

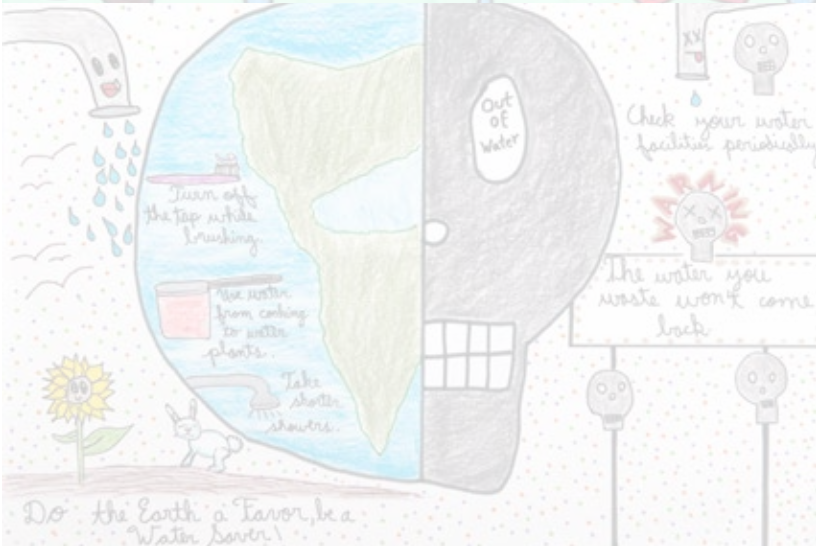
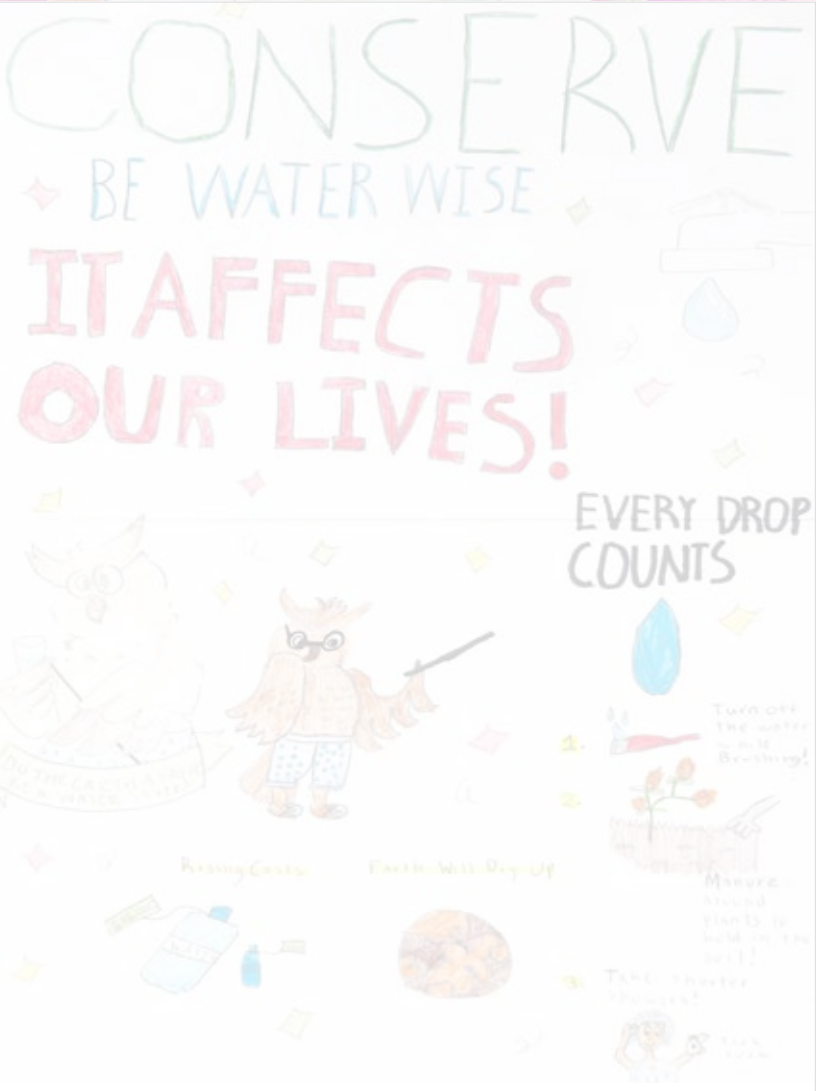


**MIAMI-DADE WATER AND SEWER DEPARTMENT**  
A DEPARTMENT OF MIAMI-DADE COUNTY, FL

**COMPREHENSIVE ANNUAL FINANCIAL REPORT**  
FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 2020







The cover's design is comprised of the winning students' entries in the annual "Every Drop Counts" Poster Contest.

# **MIAMI-DADE WATER AND SEWER DEPARTMENT**

**A DEPARTMENT OF MIAMI-DADE COUNTY, FL**

## **COMPREHENSIVE ANNUAL FINANCIAL REPORT**

**FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 2020**

**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 Water and Sewer Department

A DEPARTMENT OF MIAMI-DADE COUNTY, FL

## Comprehensive Annual Financial Report

FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 2020  
PREPARED BY: CONTROLLER DIVISION AND PUBLIC AFFAIRS SECTION

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## MIAMI-DADE COUNTY

**Daniella Levine Cava**  
*Mayor*



## BOARD OF COUNTY COMMISSIONERS

**José “Pepe” Díaz**  
*Chairman*

**Oliver G. Gilbert, III**  
*Vice Chairman*

**Oliver G. Gilbert, III**  
*District 1*

**Jean Monestime**  
*District 2*

**Keon Hardemon**  
*District 3*

**Sally A. Heyman**  
*District 4*

**Eileen Higgins**  
*District 5*

**Rebeca Sosa**  
*District 6*

**Raquel A. Regalado**  
*District 7*

**Danielle Cohen Higgins**  
*District 8*

**Kionne L. McGhee**  
*District 9*

**Senator Javier D. Souto**  
*District 10*

**Joe A. Martinez**  
*District 11*

**José “Pepe” Díaz**  
*District 12*

**Senator René García**  
*District 13*

**Harvey Ruvin**  
*Clerk of the Circuit and County Courts*

**Pedro J. Garcia**  
*Property Appraiser*

**Geri Bonzon-Keenan**  
*County Attorney*



**Water and Sewer**  
P.O. Box 330316  
3071 SW 38th Avenue  
Miami, Florida 33233-0316  
T 305-665-7471

**miamidade.gov**

March 18, 2021

Honorable Daniella Levine Cava, Mayor  
Honorable Jose P. Diaz, Chairman 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 of the Miami-Dade Water and Sewer Department (the Department, a.k.a. WASD) for the fiscal year ended September 30, 2020 (FY 2020). This report presents a full set of financial statements prepared in conformity with U.S. Generally Accepted Accounting Principles (GAAP) as promulgated by the Governmental Accounting Standards Board (GASB) and audited by a firm of independent certified public accountants retained by the Department.

Management has established a comprehensive framework of internal controls to provide a reasonable basis for asserting the financial statements are fairly presented. The objective is to provide reasonable, rather than absolute assurance, that the financial statements are free of any material misstatement and therefore the cost of a control is considered to ensure it does not exceed the benefits to be derived. While the independent auditor has expressed an opinion on the financial statements contained in this report, management is responsible, in all material respects, for both the completeness and reliability of the information contained in this report. For the fiscal year ended September 30, 2020, 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 2020. The MD&A complements this Letter of Transmittal and should be read in conjunction with it.





## PROFILE OF GOVERNMENT

In December 1972, the Board of County Commissioners (Board) of Miami-Dade County, Florida (County) created the Miami-Dade Water and Sewer Authority (Authority) for the purpose of establishing an agency responsible for providing water and wastewater services throughout the County. In 1973, all properties of the water and wastewater systems of the City of Miami and of the County were put under the control of the Authority. The Board changed the status of the Authority to that of a County Department effective November 1, 1983, under the provisions of Miami-Dade County Ordinance 83-92, establishing the “Miami-Dade Water and Sewer Authority Department.” On October 19, 1993, the Department changed its name to the Miami-Dade Water and Sewer Department. The Miami-Dade Water and Sewer Department is the largest water and sewer utility in the southeastern United States, serving more than 2.3 million people every day.

The Department’s water system, considered the largest water utility in the Southeast United States, serving approximately 451,509 retail customers and 15 municipal wholesale customers within Miami-Dade County. Water is drawn primarily from the surficial Biscayne Aquifer, a non-artesian (or near surface) aquifer, which underlies an area of about 3,200 square miles in Miami-Dade, Broward, and Palm Beach counties.

The water system consists of three regional water treatment plants (WTP), the shared Hialeah reverse osmosis water treatment plant, and five small auxiliary treatment facilities that service the southernmost area of the County. The three regional plants are John E. Preston, Hialeah and Alexander Orr, Jr. water treatment plants. The total combined capacity of the three regional WTPs is 439 MGD (million gallons per day). There are fourteen wellfields comprised of 95 production wells, 10 Floridian Aquifer wells and five aquifer storage and recovery wells. These wells supply untreated water to the treatment plants.

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 367,618 retail customers and 13 wholesale customers, consisting of 12 municipal customers and the Homestead Air Reserve Base. It consists of three regional wastewater treatment plants (WWTP), over 1,000 sewage pump stations and nearly 6,400 miles of collection and transmission pipelines, manholes, lift stations and force mains. The service area of the system covers approximately 375 square miles. The three WWTPs are the South District, Central District and North District WWTPs. The disposal of the by-products of the treatment process (sludge and effluent or treated wastewater) is an important part of the Department’s plan to improve and expand its sewer system.

Disposal of treated wastewater at the North District Plant and the Central District Plant is accomplished by discharge into the Atlantic Ocean. A portion of the treated effluent at the North District Plant is also disposed via deep injection wells. Environmental studies conducted by the Environmental Protection Agency (EPA) and examinations by the State and the Department conducted in 1994 have shown “no irreparable harm” and “no unreasonable degradation” to the environment because of the discharge of effluent from the North District Plant and the Central District Plant into the Atlantic Ocean. The State revised this policy when, during 2008, legislation was passed mandating a phase out of ocean outfall discharges.

The South District Plant disposes of its effluent through deep injection wells to the lower Floridian 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 2020 the Department reused 13.39 MGD of treated wastewater. Additional capacity for production of reclaimed water currently is available at the South District Plant, with 98.1 MGD of public access reuse quality water produced in FY 2020. The Department is committed to distributing as much reclaimed water for aquifer recharge, irrigation, power plant cooling and potentially coastal wetlands rehydration as technically, environmentally, and economically feasible.



## ECONOMIC CONDITION AND OUTLOOK

This report, Economic Conditions and Outlook, reviews the level of economic activity throughout FY 2020 and forecasts the area's economic outlook for next fiscal year.

One year ago, in the year-end outlook for the local economy, it was anticipated that there would be a diminished likelihood of improvement and a higher likelihood of softening given that FY 2020 would contend with expanded international travel restrictions, the fear of a worldwide pandemic, and uncertainties related to a presidential election year.

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

Economic conditions in Latin America, after experiencing no growth in 2019, were projected to expand modestly in 2020. Forecasts for Brazil and Venezuela pointed to an uptick in 2020, while Argentina, Mexico and Chile were expected to perform worse than in 2019. The deceleration in the US economy coupled with the sluggish recovery of the Latin American region were expected to result in little change in trade for the Miami Customs Ports.

Real estate and construction activity in FY 2020 were expected to continue at FY 2019 levels with price appreciation softening as affordability for residents continued to weigh on the market.

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

It was stated in last year's assessment that: the degree of expansion will depend upon the level of international tourism and trade, the level of actual construction in the county, the rates of economic growth in Central and South America and the Caribbean, and the severity of the impact of the novel coronavirus (COVID19) on tourism, trade, and the world economy at large.

This forecast of FY 2020 was quickly derailed by the magnitude of the impact of the coronavirus pandemic on the economy.

The national economy in FY 2020, instead of slow growth, saw a decline in economic activity, with real gross domestic product (GDP) falling at an annual rate of 2.3 percent, compared to an increase of 2.2 percent in the prior year. The reduction in GDP was brought about by a drop in the level of investment that went from an increase of 3.6 percent in FY 2019 to a contraction of 6.5 percent in FY 2020, and by a drop in personal consumption in FY 2020 of 2.6 percent from its FY 2019 level. Alongside the contraction in economic activity, and due in part to a dip in energy prices resulting from falling global economic activity, inflation decreased from 1.9 percent in FY 2019 to 1.4 percent last year. This pullback in the level of inflation materialized alongside an increase of the headline unemployment rate of 360 basis points to 7.3 percent, the highest level since FY 2013.

At the county level, FY 2020 closed with the highest unemployment rate since at least FY 2004 and saw payroll employment fall for the first time in a decade. The residential real estate market weathered the turmoil surprisingly well, although on two fronts did display signs of pandemic induced stress, with permits for new residential construction falling 28 percent over the previous year and with residential condominium sales decreasing by 10.8 percent.

Affected by the pandemic, taxable sales, international trade, visitors to Miami, hotel occupancy rates and average hotel room rates all contracted significantly during FY 2020.

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

## EMPLOYMENT

During FY 2020, nonagricultural wage and salary employment (annual average) recorded an overall loss of approximately 43,800 jobs. This decrease of 3.6 percent left total employment at 1,168,900 according to non-seasonally adjusted data from the Bureau of Labor Statistics. This loss in employment represented the first loss in ten years when in FY 2010 there was a contraction of 1.9 percent. This employment loss resulted in a near-doubling of the unemployment rate. The average annual unemployment rate for the year reached 7.6 percent, compared to 3.4 percent a year earlier. Breaking down FY 2020 by quarters reveals that the unemployment rate peaked in the third fiscal quarter at 12.9 percent, to later recede to 8.9 percent in the fourth fiscal quarter.

Given the public health-induced nature of the downturn that occurred in FY 2020, the bulk of losses in employment occurred in the leisure and hospitality and retail trade industries. The leisure and hospitality sector alone contributed almost half of the overall job losses, down 19,200 jobs or 13.2 percent, while retail trade was down 5,600 jobs, or 3.9 percent. Rounding out the top 5 industries by job losses were: professional and business services with a loss of 5,100 jobs or 2.8 percent; education and health services, down 4,400 jobs or 2.3 percent; and other services with a loss of 3,400 jobs or 6.7 percent.

Despite the broad-based impact of the pandemic induced downturn in FY 2020, four sectors managed to eke out minimal gains in employment: finance, up 0.5 percent, construction, up 0.7 percent, information up 1.2 percent and mining and logging up 12.7 percent.

## REAL ESTATE MARKET

Traditionally, the real estate sector in Miami-Dade County is viewed as one of the most important measures of the County's economic health. The effects of the pandemic on the real estate market during FY 2020 were mixed, with increased uncertainty weighing on residential construction and shutdowns delaying residential sales on the one hand and record low mortgage rates and increases in work from home policies boosting home buyer's appetite in some segments of the market on the other.

The impacts brought by the pandemic will take a while to settle, but for FY 2020 they resulted in an almost unchanged number of single-family home sales, a decrease in condominium sales, reduced construction activity and a drop in foreclosure filings.

During FY 2020 sales of existing single-family homes decreased 2.8 percent from the prior year, from 13,000 to 12,730 homes sold. Sales of condominiums suffered a larger decrease, down 10.8 percent over the prior year with just under 12,500 units sold. Cash sales accounted for 44.3 percent of all condo sales in FY 2020 down from 45.5 percent in FY 2019 and over half in FY 2018. Much of this investor-cash activity can be attributed to the foreign-based demand for housing, especially from South America.

In terms of valuation, housing price appreciation continued in FY 2020. The median sales price for single family homes rose by 5.8 percent in FY 2020, the fastest increase since FY 2017. The median sales price for existing condominiums rose by 0.3 percent in FY 2020, the slowest increase since FY 2011.

Roughly midway through FY 2020, the United States Federal Housing Authority announced a foreclosure and eviction moratorium on qualifying residential properties. As a result, data from the County Clerk shows new foreclosure filings plummeted, from 5,445 new filings in FY 2019 to just under 3,000 in FY 2020.

In terms of new residential construction, following a 16 percent increase for residential units permitted in FY 2019, FY 2020 saw the number of units permitted drop by 28 percent, to 8,568, marking the lowest level since FY 2012.

The commercial/industrial components of the real estate market, possibly due to its less flexible nature, displayed scant evidence of being impacted by the pandemic dynamics in FY 2020. The sector experienced a slight increase in vacancy rates in FY 2020 compared to the previous year. Office vacancy went up slightly to 9 percent, with the average rental rate per square foot increasing by 5.4 percent. The retail vacancy rate remained stable at just over 4 percent. Average lease rates for retail stand-alone space were flat at \$40.88 per square foot while average lease rates in shopping centers increased by 3.3 percent to \$34.44 per square foot. The industrial market saw vacancy rates unchanged at 4.0 percent



in FY 2020. Average lease rates for industrial space were down 9.1 percent in FY 2020 compared to FY 2019 to settle at \$11.15 per square foot.

## **SALES INDICATORS**

Taxable sales in Miami-Dade County were clearly impacted by the pandemic. In FY 2020, they totaled \$49 billion dollars after decreasing an inflation-adjusted 13.8 percent from FY 2019.

After increases in every category in FY 2018, and increases in two out of six categories in FY 2019, all categories suffered contractions in FY 2020, led by tourism with a decrease of \$3.87 billion or 28.8 percent, followed by consumer nondurables (-\$2.45 billion, -14.5%) and consumer durables (-\$586 million, -14.1%). The contraction of taxable sales was reflected in the Index of Retail Activity which, after increasing by 3 points in FY 2019, fell by 26 points in FY 2020 to a level of 160.

## **INTERNATIONAL TRADE AND COMMERCE**

International trade and commerce is a key component of Miami-Dade's economy. Since surpassing \$90 billion (2019 inflation adjusted dollars) in trade measured by value in FY 2018, merchandise trade passing through Miami-Dade County fell 4.3 percent in FY 2019, and, aided by the recession tied to the pandemic in FY 2020, fell an additional 10.7 percent to \$77 billion.

In contrast to the recurring merchandise trade deficits that the United States maintains year after year, Miami-Dade ports export more than they import, resulting in a trade surplus. The surplus narrowed in FY 2020 after exports decreased by 9.4 percent, which was less than the decrease of imports, 11.8 percent. Most of the Miami-Dade export markets are in South America, Central America and the Caribbean, and together with Europe, account for more than 87% of total trade. Most of total U.S. imported perishables from South America and Central America and the Caribbean continue to pass through the Miami Dade ports.

Two of Miami-Dade County's barometers of trade activity are the freight tonnage moving through Miami International Airport (MIA) and PortMiami. At the former, overall air freight tonnage decreased 1.3 percent in FY 2020 after declining 2.4 percent the preceding year. At PortMiami, cargo tonnage figures were down by 3.9 percent after increasing by 5.3 percent the prior fiscal year. PortMiami accounts for 87 percent of total County trade measured by weight.

## **TOURISM**

In FY 2019 the state of Florida played host to the highest number of overnight visitors ever, at 130 million. Then, COVID-19 slammed the breaks on travel and tourism and brought that number down to just over 97 million overnight visitors in FY 2020.

In tandem with the rest of the state, visitors to the Miami area dropped sharply in FY 2020, to 9.1 million overnight visitors. The number of international visitors fell by more than half while domestic visitors were down 39 percent.

Consistent with the trend in overnight visitors, MIA passenger levels stood at 26 million in FY 2020, representing an annual decrease of 43 percent, after increasing 1.9 percent in the prior year. Even harder hit than the overall tourism sector was the cruise industry, subject to a complete regulatory shutdown that continues even now. PortMiami saw its passenger traffic plunge 75 percent to 1.7 million passengers in FY 2020 after a 22 percent increase in FY 2019.

The drop in overnight visitors, coupled with an increase of 3 percent in hotel room inventory, translated into a decrease in the hotel occupancy rate from 75.6 percent in FY 2019 to 45.6 percent in FY 2020. This drop in the occupancy rate was coupled with a decrease in the average room rate from 194 dollars in FY 2019 to 165 dollars in FY 2020.

## **FUTURE OUTLOOK**

A decade plus of economic expansion for both the United States and Miami-Dade County came to a halt in FY 2020 as the COVID-19 pandemic threatened to overwhelm the healthcare system and forced paralysis or complete shutdowns on several key sectors of the economy.

The pandemic induced economic shock was very severe at the end of the second quarter and beginning of the third quarter of FY 2020, to a degree that is not likely to recur. The fact that we have more knowledge of the COVID-19 virus, that there are effective vaccines rolling out, and that there is a unified government in Washington, points to a rebound in economic activity in FY 2021 from the levels in the prior fiscal year.

Because of its location and economic trade and tourism ties, Miami-Dade's economy is influenced by developments in both the broader US and Latin American and Caribbean economies. In addition, the economic impacts of the pandemic-induced recession were far-more unequally distributed than in past recessions. While many segments of the economy and population were lightly impacted or not impacted at all, other segments faced overwhelming impacts. The hardest hit segments of the population tended to be those employed in food-service and accommodation, retail and personal service industries which, in aggregate, are not amenable to remote working. Because of the severe impact on these industries, a slow recovery is not expected before the third quarter of FY 2021. These industries are also those most likely to face long-term, or even permanent, transformation in the way business is conducted, potentially resulting also in permanent job losses.

