,961	\$171,313	\$162,403
Less: Maximum principal and interest <sup>(3)</sup>	171,345	161,195	161,195	161,195	163,181	161,340	146,270	146,270	146,270	115,198
Adjusted net revenues	\$126,762	\$150,751	\$111,921	\$84,412	\$66,992	\$48,571	\$66,291	\$68,691	\$25,043	\$47,205
<i>STATE REVOLVING FUND LOANS DEBT SERVICE COVERAGE</i>										
Net revenues available for debt service	\$298,107	\$311,946	\$273,116	\$245,607	\$230,173	\$209,911	\$212,561	\$214,961	\$171,313	\$162,403
Less: revenue required for primary debt service coverage <sup>(4)</sup>	205,561	201,493	196,295	191,514	179,528	173,389	151,388	126,718	126,119	113,989
Adjusted net revenues	\$92,546	\$110,453	\$76,821	\$54,093	\$50,646	\$36,522	\$61,173	\$88,243	\$45,194	\$48,414
Debt service requirements <sup>(5)</sup>	15,822	15,973	16,819	18,081	15,369	\$11,386	\$13,501	\$13,501	\$13,479	\$13,470
Actual coverage	5.85	6.92	4.57	2.99	3.30	3.21	4.53	6.54	3.35	3.59
Required coverage	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15

<sup>(1)</sup> Excludes interest income from Construction Fund

<sup>(2)</sup> Represents debt service requirements on outstanding Bonds for such fiscal year.

<sup>(3)</sup> Maximum principal and interest requirements on the Bonds for such fiscal year

<sup>(4)</sup> Represents 110% of primary debt service requirements.

<sup>(5)</sup> 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 Type

LAST TEN FISCAL YEARS

(In thousands)

Fiscal Year	Revenue Bonds	Loans	Line of Credit <sup>(1)</sup>	Commercial Paper <sup>(2)</sup>	Total Outstanding Debt	Total Per Customer
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
2009	1,432,012	119,093	40,000	-	1,591,105	2.11

<sup>(1)</sup> Financing from Regions Bank to fund multiple Capital Improvement Projects as per County Ordinance 08-126. Entered on April 27, 2009.

<sup>(2)</sup> Financing from Commercial Paper 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 <sup>(1)</sup> (in thousands)	Percent of System Gross Revenues
<i>WATER SYSTEM:</i>		
City of Miami Beach	\$ 15,372	4.7%
City of Hialeah	12,044	3.7%
City of North Miami	6,361	2.0%
Dade County Aviation	3,777	1.2%
Florida Power & Light Company	2,367	0.7%
FL Dept of Corrections	1,796	0.6%
City of Opa-Locka	1,667	0.5%
City of Homestead	1,326	0.4%
Hialeah Gardens	1,289	0.4%
Jackson Memorial Hospital	1,009	0.3%

<i>WASTEWATER SYSTEM:</i>		
City of Hialeah	\$ 28,581	7.4%
City of Miami Beach	25,006	6.4%
City of North Miami	11,105	2.9%
City of North Miami Beach	3,904	1.0%
City of Homestead	3,492	0.9%
Miami Int'l Airport	3,206	0.8%
City of Coral Gables	2,827	0.7%
City of Opa-Locka	2,205	0.6%
City of Hialeah Gardens	2,122	0.5%
FL Dep't of Corrections	1,882	0.5%

### October 2009 - September 2010

<u>Name</u>	Dollar Amount (in thousands)	Percent of System Gross Revenues
<i>WATER SYSTEM:</i>		
City of Hialeah	\$ 14,229	5.8%
City of Miami Beach	11,917	4.9%
Dade County Aviation	3,972	1.6%
City of North Miami	2,014	0.8%
City of Opa Locka	1,350	0.6%
Hialeah Gardens	1,121	0.5%
Florida Power & Light Company	1,058	0.4%
Bal Harbour	780	0.3%
Medley	686	0.3%
North Bay Village	677	0.3%

<i>WASTEWATER SYSTEM:</i>		
City of Miami Beach	\$ 16,034	5.9%
City of Hialeah	14,188	5.2%
City of North Miami	7,221	2.6%
City of Homestead	2,227	0.8%
Dade County Aviation	2,030	0.7%
City of Coral Gables	2,167	0.8%
City of North Miami Beach	1,737	0.6%
Hialeah Gardens	1,660	0.6%
Medley	1,024	0.4%
City of Opa Locka	1,007	0.4%

<sup>(1)</sup> Using billed flows in place of net amount



# Customer Statistics

## NUMBER OF CUSTOMERS

LAST TEN FISCAL YEARS

Fiscal Year	Number of Customers		Ratio of Wastewater Customers to Water
	Water	Wastewater	
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%
2009	417,983	336,272	80.5%



