



MIAMI-DADE WATER AND SEWER DEPARTMENT
A DEPARTMENT OF MIAMI-DADE COUNTY, FL
ANNUAL COMPREHENSIVE FINANCIAL REPORT
FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 2021



MIAMI-DADE WATER AND SEWER DEPARTMENT

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ANNUAL COMPREHENSIVE FINANCIAL REPORT

FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 2021

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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FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 2021
 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

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Raquel A. Regalado

District 7

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Javier D. Souto

District 10

Joe A. Martinez

District 11

José "Pepe" Díaz

District 12

René García

District 13

Harvey Ruvin

Clerk of the Circuit and County Courts

Pedro J. Garcia

Property Appraiser

Geri Bonzon-Keenan

County Attorney



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May 31, 2022

Honorable Daniella Levine Cava, Mayor
Honorable Jose P. Diaz, Chairman and Members of the Board of County Commissioners
Honorable Harvey Ruvlin, Clerk of the Circuit and County Courts
Pedro J. Garcia, Property Appraiser
Geri Bonzon-Keenan, County Attorney
Miami-Dade County, Florida

Ladies and Gentlemen:

We are pleased to present the Annual Comprehensive Financial Report of the Miami-Dade Water and Sewer Department (the Department, a.k.a. WASD) for the fiscal year ended September 30, 2021 (FY 2021). 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, 2021, the Department received an unmodified opinion from its independent auditors.

This report may be accessed via the Internet at http://www.miami-dade.gov/wasd/reports_financial.asp. The financial statements comprise the Management's Discussion and Analysis (MD&A), financial statements, notes to the financial statements, and Required Supplementary Information (RSI). Immediately following the independent auditors' report is the MD&A, which provides a narrative introduction, detail overview and analysis of the Department's financial activities for FY 2021. 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 457,286 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 372,681 retail customers and 13 wholesale customers, consisting of 12 municipal customers and the Homestead Air Reserve Base. It consists of three regional wastewater treatment plants (WWTP), over 1,000 sewage pump stations and nearly 6,400 miles of collection and transmission pipelines, manholes, lift stations and force mains. The service area of the system covers approximately 375 square miles. The three WWTPs are the South District, Central District and North District WWTPs. The disposal of the by-products of the treatment process (sludge and effluent or treated wastewater) is an important part of the Department’s plan to improve and expand its sewer system.

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

The South District Wastewater Treatment Plant disposes of its effluent through deep injection wells to the lower Floridan Aquifer at a depth below 2,400 feet. In 1995, the Department completed construction of five additional deep injection wells as part of its 112.5 million gallons per day (MGD) plant expansion project. In FY 2014, the Department finalized operational permit for all the South District’s 17 injection wells, which are now fully operational.

The Department continues to plan, and design reclaimed water facilities. Currently, in FY 2021 the Department reused 13.68 MGD of treated wastewater. Additional capacity for production of reclaimed water currently is available at the South District Wastewater Treatment Plant, with 94.1 MGD of public access reuse quality water produced in FY 2021. 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 2021 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 rebound in economic activity in FY 2021 from the depressed levels of the prior fiscal year helped by increased knowledge of the COVID-19 virus, that there would be effective vaccines rolling out and a unified government in Washington.

Prospects for growth of the United States' economy were 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 conditions in Latin America, after experiencing a 7.4 percent drop in 2020, were projected to expand by 4.1 percent in 2021. A faster expansion in the US economy relative to Latin America was 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 were expected to surpass FY 2020 levels as mortgage rates remained at historically low levels and increased demand and prices would help stimulate increased construction.

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

Miami-Dade's employment was expected to expand as people got used to operating within the confines of pandemic-related restrictions, and more so, as the share of residents vaccinated increased. A continuation of the shift in employment from sectors most-affected by the pandemic to sectors benefited by it was also expected.

As was stated in last year's assessment that: Miami-Dade's economy appeared poised for a modest and fragile rebound in FY 2021. With the degree of expansion dependent, 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.

This forecast of FY 2021 turned out to be a fair assessment of the year to come, with the economy performing, if anything, somewhat better than expected at the time.

The national economy in FY 2021, saw a rebound in economic activity, with real gross domestic product (GDP) increasing at an annual rate of 3.6 percent (5.7 percent for the calendar year), compared to a decrease of 2.2 percent in the prior year (3.4 percent for the calendar year). The increase in GDP was brought about by a rebound in the level of investment that went from a decrease of 6 percent in FY 2020 to an expansion of 7.9 percent in FY 2021, and by a strong showing in personal consumption in FY 2021 of 5.4 percent reversing a 2.6 percent drop in FY 2020. The swift reversal from contraction to expansion coupled with supply chain constraints and easy monetary and fiscal policy resulted in upward pressure on prices. Inflation accelerated from a modest 1.4 percent in FY 2020 to 5.4 percent in FY 2021, the highest pace in almost 40 years (FY1982). This increase in the level of inflation was accompanied by a drop in the headline unemployment rate of 130 basis points to 6 percent.