On the domestic front, the overall United States economy is expected to rebound. After contracting by less than others in FY 2020, it is expected that the U.S. will outperform other countries of the world as capital seeks safety and flows into the country. Furthermore, a change in government in Washington may bring new policies that expand trade. And, expected expansionary fiscal policies and a continuation of accommodative/expansionary monetary policy emanating from the federal reserve should support the recovery.

Prospects for growth of the United States' economy are thought to reach 5.1 percent in calendar year 2021, reversing the fall of 3.5 percent in calendar year 2020, according to the International Monetary Fund (IMF), and by a slightly lesser degree according to the Organization for Economic Co-operation and Development (OECD) and the Congressional Budget Office.

Economic activity in Latin America, after experiencing a 7.4 percent drop in 2020, is expected to expand by 4.1 percent in 2021. The faster expansion in the US economy relative to Latin America is likely to result in an increase in imports relative to exports that could contribute to a narrowing of the trade surplus flowing through Miami-Dade ports.

Real estate and construction activity in FY 2021 are expected to surpass FY 2020 levels as mortgage rates remain at historically low levels and increased demand and prices stimulate increased construction.

Tourism indicators should improve across the board from the lows of FY 2020, although they are unlikely to return to pre-pandemic levels in FY 2021 as restrictions are kept in place on many travel related activities and as potential travelers remain hesitant to take the additional risk.

Employment should expand as people get used to operating within the confines of pandemic-related restrictions, and more so, as the share of residents vaccinated increases. A continuation of the shift in employment from sectors most-affected by the pandemic to sectors benefited by it should be expected. This will, however, leave behind the challenge of dealing with the displaced workers and aiding their transition into new jobs.

In conclusion, evaluating all the likely developments in major areas of the economy leads to a forecast that the Miami-Dade economy appears poised for a modest and fragile rebound in FY 2021. The degree of expansion will depend primarily on the speed, in the U.S. and Latin American and Caribbean countries, of the rollout in vaccinations, the effectiveness of the vaccines to new strains of the coronavirus, the level of fiscal stimulus out of Washington, and the volatility in energy prices and the resulting potential inflationary pressures.

## **Water System**

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

The Water Use Efficiency Plan (Plan) is in its thirteenth year of operation as required by the 20-year Water Use Permit (WUP) issued in 2007 by the South Florida Water Management District and approved by the Miami Dade County (County) Board of County Commissioners. The Plan requires implementing water conservation Best Management Practices (BMPs) through a quantifiable process that provides for accountability of water saved through



the Plan. BMPs include rebates for purchase and installation of high-efficiency fixtures for toilets, faucets and showerheads and rebates for upgrades to irrigation systems for single-family homes and large properties. Non-BMP measures in the Plan include adopting a permanent two days per week landscape irrigation rule, mandating requirements for installing water-efficient fixtures in new construction, educational outreach campaigns to residents and businesses, and utility water loss reduction efforts. These initiatives have reduced finished water demand by 19 MGD as of December 31, 2019, compared to the finished water demand in 2006, the year prior to Plan implementation. The County's conservation efforts have resulted in the extension of its WUP, cancellation of alternative water supply projects and deferral of several other projects making water conservation the least expensive form of alternative water supply. The County was the first in the state to use the Florida Department of Environmental Protection's Conserve Florida "EZ GUIDE," a web-based application that facilitated the development of goal-based water conservation planning. The overall Plan's objective is to improve water use efficiency, reduce loss and waste, and comply with Florida's legislative criteria and water conservation initiatives. The following BMP projects are currently implemented:

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

## **Water Reclamation**

Reclaimed water is highly treated, filtered and disinfected wastewater that is reused for a variety of purposes. Reclaimed water can replace or supplement groundwater supplies. Currently, the Department has been able to replace potable water used for process water at its wastewater treatment plants with reclaimed water. Valuable drinking water is thus conserved by using reclaimed water in several wastewater treatment plant processes, as well as the landscape irrigation system at two of the Department's wastewater treatment plants. The Department continues to evaluate opportunities for cost-effective use of reclaimed water that can reduce demands for potable water and meet the need for additional water for restoration and enhancement for the environment, cooling water, scrubber water, irrigate landscaping, and serve industrial water demands for electrical production.

## **Water and Wastewater Transmission System Computer Models**

The Department maintains Water and Wastewater Transmission System Computer Models, which operate with the Geographic Information System (GIS) data on the respective systems. These models are critical for planning and evaluating the availability of system capacity for new developments and system upgrades. The models are also used for the identification of long-range improvements to transmission system facilities, including pumping stations and pipelines as part of Integrated Water, Wastewater, and Reclaimed Water planning. WASD's Planning Division develops forecasts for water and sewer demands to ensure that all future needs can be met.

## **Wastewater System**

### **Consent Decree Program**

The County negotiated a Consent Decree with the United States Environmental Protection Agency (EPA) and the Florida Department of Environmental Protection (FDEP), which was lodged with the US District Court on June 6, 2013 and entered on April 9, 2014. This Consent Decree is designed to build on the successes achieved by the Department under previous Consent Decree programs. The overarching goal of the Consent Decree is to reduce sanitary sewer overflows and to meet effluent limit requirements of the Clean Water Act from the County's wastewater system.

The Consent Decree requires the Department to upgrade its collection, transmission, and treatment facilities by completing 81 individual capital improvement projects throughout the wastewater system. It also requires the County to implement Capacity, Management, Operations and Maintenance (CMOM) Programs for the continued improvement of its systems and to eliminate, reduce, prevent or otherwise control sanitary sewer overflows (SSOs).

As of September 30, 2020, the County has completed 44 capital improvement projects with an approximate total cost of \$499 million. Thirty-six projects are currently in procurement and construction with an approximate total cost of \$1.441 billion, and one project is in the planning, design and permitting phases.

Regarding the CMOM Program, the County developed ten (10) Capacity, Management, Operations and Maintenance Plans with the objective of incorporating standard operation and maintenance activities with a new set of information management requirements. All of these plans have been approved by EPA/FDEP. In addition, the County remains in compliance with five additional plans that are a continuation from previous Consent Decrees. Implementation of the Consent Decree is underway, and the County remains fully committed in completing the mandated Consent Decree Capital Improvement Projects by 2027.

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

In 2008, the Florida Legislature approved, and the Governor signed a law requiring all wastewater utilities in southeast Florida utilizing ocean outfalls (OOL) for disposal of treated wastewater to reduce nutrient discharges by implementing advanced wastewater treatment by 2018 or equivalent, cease using the outfalls by 2025, and reuse 60 percent of the wastewater flows by 2025. In 2013, the statute was amended to provide greater flexibility to meet reuse requirements and to allow use of the ocean outfalls for peak flows management, not to exceed 5 percent of the annual baseline flows. Because of this law, the Department has analyzed several compliance options. Each option includes additional projected capacity to meet future average daily and peak flow demands. After considering several options, the Department's recommended option includes upgrades to the existing three wastewater treatment plants (WWTP). The upgrades will include the addition of deep injection wells at the Central and North District Wastewater Treatment Plants (WWTP) to eliminate the normal use of the ocean outfalls for disposal of treated wastewater, and capacity upgrades at the South District WWTP. These upgrades include 22 projects, of which 2 are completed, 2 are under construction, 1 in procurement, and 17 are in design/permitting.

As part of the Department's normal planning activities, Water and Sewer conducted a thorough re-evaluation of its 2035 projections, including average daily flows, peak hour flows (PHF), and influent solid loadings. Through the Department's continued water conservation efforts, combined with its Inflow and Infiltration Program, wastewater flows have remained relatively flat for the past fifteen years, reducing the current and future need for system capacity. The updated projections have pushed the need for a new plant beyond the initial 2025 target. Therefore, the addition of a proposed West District WWTP, which was part of the Department's 2013 Ocean Outfall Legislation Compliance Plan, will not be needed to comply with the legislation, nor will it be needed by 2025 as originally planned, for capacity purposes. Nevertheless, the facility is still included within the 20-year planning horizon.

The Department selected to implement the equivalent to that which would have been achieved by Advanced Wastewater Technology (AWT) if the requirements were fully implemented beginning December 31, 2018 and continued through December 31, 2025. This is being accomplished by reducing the nutrients (total nitrogen and total phosphorus) being disposed of through the ocean outfall and maximizing the quantity of flow being sent to the existing



wells. Since 2008, the Department has been using the existing deep injection wells at the North District WWTP to reduce flow going out to the outfall. In addition, the Department has completed construction of two (2) industrial deep injection wells at the Central District WWTP, which will reduce nutrient loading by removing the waste stream from the centrate process, the gas scrubbers, and the treated effluent from the ocean outfall discharge. The industrial deep injection wells are in operational testing as of November 2019. These wells will enable the Department to divert approximately 30 million gallons per day (MGD) of treated wastewater from Central's ocean outfall.

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

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

In 2014, the Miami-Dade Water and Sewer Department created a Pump Station Improvement Program (PSIP), with an investment of \$183 million, to upgrade its Wastewater Collection and Transmission System. Specifically, the PSIP was created to evaluate and improve the operation and transmission capacity of 118 sanitary sewer service areas located throughout Miami-Dade County, which are owned and/or operated by the Department. Projects include the upgrade of sewer pump stations, including the installation of new pumps, electrical upgrades, reduction of infiltration/inflow, and the construction of new force mains.

The PSIP Program Manager has validated Remedial Action Plans (RAPs) for all 118 service areas and developed a comprehensive master schedule for the entire program. This validation took into consideration several factors, including required regulatory milestones, development industry needs, sanitary sewer overflow locations, absolute moratorium stations, reserved capacity, roadway moratoria, and stations within the drinking water wellfield protection areas. Since the program's inception, a total of 130 projects have been completed or certified within 105 service areas. An additional seven (7) projects have been substantially completed and are pending final certification.

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

Miami-Dade Water and Sewer Department established a Flow Reduction Program (FRP) Division to improve the service of the sanitary sewer system by reducing and mitigating adverse impacts resulting from potential inflow/infiltration (I/I) sources. The reduction of I/I flow will allow for enhanced operational performance, reduction on treatment and pumping costs, and overall effective service delivery. The FRP aims to significantly and cost effectively reduced average and peak flows in the sewer system. In addition, this reduction of flow into the conveyance system provides opportunity to reduce the required capacity improvement infrastructure projects, thereby offering additional savings to the Department and ratepayers. The objective of the FRP is to develop a cost-effective solution that reduces infiltration and inflow while prioritizing repairs and quantifying savings.

The Department continues to perform sanitary sewer evaluation surveys on the approximate 6,500 miles of sewage collection mains and laterals. During Fiscal Year 2020, more than 3,335 repairs were performed to the gravity system; and over 1,883,070 feet (356.4 miles) of gravity sewers and 8,989 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 95 production wells have flow meters installed with SCADA monitoring for compliance with SFWMD regulations.

Upgrades to the SCADA system are being planned as part of the overall infrastructure upgrades to improve real time management and operational monitoring/control of treatment systems and the distribution and collection systems.

### **Performance Improvement**

The Miami-Dade Water and Sewer Department participates annually in national and state benchmarking surveys including those administered by the American Water Works Association and the Florida Benchmarking Consortium. This process allows for a comparison to other like agencies in the state and across the country through the review of internal key performance indicators.

The business plan is prepared in accordance with the process prescribed by the County's Office of Management and Budget. The plan identifies key issues and priority initiatives, in keeping with the County's Strategic Plan and in furtherance of the Department's mission. Performance measures are developed and aligned with each division's key priorities and associated resources, to allow the Department to meet the defined objectives. The business plan is currently being updated.

### **Rate Increase**

On September 20, 2019, the Board of County commissioners adopted County Budget Ordinance Number 19-90 authorizing modifications to the Department's retail tiered-based structure effective October 1, 2019. The median monthly water and sewer bill of the residential customer using 5,236 gallons (7 ccf) per month was \$47.49, or 3.15 higher from the prior year's bill of \$44.34. In addition, the County Budget Ordinance decreased the water wholesale rate by \$0.0724, or to \$1.6904 per thousand gallons from \$1.7628, and the wastewater wholesale rate increased by \$0.1017 per thousand gallons to \$3.1954 from \$3.0937.

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

The Department has utilized \$950 million of its Commercial Paper program since its establishment in May 2016. The CP program was established to provide interim financing for the Department's capital improvement program.

### **WIFIA Loan**

In 2014, the federal Water Infrastructure Finance and Innovation Act (WIFIA) program was established by Congress assist in the financing of the Nation's aging utility infrastructure. It provides low interest loans with flexible terms and up to a 40-year payback period to water and sewer utilities seeking to upgrade or expand their infrastructure.

In 2017, the EPA selected the Department to be one of 12 entities invited to apply for funding through the inaugural WIFIA loan program.

The Department closed on \$99.7 million in WIFIA funding at an interest rate of 2.89% on March 22, 2019 for its Ocean Outfall Reduction and Resiliency Enhancement Project. WIFIA will fund up to 49% of the project estimate on a reimbursement basis, or \$99.7 million of this project's costs, the remainder of which is being funded through the State Revolving Fund Loan Program and Department cash on hand. This WIFIA loan will partially fund projects to meet compliance with the Ocean Outfall Legislation (OOL).

In May 2020, the Department received its second WIFIA low-interest loan from the EPA. The Department will use the \$326.2 million to fund the design and construction of five new electrical distribution buildings at three wastewater treatment plants.

In July 2020, the Department received its third consecutive WIFIA low-interest loan from the EPA. The Department is the only government agency in the nation to receive a third allocation since the inception of the WIFIA program.



The Department will use the \$235 million dollars to fund nearly half of a \$480 million upgrade to the department's three wastewater treatment plants and its collection system.

To date, the Department has received a total of \$660 million of WIFIA loans. These loans will help to finance approximately \$1.3 billion worth of projects with the department's multi-billion-dollar CIP, create 500 jobs and save ratepayers \$210 million in interest for the life of these loans when compared to other financing options.

### **Building Better Communities General Obligation Bonds (GOB)**

In November 2004, Miami-Dade County voters approved a \$2.9 billion bond program which allows the County to issue long-term bonds to fund numerous neighborhood and regional capital projects to be completed over the next 10 years. The General Obligation Bonds are legally backed by the full faith and credit of the County which has committed future taxes over the next 40 years to repay the bonds. General Obligation Bonds typically are the least expensive type of debt available to government. Among the GOB funded capital projects are several addressing current and future water and wastewater infrastructure needs. Resolution R-537-14 adopted by the Board of County Commissioners on June 3, 2014 allocated funding for "Extension of Sewer System to Developed Commercial and Industrial Corridors of the County," aka Commercial Corridor Project. Commercial Corridor Projects will be the largest single GOB project in Miami Dade Water and Sewer Department. The commercial corridor on Bird Road and the Industrial Park Area that will be addressed by two Low Pressure Sewer System projects and is underway. Also, Basis of Design Report for ten (10) areas within the commercial corridor began in FY2016 and is ongoing. Other planned projects include countywide water and wastewater main installations; pump station rehabilitation projects; reclaimed water facilities and infrastructure. GOB funding continues to be used to mediate the risk associated with Dieldrin contamination of private wells in the Falls area at Caribbean Estates an extensive area at Continental Park. As of September 30, 2020 the Department has access to \$16.8 million dollars of funding for GOB projects.

### **GROWING WITH INFORMATION TECHNOLOGY**

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

The Information Technology Department (ITD), working closely with WASD Business Units, other County Departments and various specialized vendors, continues to introduce innovative solutions and technologies that extend the department's capabilities by improving productivity, efficiency, and enabling better data analysis to improve decision-making; foster continued improvements by enhancing data and systems access through mobile and cloud solutions; proactively manage infrastructure; and diversify customer channels of communication thus improving customer service and satisfaction. Technologies that continue to be leveraged include 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; improved asset management mobile solutions to support field and warehouse operations; Microsoft SharePoint platform along with Office 365 that encourage better business collaboration anytime, anywhere, and from any device; Business Intelligence architecture and tools to analyze and visually present disparate data using intuitive dashboards; and AVA (Watson) Chatbox, which allows customers to ask questions using natural language, and to request payment extensions. In response to the COVID-19 pandemic, digital signature software, Office 365 Teams and Zoom were widely adopted. In addition, close to 300 laptops were deployed to facilitate a working from home program. WASD's staff was enabled to work remotely to continue to offer services to customers while ensuring their safety.

## **Systems Infrastructure**

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

## **Big Data / Business Intelligence**

In FY 2020, there were enhancement rollouts of BI solutions with digital dashboards to enable analysis and documentation of business processes within key business areas for the purpose of reporting and process improvement. New dashboards/reports were developed for Retail Customer Division and New Business Division that included:

- Frontdesk Application Dashboard
- Attendance Application Dashboard
- Employee Performance Dashboard
- DSI Dashboard (This allowed IT to comply with security mandates.)

Staff continues to improve connectivity to historical and archived SCADA data to leverage the cloud platform providing high availability, advanced security, dynamic environment, and providing the foundation for analytical reporting. Working with all divisions on providing a standard reporting platform for widely used datasets throughout the department and the creation of interfaces to existing data lake for external systems to digest existing data.

## **SharePoint/Intranets**

All WASD Intranet sites have been converted to SharePoint Online. This cloud-based environment provides a robust, user friendly ecosystem that allows users to share and collaborate information within the WASD department.

Information is available from anywhere on any type of device with a web browser that is connected to the County network. It provides a rich user experience for sharing files and storing documents and provides users flexibility and freedom to manage their own lists and document libraries. In addition, it provides a development platform for specialized applications within the same framework when needed.

Legacy SharePoint sites in 2007 (PCTS & WASDASAP) were migrated to SharePoint Online (WaterHub) and officially decommissioned in early 2020. This was a major accomplishment as the implementation schedule coincided with the COVID pandemic. However, our team was able to complete all conversions remotely with no delays. In addition to the scheduled migrations, the SharePoint team was able to assist and transition all divisions that needed to access files remotely due to the pandemic to meet work from home requirements. This project included the modernization of the WASD main landing page and numerous webpages providing departmental information. The development team worked closely with divisions to update, convert and modernize pages for each division into team sites. Additionally, several existing file shares were converted from on-premises to SharePoint online document libraries.

## **In-house Development**

We continue to support existing application portfolio by modernizing existing applications, consolidating and decommissioning legacy applications that are no longer supported or meet security requirements. In FY 2020, the several new projects have undertaken; Lenel Access Control & Badging, INFO360 and Digtix. We continue to support all legacy applications in our portfolio to include new and existing enhancements.

## **Meter to Cash**

WASD Internet Self-Service application continued to expand. New features, such as the Bill Pay, were implemented. This feature allows WASD's customers to make payments directly from the Self-Service application without having to log in again into ACI, which is WASD's payments processor, thus enhancing the customer experience.

Other completed projects include the implementation of WASD bills within the County's EnergyCap enterprise system and the upgrade of iNovah cashiering application to version 2.6.



On-going projects include extending donation capability to non-WASD customers as well as new Self-Service features Payment Extension Request and Reconnect Service among others.

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

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

In FY 2020, the upgrade to PeopleSoft Update Manager (PUM) 31 and PeopleTools v8.57 was completed, positioning the Department with a more current version of the software. As the countywide ERP implementation project progressed, efforts to replace existing ADPICS integrations and custom solution in Time & Labor took a priority. The countywide ERP implementation project will be replacing ADPICS, FAMIS, and current Time & Labor systems. WASD's current ERP implementation will not be folded yet to this implementation, hence the need for these development efforts. Fund distribution functionality was configured, tested, and prepared for fiscal year go-live. This functionality will automate re-allocation of monies to funds to simplify data entry while maintaining tracking needs. Other key development efforts included support for the capital budget process and integrations to eBuilder.

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

In line with WASD's Asset Management Framework (AMF), aimed at implementing best practices and methods that align to ISO 55000 standards, in FY 2020, the implementation of work order closing codes for the Pump Station Maintenance Division (PSMD) was completed. In addition, Phase 2 of the AMF initiatives was initiated. In progress are the automation of data capture for preventative maintenance work orders in EAMS, as well as enhancements to the Work Mobile application to support PSMD. A major upgrade of the Infor EAM product to v11.4 was also performed, involving not only testing but the rewrite and upgrade of various integrations. Numerous enhancements to Stores Mobile application and base product were completed, including support for tracking COVID-19 related items.

### **eBuilder Implementation**

Focus for FY 2020 centered around the implementation of eBuilder to manage the Capital Improvement Projects (CIP). Integrations to ERP were reviewed, redesigned, and unit and system tested. Data migration/clean-up efforts are also underway. Upgrade to existing Proliance product to v5.9 was also completed this period. Support for the eBuilder WASD Development Projects production instance continued.

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

**myWASD Critical Infrastructure** viewer was rolled out in FY 2020 for the purpose of providing WASD staff with a centralized web application for location-based analysis of assets and events within the proximity of the County's critical facilities and WASD's critical pipelines and pump stations. This solution integrates SCADA information for providing pump station power status and rain gauge information, updating on three-minute intervals.