# Building Permits

Number of Buildings Permits Issued for Housekeeping Units  
and Value of Permits for Housekeeping and Total Units  
Miami-Dade County, Florida  
Last Ten Fiscal Years

Calendar Year	Number of Permits Issued		Value of Permits Issued Residential Construction (in thousands)
	Single Family Houses	Multi-family Buildings	
2018 <sup>(1)</sup>	(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
2009	624	771	252,407

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
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%
2009	2,532,000	40,604	1.6%

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)
2018 <sup>(a)</sup>	117	\$ 173,258	2,886	\$ 638,408
2017 <sup>(b)</sup>	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
2009	202	263,754	556	55,417

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

<sup>(a)</sup> For FY2018, total actual and assessed values are based on estimates on the First Certified 2018 Tax Roll made October 12, 2018, prior to any adjustments processed by the Value Adjustment Board. The Final Certified Tax Roll for 2018 has not been released as of the date of this report.

<sup>(b)</sup> For FY2017, Real Property Value, total actual and assessed values reflect the Final 2017 Tax Roll certified on June 26, 2018.





# Principal Employers

## MIAMI-DADE COUNTY, FLORIDA

CURRENT YEAR AND NINE YEARS AGO

Employer	2018 <sup>(1)</sup>			2009		
	Employees	Rank	Percentage of Total County Employment	Employees	Rank	Percentage of Total County Employment
Miami-Dade County Public Schools	31,000	1	2.32%	38,819	1	3.18%
Miami-Dade County	24,692	2	1.85%	29,000	2	2.38%
U.S. Federal Government	19,300	3	1.45%	19,900	3	1.63%
Florida State Government	19,200	4	1.44%	16,100	4	1.32%
University of Miami	13,864	5	1.04%	12,000	6	0.98%
Baptist Health South Florida	13,369	6	1.00%	12,000	7	0.98%
American Airlines	11,773	7	0.88%	9,000	9	0.74%
Jackson Health System	8,163	8	0.61%	12,468	5	1.02%
Florida International University	4,951	9	0.37%	8,000	10	0.66%
City of Miami	3,820	10	0.29%	4,400	14	0.36%
Mount Sinai Medical Center	3,402	11	0.25%	-	-	-
Florida Power & Light Company	3,011	12	0.23%	-	-	-
Miami Children's Hospital	2,991	13	0.22%	-	-	-
Homestead AFB	2,810	14	0.21%	-	-	-
Miami-Dade College	2,572	15	0.19%	5,798	12	0.48%
Bell South Corporation - Florida	-	-	-	4,100	15	0.34%
Publix Super Markets	-	-	-	11,625	8	0.95%
UM Health	-	-	-	7,025	11	0.58%
United Parcel Services	-	-	-	4,982	13	0.41%
Precision Response Corporation	-	-	-	-	-	-
Winn Dixie Stores	-	-	-	-	-	-
	<u>164,918</u>		<u>12.35%</u>	<u>195,217</u>		<u>16.01%</u>

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

(1) Information is based on data from year 2015. The data for year 2018 is not available as of the date of this report.

# Economic Statistics

## U.S. UNEMPLOYMENT RATE AND LABOR FORCE

LAST 10 FISCAL YEARS

Fiscal Year	Total Personal Income	Per Capita Personal Income	Unemployment Rate	Labor Force
2018	(1)	(1)	3.6%	1,357,854
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
2009	90,915,774	37,909	8.9%	1,218,871

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.