At the county level, FY 2021 saw its unemployment rate increase, and saw payroll employment fall for the second time after a decade of growth. The residential real estate market experienced a red-hot year with median sales price, single family home sales, condominium sales and new permits for the construction of residential buildings all up by double digits.

After a sharp decline in FY 2020, taxable sales, international trade, visitors to Miami, hotel occupancy rates and average hotel room rates all rebounded during FY 2021 although, with the exception of taxable sales, not yet to pre-pandemic levels.

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 2021, nonagricultural wage and salary employment (annual average) recorded an overall loss of approximately 17,900 jobs. This decrease of 1.5 percent left total employment at 1,138,300 according to non-seasonally adjusted data from the Bureau of Labor Statistics. This loss in employment represented an improvement from the prior year when the decline was 3.6 percent. This employment loss resulted in an increase of the unemployment rate. The average annual unemployment rate for the year reached 7.4 percent, compared to 6.6 percent a year earlier. Breaking down FY 2021 by quarters reveals that the unemployment rate steadily declined over the fiscal year, starting at 8.2 percent in the first quarter and finishing at 6.3 percent in the fourth fiscal quarter.

After deep losses in employment in almost all sectors in FY 2020, the slide continued into FY 2021 although at a slower pace. Leisure and hospitality, the sector that shed the most jobs in FY 2020, continued to do so in FY 2021 with a decline of 5.6 percent or just over 6,900 jobs. The second sector in terms of jobs lost was government with a decline of 4 percent or 5,700 jobs, followed by education and health services with a decline of 1.6 percent or 3,000 jobs. Rounding out the top 5 industries by job losses were: construction with a loss of 2,000 jobs or 3.9 percent; and wholesale trade with a loss of 2,000 jobs or 2.9 percent.

On the plus side, two sectors managed to add to employment in FY 2021: professional and business services, up 3.9 percent or 6,800 jobs and finance, up 1.6 percent or 1,300 jobs.

REAL ESTATE MARKET

Traditionally, the real estate sector in Miami-Dade County is viewed as one of the most important measures of the County's economic health. The effects of the pandemic on the real estate market during FY 2020 were mixed, FY 2021 aided by record low mortgage rates, increases in work from home policies, government stimulus and increased inflation expectations resulted in a red-hot housing market.

The strong housing market in FY 2021 can be seen in an increased number of single-family home sales, condominium sales and residential construction activity.

During FY 2021 sales of existing single-family homes increased 25 percent from the prior year, from 12,730 to 15,880 homes sold. Sales of condominiums increased even more, up 77 percent over the prior year to over 22,000 units sold. Cash sales accounted for 45 percent of all condo sales in FY 2021 in line with the shares since FY 2019.

In terms of valuation, housing price appreciation continued in FY 2021. The median sales price for single family homes rose by 23 percent in FY 2021, more than in the last three years combined. The median sales price for existing condominiums rose by 18 percent in FY 2021, more than in the prior four years combined.

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 FY 2021, with the strong housing market, new filings dropped even further to 1,933.

In terms of new residential construction, following a 19 percent decrease for residential units permitted in FY 2020, FY 2021 saw the number of units permitted increase by 25 percent, to 12,064.

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 2021. The sector experienced slight changes in vacancy rates in FY 2021 compared to the previous year. Office vacancy increased from 9 to 10.5 percent, with the average rental rate per square foot increasing by 2.5 percent. The retail vacancy rate remained stable at just over 4 percent. Average lease rates for retail stand-alone space were increased by 3.8 percent to \$37.89 per square foot while average lease rates in shopping centers increased by 1.9 percent to \$33.03 per square foot. The industrial market saw vacancy rates drop from 4.6 percent in FY 2020 to 3.8 percent in FY 2021. Average lease rates for industrial space remained unchanged at \$11.10 per square foot.

SALES INDICATORS

Taxable sales in Miami-Dade County rebounded strongly in FY 2021 after declining by 13.8 percent in FY 2020. Both, post lock down pent-up demand and government stimulus propelled taxable sales in the county to reverse all the decline of the prior year and then some, increasing by an inflation adjusted 20.7 percent in FY 2021 to its highest level on record, just north of \$61 billion.