**CAD to GIS Solution** phase 1 completed in FY 2020. AutoCAD to GIS is a process to seamlessly import CAD engineer drawings (AsBuilt) to GIS using ESRI tools. The contractor will use a WASD template to create all the As-Builts that will be submitted for a specific project via eBuilder. The WASD CAD template contains all the water and sewer infrastructure schema, asset symbolizations and validation tools for submitting high quality AsBuilts, thus reducing AsBuilt rejections. Internal testing and peer review has been completed and currently we are finalizing the GIS process integration processes with eBuilder and the WASD Data Maintenance.

**WASD/DERM Preliminary Review** automation phase 1 was completed in FY 2020. The overall goal of the Concurrent Review process is to reduce permit approval time between agencies. The phase 1 GIS solution includes DERM Alerts integration with the eBuilder process involving Agreements, Verification Forms, Ordinance Letters, and Letter of Availability. The process automatically creates DERM Alert reports based on the project geographical position based on predefined alert distances. Currently, integration with eBuilder and GIS DERM Alerts are in progress.

## 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.

## 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

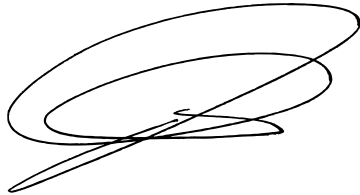
### Certificate of Achievement for Excellence in Financial Reporting

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, 2019. 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 37 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 CCED Creative & Branding Services, for their tireless efforts and professionalism in preparing this report, as well as our external auditors for their invaluable assistance. Finally, a special acknowledgement is extended to the Mayor and Board of County Commissioners for their continued leadership in enabling the Department to fulfill its role.

A stylized, handwritten signature in black ink, consisting of a large, sweeping loop followed by a sharp, downward-pointing stroke.

Josenrique Cueto  
Interim Director

A handwritten signature in black ink that reads "Frances G. Morris" in a cursive, flowing script.

Frances G. Morris  
Chief Financial Officer



Government Finance Officers Association

Certificate of  
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Presented to

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

For its Comprehensive Annual  
Financial Report  
For the Fiscal Year Ended

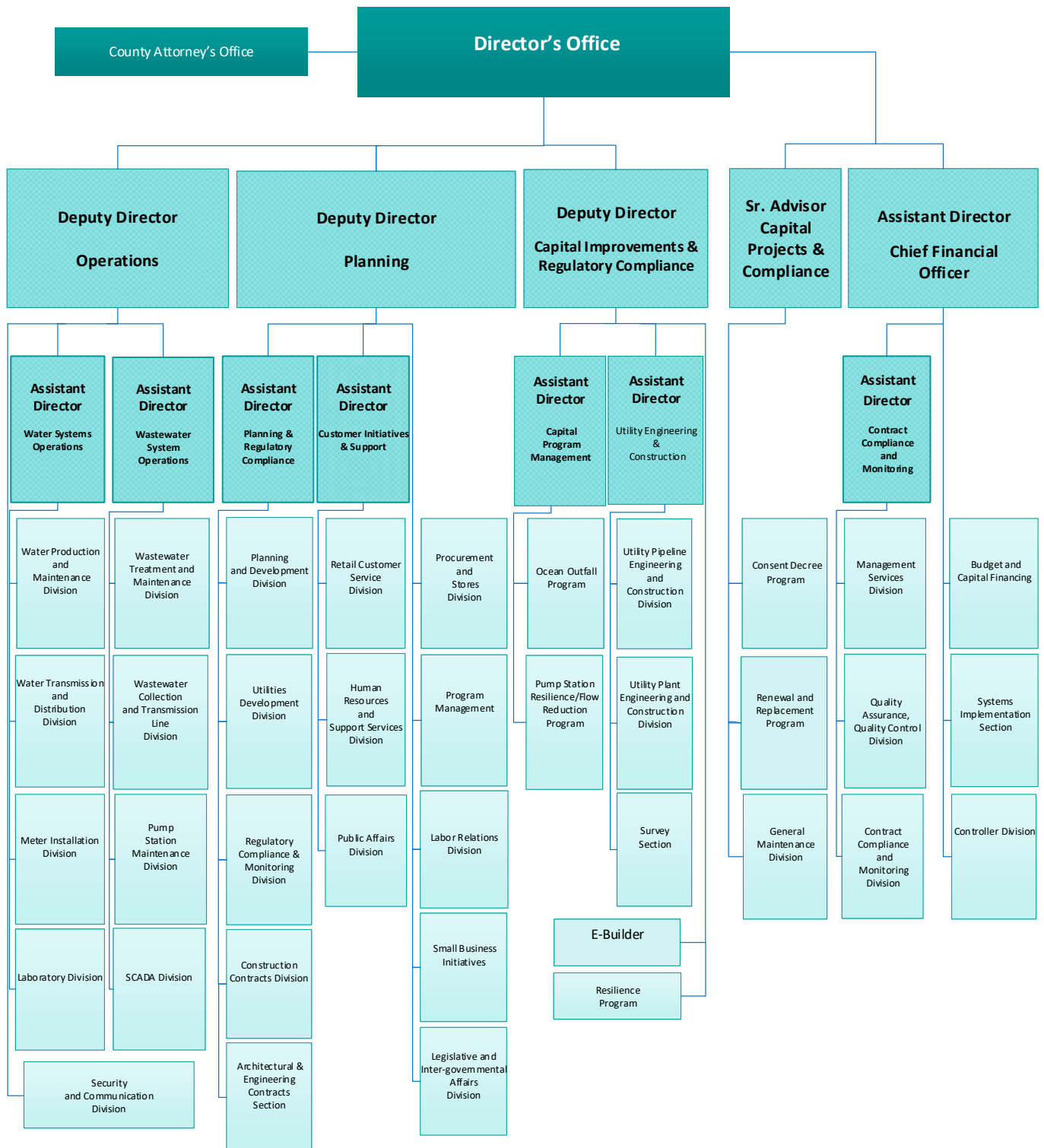
September 30, 2019

*Christopher P. Morrell*

Executive Director/CEO



# ORGANIZATIONAL CHART



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# Financial Section





## INDEPENDENT AUDITORS' REPORT

To the Honorable Daniella Levine Cava, Mayor, and  
Honorable Chairperson and Members of the  
Board of County Commissioners  
Miami-Dade County, Florida

### *Report on the 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, 2020 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, 2020, 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, 2020, the changes in its financial position, or, where applicable, its cash flows for the fiscal year then ended in conformity with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

### ***Other Matters***

#### ***Required Supplementary Information***

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

#### ***Supplementary and Other Information***

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

The supplementary financial data is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. Such information has been subjected to the auditing procedures applied in the audit 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 18, 2021 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 18, 2021



# 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, 2020. The MD&A presents management's examination and analysis of the Department's financial condition and performance. It should be read in conjunction with the financial information in the transmittal letter in the introductory section and the financial statements in the financial section of this report. The financial statements include the statement of net position; statement of revenues, expenses, and changes in net position; statement of cash flows; notes to the financial statements; and required supplementary information.

The statement of net position presents the financial position of the Department as of a specific date. It provides information about the nature and amount of resources (assets and deferred outflows) and obligations (liabilities and deferred inflows), with net position being the difference between assets and deferred outflows and liabilities and deferred inflows. Increases or decreases in net position may serve as a useful indicator of whether the financial position of the Department is improving or deteriorating.

The statement of revenues, expenses and changes in net position present information showing how the Department's net position changed during the fiscal year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs which may not coincide with the timing of the related cash flows.

The statement of cash flows presents the cash activities of the Department segregated in the following four major categories: operating, non-capital, capital and related financing, and investing. This statement also presents the changes in cash and cash equivalents of the Department. The notes to the financial statements provide required disclosures and other information that are essential to the full understanding of data provided in the statements.

## **FINANCIAL POSITION**

A summary of the Department's net position and related changes for the fiscal years ended September 30, 2020 and 2019 is shown on the following page. The unrestricted portion of net position (available to meet ongoing and future obligations of the Department) decreased by \$26.7 million, or 12.22% in 2020.

Total expenses increased by \$58.7 million, or by 7.6%, in 2020. The increase is primarily due to an increase in interest expense attributable to the decrease in capitalized interest, bad debt expense, pension expense and administrative support charges

Total net position as of September 30, 2020 is approximately \$2.7 billion. The Department's total net position increased by \$51 million, or by 1.96%.

# Management's Discussion & Analysis

(In thousands)

## SUMMARY OF NET POSITION

	2020	2019
Current and Other Assets	\$ 1,379,515	\$ 1,159,272
Capital Assets, net	5,090,429	4,799,255
Total Assets	6,469,944	5,958,527
Deferred Outflows of Resources	231,697	180,309
Total Assets and Deferred Outflows of Resources	6,701,641	6,138,836
Current liabilities	395,182	343,260
Long-term Liabilities	3,648,094	3,181,747
Total Liabilities	4,043,276	3,525,007
Deferred Inflows of Resources	6,914	13,344
Total Liabilities and Deferred Inflows of Resources	4,050,190	3,538,351
Net Position		
Net Investment in Capital Assets	1,967,658	1,962,557
Restricted	491,735	419,134
Unrestricted	192,058	218,794
Total Net Position	\$ 2,651,451	\$ 2,600,485

## SUMMARY OF CHANGES IN NET POSITION

Water operating revenues	\$ 341,959	\$ 328,052
Wastewater operating revenues	427,522	406,399
Investment income	14,559	27,955
Other nonoperating revenues	35,413	50,832
Total Revenues	819,453	813,238
Water source of supply	14,179	13,966
Water power and pumping	2,040	2,224
Water purification	64,517	68,717
Water transmission and distribution	40,328	39,058
Wastewater collection system	33,169	32,481
Wastewater pumping	50,188	47,938
Wastewater treatment	100,505	100,523
Customer accounting	25,163	8,790
Customer service	24,568	24,632
General and Administrative	124,023	103,896
Depreciation	206,311	201,173
Interest expense	122,239	111,875
Other nonoperating expenses	19,205	12,475
Total Expenses	826,435	767,748
Income (loss) before contributions	(6,982)	45,490
Capital contributions	57,949	33,707
Increase in net position	50,967	79,197
Net position at beginning of year	2,600,485	2,521,288
Net position at end of year	\$ 2,651,451	\$ 2,600,485



# 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, 2020 and 2019 (in thousands). Total capital assets increased by \$291.1 million, or 6.1%. This increase was due to an increase in capital additions, net of plant retirements and reclassifications of \$351.2 million, offset by \$142 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 42.

	(In thousands)	
	2020	2019
Land	\$ 80,563	\$ 79,835
Structures and improvements	2,944,630	2,878,366
Equipment	379,580	361,956
Construction work in progress	1,685,656	1,479,098
Total capital assets	<u>\$ 5,090,429</u>	<u>\$ 4,799,255</u>

This year's major expenditures in capital assets included:

### Water projects:

- Transmission mains, meters, and services (\$35.2 million)
- Treatment facilities and equipment (\$20.0 million)
- Hydrants and Related Costs (\$7.0 million)
- Transportation equipment (\$4.5 million)
- Construction equipment (\$5.5 million)

### Wastewater Projects:

- Treatment facilities (\$97.3 million)
- Force mains (\$27.5 million)
- Pump stations (\$40.2 million)
- Inflow/infiltration/exfiltration (\$12.8 million)
- Gravity mains and services (\$11.5 million)

Budgeted capital expenditures for fiscal year 2021 amount to \$661 million and include \$145 million in water projects and \$516 million in wastewater projects.

## LONG-TERM DEBT

Long-term debt outstanding (including current portion) at September 30, 2020 and 2019 is presented in the following table. FY 2020 shows an increase of \$415.0 million from FY2019.

	(In thousands)	
	2020	2019
Revenue Bonds	\$ 3,236,961	\$ 2,548,020
State Loan Obligations	185,282	160,430
Notes Payable	1,229	300,000
Total long-term debt	<u>\$ 3,423,472</u>	<u>\$ 3,008,450</u>

# Management's Discussion & Analysis

In November of 2019, the Department issued the Water and Sewer System Revenue Bonds, Series 2019B for \$664.0 million. The Series 2019B Bonds are refunding all of the outstanding Miami-Dade County, Florida Water and Sewer System Commercial Paper Notes, Series A-1 and all of the outstanding Miami-Dade County, Florida Water and Sewer System Commercial Paper Notes, Series B-1, paying the costs of the Series 2019B Project, making a deposit to the Reserve Account and paying the costs of issuance of the Series 2019B Bonds.

In November of 2019, the Department issued the Water and Sewer System Revenue Refunding Bonds, Series 2019C for \$548.1 million. The Series 2019C Bonds are refunding all of the outstanding Miami-Dade County, Florida Water and Sewer System Revenue Bonds, Series 2013A and all of the outstanding Miami-Dade County, Florida Water and Sewer System Revenue Refunding Bonds, Series 2013B and paying the issuance costs of the Series 2019C Bonds.

In May 2020, the Department received its second WIFIA low-interest loan from the EPA. The Department will use the \$326.2 million to fund the design and construction of five new electrical distribution buildings at three wastewater treatment plants.

In July 2020, the Department received its third consecutive WIFIA low-interest loan from the EPA. The Department is the only government agency in the nation to receive a third allocation since the inception of the WIFIA program. The Department will use the \$235 million dollars to fund nearly half of a \$480 million upgrade to the departments three wastewater treatment plants and its collection system.

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 1.60 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 3.91 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,	2020
		(In thousands)
<b>ASSETS</b>		
<i>CURRENT ASSETS:</i>		
Cash and cash equivalents	\$	24,706
Investments		119,745
Accounts receivable		
(net of allowance for uncollectible accounts of \$33.0 million)		181,140
Inventory of materials and supplies		44,515
Other current assets		1,478
Restricted cash and cash equivalents		269,756
Total current assets		641,340
<i>NONCURRENT RESTRICTED ASSETS:</i>		
Investments		724,980
Long-term receivable		3,000
Grants receivable		77
Total restricted assets		728,057
<i>OTHER ASSETS:</i>		
Bond insurance		567
Other charges, net		9,550
Total other assets		10,117
<i>CAPITAL ASSETS:</i>		
Land		80,563
Structures and improvements		5,532,296
Equipment		1,378,667
Utility plant in service before depreciation		6,991,526
Less accumulated depreciation		(3,586,753)
Net utility plant in service		3,404,773
Construction work in progress		1,685,656
Total capital assets		5,090,429
Total noncurrent assets		5,828,604
Total assets		6,469,944
<i>DEFERRED OUTFLOWS OF RESOURCES:</i>		
Loss on refundings		153,240
Outflow related to pension		62,543
Outflow related to post-employment benefits		15,914
Total deferred outflows of resources		231,697
Total assets and deferred outflows of resources	\$	6,701,641

(Continued)



# Statement of Net Position

(Continued)	September 30,	2020
		(In thousands)
<b>LIABILITIES</b>		
<i>CURRENT LIABILITIES (PAYABLE FROM UNRESTRICTED CURRENT ASSETS):</i>		
Accounts payable and accrued expenses	\$	82,097
Customer and developer deposits		18,445
Current portion of long-term debt		9,106
Liability for compensated absences		11,453
Other liabilities		4,327
Total current liabilities (payable from unrestricted current assets)		<u>125,428</u>
<i>CURRENT LIABILITIES (PAYABLE FROM RESTRICTED CURRENT ASSETS):</i>		
Accounts payable and accrued expenses		80,245
Retainage payable		39,391
Current portion of long-term debt		85,154
Accrued interest payable		63,779
Liability for self insurance		1,186
Total current liabilities (payable from restricted current assets)		<u>269,755</u>
Total current liabilities		<u>395,183</u>
<i>NONCURRENT LIABILITIES:</i>		
Revenue bonds payable, net		3,158,370
State loan obligations, net		169,613
Notes Payable		1,229
Liability for self-insurance		2,676
Liability for compensated absences		40,590
Liability for post-employment benefits		58,434
Net pension liability		217,181
Total noncurrent liabilities		<u>3,648,093</u>
Total liabilities		<u>4,043,276</u>
<i>DEFERRED INFLOWS OF RESOURCES:</i>		
Inflow related to pension		2,752
Inflow related to post-employment benefits		4,162
Total deferred inflows of resources		<u>6,914</u>
Total liabilities and deferred inflows of resources		<u>4,050,190</u>
<b>NET POSITION</b>		
Net investment in capital assets		1,967,658
Restricted for:		
Capital projects		271,886
Debt service		219,849
Unrestricted		192,058
Total net position		<u>2,651,451</u>
Total liabilities, deferred inflows of resources and net position	\$	<u>6,701,641</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,

	2020
	(In thousands)
<i>OPERATING REVENUES:</i>	
Water	\$ 341,959
Wastewater	427,522
Total operating revenues	<u>769,481</u>
<i>OPERATING AND MAINTENANCE EXPENSES:</i>	
Water source of supply	14,179
Water power and pumping	2,040
Water purification	64,517
Water transmission and distribution	40,328
Wastewater collection system	33,169
Wastewater pumping	50,188
Wastewater treatment	100,504
Customer accounting	25,163
Customer service	24,568
General and administrative	124,023
Total operating and maintenance expenses	<u>478,679</u>
Operating income before depreciation	290,802
<i>DEPRECIATION EXPENSE</i>	<u>206,311</u>
Operating income	84,491
<i>NON-OPERATING REVENUES (EXPENSES):</i>	
Investment income	14,559
Interest expense	(122,239)
Amortization of insurance costs	(15,085)
Operating Disaster Revenue	2,955
Customer connection fees	35,761
Other revenues	(3,304)
Other expenses	<u>(4,120)</u>
Income (loss) before contributions	(6,982)
Capital contributions	<u>57,949</u>
Increase in net position	50,967
Net position at beginning of year	<u>2,600,485</u>
Net position at end of year	<u><u>\$ 2,651,451</u></u>

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

# Statement of Cash Flows

For the fiscal year ended September 30,

2020  
(In thousands)

*CASH FLOWS FROM OPERATING ACTIVITIES:*

Cash received from customers	\$ 753,361
Cash paid to suppliers for goods and services	(196,060)
Cash paid to employees for services	(217,885)
Net cash provided by operating activities	<u>339,416</u>

*CASH FLOWS FROM NON-CAPITAL FINANCING ACTIVITIES:*

Long Term Receivable	<u>1,000</u>
Net cash provided by non-capital financing activities	<u>1,000</u>

*CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:*

Proceeds from bond issues, loan agreements and Notes	1,252,227
Principal payments - bond, loans	(881,581)
Interest paid	(113,175)
Acquisition and construction of capital assets	(420,538)
Net cash used by capital and related financing activities	<u>(163,067)</u>

*CASH FLOWS FROM INVESTING ACTIVITIES:*

Purchase of investment securities	(2,743,585)
Proceeds from sale and maturity of investment securities	2,293,300
Interest on investments	<u>190,104</u>
Net cash used by investing activities	<u>(260,181)</u>

Net decrease in cash and cash equivalents, and restricted cash and cash equivalents	(82,832)
Cash and cash equivalents, including restricted cash and cash equivalents, at beginning of year	<u>377,294</u>

Cash and cash equivalents, including restricted cash and cash equivalents, at end of year	<u>\$ 294,462</u>
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# Statement of Cash Flows

(Continued)

For the fiscal year ended September 30,

2020  
(In thousands)

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

Operating income	\$ 84,491
Adjustments to reconcile operating income to net cash provided by operating activities:	
Depreciation	206,311
Provision for uncollectible accounts	17,048
Non-operating other, net	97,689
(Increase) decrease in assets and deferred outflows:	
Accounts receivable	(48,905)
Inventory of materials and supplies	(3,077)
Other current assets	(139)
Other charges	5,739
Deferred outflows related to pension and OPEB	(16,444)
Increase (decrease) in liabilities and deferred inflows:	
Accounts payable and accrued expenses	18,166
Customer and developer deposits	(1,328)
Accrued interest payable	7,965
Liability for compensated absences	4,232
Other liabilities	(78,127)
Liability for other post-employment benefits	9,088
Liability for self-insurance	695
Net pension liability	42,441
Deferred Inflows related to pension and OPEB	(6,429)
Net cash provided by operating activities	<u>\$ 339,416</u>

## NONCASH INVESTING, CAPITAL AND FINANCING ACTIVITIES

Property, plant and equipment contributions were received in amounts of \$57.9 million in fiscal year 2020.

The change in the fair value of investments was a \$1.2 million increase in fiscal year 2020.

The change in the fair value of swaps was an \$32.5 million decrease in fiscal year 2020.

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

Unrestricted Current Cash and Cash Equivalents	\$ 24,706
Restricted Current Cash and Cash Equivalents	269,756
	<u>\$ 294,462</u>

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

# Notes to Financial Statements

## 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

### REPORTING ENTITY

The Miami-Dade Water and Sewer Department (the Department) functions as a self-supporting governmental enterprise fund of Miami-Dade County, Florida (the County). An enterprise fund is used to account for providing services to the general public on a continuing basis with costs recovered primarily through user charges. Accordingly, its financial statements have been prepared on the accrual basis of accounting. The Department issues a separate 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 2020 were approximately \$55.1 million.