# Employees by Identifiable Activity

LAST 10 FISCAL YEARS

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
<i>WATER:</i>										
Water Distribution	222	222	230	221	220	205	206	210	206	214
Water Production and Maintenance	224	231	243	240	241	231	226	240	232	240
Laboratory Services	57	57	59	59	59	56	55	49	51	47
Meter	96	-	-	-	-	-	-	-	-	-
<i>SEWER:</i>										
Sewer Collection	217	210	206	194	194	183	187	175	189	188
Wastewater Treatment and Maintenance	372	370	367	358	358	340	337	341	329	331
Pump Station Maintenance	228	230	208	195	197	193	192	193	187	192
SCADA	48	-	-	-	-	-	-	-	-	-
<i>ENGINEERING:</i>										
Utility Pipeline and Plant Engineering & Construction	77	66	71	71	71	70	75	75	75	77
Surveying	16	14	-	-	-	-	-	-	15	15
Utilities Development	111	107	105	104	94	73	73	74	89	87
Capital Improvements Program	26	29	55	50	69	65	71	71	77	81
<i>ADMINISTRATION:</i>										
Office of Director	20	21	24	17	32	15	30	30	33	31
Office of Deputy Director of Regulatory Compliance and Capital Improvements	15	16	21	9	6	5	6	8	13	16
Office of Deputy Director of Operations	14	3	4	47	45	43	13	12	11	10
Office of Assistant Director of Utility Engineering and Construction	3	2	1	1	1	1	1	1	1	1
Office of Chief Financial Officer	42	40	41	66	38	53	36	37	38	35
Office of Assistant Director of Customer Initiatives and Support Services	79	73	77	114	114	112	143	136	155	156
Office of Assistant Director of Water	2	104	108	108	110	106	109	109	111	113
Office of Assistant Director of Wastewater	-	41	43	46	48	46	48	47	38	36
Office of Assistant Director of Regulatory Compliance and Planning	8	9	5	5	5	5	5	5	5	3
Attorney's Office	4	4	4	4	4	4	4	4	4	4
Controller	119	118	125	106	112	110	114	114	134	135
Information Technology <sup>(2)</sup>	-	-	76	71	69	65	68	69	70	70
Retail Customer Service	248	219	238	255	243	227	224	216	253	268
Planning	22	25	25	19	19	17	17	17	22	24
Regulatory Compliance and Monitoring	15	15	17	17	16	14	15	16	18	17
General Maintenance	127	112	124	114	114	110	116	113	120	127
Human Resources Division <sup>(1)</sup>	46	44	44	-	-	-	-	-	-	-
Office of Assistant Contracts Compliance and Quality Assurance <sup>(1)</sup>	3	3	4	-	-	-	-	-	-	-
Quality Assurance and Control Division <sup>(1)</sup>	14	4	13	-	-	-	-	-	-	-
Performance Improvements & Management Division <sup>(1)</sup>	12	13	17	-	-	-	-	-	-	-
Contract Compliance and Monitoring Division <sup>(1)</sup>	26	20	27	-	-	-	-	-	-	-
Security and Communications Division <sup>(1)</sup>	40	43	44	-	-	-	-	-	-	-
<b>Total</b>	<b>2,553</b>	<b>2,465</b>	<b>2,626</b>	<b>2,491</b>	<b>2,479</b>	<b>2,349</b>	<b>2,371</b>	<b>2,362</b>	<b>2,476</b>	<b>2,518</b>

<sup>(1)</sup> The Department's internal reorganization resulted in new divisions.

<sup>(2)</sup> The Department's Information Technology Division was transferred to the County's Information Technology Department.

# Capital Indicators

LAST 10 FISCAL YEARS

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
<i>WATER:</i>										
Water mains <sup>(1)</sup> (miles)	6,269	6,264	6,131	6,035	6,004	5,988	5,969	5,922 <sup>(2)</sup>	5,907	5,747
Water treatment plants	9	9	9	9	9	9	8	8	8	8
Permitted water treatment capacity (million gallons per day)	464	461	461	464	464	454	454	452	452	452
Water supply wells	100	100	100	100	100	100	100	100	100	100
<i>WASTEWATER:</i>										
Sanitary sewers <sup>(1)</sup> (miles)	4,191	4,184	4,165	4,110	4,072	4,048	4,027	3,995 <sup>(2)</sup>	3,975	3,981
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	368	368	368
Wastewater pump stations	1,052	1,049	1,049	1,047	1,047	1,042	1,039	1,039	1,039	1,035

<sup>(1)</sup> Does not include laterals.

<sup>(2)</sup> 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	08/19/18- 08/19/19	Employee Dishonesty	\$1,000,000
Money and Securities: Fidelity & Deposit Co. of Maryland	11/25/18- 11/25/19	Theft of money and securities	Values scheduled per location
Accidental Death: Hartford Life Insurance Co.	01/01/18- 01/01/19	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.	03/02/18 – 03/02/19	"All risk" coverage on real and personal property and outfalls	\$200,000,000
Automobile Liability:	Continous	Self-Insured	\$200,000 per person/\$300,000 per occurrence pursuant to F.S. 768.28 (certain claims may not fall with the parrameters of FS)
General Liability:	Continous	Self-Insured	\$200,000 per person/\$300,000 per occurrence pursuant to F.S. 768.28 (certain claims may not fall with the parrameters of FS)
Workers' Compensation:	Continous	Self-Insured	Statutory coverage pursuant to F.S. 440



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Miami-Dade Water and Sewer Department

A Department of Miami-Dade County, Florida

3071 S.W. 38 Avenue

Miami, Florida 33146

305-665-7471

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