After decreases in every category in FY 2020, all categories increased sharply in FY 2021, led by tourism with an increase of \$3.18 billion or 32.1 percent, followed by automobiles (+\$2.48 billion, +31.7%) and consumer nondurables (+\$2.88 billion, +19.3%). The strong showing of taxable sales was reflected in the index of Retail Activity which, after contracting by 26 points in FY 2020, rebounded by a record 36 points in FY 2021 to a level of 195.

INTERNATIONAL TRADE AND COMMERCE

International trade and commerce is a key component of Miami-Dade's economy. Since surpassing \$90 billion (2021 inflation adjusted dollars) in trade measured by value pre-pandemic in FY 2018, merchandise trade passing through Miami-Dade County fell 14.9 percent in FY 2020, meanwhile, with the nationwide vaccine distribution efforts last year tied to the pandemic, merchandise trade bounced back, adding an additional 9.4 percent since FY 2020 to \$88 billion in FY 2021.

In contrast to the recurring merchandise trade deficits that the United States maintains year after year, Miami-Dade ports traditionally export more than they import, resulting in a trade surplus over the years. The recent pandemic converted the already narrowed surplus in FY 2020 to deficit in FY 2021, after imports increased by 19 percent, which was more than the increase of exports, 0.8 percent. Most of the Miami-Dade import markets are in Asia-Other, Central America and the Caribbean, and together with South America, account for more than 73% 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 increased 19.5 percent in FY 2021 after declining 1.3 percent the preceding year. At PortMiami, cargo tonnage figures were up by 6.0 percent after decreasing by 9.9 percent the prior fiscal year. PortMiami accounts for 86 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. FY 2021 saw a rebound in overnight visitors to 110 million.

In tandem with the rest of the state, visitors to the Miami area dropped sharply in FY 2020, to 9.1 million overnight visitors, and rebounded in FY 2021 to 13.4 million overnight visitors, still below its 16.2 million level from FY 2019. The number of international visitors remained low, at less than half its pre-pandemic level, but domestic visitors increased by more than 4 million in FY 2021.

Consistent with the trend in overnight visitors, MIA passenger levels stood at 32.5 million in FY 2021, representing an annual increase of 36 percent, after decreasing 48 percent in the prior year. Even harder hit by the pandemic than the overall tourism sector was the cruise industry, subject to a complete regulatory shutdown there were no cruise passenger counts during the last quarter of FY 2020 nor the first three quarters of FY 2021, with a partial reopening in the last quarter, cruise passenger counts closed at 250 thousand for FY 2021 just a fraction of the pre-pandemic level of over 6 million passengers.

The increase in overnight visitors, was reflected in an increase in the hotel occupancy rate from 51.6 percent in FY 2020 to 60.7 percent in FY 2021. This increase in the occupancy rate was coupled with an increase in the average room rate from 164 dollars in FY 2020 to 197 dollars in FY 2021.

FUTURE OUTLOOK

While FY 2020 saw the beginning of the pandemic with its related heightened level of uncertainty and the most stringent lock downs, FY 2021 benefited from a greater knowledge of the virus as well as from the approval and distribution of vaccines and a loosening of restrictions.

In the first quarter of FY 2021 COVID Vaccines were authorized. By the end of the second quarter, 30 percent of the US population had been vaccinated and by the end of the fiscal year that number rose to 57 percent. With these developments, economic indicators both at the national and county level showed improvement in each subsequent quarter of FY 2021. This continued improvement points to at FY 2022 of continued growth.

Because of its location and economic trade and tourism ties, Miami-Dade's economy is influenced by developments in both the broader US and Latin American and Caribbean economies.

On the domestic front, the overall United States economy is expected to continue its recovery. After a strong showing in FY 2021, it is expected that the U.S. will continue to outperform other countries of the world as capital seeks safety and flows into the country. After a FY 2021 that saw steady improvements from quarter to quarter, it is possible that the trend will not continue throughout FY 2022 as fiscal stimulus fades due to gridlocks in Congress and monetary policy tightens due to fears of protracted inflation.

Prospects for growth of the United States' economy are thought to reach 4.0 percent in calendar year 2022, after shooting up to 5.7 percent in calendar year 2021, 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 6.8 percent increase in 2021, is expected to expand by 2.4 percent in 2022. 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 an expansion of the trade deficit flowing through Miami-Dade ports.

Real estate and construction activity in FY 2022 are expected to remain robust with possible moderation towards the end of the Fiscal Year as financial conditions start to tighten due to changes in monetary policy.

Tourism indicators should continue to improve across the board, with visitors, airline passengers and hotel occupancy gaining from their FY 2021 levels and with with cruise ship passenger numbers increasing substantially from the lows of FY 2020 and 2021.

Employment should expand as economic activity returns to a less disrupted phase, with employment rebounding strongest in sectors hardest hit by the pandemic such as leisure and hospitality.