### CAPITAL ASSETS

Property acquired with an initial individual cost of \$1,000 or more and an estimated useful life in excess of one year is capitalized at cost. Major outlays for construction of capital assets and improvements are capitalized at cost. Expenses for maintenance and repairs are expensed as incurred. Property contributions received from municipalities are recorded as capital assets by the Department at the acquisition cost to the municipality. Property contributed in aid of construction is capitalized at its acquisition value on the date received.

Only those intangible assets valued at more than \$100,000 are recorded as an asset (threshold determinations are based on aggregate cost). For fiscal year 2020, 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, 2020. 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, 2020 was \$206.3 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 statement of revenues, expenses, and changes in net position.

The Department categorizes its fair value measurements within the fair value hierarchy established by Generally Accepted Accounting Principles. The hierarchy is based on the valuation input used to measure the fair value of the asset with Level 1 assets being those where quoted prices in an active market for identical assets can be readily obtained, and Level 2 assets value using a matrix pricing technique of quoted prices for similar assets or liabilities in active markets.

## *INVENTORY*

Materials and supplies inventories are stated at weighted average cost.

## *INTEREST ON INDEBTEDNESS*

The Department expenses interest as incurred.

## *BOND DISCOUNT AND PREMIUM*

Discounts and premiums on bonds are amortized using the straight-line method over the life of the related bond issuances. Discounts and premiums are presented net of the related debt.

## *CAPITAL CONTRIBUTIONS*

The Department records external capital contributions as revenues.

## *GRANTS FROM GOVERNMENT AGENCIES*

The Department records grants when all applicable eligibility requirements have been met. This normally occurs as amounts are expended and become reimbursable from the granting agency.

## *IMPLEMENTATION OF NEW ACCOUNTING STANDARDS*

The Department did not implement any new GASB statements during FY 2020.

## *COMPENSATED ABSENCES*

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

## *COST ALLOCATION*

Certain overhead and other common costs are generally allocated to capital projects and operating expenses using standard rates developed by independent consultants. The rate is based on various allocation bases which bear reasonable relationship with the type of allocable expenditure.

## *USE OF ESTIMATES*

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



# Notes to Financial Statements

## 2. CASH, CASH EQUIVALENTS AND INVESTMENTS

The County is authorized through the Florida Statutes §218.415, Ordinance No. 84-47, Resolution R-31-09 and its Investment Policy to make certain investments. The County's Investment Policy objectives are, in order of priority, the safety of principal, liquidity of funds and maximizing investment income.

The Department pools all cash, cash equivalents and investments, except for certain amounts which are required to be held in trust and escrow accounts under the terms of bond ordinances and loan agreements. Various self-balancing accounts are participants in such pooling, sharing on a pro-rata basis in the pooled earnings, according to their respective average monthly balances.

### DEPOSITS

The carrying amounts of the Department's local deposits as of September 30, 2020 was \$25.7 million. The bank balances at local depositories were \$36.2 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, 2020 was approximately \$25.9 million.

### INVESTMENTS

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

The Department's carrying value of cash equivalents and investments include the following as of September 30, 2020:

	Fair Value 2020
<b><u>Investments Level 2</u></b>	
Commercial Paper	\$ 60,710
Federal Home Loan Bank	360,182
Federal Home Loan Mortgage Corporation	107,679
Federal Farm Credit Bank	110,803
Federal National Mortgage Association	52,751
Treasury Notes	325,152
Jubilee Issue Bonds	5,797
Total Investments	<u>\$ 1,023,074</u>
<b><u>Cash Equivalents</u></b>	
Interest Bearing	90,194
Total Investments and Cash Equivalents	<u><u>\$ 1,113,268</u></u>

# Notes to Financial Statements

## 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.

The following table summarizes the investments by type and credit ratings at September 30, 2020:

	Credit Ratings 2020
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+
Commercial Paper	N/A
Jubilee Issue Bonds	N/A
Interest Bearing	N/A

## 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, 2020, all the County’s bank deposits were in qualified public depositories.

The Policy requires the execution of a Custodial Safekeeping Agreement (CSA) for all purchased securities which shall be held for credit of the County in an account separate and apart from the assets of the financial institution.

## CONCENTRATION OF CREDIT RISK

The Policy establishes limitations on portfolio composition by investment type and by issuer to limit its exposure to concentration of credit risk. The Policy provides that a maximum of 50% of the portfolio may be invested in the State of Florida Local Government Surplus Funds Trust Fund (“Pool”); however, the bond proceeds may be temporarily deposited in the Pool until alternative investments have been purchased. Prior to any investment in the Pool, approval

## Notes to Financial Statements

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, 2020, the following issuers held 5% or more of the investment portfolio:

	% of Portfolio 2020
Commercial Paper	5.45
Federal Home Loan Bank	32.35
Federal Home Loan Mortgage Corporation	9.67
Federal Farm Credit Bank	9.95
Treasury Notes	29.21
Interest Bearing	8.10

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

### *INTEREST RATE RISK*

The Policy limits interest rate risk by requiring the matching of known cash needs and anticipated net cash outflow requirements; following historical spread relationships between different security types and issuers; evaluating both interest rate forecasts and maturity dates to consider short-term market expectations. The Policy requires that investments made with current operating funds shall maintain a weighted average of no longer than one year. Investments for bond reserves, construction funds and other non-operating funds shall have a term appropriate to the need for funds and in accordance with debt covenants. The Policy limits the maturity of an investment to a maximum of five years.

As of September 30, 2020, the Department had the following investments with the weighted average maturity in years.

	Weighted Average in Years 2020
Federal Home Loan Mortgage Corporation	1.75
Federal Home Loan Bank	0.39
Federal Farm Credit Bank	1.13
Federal National Mortgage Association	2.86
Treasury Notes	0.23
Commercial Paper	0.07
Jubilee Issue Bonds	1.96
Interest Bearing	0.00



# Notes to Financial Statements

## 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, 2020 was as follows (in thousands):

	2020
Trade Accounts	\$ 191,411
Non-retail accounts	22,185
Grants & Contracts	3,076
Other County funds	546
Gross receivables	217,218
Less: allowance for doubtful accounts	(33,001)
Net receivables	<u>\$ 184,217</u>

The allowance for doubtful accounts is determined principally on the basis of past collection experience as well as consideration of current economic conditions and customer collection trends. During fiscal year 2020, certain County processes were put in place which curtailed collections and service terminations for accounts that were delinquent due to COVID-19. Such efforts resulted in an increase in the allowance recorded. Allowance for doubtful accounts was approximately \$33 million and \$15.9 million, as of September 30, 2020 and 2019, respectively.

## 4. OTHER CURRENT ASSETS

Other current assets activity for fiscal year ended September 30, 2020 was as follows (in thousands):

	2020
Beginning Balance	\$ 1,339
Prepaid Expenses	(3)
Prepaid Paving	-
Prepaid Property Insurance	142
Ending Balance	<u>\$ 1,478</u>

The County entered into an agreement with the City of Hialeah (City) to construct a 10 MGD reverse osmosis water treatment plant. The City and the County shall have equal 50% ownership of a reverse osmosis water treatment plant (WTP), inclusive of land, structures, facilities, and appurtenances to be situated in the Annexation Area of the City. The City shall contribute and pay for 50% of the planning, design, construction, and construction management (design and construction) cost for the WTP and the County shall contribute 50% of the design and construction cost for the WTP. In Fall of 2013, the Plant began production capable of 7.5 MGD, with County and City each receiving 50% of the production. In fiscal year 2020, no monies were contributed to the City of Hialeah and the Department incurred \$2.7 million in operating expenses. As of September 30, 2020, the Department contributed approximately \$50.5 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, 2020 is represented in the following table (in thousands):

## Notes to Financial Statements

	2020
Debt Service	\$ 285,822
Construction	332,153
Other	113,317
Plant Expansion	112,323
Renewal and Replacement	147,558
Self-Insurance	6,640
Total Restricted Assets	<u>\$ 997,813</u>

### 6. CAPITAL ASSETS

Capital asset activity during fiscal year 2020 was as follows (in thousands):

	Balance 9/30/2019	2020 Additions	Deletions	Balance 9/30/2020
Capital assets, not being depreciated:				
Land	\$ 79,835	\$ 728	\$ -	\$ 80,563
Construction work in progress	1,479,098	477,761	(271,203)	1,685,656
Total capital assets, not being depreciated	1,558,933	478,489	(271,203)	1,766,219
Capital assets, being depreciated:				
Structures and improvements	5,357,490	238,830	(64,024)	5,532,296
Equipment	1,327,875	66,786	(15,994)	1,378,667
Total capital assets, being depreciated	6,685,365	305,616	(80,018)	6,910,963
Less accumulated depreciation:				
Structures and improvements	(2,479,126)	(157,394)	48,853	(2,587,667)
Equipment	(965,917)	(48,917)	15,748	(999,086)
Total accumulated depreciation	(3,445,043)	(206,311)	64,601	(3,586,753)
Total capital assets, being depreciated, net	3,240,322	99,305	(15,417)	3,324,210
Total capital assets, net	\$ 4,799,255	\$ 577,794	\$ (286,620)	\$ 5,090,429

### 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 43. See Note 5, Restricted Assets, for a discussion of the accounts used in accounting for proceeds and collateral pledged as a result of the issuance of the various forms of debt.

The Department's debt instruments contain various covenants and restrictions, which among other things, (1) prohibit the Department from taking any action that could jeopardize its tax-exempt status, and (2) require the Department to meet certain financial tests. Management believes that the Department followed all such covenants and restrictions as of and for the year ended September 30, 2020.

# Notes to Financial Statements

## CHANGES IN LONG-TERM LIABILITIES

A summary of long-term liability activity during fiscal year 2020 is presented in the following table (in thousands):

Description	Outstanding Rate	Balance 9/30/2019	2020 Additions	2020 Deletions	Balance 9/30/2020	Due in 2021
<b>Dade County Revenue Bonds</b>						
Series 2008A & B	3.25%-5.25%	\$ 211,345	\$ -	\$ 48,810	\$ 162,535	\$ 51,395
Series 2010	2.00%-5.00%	6,585	-	3,235	3,350	3,350
Series 2013A	5.00%	340,265	-	340,265	-	-
Series 2013B	5.00%	152,400	-	152,400	-	-
Series 2015	4.00%-5.00%	467,670	-	22,675	444,995	23,846
Series 2017A	4.00%-5.00%	381,355	-	-	381,355	-
Series 2017B	3.00%-5.00%	548,025	-	-	548,025	-
Series 2019	5.00%	233,305	-	-	233,305	-
Series 2019B	3.00%-4.00%	-	663,860	-	663,860	-
Series 2019C	2.5%-3.00%	-	548,090	-	548,090	-
Less: Unamortized Discount		-	-	-	-	-
Plus: Unamortized Premium		207,070	44,376	-	251,446	-
Total revenue bonds		\$ 2,548,020	\$ 1,256,326	\$ 567,385	\$ 3,236,961	\$ 78,591
<b>State Loan Obligations</b>						
State Revolving Fund	2.56%-4.17%	\$ 160,430	\$ 39,048	\$ 14,196	\$ 185,282	\$ 15,669
Total State Revolving Funds		\$ 160,430	\$ 39,048	\$ 14,196	\$ 185,282	\$ 15,669
<b>Notes Payable</b>						
WIFIA Loan Program	2.89%	\$ -	\$ 1,229	\$ -	\$ 1,229	\$ -
Total Notes Payable		\$ -	\$ 1,229	\$ -	\$ 1,229	\$ -
<b>Direct Borrowing:</b>						
<b>Commercial Paper</b>						
Commercial Paper		\$ 300,000	\$ -	\$ 300,000	\$ -	\$ -
Total long-term debt		\$ 3,008,450	\$ 1,296,603	\$ 881,581	\$ 3,423,472	\$ 94,260
<b>Other liabilities:</b>						
Compensated Absences		\$ 47,810	\$ 4,689	\$ 457	\$ 52,042	\$ 11,452
Self-Insurance		3,167	1,248	553	3,862	1,186
Other post-employment benefits		49,346	11,453	2,365	58,434	-
Net pension liability		174,739	84,883	42,441	217,181	-
Total long-term liabilities		\$ 3,283,512	\$ 1,398,876	\$ 927,397	\$ 3,754,991	\$ 106,898

## DEBT SERVICE REQUIREMENTS

As of September 30, 2020, the Department's debt service requirements to maturity for their term were as follows (in thousands):

Maturing in Fiscal Year	Revenue Bonds		State Loans		Notes Payable		Total		Debt Service Requirement
	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest	
2021	78,590	123,438	15,670	2,503	-	-	94,260	125,941	220,201
2022	82,255	119,388	12,594	2,236	-	-	94,849	121,624	216,473
2023	86,510	115,106	9,729	1,998	-	-	96,239	117,104	213,343
2024	89,340	110,669	10,592	1,996	-	-	99,932	112,665	212,597
2025	93,735	106,092	10,351	1,829	-	-	104,086	107,921	212,007
2026 - 2030	458,440	466,053	57,028	6,674	181	167	515,649	472,894	988,543
2031 - 2035	396,740	382,825	49,265	2,408	209	140	446,214	385,373	831,587
2036 - 2040	487,280	292,364	15,551	484	241	107	503,072	292,955	796,027
2041 - 2045	591,235	189,240	4,502	82	278	71	596,015	189,393	785,408
2046 - 2050	621,390	60,444	-	-	320	28	621,710	60,472	682,182
	2,985,515	1,965,619	185,282	20,210	1,229	513	3,172,026	1,986,342	5,158,368
Unamortized Discount & Premium Amounts	251,446	-	-	-	-	-	251,446	-	251,446
Total	\$ 3,236,961	\$ 1,965,619	\$ 185,282	\$ 20,210	1,229	\$ 513	\$ 3,423,472	\$ 1,986,342	\$ 5,409,814



# Notes to Financial Statements

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

On July 15, 2009, the County issued \$68.3 million of Miami-Dade County Water and Sewer System Revenue Bonds, Series 2008A to pay the costs of terminating the AIG Financial Products Corporation interest rate swap associated with the variable rate Dade County Water and Sewer System Revenue Bonds, Series 1994 and to pay issuance costs.

The Series 2008A Revenue Bonds are collateralized by the net operating revenues of the Department and are due serially October 1 starting in 2009 through 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 2020.

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

In July 15, 2008, \$374.6 million of Miami-Dade County Water and Sewer System Revenue Refunding Bonds, Series 2008B were issued to redeem all the County's Water and Sewer System Revenue Bonds, Series 1994 and to pay issuance and surety costs.

The Series 2008B Refunding Bonds are collateralized by the net operating revenues of the Department and are due serially on October 1 starting in 2009 through 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 2020.

## *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 REFUNDING BONDS, SERIES 2015*

On June 3, 2015, the County issued \$481.2 million of Miami-Dade County Water and Sewer System Revenue Refunding Bonds, Series 2015 to advance refund the \$244.4 million aggregate principal of the Miami-Dade County Revenue Bonds, Series 2007, \$255.7 million aggregate principal of Miami-Dade County Water and Sewer System Revenue Refunding Bonds, Series 2008C and pay the costs of issuance.

The Series 2015 Bonds are collateralized by the net operating revenues of the Department and are due serially on October 1 through the year 2027 with semi-annual interest due on April 1 and October 1 of each year. Net revenue requirements of at least 1.25 times the current year's debt service requirements were met in fiscal year 2020.

## *MIAMI-DADE COUNTY WATER AND SEWER SYSTEM REVENUE REFUNDING BONDS, SERIES 2017A*

On December 7, 2017, the County issued \$381.3 million of Miami-Dade County Water and Sewer System Revenue Bonds, Series 2017A. The Series 2017A Bonds refunded all outstanding Commercial Paper Notes - Series A-1 and Series B-1, made a deposit to the Reserve Account and paid the costs of issuance of the Series 2017A Bonds.

The Series 2017A Bonds are collateralized by the net operating revenues of the Department and are due serially on October 1 through the year 2047 with semi-annual interest due on April 1 and October 1 of each year. Net revenue requirements of at least 1.25 times the current year's debt service requirements were met in fiscal year 2020.

## *MIAMI-DADE COUNTY WATER AND SEWER SYSTEM REVENUE REFUNDING BONDS, SERIES 2017B*

On December 7, 2017, the Department issued \$548.0 million of Miami-Dade County Water and Sewer System Revenue Refunding Bonds, Series 2017B. The Series 2017B Bonds refunded \$567.6 million principal outstanding for the Miami-Dade County, Florida Water and Sewer System Revenue Bonds, Series 2010 maturing October 1, 2021 and paid the costs of issuance of the Series 2017B Bonds.

# Notes to Financial Statements

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 2020.

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

On January 31, 2019, the Department issued Miami-Dade County Water and Sewer System Revenue Bonds, Series 2019 for \$233.3 million. The Series 2019 Bonds are refunding all of the outstanding Miami-Dade County, Florida Water and Sewer System Commercial Paper Notes, Series A-1 and all of the outstanding Miami-Dade County, Florida Water and Sewer System Commercial Paper Notes, Series B-1, make a deposit to the Reserve Account and pay the costs of issuance of the Series 2019 Bonds.

The Series 2019 Bonds are collateralized by the net operating revenues of the Department and are due serially on October 1 starting in 2020 through the year 2058 with semi-annual interest due on April 1 and October 1 of each year. Net revenues requirements of at least 1.25 times the current year's debt service requirement were met in fiscal year 2020.

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

On November 9, 2019, \$663.8 million of Miami-Dade County Water and Sewer System Revenue Bonds, Series 2019B were issued to refund all of the outstanding Miami-Dade County, Florida Water and Sewer System Commercial Paper Notes, Series A-1 and all of the outstanding Miami-Dade County, Florida Water and Sewer System Commercial Paper Notes, Series B-1 and the costs of issuance of the Series 2019B Bonds.

The Series 2019B Revenue Bonds are collateralized by the net operating revenues of the Department and are due serially on October 1 starting in 2020 through the year 2049 with semi-annual interest due on April 1 and October 1 of each year.

## *MIAMI-DADE COUNTY WATER AND SEWER SYSTEM REVENUE REFUNDING BONDS, SERIES 2019C*

On November 9, 2019, the County issued \$548.1 million of Miami-Dade County Water and Sewer System Revenue Refunding Bonds, Series 2019C. The Series 2019C Bonds refunded \$340 million principal outstanding for the Miami-Dade County, Florida Water and Sewer System Revenue Bonds, Series 2013A and all of the \$152.4M outstanding principal amount of Miami-Dade County, Florida Water and Sewer System Revenue Refunding Bonds, Series 2013B, and pay the costs of issuance of the Series 2019C Bonds. The difference between the cash flows required to service the old debt and the new debt is \$52.8 million. The economic gain resulting from the refunding transaction calculated on a present value basis is \$49.5 million.

The Series 2019C Bonds are collateralized by the net operating revenues of the Department and are due serially on October 1 starting in 2020 through the year 2049 with semi-annual interest due on April 1 and October 1 of each year. Net revenues requirements of at least 1.25 times the current year's debt service requirement were met in fiscal year 2020.

## *DADE COUNTY REVENUE BONDS- REMEDIES*

Upon an event of default as described in the Master Ordinance, a trustee or Bondholder acting for the Holders of all Bonds made by suit, action, mandamus or other judicial proceedings, protect and enforce any and all rights, including the right to the appointment of a receiver, existing under and to the extent permitted by the laws of the State of Florida, or granted and contained in the Master Ordinance, and may enforce and compel the performance of all duties required in the Master Ordinance or by any applicable statutes to be performed by the County or by an officer thereof.

# Notes to Financial Statements

## STATE REVOLVING FUND

Under the State Revolving Fund program, the Department has received various loan commitments for the construction of water and wastewater treatment facilities. Draws to date against committed loans as of September 30, 2020, are detailed in the following table (in thousands).

<u>LOAN #</u>		<u>Draws</u>	<u>Close Out Date</u>
377650	\$	23,938	8/8/2003
377670		184,441	10/27/2003
377860		593,138	11/13/2006
377870		767,583	11/16/2006
37788P		895,316	9/27/2004
37789A		214,120	11/15/2006
37789L		419,664	11/22/2006
130001		5,424,251	10/10/2008
130008		321,651	4/28/2003
379000		94,543,469	9/5/2014
130200		112,518	8/8/2016
130201		59,865	8/8/2016
130230		15,635,504	Active
130240		17,451,678	Active
130260		26,397,266	Active
1302A0		22,238,148	Active
	\$	<u>185,282,547</u>	

Related payments of principal and interest are due through the year 2044. 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 2020.

Default in payment of principal and interest on any of the loans described above or any future loans could cause an acceleration of the entire amount of such loans.

## NOTES PAYABLE

The Department closed on \$99.7 million in WIFIA funding at an interest rate of 2.89% on March 22, 2019 for its Ocean Outfall Reduction and Resiliency Enhancement Project. WIFIA will fund up to 49% of the project estimate on a reimbursement basis, or \$99.7 million of this project's costs, the remainder of which is being funded through the State Revolving Fund Loan Program and Department cash on hand. This WIFIA loan will partially fund projects to meet compliance with the Ocean Outfall Legislation (OOL). As of Fiscal year end September 30, 2020, the Department has a notes payable outstanding of approximately \$1.2 million. The first WIFIA payment is due five years after the completion of the project and will be paid semi-annually on April 1 and October 1.

Whenever any event of default has occurred as per the WIFIA funding agreement, the lender is entitled to institute any actions or proceedings at law or in equity for the collection of any sums due and unpaid under the WIFIA Note and may prosecute any such judgment and final decree against the Department and collect in the manner provided by law. Additionally, the WIFIA funding agreement calls for a default rate set as a fluctuating interest rate per annum equal to the sum of the base rate from time to time in effect plus four percent (4%).

# Notes to Financial Statements

## *COMMERCIAL PAPER- (DIRECT BORROWING)*

The Department established a commercial paper (CP) program to provide interim financing for the Department's capital improvement program. Three series of notes have been issued, as direct borrowing; under the commercial paper program: The Series A CP Notes in an aggregate principal amount not to exceed \$200.0 million and Series B CP Notes in an aggregate principal amount not to exceed \$200.0 million. Resolution No. R-347-16 adopted by the Board on May 17, 2016, authorizes issuance, from time to time, of the Notes in the aggregate principal amount not exceeding \$400.0 million outstanding at any time, maturing no later than the earliest of 270 days or the second business day prior to the expiry of the applicable letter of credit. Barclay's Capital Inc. and Citigroup Global Markets Inc. have been designated as the initial dealers with respect to the offering and sale of the notes. The letters of credit expire May 17, 2021. As of fiscal year end September 30, 2020, of the accessible \$400 million in commercial paper debt, the Department's has no outstanding balance.

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 market-to-market assessment.

On January 24, 2020, the Department terminated the \$200 million notional amount, of a variable to fixed rate Swap with The Bank of New York Mellon related to the Series 2007 Bonds. The County early terminated the Swap in order to lock in the present value of the future cash flows as predicted by current market pricing and remove risks associated with keeping the Swap outstanding.

On February 6, 2020 the Department terminated the \$200 million notional amount of a variable to fixed rate Swap with The Bank of New York Mellon (BNY), for its Series 2013B Bonds. The County decided to early terminate, and cash settle, the Swap in order to lock in the present value of the future cash flows as predicted by current market pricing and remove risks associated with keeping the Swap outstanding.

The Department follows Statement No. 53 of the Governmental Accounting Standards Board, *Accounting and Financial Reporting for Derivative Instruments*, (GASB 53). This statement refers to the recognition, measurement and disclosure of information regarding derivative instruments entered into by the Department and reported at fair value. In accordance with GASB 53, Swap Financial Group, LLC evaluated the Department's swaps to determine whether they are effective hedging derivative instruments. It was determined that both swaps are basis swaps. Given that there is no identified financial risk being hedged by the swaps that can be expressed in terms of exposure to adverse changes in cash flows or fair values, the swaps are treated as investment derivative instruments, and not hedging derivative instruments. Accordingly, the change in fair value at September 30, 2020 was a decrease of \$32.5 million.



# Notes to Financial Statements

## 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 <sup>(3)</sup>	Counterparty Payment	County Payment	Fair Value at 09/30/20	Fair Value at 09/30/19
Series 2007	\$200,000,000	Bank of New York Mellon	Guarantor-Aa2, AA-, AA	7/18/2002	10/1/2026	Variable-USD-Libor-BBA+1.465%	Variable-(USD-SIFMA Municipal Swap Index/.0604)	\$ -	\$13,726,253
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)	\$ -	\$18,799,451

<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.

<sup>(3)</sup> On January 24, 2020 and February 6, 2020 the Swaps related to the Series 2007 Bonds and the Series 2013B Bonds were terminated, respectively.

## Risk Disclosure

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

**Basis Risk.** The Department's swap agreements expose the County to basis risk. Should the relationship between the variable rates the Department receives on the swap fall short of the variable rate on the associated bonds, the expected savings may not be realized. As of September 30, 2020, 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 was allowed to 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, the swap was to have 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 was subject to Bank of New York Mellon's 10-year call provision, whereby Bank of New York Mellon had a one-time termination option.

# Notes to Financial Statements

## 8. PAYABLES.

Accounts payables and accrued expenses for fiscal year ended September 30, 2020 were as follows (in thousands):

	2020
Other County funds	\$ 25,770
Vendors	22,039
Other governments	29,887
Salaries and benefits	8,904
Contractors	75,509
Other	233
Total payables	<u>\$ 162,342</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

# Notes to Financial Statements

employee may participate in DROP for a period not to exceed 60 months after electing to participate, except that certain instructional personnel may participate for up to 96 months. During the period of DROP participation, deferred monthly benefits are held in the FRS Trust Fund and accrue interest. The net pension liability does not include amounts for DROP participants, as these members are considered retired and are not accruing additional pension benefits.

## *Benefits Provided*

Benefits under the Plan are computed on the basis of age and/or years of service, average final compensation, and service credit. Credit for each year of service is expressed as a percentage of the average final compensation. For members initially enrolled before July 1, 2011, the average final compensation is the average of the five highest fiscal years' earnings; for members initially enrolled on or after July 1, 2011, the average final compensation is the average of the eight highest fiscal years' earnings. The total percentage value of the benefit received is determined by calculating the total value of all service, which is based on the retirement class to which the member belonged when the service credit was earned. Members are eligible for in-line-of-duty or regular disability and survivors' benefits.

As provided in Section 121.101, Florida Statutes, if the member is initially enrolled in FRS before July 1, 2011, and all service credit was accrued before July 1, 2011, the annual cost-of-living adjustment is 3 percent per year. If the member is initially enrolled before July 1, 2011, and has service credit on or after July 1, 2011, there is an individually calculated cost-of-living adjustment. The annual cost-of-living adjustment is a proportion of 3 percent determined by dividing the sum of the pre-July 2011 service credit by the total service credit at retirement multiplied by 3 percent. Plan members initially enrolled on or after July 1, 2011, will not have a cost-of-living adjustment after retirement.

## *Contributions*

The Florida Legislature establishes contribution rates for participating employers and employees. Contributions rates in effect from July 1, 2019 through June 30, 2021 were as follows:

Class	Effective July 1, 2019 through June 30, 2020		Effective July 1, 2020 through June 30, 2021	
	Percentage of Gross Salary		Percentage of Gross Salary	
	Employee	Employer (*)	Employee	Employer (*)
FRS, Regular	3.00	8.47	3.00	10.00
FRS, Elected County Officers	3.00	48.82	3.00	49.18
FRS, Senior Management Service	3.00	25.41	3.00	27.29
FRS, Special Risk Regular	3.00	25.48	3.00	24.45
DROP - Applicable to members from all of the above classes	N/A	14.60	N/A	16.98

\*Employer rates include 1.66% for the postemployment health insurance subsidy, and employer rates, other than for DROP participants, include 0.06% for administrative costs.

The Department's contributions for FRS totaled \$14.6 million and employee contributions totaled \$4.0 million for the fiscal year ended September 30, 2020.

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

At September 30, 2020, the Department reported a liability of \$177.3 million for its proportionate share of the Plan's net pension liability. The net pension liability was measured as of June 30, 2020, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of July 1, 2020.

For the fiscal year ended September 30, 2020, the Department recognized pension expense of \$25.2 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):

# Notes to Financial Statements

<b>Description</b>	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Differences between expected and actual experience	\$ 6,788	\$ -
Change of assumptions	32,106	-
Net difference between projected and actual earnings on FRS pension plan investments	10,560	-
Changes in proportion and differences between the Department FRS contributions and proportionate share of contributions	1,865	(165)
The Department contributions subsequent to measurement date	4,012	-
<b>Total</b>	<b>\$ 55,330</b>	<b>\$ (165)</b>

For fiscal year ended September 30, 2020, the deferred outflows of resources related to pensions of approximately \$4.0 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, 2020. 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):

<b>Fiscal Year Ending September 30,</b>	<b>Deferred Outflows/(Inflows), Net</b>
2021	\$ 10,836
2022	16,383
2023	13,797
2024	8,255
2025	1,882
Thereafter	-
	<b>\$ 51,153</b>

## Actuarial Assumptions

The FRS pension actuarial assumptions that determined the total pension liability as of June 30, 2020, were based on the results of an actuarial experience study for the period July 1, 2013 – June 30, 2018.

Inflation	2.40%
Salary Increases	3.25% average, including inflation
Investment Rate of Return	6.80% net of pension plan investment expense
Discount Rate	6.80%

Mortality rates were based on the Generational PUB-2010 with Projection Scale MP-2018.

## Long-Term Expected Rate of Return

For fiscal year ended September 30, 2020, the long-term expected rate of return on the Plan investments was not based on historical returns, but instead was based on a capital market economic model. The allocation policy's description of each asset class was used to map the target allocation to the asset classes shown below. Each asset class assumption is based on a consistent set of underlying assumptions and includes an adjustment for the inflation assumption. For fiscal year ended September 30, 2020, 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:



# Notes to Financial Statements

<b>Asset Class</b>	<b>Target Allocation<sup>1</sup></b>	<b>Annual Arithmetic Return</b>	<b>Compound Annual (Geometric) Return</b>	<b>Standard Deviation</b>
Cash	1.0%	2.2%	2.2%	1.2%
Fixed income	19.0%	3.0%	2.9%	3.5%
Global equity	54.2%	8.0%	6.7%	17.1%
Real estate (property)	10.3%	6.4%	5.8%	11.7%
Private equity	11.1%	10.8%	8.1%	25.7%
Strategic investments	4.4%	5.5%	5.3%	6.9%
	<u>100.0%</u>			
Assumed Inflation - Mean			2.4%	1.7%

<sup>1</sup>As outlined in the FRS Pension Plan's investment policy.

## Discount Rate

For fiscal year ended September 30, 2020, the discount rate used to measure the net pension liability of the Plan was 6.80 percent. The Pension Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the discount rate for calculating the total pension liability is equal to the long-term expected rate of return.

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

For fiscal year ended September 30, 2020, the following represents the Department's proportionate share of the net pension liability calculated using the discount rate of 6.80 percent; as well as what the Department's proportionate share of the net pension liability would be if it is calculated using a discount rate that is one percentage point lower (5.80 percent) or one percentage point higher (7.80 percent) than the current rate (in thousands):

	<b>1% Decrease 5.80%</b>	<b>Current Discount Rate 6.80%</b>	<b>1% Increase 7.80%</b>
<b>Miami Dade County's proportionate share of net pension liability allocated to the Department</b>	\$ 283,201	\$ 177,352	\$ 88,946

## 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, 2020 were allocated as follows (in thousands):

<b>FLORIDA RETIREMENT SYSTEM (FRS) PENSION</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>	
Water and Sewer 2020	5.16%	(177,352)	55,330	(165)	25,215

# Notes to Financial Statements

## *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, 2020, eligible retirees and beneficiaries received a monthly HIS payment equal to the number of years of creditable service completed at the time of retirement multiplied by \$5, with a minimum HIS payment of \$30 and a maximum HIS payment of \$150 per month, pursuant to Section 112.363, Florida Statutes. To be eligible to receive a HIS Plan benefit, a retiree under a State-administered retirement system must provide proof of health insurance coverage, which may include Medicare.

### *Contributions*

The HIS Plan is funded by required contributions from FRS participating employers as set by the Florida Legislature. Employer contributions are a percentage of gross compensation for all active FRS members. For the fiscal year ended September 30, 2020, the HIS contribution rate was 1.66%. The County contributed 100 percent of its statutorily required contributions for the current year. The HIS Plan contributions are deposited in a separate trust fund from which payments are authorized. HIS Plan benefits are not guaranteed and are subject to annual legislative appropriation. In the event the legislative appropriation or if available funds fail to provide full subsidy benefits to all participants, benefits may be reduced or canceled.

For the fiscal year ended September 30, 2020, the Department's contributions to the HIS Plan totaled \$2.5 million.

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

At September 30, 2020, the Department reported a net pension liability of \$39.8 million for its proportionate share of the HIS Plan's net pension liability. The total pension liability was determined by an actuarial valuation date as of June 30, 2019 and was recalculated and projected to the measurement date of June 30, 2020 using a standard actuarial roll-forward technique.

For the fiscal year ended September 30, 2020, the Department recognized a pension expense of \$2.0 million related to the HIS Plan. In addition, the Department reported, deferred outflows or resources and deferred inflows of resources related to the HIS Plan from the following sources (in thousands):

<b>Description</b>	<b>Deferred Outflows of Resources</b>	<b>Deferred Inflows of Resources</b>
Differences between expected and actual experience	\$ 1,629	\$ (31)
Change of assumptions	4,283	(2,316)
Net difference between projected and actual earnings on HIS pension plan investments	32	-
Changes in proportion and differences between the Department HIS contributions and proportionate share of HIS contributions	753	(240)
The Department contributions subsequent to measurement date	517	-
<b>Total</b>	<b>\$ 7,214</b>	<b>\$ (2,587)</b>

For fiscal year ended September 30, 2020, the deferred outflows of resources related to pensions of approximately \$517 thousand, resulting from the Department's contributions to the HIS Plan subsequent to the measurement date, will be recognized as a reduction of the net pension liability in the fiscal year ended September 30, 2020. Other

## Notes to Financial Statements

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):

<b>Fiscal Year Ending September 30,</b>	<b>Deferred Outflows/(Inflows), Net</b>
2021	\$ 1,127
2022	865
2023	346
2024	570
2025	670
Thereafter	530
	<u>\$ 4,110</u>

### *Actuarial Assumptions*

The HIS pension as of July 1, 2020 actuarial valuations were determined using the following actuarial assumptions, applied to all periods included in the measurement.

Inflation	2.40%
Salary Increases	3.25% average, including inflation
Investment Rate of Return	N/A
Discount Rate	2.21%

Mortality rates were based on the Generational PUB-2010 with Projection Scale MP-2018.

The actuarial assumptions used in the June 30, 2020 valuations were based on the results of an actuarial experience study for the period July 1, 2013 through June 30, 2018.

### *Discount Rate*

For fiscal year ended September 30, 2020, the discount rate used to measure the total pension liability for the HIS Plan was 2.21 percent. In general, the discount rate for calculating the total pension liability is equal to the single rate equivalent to discounting at the long-term expected rate of return for benefit payments prior to the projected depletion date. Because the HIS benefit is essentially funded on a pay-as-you-go basis, the depletion date is considered to be immediate, and the single equivalent discount rate is equal to the municipal bond rate selected by the HIS Plan sponsor. The Bond Buyer General Obligation 20-Bond Municipal Bond Index was adopted as the applicable municipal bond index.

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

For fiscal year ended September 30, 2020, the following represents the Department's proportionate share of the net pension liability calculated using the discount rate of 2.21 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 (1.21 percent) or one percentage point higher (3.21 percent) than the current rate (in thousands):

	<b>1% Decrease 1.21%</b>	<b>Current Discount Rate 2.21%</b>	<b>1% Increase 3.21%</b>
Miami Dade County's proportionate share of the net pension liability allocated to the Department	\$ 46,040	\$ 39,829	\$ 34,745

# Notes to Financial Statements

## *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, 2020 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	
2020	5.16%	\$ (39,829)	\$ 7,214	\$ (2,587)	\$	2,058

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	
2020	5.16%	\$ (217,181)	\$ 62,544	\$ (2,752)	\$	27,273

## *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 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, 2020, 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, 2020, the information for forfeitures was unavailable from the SBA; however, management believes that these amounts, if any, would be insignificant to Miami Dade County.



# Notes to Financial Statements

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, 2020, the Department's Investment Plan pension contributions totaled \$1.3 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 2020 and 2019 were as follows (in thousands):

	2020	2019
Balance at beginning of year	\$ 3,167	\$ 3,273
Claims and changes in estimates	1,383	464
Less: Payments	(688)	(570)
Balance at end of year	<u>\$ 3,862</u>	<u>\$ 3,167</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 \$3.8 million at September 30, 2020 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, 2020.

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.

# Notes to Financial Statements

## 11. CONTRIBUTIONS

Contributions during fiscal year 2020 are presented as follows (in thousands):

	2020
Contributed Facilities:	
Developers	\$ 35,141
Contributions -GOB	22,352
Other	456
Total Additions	<u>\$ 57,949</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, 2020 (in thousands):

	2020
General Fund	\$ 28,011
Other County Departments	35,283
Regulatory	23,243
Information Technology	18,328
Internal Services Department	17,575
Solid Waste	13,896

In addition to the payments, the Department had related payables of \$33.0 million at September 30, 2020. The Department also has receivables from other County departments amounting to \$167 thousand at September 30, 2020. 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, 2020, the Department had contractual commitments of \$694.7 million.

### LEGAL CONTINGENCIES

The County is a defendant in various actions brought by parties in the normal course of business of the Department. Based on consultation with the County Attorney's Office, it is the opinion of management that the ultimate resolution of these suits would not significantly affect the financial position of the Department or its ability to conduct its business.

### FEDERAL AND STATE GRANTS

Federal and state grant awards are audited under the provisions of the Single Audit Act to determine that the Department has complied with the terms and conditions of the grant awards. Federal and state grants received are also subject to audit by the grantor agency. It is management's opinion that no significant liabilities will result from any such audits.

### REBATABLE ARBITRAGE EARNINGS

Federal tax law requires that arbitrage interest earnings be remitted to the federal government, unless the local government qualifies for an exemption. As of September 30, 2020, the Department had no obligation to rebate and

# Notes to Financial Statements

did not record any obligation of interest earned on bond proceeds invested in taxable securities in excess of interest costs. These arbitrage rebates are payable five years from the date of bond issuance and each five years thereafter. The amount of the obligation, if any, will be determined based on actual interest earned.

## 14. POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS

### *PLAN DESCRIPTION*

Miami-Dade County administers a single-employer defined benefit healthcare plan (the Plan) that provides postemployment medical and dental coverage to retirees as well as their eligible spouses and dependents. Benefits are provided through the County's group health insurance plan, which covers both active and retired members. Benefits are established and may be amended by the Miami-Dade County Board of County Commissioners (BCC), whose powers derive from F.S. 125.01(3)(a). The Plan does not issue a publicly available financial report.

To be eligible to receive retiree medical and dental benefits, participants must be eligible for retirement benefits under the Florida Retirement System (FRS) or the Public Health Trust of Miami-Dade County, Florida, Defined Benefit Retirement Plan and pay required contributions. Refer to note 9, Pension Plan, for a description of eligibility requirements.

The medical plans offered provide hospital, medical and pharmacy coverage. Pre-65 retirees are able to select from four medical plans as follows:

- AvMed POS
- AvMed HMO High
- AvMed HMO Select
- Jackson First HMO

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

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

### *FUNDING POLICY*

The County contributes to both the pre-65 and post-65 retiree medical coverage. Medical contributions vary based on plan and tier. Retirees pay the full cost of dental coverage. The postretirement medical is currently funded on a pay-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 \$58.4 million was measured as of September 30, 2020 and was determined by an actuarial valuation as of that date.

### *Actual assumptions and other inputs*

The total OPEB liability in the September 30, 2020 actuarial valuation was determined using the following actuarial assumptions and other inputs, applied to all periods included in the measurement unless otherwise specified:

# Notes to Financial Statements

Valuation date	September 30, 2020
Measurement date	September 30, 2020
Discount Rate	2.21%
Salary Increase Rate	3.0% per annum
Actuarial Cost Method	Entry Age Normal based on level percentage of projected salary.
Amortization Method	<i>Experience/Assumption</i> gains and losses are amortized over a close period of 11.7 years starting October 1, 2019, equal to the average remaining service of active and inactive plan members (who have no future service).
Healthcare Cost Trend Rates	Medical/Rx Select 6.0% and Ultimate 4.5%
Retirees' share of benefit-related costs	29.85%
Mortality Rates	The mortality assumption was updated from RP-2014 mortality table with generational scale MP-2018 to Pub-2010 mortality table with generational scale MP-2019 to reflect the Society of Actuaries' recent mortality study.

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

The actuarial assumptions used in the September 30, 2020 valuation were based on the Florida Retirement System's valuation assumptions and Miami Dade County's claims experience for the period of October 1, 2019 to September 30, 2020.

## CHANGES IN TOTAL OPEB LIABILITY

Changes in the Department's total OPEB liability for the fiscal year ended September 30, 2020 were as follows (in thousands):

	<b>Total OPEB Liability</b>
<b>Balance at September 30, 2019</b>	\$ 49,346
Changes for the Year:	
Service Cost	914
Interest	1,371
Change in Assumptions	11,845
Difference Between Expected and Actual Experience	(2,677)
Benefits Payments	(2,365)
<b>Balance at September 30, 2020</b>	<b>\$ 58,434</b>

The increase 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, and (2) resetting the base trend.



## Notes to Financial Statements

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

For fiscal year ended September 30, 2020, 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 (1.21%)</b>	<b>Current Discount Rate (2.21%)</b>	<b>1% Increase (3.21%)</b>
<b>Total OPEB Liability</b>	\$ 64,126	\$ 58,434	\$ 53,400

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

For fiscal year ended September 30, 2020, 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 5.0% initial to 3.5%</b>	<b>Current Trend 6.0% initial to 4.5%</b>	<b>1% increase 7.0% initial to 5.5%</b>
<b>Total OPEB Liability</b>	\$ 53,524	\$ 58,434	\$ 64,280

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

For fiscal year ended September 30, 2020, the Department recognized a positive OPEB expense of \$1.3 million. At September 30, 2020, 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>
<b>Differences between expected and actual experience</b>	\$ -	\$ (2,350)
<b>Changes in assumptions / inputs</b>	15,914	(1,811)
<b>Total</b>	<u>\$ 15,914</u>	<u>\$ (4,162)</u>

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):

<b>Fiscal Year Ending September 30,</b>	<b>Deferred outflows/(inflows), net</b>
2021	\$ 1,121
2022	1,121
2023	1,121
2024	1,121
2025	1,121
Thereafter	6,147
<b>Total</b>	<u>\$ 11,752</u>

# Notes to Financial Statements

## 15. SUBSEQUENT EVENTS

On September 17, 2020, the Board of County commissioners adopted County Budget Ordinance Number 20-96 authorizing a continuation of modifications to the Department's retail tiered-based structure that will generate enough revenues to support costs including fiscal requirements related to capital investments. Changes will be effective October 1, 2020.

In addition, effective October 1, 2020 the County Budget Ordinance increased the water wholesale rate by \$0.1043 per thousand gallons to \$1.7947 from \$1.6904 and the wastewater wholesale rate by \$0.1017 to \$3.2971 from \$3.1954 per thousand gallons. Wholesale water and wastewater rates per thousand gallons rates are based on cost recovery.

## Required Supplementary Information

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

	2020	2019	2018
<b>Total OPEB Liability</b>			
Changes for the Year:			
Service Cost	\$ 914	\$ 795	\$ 821
Interest	1,371	1,682	1,540
Change of Benefit Terms	11,845	6,225	(2,463)
Difference Between Expected and Actual Experience	(2,677)	-	-
Benefits Payments	(2,365)	(2,645)	(2,354)
<b>Net Change in Total OPEB Liability</b>	\$ 9,088	\$ 6,056	\$ (2,456)
<b>Total OPEB Liability - Beginning</b>	\$ 49,346	\$ 43,290	\$ 45,746
<b>Total OPEB Liability - Ending</b>	\$ 58,434	\$ 49,346	\$ 43,290
<b>Covered - Employee Payroll</b>	\$ 166,285	\$ 193,094	\$ 161,279
<b>Total OPEB Liability as a Percentage of Covered - Employee Payroll</b>	35.1%	25.6%	26.8%

Changes in Assumptions: Changes in assumptions and other inputs reflect the effects of changes in the discount rate each period. The following are the discount rates used each period:

2020	2.21%
2019	2.66%
2018	4.24%
2017	3.63%

The increase in the total OPEB liability is mostly due to changes in actuarial assumptions and a reduction in the discount rate.

Note: Schedule is intended to show information for 10 years. Currently, only data for fiscal years ending September 30, 2018 thru 2020 are available. Additional years will be displayed as they become available.

# Required Supplementary Information

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

JUNE 30th,	2020	2019	2018	2017	2016	2015	2014
Department's proportion of the County's FRS net pension liability	5.16%	5.07%	5.26%	5.29%	5.65%	5.93%	5.93%
Department's proportionate share of the County's FRS net pension liability	\$ 177,352	\$ 138,669	\$ 124,066	\$ 121,477	\$ 111,748	\$ 56,648	\$ 27,104
Department's covered payroll	\$ 193,464	\$ 185,240	\$ 179,491	\$ 168,335	\$ 168,798	\$ 131,903	\$ 126,610
Department's proportionate share of the County's FRS net pension liability as a percentage of its covered payroll	91.67%	74.86%	69.12%	72.16%	66.20%	42.95%	21.41%
FRS Plan fiduciary net position as a percentage of the total pension liability	79%	83%	84%	84%	85%	92%	96%

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

SEPTEMBER 30th,	2020	2019	2018	2017	2016	2015	2014
Contractually required FRS contribution	\$ 13,596	\$ 12,485	\$ 10,637	\$ 10,691	\$ 10,534	\$ 10,693	\$ 9,730
FRS contribution in relation to the contractually required contribution	13,596	12,485	10,637	10,691	10,534	10,693	9,730
FRS contribution deficiency (excess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Department's covered payroll	\$ 192,766	\$ 186,248	\$ 183,327	\$ 169,397	\$ 174,697	\$ 141,267	\$ 126,719
FRS contribution as a percentage of covered payroll	7.05%	6.70%	5.80%	6.31%	6.03%	7.57%	7.68%

Note: The schedules presented above illustrate the requirements of GASB Statement No. 68. However, until a full 10-year trend is compiled, information for those years for which information is available will be presented.



# Required Supplementary Information

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

<b>JUNE 30th,</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
Department's proportion of the County's HIS net pension liability	5.16%	5.07%	5.26%	5.29%	5.65%	5.93%	5.93%
Department's proportionate share of the County's HIS net pension liability	\$ 39,829	\$ 36,069	\$ 35,055	\$ 35,033	\$ 42,010	\$ 37,204	\$ 33,960
Department's covered payroll	\$ 154,311	\$ 148,448	\$ 143,553	\$ 134,720	\$ 134,855	\$ 164,213	\$ 156,448
Department's proportionate share of the County's HIS net pension liability as a percentage of its covered payroll	25.81%	24.30%	24.42%	26.00%	31.15%	22.66%	21.71%
HIS Plan fiduciary net position as a percentage of the total pension liability	3.00%	2.63%	2.15%	1.64%	0.97%	0.50%	0.99%

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

<b>SEPTEMBER 30th,</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
Contractually required HIS contribution	\$ 1,880	\$ 1,790	\$ 1,725	\$ 1,734	\$ 1,770	\$ 1,394	\$ 1,244
HIS contribution in relation to the contractually required contribution	1,880	1,790	1,725	1,734	1,770	1,394	1,244
HIS contribution deficiency (excess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Department's covered payroll	\$ 153,512	\$ 148,970	\$ 146,648	\$ 135,685	\$ 139,403	\$ 162,174	\$ 156,889
HIS contribution as a percentage of covered payroll	1.22%	1.20%	1.18%	1.28%	1.27%	0.86%	0.79%

Note: The schedules presented above illustrate the requirements of GASB Statement No. 68. However, until a full 10-year trend is compiled, information for those years for which information is available will be presented.

## Supplementary Financial Data

Bond Ordinance 93-134 requires the Department to establish restricted accounts to be used in accounting for proceeds and collateral pledged as a result of the debt. In many cases, the bond ordinance refers to the restricted accounts as “funds”. Such accounts are not “funds” as defined by *NCGA Statement 1: Governmental Accounting and Financial Reporting Principles* and, therefore, are not funds for financial reporting purposes.

Similarly, the Water and Wastewater Systems do not meet the above-referenced definition and, therefore, combining statements are not presented. The following system schedules are furnished solely as supplementary information and are not required by GAAP.

# Water System

## SCHEDULE OF NET POSITION

	September 30,	<u>2020</u>
		(In thousands)
<b>ASSETS</b>		
<i>CURRENT ASSETS:</i>		
Cash and cash equivalents	\$	15,303
Investments		46,376
Accounts receivable		
(net of allowance for uncollectible accounts of \$15.8 million)		72,955
Inventory of materials and supplies		16,239
Other current assets		1,478
Restricted cash and cash equivalents		52,868
Total current assets		<u>205,219</u>
 <i>NONCURRENT RESTRICTED ASSETS:</i>		
Investments		410,643
Grants receivable		77
Total restricted assets		<u>410,720</u>
 <i>OTHER ASSETS:</i>		
Bond insurance		106
Other charges, net		1,784
Total other assets		<u>1,890</u>
 <i>CAPITAL ASSETS:</i>		
Land		28,482
Structures and improvements		2,157,509
Equipment		396,160
Utility plant in service before depreciation		2,582,151
Less accumulated depreciation		<u>(1,262,423)</u>
Net utility plant in service		1,319,728
Construction work in progress		345,246
Total capital assets		<u>1,664,974</u>
 Total noncurrent assets		<u>2,077,585</u>
 Total assets		<u>2,282,804</u>
 <i>DEFERRED OUTFLOWS OF RESOURCES:</i>		
Loss on refundings		38,000
Outflow related to pension		28,932
Outflow related to post-employment benefits		15,914
Total deferred outflows of resources		<u>82,846</u>
 Total assets and deferred outflows of resources	\$	<u>2,365,650</u>

(Continued)

# Water System

## SCHEDULE OF NET POSITION

(Continued)	September 30,	<u>2020</u>
		(In thousands)
<b>LIABILITIES</b>		
<i>CURRENT LIABILITIES (PAYABLE FROM UNRESTRICTED CURRENT ASSETS):</i>		
Accounts payable and accrued expenses	\$	28,973
Customer and developer deposits		12,070
Current portion of long-term debt		4,524
Liability for compensated absences		2,703
Other liabilities		<u>3,210</u>
Total current liabilities (payable from unrestricted current assets)		<u>51,480</u>
<i>CURRENT LIABILITIES (PAYABLE FROM RESTRICTED CURRENT ASSETS):</i>		
Accounts payable and accrued expenses		11,453
Retainage payable		7,311
Current portion of long-term debt		17,287
Accrued interest payable		15,630
Liability for self insurance		<u>1,186</u>
Total current liabilities (payable from restricted current assets)		<u>52,867</u>
Total current liabilities		<u>104,347</u>
<i>NONCURRENT LIABILITIES:</i>		
Revenue bonds payable, net		807,101
State loan obligations, net		40,598
Liability for self-insurance		2,676
Liability for compensated absences		16,600
Liability for post-employment benefits		58,434
Net pension liability		<u>102,424</u>
Total noncurrent liabilities		<u>1,027,833</u>
Total liabilities		<u>1,132,180</u>
<i>DEFERRED INFLOWS OF RESOURCES:</i>		
Inflow related to pension		2,275
Inflow related to post-employment benefits		<u>4,162</u>
Total deferred inflows of resources		<u>6,437</u>
Total liabilities and deferred inflows of resources		<u>1,138,617</u>
<b>NET POSITION</b>		
Net investment in capital assets		931,597
Restricted for:		
Capital projects		152,940
Debt service		57,586
Unrestricted		<u>84,910</u>
Total net position		<u>1,227,033</u>
Total liabilities, deferred inflows of resources and net position	\$	<u><u>2,365,650</u></u>



# Water System

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

For the fiscal year ended September 30,	<b>2020</b>
	(In thousands)
<i>OPERATING REVENUES:</i>	
Retail	\$ 302,360
Wholesale	27,779
Other Revenues	11,820
Total operating revenues	<u>341,959</u>
<i>OPERATING AND MAINTENANCE EXPENSES:</i>	
Source of supply	14,179
Power and pumping	2,040
Treatment	64,517
Transmission and distribution	40,328
Customer accounting	12,961
Customer service	13,758
General and administrative	55,875
Total operating and maintenance expenses	<u>203,658</u>
Operating income before depreciation	138,301
<i>DEPRECIATION EXPENSE</i>	<u>76,720</u>
Operating income	61,581
<i>NON-OPERATING REVENUES (EXPENSES):</i>	
Investment income	6,218
Interest expense	(30,133)
Amortization of insurance costs	(4,078)
Operating Disaster Revenue	2,955
Customer connection fees	7,164
Other revenues	6,228
Other expenses	<u>(3,078)</u>
Income before contributions	46,857
Capital contributions	19,804
Transfer (to) Wastewater System	<u>(79,085)</u>
Decrease in net position	(12,424)
Net position at beginning of year	<u>1,239,457</u>
Net position at end of year	<u><u>\$ 1,227,033</u></u>

# Water System

## SCHEDULE OF CASH FLOWS

For the fiscal year ended September 30,

**2020**

(In thousands)

*CASH FLOWS FROM OPERATING ACTIVITIES:*

Cash received from customers	\$ 337,314
Cash paid to suppliers for goods and services	(82,914)
Cash paid to employees for services	(91,522)
Transfer to Wastewater System	(79,085)
Net cash provided by operating activities	<u>83,793</u>

*CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:*

Proceeds from bond issues, loan agreements and Notes	434,109
Principal payments - bond and loans	(280,501)
Interest paid	(31,339)
Acquisition and construction of capital assets	(83,208)
Net cash provided by capital and related financing activities	<u>39,061</u>

*CASH FLOWS FROM INVESTING ACTIVITIES:*

Purchase of investment securities	(1,596,656)
Proceeds from sale and maturity of investment securities	1,192,854
Interest on investments	187,225
Net cash used by investing activities	<u>(216,577)</u>

Net decrease in cash and cash equivalents	(93,723)
Cash and cash equivalents at beginning of year	<u>161,894</u>
Cash and cash equivalents at end of year	<u><u>\$ 68,171</u></u>

# Water System

## SCHEDULE OF CASH FLOWS

(Continued)	For the fiscal year ended September 30,	<u>2020</u>
		(In thousands)
<i>RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES:</i>		
Operating income	\$	61,582
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation		76,719
Provision for uncollectible accounts		8,417
Non-operating other, net		20,942
Transfer to Wastewater System		(79,085)
(Increase) decrease in assets and deferred outflows:		
Accounts Receivable		(19,980)
Inventory of materials and supplies		35
Other current assets		(139)
Other charges		1,072
Deferred outflows related to pension and OPEB		(12,821)
Increase (decrease) in liabilities and deferred inflows:		
Accounts payable and accrued expenses		6,030
Customer and developer deposits		(665)
Accrued interest payable		2,779
Liability for compensated absences		1,608
Other liabilities		(9,872)
Liability for other post-employment benefits		9,088
Liability for self-insurance		695
Net pension liability		19,098
Deferred inflows related to pension and OPEB		(1,710)
Net cash provided by operating activities	\$	<u>83,793</u>

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

Property, plant and equipment contributions were received in amounts of \$19.8 million in fiscal year 2020.

The change in the fair value of investments was a \$.6 million increase in fiscal year 2020.

The change in the fair value of swaps was a \$16.3 million decrease in fiscal year 2020.

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

Unrestricted current cash and cash equivalents	\$	15,303
Restricted current cash and cash equivalents		52,868
Restricted noncurrent cash and cash equivalents		-
Total cash and cash equivalents at end of year	\$	<u>68,171</u>

# Water System

## SCHEDULE OF OPERATING AND MAINTENANCE EXPENSES

Budget and Actual  
For the fiscal year ended September 30, 2020  
(In thousands)

	<b>Budget</b>	<b>Actuals</b>	<b>Variance under (over)</b>
Source of Supply	\$ 13,690	\$ 14,179	\$ (489)
Power and pumping	1,744	2,040	(296)
Treatment	69,934	64,517	5,417
Transmission and distribution	40,596	40,328	268
Customer accounting	5,967	12,961	(6,994)
Customer service	14,968	13,758	1,210
General and administrative	66,220	55,875	10,345
Totals	<u>\$ 213,119</u>	<u>\$ 203,658</u>	<u>\$ 9,461</u>

# Wastewater System

## SCHEDULE OF NET POSITION

	September 30,	<u>2020</u>
		(In thousands)
<b>ASSETS</b>		
<i>CURRENT ASSETS:</i>		
Cash and cash equivalents	\$	9,403
Investments		73,369
Accounts receivable		
(net of allowance for uncollectible accounts of \$17.2 million)		108,185
Inventory of materials and supplies		28,276
Restricted cash and cash equivalents		<u>216,888</u>
Total current assets		<u>436,121</u>
<i>NONCURRENT RESTRICTED ASSETS:</i>		
Investments		314,337
Long-term receivable		<u>3,000</u>
Total restricted assets		<u>317,337</u>
<i>OTHER ASSETS:</i>		
Bond insurance		461
Other charges, net		<u>7,766</u>
Total other assets		<u>8,227</u>
<i>CAPITAL ASSETS:</i>		
Land		52,081
Structures and improvements		3,374,787
Equipment		<u>982,507</u>
Utility plant in service before depreciation		4,409,375
Less accumulated depreciation		<u>(2,324,330)</u>
Net utility plant in service		2,085,045
Construction work in progress		<u>1,340,410</u>
Total capital assets		<u>3,425,455</u>
Total noncurrent assets		<u>3,751,019</u>
Total assets		<u>4,187,140</u>
<i>DEFERRED OUTFLOWS OF RESOURCES:</i>		
Loss on refundings		115,240
Outflow related to pension		<u>33,611</u>
Total deferred outflows of resources		<u>148,851</u>
Total assets and deferred outflows of resources	\$	<u><u>4,335,991</u></u>

(Continued)



# Wastewater System

## SCHEDULE OF NET POSITION

(Continued)	September 30,	<u>2020</u>
		(In thousands)
<b>LIABILITIES</b>		
<i>CURRENT LIABILITIES (PAYABLE FROM UNRESTRICTED CURRENT ASSETS):</i>		
Accounts payable and accrued expenses	\$	53,124
Customer and developer deposits		6,375
Current portion of long-term debt		4,582
Liability for compensated absences		8,750
Other liabilities		<u>1,117</u>
Total current liabilities (payable from unrestricted current assets)		<u>73,948</u>
<i>CURRENT LIABILITIES (PAYABLE FROM RESTRICTED CURRENT ASSETS):</i>		
Accounts payable and accrued expenses		68,792
Retainage payable		32,080
Current portion of long-term debt		67,867
Accrued interest payable		<u>48,149</u>
Total current liabilities (payable from restricted current assets)		<u>216,888</u>
Total current liabilities		<u>290,836</u>
<i>NONCURRENT LIABILITIES:</i>		
Revenue bonds payable, net		2,351,269
State loan obligations, net		129,015
Notes Payable		1,229
Liability for compensated absences		23,990
Net pension liability		<u>114,757</u>
Total noncurrent liabilities		<u>2,620,260</u>
Total liabilities		<u>2,911,096</u>
<i>DEFERRED INFLOWS OF RESOURCES:</i>		
Inflow related to pension		<u>477</u>
Total deferred inflows of resources		<u>477</u>
Total liabilities and deferred inflows of resources		<u>2,911,573</u>
<b>NET POSITION</b>		
Net investment in capital assets		1,036,061
Restricted for:		
Capital projects		118,946
Debt service		162,263
Unrestricted		<u>107,148</u>
Total net position		<u>1,424,418</u>
Total liabilities, deferred Inflows of resources and net position	\$	<u>4,335,991</u>

# Wastewater System

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

For the fiscal year ended September 30,	<b>2020</b>
	(In thousands)
<i>OPERATING REVENUES:</i>	
Retail	\$ 324,980
Wholesale	90,604
Other Revenues	11,938
Total operating revenues	<u>427,522</u>
<i>OPERATING AND MAINTENANCE EXPENSES:</i>	
Collection system	33,169
Pumping	50,188
Treatment	100,504
Customer accounting	12,202
Customer service	10,810
General and administrative	68,148
Total operating and maintenance expenses	<u>275,021</u>
Operating income before depreciation	152,501
<i>DEPRECIATION EXPENSE</i>	<u>129,591</u>
Operating Income	22,910
<i>NON-OPERATING REVENUES (EXPENSES):</i>	
Investment income	8,341
Interest expense	(92,106)
Amortization of insurance costs	(11,007)
Customer connection fees	28,597
Other revenues	(9,532)
Other expenses	(1,042)
Income (loss) before contributions	(53,839)
Capital contributions	38,145
Transfer from Water System	79,085
Increase in net position	<u>63,391</u>
Net position at beginning of year	<u>1,361,027</u>
Net position at end of year	<u><u>\$ 1,424,418</u></u>

# Wastewater System

## SCHEDULE OF CASH FLOWS

For the fiscal year ended September 30,

	<b>2020</b>
	(In thousands)
<i>CASH FLOWS FROM OPERATING ACTIVITIES:</i>	
Cash received from customers	\$ 416,047
Cash paid to suppliers for goods and services	(113,146)
Cash paid to employees for services	(126,363)
Transfer from Water System	79,085
Net cash provided by operating activities	<u>255,623</u>
<i>CASH FLOWS FROM NON-CAPITAL FINANCING ACTIVITIES:</i>	
Long Term Receivable	<u>1,000</u>
Net cash provided by non-capital financing activities	<u>1,000</u>
<i>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:</i>	
Proceeds from bond issues, loan agreements and Notes	818,118
Principal payments - bond and loans	(601,080)
Interest paid	(81,836)
Acquisition and construction of capital assets	<u>(337,330)</u>
Net cash used by capital and related financing activities	<u>(202,128)</u>
<i>CASH FLOWS FROM INVESTING ACTIVITIES:</i>	
Purchase of investment securities	(1,146,929)
Proceeds from sale and maturity of investment securities	1,100,446
Interest on investments	<u>2,879</u>
Net cash used by investing activities	<u>(43,604)</u>
Net increase in cash and cash equivalents	10,891
Cash and cash equivalents at beginning of year	<u>215,400</u>
Cash and cash equivalents at end of year	<u><u>\$ 226,291</u></u>

# Wastewater System

## SCHEDULE OF CASH FLOWS

(Continued)

For the fiscal year ended September 30,

**2020**

(In thousands)

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

Operating income	\$ 22,909
Adjustments to reconcile operating income to net cash provided by operating activities:	
Depreciation	129,592
Provision for uncollectible accounts	8,631
Non-operating other, net	76,747
Transfer from Water System	79,085
(Increase) decrease in assets and deferred outflows:	
Accounts Receivable	(28,925)
Inventory of materials and supplies	(3,112)
Other charges	4,667
Deferred outflows related to pension and OPEB	(3,623)
Increase (decrease) in liabilities and deferred inflows:	
Accounts payable and accrued expenses	12,136
Customer and developer deposits	(663)
Accrued interest payable	5,186
Liability for compensated absences	2,624
Other liabilities	(68,255)
Net pension liability	23,342
Deferred Inflows related to pension and OPEB	(4,718)
Net cash provided by operating activities	<u>\$ 255,623</u>

*NONCASH INVESTING, CAPITAL AND FINANCING ACTIVITIES*

Property, plant and equipment contributions were received in amounts of \$38.1 million in fiscal year 2020.

The change in the fair value of investments was a \$.6 million increase in fiscal year 2020.

The change in the fair value of swaps was \$16.2 million decrease in fiscal year 2020.

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

Unrestricted current cash and cash equivalents	\$ 9,403
Restricted current cash and cash equivalents	216,888
Restricted noncurrent cash and cash equivalents	-
Total cash and cash equivalents at end of year	<u>\$ 226,291</u>

# Wastewater System

## SCHEDULE OF OPERATING AND MAINTENANCE EXPENSES

Budget and Actual  
For the fiscal year ended September 30, 2020  
(In thousands)

	<u>Budget</u>	<u>Actuals</u>	<u>Variance under (over)</u>
Collection system	\$ 35,999	\$ 33,169	\$ 2,830
Pumping	47,703	50,188	(2,485)
Treatment	112,225	100,504	11,721
Customer accounting	4,882	12,202	(7,320)
Customer service	12,247	10,810	1,437
General and administrative	54,180	68,148	(13,968)
Totals	<u>\$ 267,236</u>	<u>\$ 275,021</u>	<u>\$ (7,785)</u>



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## Statistical Section



# Statistical Section

This part of the Department's comprehensive annual report details information as a context for understanding what the information in the financial statements, note disclosures, and required supplementary information says about the Department's overall financial health.

## Contents

### ***Financial Trends***

These schedules, found on pages 81-84, contain trend information to help the reader understand how the Department's financial performance and well-being have changed over time.

### ***Revenue Capacity***

These schedules, found on pages 85-87, contain information to help the reader assess the factors affecting the Department's ability to generate revenue.

### ***Debt Capacity***

These schedules, found on pages 88-89, present information to help the reader assess the affordability of the Department's current levels of outstanding debt and the Department's ability to issue additional debt in the future.

### ***Demographic and Economic Information***

These schedules, found on pages 90-96, offer demographic and economic indicators to help the reader understand the environment within which the Department's financial activities take place.

### ***Operating and Capital Information***

These schedules, found on pages 97-99, contain service and infrastructure data to help the reader understand how the information in the Department's financial report related to the services the Department provides and the activities it performs.

# Net Position

## BY COMPONENTS - LAST TEN FISCAL YEARS

(in thousands)	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
<i>COMBINED WATER AND WASTEWATER SYSTEMS:</i>										
Net investment in capital assets	\$1,967,658	\$1,962,557	\$1,941,144	\$1,851,041	\$1,730,528	\$1,590,653	\$1,542,930	\$1,474,197	\$1,567,455	\$1,530,096
Restricted	491,735	419,134	342,400	356,540	330,257	340,066	321,122	273,623	223,887	243,292
Unrestricted	192,058	218,794	237,744	260,899	266,833	266,597	355,635	449,515	431,933	413,233
Total net position	\$2,651,451	\$2,600,485	\$2,521,288	\$2,468,480	\$2,327,618	\$2,197,316	\$2,219,687	\$2,197,335	\$2,223,275	\$2,186,621
<i>WATER SYSTEM</i>										
Net investment in capital assets	\$931,597	\$989,270	\$986,573	\$975,646	\$965,055	\$1,013,229	\$988,585	\$943,883	\$971,727	\$947,539
Restricted	210,526	141,881	108,344	111,646	80,115	80,841	93,302	96,841	73,822	84,993
Unrestricted	84,910	108,306	123,265	139,835	137,622	146,403	189,084	252,612	222,278	214,739
Total net position	\$1,227,033	\$1,239,457	\$1,218,182	\$1,227,127	\$1,182,792	\$1,240,473	\$1,270,971	\$1,293,336	\$1,267,827	\$1,247,271
<i>WASTEWATER SYSTEM</i>										
Net investment in capital assets	\$1,036,061	\$973,287	\$954,571	\$875,395	\$765,473	\$577,424	\$554,345	\$530,314	\$595,728	\$582,557
Restricted	281,209	277,253	234,056	244,894	250,142	259,225	227,820	176,782	150,065	158,298
Unrestricted	107,148	110,488	114,479	121,064	129,211	120,194	166,551	196,903	209,655	198,495
Total net position	\$1,424,418	\$1,361,028	\$1,303,106	\$1,241,353	\$1,144,826	\$956,843	\$948,716	\$903,999	\$955,448	\$939,350

# Combined Water and Wastewater Systems

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

(in thousands)	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
<b>OPERATING REVENUES:</b>										
Retail	\$ 627,340	\$ 586,158	\$ 563,839	\$ 554,546	\$ 520,146	\$ 486,201	\$ 465,057	\$ 437,778	\$ 429,003	\$ 428,832
Wholesale	118,383	118,260	117,735	123,854	110,951	98,810	85,771	88,754	82,710	90,671
Other	23,758	30,033	30,275	28,932	28,685	28,305	28,022	21,876	24,589	26,157
Total operating revenues	769,481	734,451	711,849	707,332	659,782	613,316	578,850	548,408	536,302	545,660
<b>OPERATING AND MAINTENANCE EXPENSES:</b>										
Source of supply	14,179	13,966	9,578	14,193	14,284	10,931	10,788	10,874	10,705	13,558
Collection system	33,169	32,481	34,049	33,457	26,866	27,634	22,500	21,638	20,150	20,385
Pumping	52,228	50,162	45,426	44,519	41,532	39,384	37,355	36,508	35,883	32,892
Treatment	165,021	169,240	163,435	152,734	160,186	156,229	145,513	139,555	134,178	134,650
Transmission and distribution	40,328	39,058	35,783	31,228	30,554	30,892	28,844	27,882	27,423	27,929
Customer accounting and service	49,731	33,422	34,787	34,160	30,239	28,068	23,180	25,155	23,574	24,231
General and administrative	124,023	103,896	100,250	88,239	84,827	75,769	81,662	78,552	73,164	79,165
Total operating and maintenance expense	478,679	442,225	423,308	398,530	388,488	368,907	349,842	340,164	325,077	332,810
Operating income before depreciation	290,802	292,226	288,541	308,802	271,294	244,409	229,008	208,244	211,225	212,850
DEPRECIATION EXPENSE	206,311	201,173	199,694	187,921	184,424	188,909	183,557	177,570	163,315	159,158
Operating income (loss)	84,491	91,053	88,847	120,881	86,870	55,500	45,451	30,674	47,910	53,692
<b>NON-OPERATING REVENUES(EXPENSES):</b>										
Investment income (loss)	14,558	27,954	1,407	(9,649)	(4,853)	20,557	3,933	(18,351)	21,797	6,193
Interest expense	(122,239)	(111,875)	(42,861)	(25,978)	(46,369)	(75,728)	(89,678)	(78,538)	(85,478)	(85,511)
Other income	16,208	38,358	16,075	20,499	41,043	36,186	42,670	28,572	24,269	15,897
Income (loss) before contributions and transfers	(6,982)	45,490	63,468	105,753	76,691	36,515	2,376	(37,643)	8,498	(9,729)
Capital contributions	57,949	33,707	28,330	35,109	53,611	46,692	35,810	19,459	28,156	33,556
Transfers to County's General Fund	-	-	-	-	-	-	-	-	-	(32,220)
Increase (decrease) in net position	\$ 50,967	\$ 79,197	\$ 91,798	\$ 140,862	\$ 130,302	\$ 83,207	\$ 38,186	\$ (18,184)	\$ 36,654	\$ (8,393)



# Water System

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

(in thousands)	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
<b>OPERATING REVENUES:</b>										
Retail	\$ 302,360	\$ 277,305	\$ 268,275	\$ 265,636	\$ 247,088	\$ 233,464	\$ 219,880	\$ 207,117	\$ 202,633	\$ 202,189
Wholesale	27,779	34,810	39,310	34,916	28,572	37,008	28,815	29,210	35,330	37,990
Other	11,820	15,937	16,159	15,493	15,383	14,966	14,908	11,985	13,167	13,517
Total operating revenues	341,959	328,052	323,744	316,045	291,043	285,438	263,603	248,312	251,130	253,696
<b>OPERATING AND MAINTENANCE EXPENSES:</b>										
Source of supply	14,179	13,966	9,578	14,193	14,284	10,931	10,788	10,874	10,705	13,558
Pumping	2,040	2,224	1,927	1,976	1,982	2,054	1,911	1,816	1,798	1,942
Treatment	64,517	68,717	62,707	60,387	68,272	63,921	58,741	60,188	59,811	62,138
Transmission and distribution	40,328	39,058	35,783	31,228	30,554	30,892	28,844	27,882	27,423	27,929
Customer accounting and service	26,719	18,850	19,300	19,066	16,859	15,651	13,025	13,908	12,841	13,325
General and administrative	55,875	46,754	45,077	39,683	37,983	34,078	36,711	35,292	32,936	35,644
Total operating and maintenance expenses	203,658	189,569	174,372	166,533	169,934	157,527	150,020	149,960	145,514	154,536
Operating income before depreciation	138,301	138,483	149,372	149,512	121,109	127,911	113,583	98,352	105,616	99,160
DEPRECIATION EXPENSE	76,720	73,078	74,858	74,142	72,180	66,642	65,456	69,581	61,158	61,122
Operating income (loss)	61,581	65,405	74,514	75,370	48,929	61,269	48,127	28,771	44,458	38,038
<b>NON-OPERATING REVENUES(EXPENSES):</b>										
Investment income (loss)	6,218	12,535	5	(5,178)	(2,650)	10,127	1,769	(8,574)	10,980	3,061
Interest expense	(30,133)	(26,497)	(16,158)	(17,434)	(16,290)	(19,169)	(21,731)	(14,203)	(17,437)	(18,932)
Other income	9,191	7,161	7,161	2,463	11,843	9,812	13,090	6,461	10,024	8,602
Income (loss) before contributions and transfers	46,857	58,604	65,522	55,221	41,832	62,039	41,255	12,455	48,025	30,769
Capital contributions	19,804	21,115	16,895	21,632	28,860	27,918	21,370	11,490	15,749	24,108
Transfers to County's General Fund	-	-	-	-	-	-	-	-	-	(14,499)
Transfer (to) from Wastewater System	(79,085)	(58,444)	(71,867)	(32,520)	(128,373)	(67,666)	(80,939)	1,564	(43,218)	(33,677)
Increase (decrease) in net position	\$ (12,424)	\$ 21,275	\$ 10,550	\$ 44,333	\$ (57,681)	\$ 22,291	\$ (18,314)	\$ 25,509	\$ 20,556	\$ 6,701

# Wastewater System

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

(in thousands)	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
<b>OPERATING REVENUES:</b>										
Retail	\$ 324,980	\$ 308,853	\$ 295,564	\$ 288,910	\$ 273,058	\$ 252,737	\$ 245,167	\$ 230,661	\$ 226,370	\$ 226,643
Wholesale	90,604	83,450	78,425	88,938	82,380	61,802	56,956	59,544	47,380	52,681
Other	11,938	14,096	14,116	13,439	13,301	13,339	13,114	9,891	11,422	12,640
Total operating revenues	427,522	406,399	388,105	391,287	368,739	327,878	315,237	300,096	285,172	291,964
<b>OPERATING AND MAINTENANCE EXPENSES:</b>										
Collection system	33,169	32,481	34,049	33,457	26,866	27,634	22,500	21,638	20,150	20,385
Pumping	50,188	47,938	43,499	42,543	39,549	37,330	35,444	34,692	34,085	30,950
Treatment	100,504	100,523	100,728	92,347	91,915	92,308	86,772	79,367	74,367	72,512
Customer accounting and service	23,012	14,572	15,487	15,094	13,380	12,417	10,155	11,247	10,733	10,906
General and administrative	68,148	57,142	55,173	48,556	46,844	41,691	44,951	43,260	40,228	43,521
Total operating and maintenance expenses	275,021	252,656	248,936	231,997	218,554	211,380	199,822	190,204	179,563	178,274
Operating income before depreciation	152,501	153,743	139,169	159,290	150,185	116,498	115,415	109,892	105,609	113,690
<b>DEPRECIATION EXPENSE</b>	129,591	128,095	124,836	113,779	112,244	122,267	118,101	107,989	102,157	98,036
Operating income (loss)	22,910	25,648	14,333	45,511	37,941	(5,769)	(2,686)	1,903	3,452	15,654
<b>NON-OPERATING REVENUES(EXPENSES)</b>										
Investment income (loss)	8,341	15,419	1,402	(4,471)	(2,203)	10,430	2,164	(9,777)	10,817	3,132
Interest expense	(92,106)	(85,378)	(26,703)	(8,544)	(30,079)	(56,559)	(67,947)	(64,335)	(68,041)	(66,579)
Other income	7,017	31,197	8,914	18,034	29,200	26,374	29,580	22,111	14,245	7,295
Income (loss) before contributions and transfers	(53,838)	(13,114)	(2,054)	50,530	34,859	(25,524)	(38,889)	(50,098)	(39,527)	(40,498)
Capital contributions	38,145	12,592	11,435	13,477	24,751	18,774	14,440	7,969	12,407	9,448
Transfers to County's General Fund	-	-	-	-	-	-	-	-	-	(17,721)
Transfer (to) from Water System	79,085	58,444	71,867	32,520	128,373	67,666	80,939	(1,564)	43,218	33,677
Increase (decrease) in net position	\$ 63,392	\$ 57,922	\$ 81,248	\$ 96,527	\$ 187,983	\$ 60,916	\$ 56,490	\$ (43,693)	\$ 16,098	\$ (15,094)

# Water and Wastewater System Rates

## LAST TEN FISCAL YEARS

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
<i>WATER RATES:</i>										
Meter Size Rate										
5/8"	\$ 3.20	\$ 3.20	\$ 3.20	\$ 3.20	\$ 3.20	\$ 3.20	\$ 3.20	\$ 3.20	\$ 3.20	\$ 3.20
1"	12.38	12.38	12.38	12.38	11.42	10.77	10.16	9.41	9.41	9.41
1.5"	24.76	24.76	24.76	24.76	22.84	21.55	20.33	18.82	18.82	18.82
2"	39.60	39.60	39.60	39.60	36.53	34.46	32.51	30.10	30.10	30.10
3"	79.21	79.21	79.21	79.21	73.07	68.93	65.03	60.21	60.21	60.21
4"	123.76	123.76	123.76	123.76	114.17	107.71	101.61	94.08	94.08	94.08
6"	247.50	247.50	247.50	247.50	228.32	215.40	203.21	188.16	188.16	188.16
8"	369.02	396.02	396.02	396.02	365.33	344.65	325.14	301.06	301.06	301.06
10"	569.28	569.28	569.28	569.28	525.16	495.43	467.39	432.77	432.77	432.77
12"	1,064.30	1,064.30	1,064.30	1,064.30	981.83	926.25	873.82	809.09	809.09	809.09
14"	1,980.07	1,980.07	1,980.07	1,980.07	1,826.63	1,723.24	1,625.70	1,505.28	1,505.28	1,505.28
16"	2,722.61	2,722.61	2,722.61	2,722.61	2,511.63	2,369.46	2,235.34	2,069.76	2,069.76	2,069.76
Composite rate (revenues/flows)	4.86	4.47	4.30	4.09	3.85	3.66	3.46	2.99	2.93	2.95
<i>WASTEWATER RATES:</i>										
Base rate (per 1,000 gallons)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Meter Size Rate										
5/8"	\$ 5.05	\$ 5.05	\$ 3.25	\$ 3.25	\$ 3.25	\$ 3.25	\$ 3.25	\$ 3.25	\$ 3.25	\$ 3.25
1"	17.07	17.07	12.57	12.53	11.60	10.94	10.32	9.56	9.56	9.56
1.5"	34.14	34.14	25.14	25.05	23.19	21.88	20.64	19.11	19.11	19.11
2"	54.63	54.63	40.23	40.08	37.11	35.01	33.03	30.58	30.58	30.58
3"	109.23	109.23	80.43	80.14	74.20	70.00	66.04	61.15	61.15	61.15
4"	170.68	170.68	125.68	125.22	115.94	109.38	103.19	95.55	95.55	95.55
6"	341.38	341.38	251.38	250.46	231.90	218.77	206.39	191.10	191.10	191.10
8"	546.20	546.20	402.20	400.72	371.03	350.03	330.22	305.76	305.76	305.76
10"	785.16	785.16	578.16	576.03	533.36	503.17	474.69	439.53	439.53	439.53
12"	1,467.92	1,467.92	1,080.92	1,076.93	997.16	940.72	887.47	821.73	821.73	821.73
14"	2,731.02	2,731.02	2,011.02	2,003.59	1,855.18	1,750.17	1,651.10	1,528.80	1,528.80	1,528.80
16"	3,755.15	3,755.15	2,765.15	2,754.95	2,550.88	2,406.49	2,270.27	2,102.10	2,102.10	2,102.10
Composite rate (revenues/flows)	6.70	6.41	6.10	5.74	5.51	5.16	4.98	4.69	4.64	4.67

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

# Water Treatment

## LAST TEN FISCAL YEARS

(millions of gallons)	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
<b>WATER PUMPED:</b>										
Water treatment plants:										
Alexander Orr, Jr.	67,283	66,620	66,096	66,190	65,968	62,566	60,183	58,666	59,805	60,191
John E. Preston	31,791	30,138	26,555	27,891	26,789	27,044	26,942	30,586	27,232	26,555
Hialeah	14,531	16,939	20,467	20,093	20,142	19,488	19,248	21,241	22,688	23,685
South Dade Water System	3,845	3,790	3,920	3,752	3,921	3,570	2,607	2,670	2,658	2,580
Purchase water	89	99	116	116	192	164	124	178	152	179
Total water pumped	117,539	117,586	117,154	118,042	117,013	112,832	109,104	113,341	112,535	113,190
<b>WATER SOLD:</b>										
Wholesale:										
Miami Beach	7,195	8,109	8,381	8,566	8,249	8,346	7,615	7,903	7,918	8,410
Hialeah	6,146	6,376	6,566	7,040	6,857	6,623	7,285	9,429	9,121	9,598
North Miami	2,318	2,792	3,468	2,313	1,538	2,096	1,693	1,655	1,374	1,331
Opa-Locka	861	998	909	894	993	950	895	876	876	887
Hialeah Gardens	766	764	703	742	768	694	638	576	591	693
Homestead <sup>(1)</sup>	810	668	723	668	684	520	188	151	40	-
Bal Harbor	454	437	455	487	506	503	407	494	430	486
North Bay Village	423	404	419	435	419	430	405	415	391	387
Medley	403	368	389	378	381	365	470	516	479	328
Bay Harbor Islands	317	319	338	319	291	328	318	309	310	302
Surfside	340	358	386	389	325	326	303	299	312	317
West Miami	347	321	334	344	319	251	278	236	292	275
Indian Creek Village	195	179	154	143	119	134	117	120	122	133
Virginia Gardens	82	86	80	80	84	82	91	95	93	91
North Miami Beach	-	-	-	83	-	3	-	-	-	-
Total wholesale	20,657	22,179	23,305	22,881	21,533	21,651	20,703	23,074	22,349	23,238
Retail	62,243	62,051	62,421	64,968	64,108	63,783	63,539	63,386	63,169	62,937
Total water sold	82,900	84,230	85,726	87,849	85,641	85,434	84,242	86,460	85,518	86,175
Non-account water	34,632	33,357	31,428	30,193	31,373	27,398	24,862	26,881	27,017	27,015
Non-account water as a percentage of total water pumped	29.46%	28.37%	26.83%	25.58%	26.81%	24.28%	22.79%	23.72%	24.01%	23.87%
Unaccounted for water as a percentage of total water pumped	10.15%	9.18%	5.65%	6.69%	10.10%	8.37%	5.67%	8.88%	3.02%	10.46%

<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.

# Wastewater Treatment

## LAST TEN FISCAL YEARS

(millions of gallons)	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
<b>WASTEWATER PLANT FLOWS:</b>										
North District Plant	37,190	32,998	32,785	34,251	30,734	32,745	34,296	32,000	35,141	27,403
Central District Plant	36,495	41,449	40,344	40,000	46,432	40,662	44,044	43,696	45,014	37,653
South District Plant	35,735	34,515	36,415	38,207	38,115	33,413	37,382	36,274	41,472	33,036
Total wastewater plant flows	109,420	108,962	109,544	112,458	115,281	106,820	115,722	111,970	121,627	98,092
<b>WASTEWATER TREATED:</b>										
Wholesale:										
Miami Beach	7,694	8,058	8,082	8,054	8,797	8,399	8,312	8,141	7,452	6,983
Hialeah	10,636	8,994	9,144	9,203	8,943	7,169	7,102	7,050	7,002	6,084
North Miami	3,607	3,400	3,544	3,654	3,711	3,722	3,619	3,745	3,699	3,418
Coral Gables	1,443	1,074	906	1,477	1,432	1,231	1,041	1,088	1,144	987
Homestead	1,202	1,117	1,106	1,763	1,643	938	1,374	736	946	879
Opa-Locka	876	893	703	702	729	861	1,174	733	684	653
Hialeah Gardens	703	661	679	704	700	757	877	865	940	817
North Miami Beach	1,241	1,258	1,250	580	510	505	499	622	727	718
Medley	602	464	438	456	617	477	644	544	708	628
Florida City	445	449	458	425	458	464	420	457	494	412
North Bay Village	315	322	353	409	457	433	418	408	316	39
West Miami	196	199	184	169	185	147	147	162	202	163
Homestead Air Force Base	85	79	73	86	98	78	79	69	65	47
Total wholesale	29,045	26,968	26,920	27,682	28,281	25,181	25,706	24,620	24,379	21,828
Retail	48,523	48,167	48,492	50,334	49,550	48,998	49,247	49,345	48,752	48,547
Unaccounted for wastewater	31,841	33,827	34,131	34,442	37,450	32,641	40,769	38,005	48,496	27,717
Total wastewater treated	109,409	108,962	109,544	112,458	115,281	106,820	115,722	111,970	121,627	98,092
Unaccounted for wastewater as a percentage of total wastewater treated	29.10%	31.04%	31.16%	30.63%	32.49%	30.56%	35.23%	33.94%	39.87%	28.26%
<b>ANNUAL RAINFALL (inches): <sup>(1)</sup></b>	<b>75.49</b>	<b>61.28</b>	<b>73.02</b>	<b>78.33</b>	<b>75.11</b>	<b>47.22</b>	<b>73.70</b>	<b>60.60</b>	<b>97.90</b>	<b>58.70</b>

<sup>(1)</sup> Source: National Weather Service Forecast Office in Miami for rainfall recorded in inches at Miami International Airport.



# Debt Services Coverage

## LAST TEN FISCAL YEARS

(in thousands)	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
<b>PRIMARY DEBT SERVICE COVERAGE</b>										
Net operating revenues	\$290,803	\$292,226	\$288,541	\$308,802	\$271,293	\$244,409	\$229,007	\$208,432	\$211,225	\$212,850
Investment earnings <sup>(1)</sup>	10,413	15,355	9,566	3,144	1,823	1,198	1,166	1,479	1,336	2,111
Net transfers from (to) Rate Stabilization Fund	-	-	-	-	-	-	-	-	-	-
Net revenues available for debt service	\$301,216	\$307,581	\$298,107	\$311,946	\$273,116	\$245,607	\$230,173	\$209,911	\$212,561	\$214,961
Debt service requirements <sup>(2)</sup>	\$188,003	\$173,198	\$164,449	\$161,194	\$157,036	\$153,211	\$143,622	\$138,711	\$137,625	\$115,198
Actual coverage	1.60	1.78	1.81	1.94	1.74	1.60	1.60	1.51	1.54	1.87
Required coverage	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.10	1.10
<b>SUBORDINATE DEBT SERVICE COVERAGE</b>										
Net revenues available for debt service	\$301,216	\$307,581	\$298,107	\$311,946	\$273,116	\$245,607	\$230,173	\$209,911	\$212,561	\$214,961
Less: Maximum principal and interest <sup>(3)</sup>	202,029	182,569	171,345	161,195	161,195	161,195	163,181	161,340	146,270	146,270
Adjusted net revenues	\$99,187	\$125,012	\$126,762	\$150,751	\$111,921	\$84,412	\$66,992	\$48,571	\$66,291	\$68,691
<b>STATE REVOLVING FUND LOANS DEBT SERVICE COVERAGE</b>										
Net revenues available for debt service	\$301,216	\$307,581	\$298,107	\$311,946	\$273,116	\$245,607	\$230,173	\$209,911	\$212,561	\$214,961
Less: revenue required for primary debt service coverage <sup>(4)</sup>	235,004	216,498	205,561	201,493	196,295	191,514	179,528	173,389	151,388	126,718
Adjusted net revenues	\$66,212	\$91,083	\$92,546	\$110,453	\$76,821	\$54,093	\$50,646	\$36,522	\$61,173	\$88,243
Debt service requirements <sup>(5)</sup>	\$ 16,934	\$ 15,589	\$ 15,822	\$ 15,973	\$ 16,819	\$ 18,081	\$ 15,369	\$ 11,386	\$ 13,501	\$ 13,501
Actual coverage	3.91	5.84	5.85	6.92	4.57	2.99	3.30	3.21	4.53	6.54
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.

## Ratio of Outstanding Debt by Types

LAST TEN FISCAL YEARS (IN THOUSANDS)

Fiscal Year	Revenue Bonds	Loans	Notes Payable	Commercial Paper <sup>(1)</sup>	Total Outstanding Debt	Total Per Customer
2020	\$3,236,961	\$185,282	\$ 1,229	\$ -	\$ 3,423,472	\$ 4.18
2019	2,548,020	160,430	-	300,000	3,008,450	3.69
2018	2,366,854	156,833	-	200,000	2,723,687	3.41
2017	1,980,348	165,449	-	375,000	2,520,797	3.16
2016	2,053,731	161,272	-	100,000	2,315,003	2.90
2015	2,024,019	164,698	-	-	2,188,717	2.77
2014	2,132,906	175,796	-	-	2,308,702	2.95
2013	2,193,562	154,873	-	-	2,348,435	3.03
2012	1,896,641	143,843	-	-	2,040,484	2.66
2011	1,932,611	124,162	-	-	2,056,773	2.70

<sup>(1)</sup> Financing from Commercial Paper/Line of Credit to provide interim financing for the Department's Capital Improvement Program.

# Customer Statistics

## LARGEST SYSTEM CUSTOMERS - CURRENT YEAR AND NINE YEARS AGO

<u>Name</u>	Dollar Amount <sup>(1)</sup> (in thousands)	Percent of System Gross Revenues
<i>WATER SYSTEM:</i>		
City of Miami Beach	\$ 12,163	3.5%
City of Hialeah	10,389	3.0%
Miami Int'l Airport	7,664	2.2%
City of North Miami	3,918	1.1%
FL Dep't of Corrections	2,457	0.7%
FPL Turkey Point	2,017	0.6%
City of Opa-Locka	1,455	0.4%
City of Hialeah Gardens	1,294	0.4%
University of Miami	1,169	0.3%
Jackson Memorial Hospital	1,005	0.3%

<i>WASTEWATER SYSTEM:</i>		
City of Hialeah	\$ 34,212	8.0%
City of Miami Beach	24,577	5.7%
City of North Miami	11,585	2.7%
City of Coral Gables	4,649	1.1%
City of North Miami Beach	3,988	0.9%
City of Homestead	3,947	0.9%
City of Opa-Locka	2,797	0.7%
Miami Int'l Airport	2,707	0.6%
City of Hialeah Gardens	2,270	0.5%
FL Dep't of Corrections	2,100	0.5%

### October 2011 - September 2012

<u>Name</u>	Dollar Amount (in thousands)	Percent of System Gross Revenues
<i>WATER SYSTEM:</i>		
City of Hialeah	\$ 15,404	6.1%
City of Miami Beach	13,573	5.4%
Dade County Aviation	4,539	1.8%
City of North Miami	2,355	0.9%
City of Opa-Locka	1,502	0.6%
Florida Power & Light Company	1,318	0.5%
Hialeah Gardens	1,013	0.4%
Medley	821	0.3%
Bal Harbour	738	0.3%
North Bay Village	669	0.3%

<i>WASTEWATER SYSTEM:</i>		
City of Miami Beach	\$ 16,129	5.7%
City of Hialeah	15,197	5.3%
City of North Miami	8,017	2.8%
Dade County Aviation	2,697	1.0%
City of Coral Gables	2,489	0.9%
City of Homestead	2,031	0.7%
Hialeah Gardens	2,018	0.7%
City of North Miami Beach	1,579	0.6%
Medley	1,523	0.5%
City of Opa-Locka	1,485	0.5%

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

## Retail Customer Statistics

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

Fiscal Year	Number of Customers		Ratio of Wastewater Customers to Water
	Water	Wastewater	
2020	451,509	367,618	81.4%
2019	449,985	366,069	81.4%
2018	447,209	363,444	81.3%
2017	443,615	361,055	81.4%
2016	441,059	357,882	81.1%
2015	436,862	354,006	81.0%
2014	432,315	349,778	80.9%
2013	428,631	346,285	80.8%
2012	424,764	342,539	80.6%
2011	422,016	339,927	80.5%

## Building Permits

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

Calendar Year	<u>Number of Permits Issued</u>		Value of Permits Issued Residential Construction (in thousands)
	Single Family Houses	Multi-family Buildings	
2020 <sup>(1)</sup>	(1)	(1)	(1)
2019 <sup>(1)</sup>	(1)	(1)	(1)
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)

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

<u>Fiscal Year</u>	<u>Annual Resident Population</u>	<u>Increase (Decrease)</u>	<u>Percent Change</u>
2020	2,823,303	11,173	0.4%
2019	2,812,130	32,808	1.2%
2018	2,779,322	36,227	1.3%
2017	2,743,095	46,742	1.7%
2016	2,696,353	42,419	1.6%
2015	2,653,934	67,644	2.5%
2014	2,586,290	20,605	0.8%
2013	2,565,685	14,430	0.6%
2012	2,551,255	(44,759)	-1.8%
2011	2,596,014	32,129	1.2%

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



# Construction Activity

## MIAMI-DADE COUNTY, FLORIDA - LAST TEN FISCAL YEARS

Fiscal Year	Commercial Construction		Residential Construction	
	Number of Buildings	Value (in thousands)	Number of Units	Value (in thousands)
2020 <sup>(a)</sup>	0	-	-	-
2019	132	133,329	3,195	460,048
2018	117	173,258	2,886	638,408
2017	92	408,257	2,259	467,543
2016	83	176,969	2,064	324,500
2015	94	74,157	3,472	451,617
2014	137	242,138	1,932	265,791
2013	105	81,734	2,387	309,243
2012	95	130,148	1,535	187,533
2011	120	54,001	1,963	182,480

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

<sup>(a)</sup> For FY 2020, information unavailable as of the date of this report.

# Principal Employers

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

<u>Employer</u>	2020 (1)			2011		
	Employees	Rank	Percentage of Total County Employment	Employees	Rank	Percentage of Total County Employment
Miami-Dade County Public Schools	31,000	1	2.32%	44,132	1	3.39%
Miami-Dade County	24,692	2	1.85%	26,351	3	2.03%
U.S. Federal Government	19,300	3	1.45%	28,700	2	2.21%
Florida State Government	19,200	4	1.44%	19,400	4	1.49%
University of Miami	13,864	5	1.04%	13,233	7	1.02%
Baptist Health South Florida	13,369	6	1.00%	14,864	6	1.14%
American Airlines	11,773	7	0.88%	9,000	12	0.69%
Jackson Health System	8,163	8	0.61%	10,809	9	0.83%
Florida International University	4,951	9	0.37%	14,999	5	1.15%
City of Miami	3,820	10	0.29%	4,055	15	0.31%
Mount Sinai Medical Center	3,402	11	0.25%	-	-	-
Florida Power & Light Company	3,011	12	0.23%	-	-	0.00%
Miami Children's Hospital	2,991	13	0.22%	-	-	-
Homestead AFB	2,810	14	0.21%	10,100	11	0.78%
Miami-Dade College	2,572	15	0.00	12,500	8	0.96%
Royal Caribbean Intl./Celebrity Cruise	-	-	-	-	-	-
U. S. Southern Command	-	-	-	6,200	13	0.48%
Publix Super Markets	-	-	-	10,800	10	0.83%
UM Health	-	-	-	-	-	0.00%
United Parcel Services	-	-	-	-	-	0.00%
Precision Response Corporation	-	-	-	5,000	14	0.38%
	<u>164,918</u>		<u>12.35%</u>	<u>230,143</u>		<u>17.69%</u>

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

(1.) Informaion is based on data from year 2016. The data for year 2017 - 2020 is not available as of the date of this report.

# Economic Statistics

## MIAMI-DADE COUNTY UNEMPLOYMENT RATE AND LABOR FORCE

### LAST TEN FISCAL YEARS

Fiscal Year	Total Personal Income	Per Capita Personal Income	Unemployment Rate	Labor Force
2020	(1)	(1)	12.6%	1,396,663
2019	149,166,155	54,902	2.9%	1,463,774
2018	138,138,976	50,022	3.6%	1,363,766
2017	126,715,595	46,048	4.7%	1,386,660
2016	123,276,064	45,440	5.8%	1,334,404
2015	116,553,169	43,278	6.2%	1,321,033
2014	111,528,866	43,123	7.2%	1,282,854
2013	104,373,301	40,680	8.9%	1,289,617
2012	100,688,604	39,466	9.7%	1,290,751
2011	96,657,710	37,834	12.7%	1,300,030

Economic Information System, Florida Agency for Workforce Innovation, Labor Market Statistics, Miami-Dade County  
 Department of Regulatory and Economic Resources, Research Section University of Florida, Bureau of Economic and Business Research

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

# Employees by Identifiable Activity

## LAST TEN FISCAL YEARS

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
<i>WATER:</i>										
Water Distribution	240	224	222	222	230	221	220	205	206	210
Water Production and Maintenance	231	232	224	231	243	240	241	231	226	240
Laboratory Services	60	55	57	57	59	59	59	56	55	49
Meter <sup>(1)</sup>	94	97	96	-	-	-	-	-	-	-
<i>SEWER:</i>										
Sewer Collection	221	217	217	210	206	194	194	183	187	175
Wastewater Treatment and Maintenance	366	362	372	370	367	358	358	340	337	341
Pump Station Maintenance	241	226	228	230	208	195	197	193	192	193
SCADA <sup>(2)</sup>	43	46	48	-	-	-	-	-	-	-
<i>ENGINEERING:</i>										
Utility Pipeline and Plant Engineering & Construction	74	78	77	66	71	71	71	70	75	75
Surveying	15	14	16	14	-	-	-	-	-	-
Utilities Development	113	110	111	107	105	104	94	73	73	74
Capital Improvements Program	25	27	26	29	55	50	69	65	71	71
<i>ADMINISTRATION:</i>										
Office of Director	3	29	20	21	24	17	32	15	30	30
Office of Deputy Director of Regulatory Compliance and Capital Improvements	17	11	15	16	21	9	6	5	6	8
Office of Deputy Director of Operations	3	12	14	3	4	47	45	43	13	12
Office of Assistant Director of Utility Engineering and Construction	4	4	3	2	1	1	1	1	1	1
Office of Chief Financial Officer	40	42	42	40	41	66	38	53	36	37
Office of Deputy Director of Planning and Assistant Director of Customer Initiatives	89	76	79	73	77	114	114	112	143	136
Office of Assistant Director of Water	1	2	2	104	108	108	110	106	109	109
Office of Assistant Director of Wastewater	1	1	-	41	43	46	48	46	48	47
Office of Assistant Director of Regulatory Compliance and Planning	16	9	8	9	5	5	5	5	5	5
Office of Senior Advisor of Capital Projects sand Compliance <sup>(3)</sup>	10	0	-	-	-	-	-	-	-	-
Attorney's Office	4	4	4	4	4	4	4	4	4	4
Controller	117	114	119	118	125	106	112	110	114	114
Information Technology	-	-	-	-	76	71	69	65	68	69
Retail Customer Service	242	247	248	219	238	255	243	227	224	216
Planning	22	23	22	25	25	19	19	17	17	17
Regulatory Compliance and Monitoring	14	14	15	15	17	17	16	14	15	16
General Maintenance	128	122	127	112	124	114	114	110	116	113
Human Resources Division	41	46	46	44	44	-	-	-	-	-
Security and Communications Division	39	40	40	43	44	-	-	-	-	-
Office of Assistant Contracts Compliance and Quality Assurance	2	3	3	3	4	-	-	-	-	-
Quality Assurance and Control Division	12	13	14	4	13	-	-	-	-	-
Performance Improvements & Managment Division	10	12	12	13	17	-	-	-	-	-
Contract Compliance and Monitoring Division	21	22	26	20	27	-	-	-	-	-
<b>Total</b>	<b>2,559</b>	<b>2,534</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>

<sup>(1)</sup> Previously included in the Office of Assistant Director of Water

<sup>(2)</sup> Previously included in the Office of Assistant Director of Wastewater

<sup>(3)</sup> Previously included in the Office of Director and Deputy Director of Operations

# Capital Indicators

## LAST TEN FISCAL YEARS

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
<i>WATER:</i>										
Water mains <sup>(1)</sup> (miles)	6,288	6,271	6,269	6,264	6,131	6,035	6,004	5,988	5,969	5,922 <sup>(2)</sup>
Water treatment plants	9	9	9	9	9	9	9	9	8	8
Permitted water treatment capacity (million gallons per day)	464	464	464	461	461	464	464	454	454	452
Water supply wells	100	100	100	100	100	100	100	100	100	100
<i>WASTEWATER:</i>										
Sanitary sewers <sup>(1)</sup> (miles)	4,214	4,191	4,191	4,184	4,165	4,110	4,072	4,048	4,027	3,995 <sup>(2)</sup>
Wastewater treatment plants	3	3	3	3	3	3	3	3	3	3
Permitted wastewater treatment capacity (million gallons per day)	376	376	376	376	376	376	376	376	376	368
Wastewater pump stations	1,041	1,041	1,052	1,049	1,049	1,047	1,047	1,042	1,039	1,039

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

<sup>(2)</sup> In fiscal year 2011, the measurements for water mains and sanitary sewers do not include miscellaneous and private pipes.

## Insurance in Force

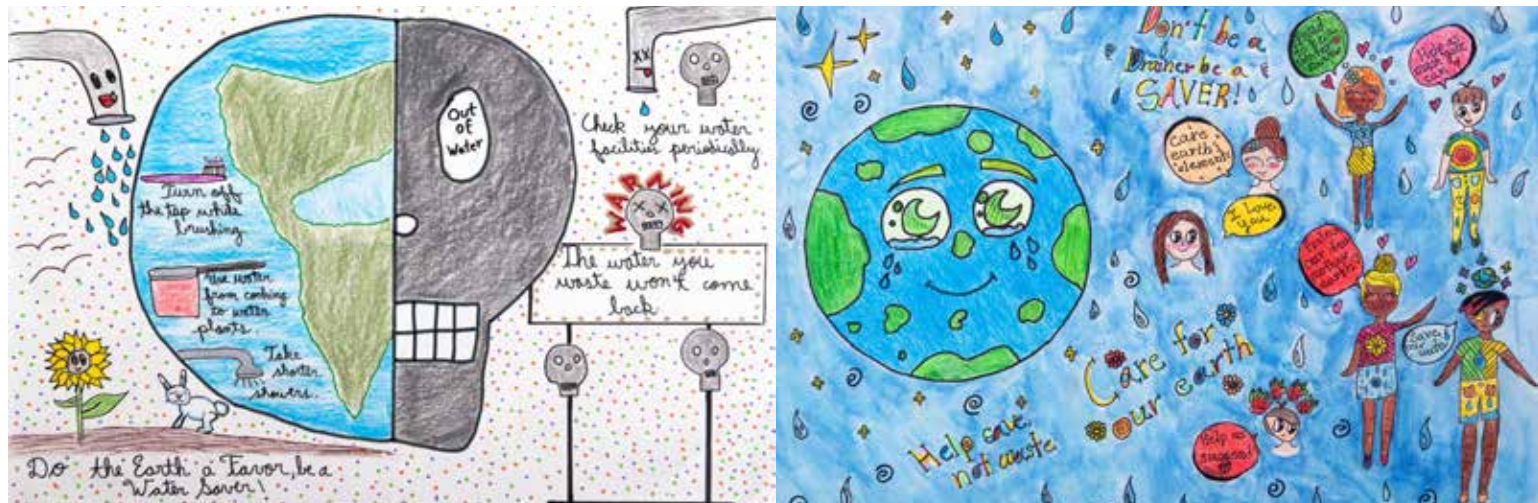
Type of Coverage and Insurance Company	Policy Period	Details of Coverage	Limits of Liability
Crime Policy: Fidelity & Deposit Co. of Maryland	08/19/20- 08/19/21	Employee Dishonesty	\$1,000,000
Money and Securities: Fidelity & Deposit Co. of Maryland	11/25/20- 11/25/21	Theft of money and securities	Values scheduled per location
Accidental Death: Minnesota Life	01/01/20- 01/01/21	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.	03/02/20 – 03/02/21	"All risk" coverage on real and personal property and outfalls	\$200,000,000
Automobile Liability:	Continuous	Self-Insured	\$200,000 per person/\$300,000 per occurrence pursuant to F.S. 768.28 (certain claims may not fall with the parameters of FS)
General Liability:	Continuous	Self-Insured	\$200,000 per person/\$300,000 per occurrence pursuant to F.S. 768.28 (certain claims may not fall with the parameters of FS)
Workers' Compensation:	Continuous	Self-Insured	Statutory coverage pursuant to F.S. 440



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## MIAMI-DADE WATER AND SEWER DEPARTMENT

A DEPARTMENT OF MIAMI-DADE COUNTY, FLORIDA

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