In conclusion, evaluating all the likely developments in major areas of the economy leads to a forecast that the Miami-Dade economy appears poised for continued growth in FY 2022. The strong momentum of growth passed from FY 2021 to FY 2022 will fuel the continued growth. And while loss of fiscal stimulus and tightening of monetary policy will work on the opposite direction, the effects are more likely to show up in FY 2023. Finally, just like the open question for FY 2021 was the severity of the pending pandemic, the open question for FY 2022 is the level to which the conflict between Russia and Ukraine will have on the global economy.

Water System

Water-Use Efficiency Plan

The Water Use Efficiency Plan (Plan) is in its fourteenth year of operation as required by the 20-year Water Use Permit (WUP) issued in 2007 by the South Florida Water Management District (SFWMD) and approved by the Miami Dade County (County) Board of County Commissioners. The Plan requires implementing indoor and outdoor water conservation Best Management Practices (BMPs) through a quantifiable process that provides for accountability of water saved through the Plan. Indoor BMPs include rebates for purchase and installation of high-efficiency fixtures including toilets, faucets, and showerheads. Outdoor BMPs include rebates for retrofits and 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, promoting the use of Florida Friendly landscape principles, educational outreach campaigns to residents and businesses, and utility water loss reduction efforts. These initiatives have reduced finished water demand by 17 MGD as of December 31, 2020, 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 are a list of current indoor and outdoor BMPs implemented by Miami Dade County:

- High-efficiency fixture rebates including toilets, faucets, and showerheads for single-family and multi-family properties
- Senior high-efficiency toilet rebates
- High-efficiency rebates for commercial and lodging facilities
- Free high-efficiency showerhead exchange program for single-family and multi-family properties
- Free high-efficiency showerhead exchange program for lodging facilities
- Landscape irrigation evaluation rebates for residential and commercial properties
- Landscape ordinances requiring the use of Florida Friendly principles
- 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.

At the request of the SFWMD, the County is in the process of updating its permanent landscape irrigation ordinance to incorporate all SFWMD's rule elements that were not included in the initial ordinance or had been formulated since that time.

Water Reclamation

Reclaimed water is highly treated, filtered, and high-level disinfected wastewater that is reused for a variety of purposes. Reclaimed water can replace or supplement groundwater supplies for certain types of use. Currently, the Department has been able to replace potable water used for process water at its wastewater treatment plants with reclaimed water. Valuable drinking water is thus conserved by using reclaimed water in

several wastewater treatment plant processes. The Department also signed an agreement with FPL to provide up to 15 million gallons per day (mgd) of treated effluent from the South District Wastewater Treatment Plant, which will be further treated at an Advanced Reclaimed Water Plant to be built by FPL to convert it into process water and used for cooling towers at the Turkey Point complex. The Department also continues to evaluate opportunities for cost-effective use of reclaimed water that can reduce demands for potable water and meet the need for additional water for restoration and enhancement of the environment, cooling water, scrubber water, irrigate certain landscaping, and serve industrial water demands for electrical production and air conditioning. Additional opportunities are being explored.

Water and Wastewater Transmission System Computer Models

The Department maintains Water and Wastewater Transmission System Computer Models, which operate with the Geographic Information System (GIS) data on the respective systems. These models are critical for planning and evaluating the availability of system capacity for new developments and system upgrades. The models are also used for the identification of long-range improvements to transmission system facilities, including pumping stations and pipelines as part of Water, Wastewater, and Reclaimed Water Integrated 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 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, 2021, the County's Consent Decree Program has completed fifty-one (51) of its capital improvement projects with an approximate total cost of \$639 million. Twenty-five (25) projects are currently in construction with an approximate total cost of \$1.141 billion, and five (5) projects, estimated at \$175 million, are in the planning, design, permitting and/or procurement phases.

During FY 2021 the Consent Decree Program completed an additional 7 projects, met the projected total program fiscal expenditures of \$220 million, and reached a total expenditure of \$1.262 billion since inception.

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

Implementation of the Consent Decree is underway, and the County remains fully committed in completing the mandated Consent Decree Capital Improvement Projects by 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 (FPL) 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 throughout Miami-Dade County that are owned or operated by the Department. Projects include the upgrade of sewer pump stations, including the installation of new pumps, electrical upgrades, reduction of infiltration and 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 considered several 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, 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.

Currently, WASD is transitioning the assessment and management of the design and construction of pump station rehabilitation and upgrade projects to be performed by in-house staff and for this has created the Pump Station Rehabilitation and Resilience Program. This shift will yield cost saving and time efficiencies, as well as a proactive approach to addressing deficiencies in operations, exceedance in pump runtime and vulnerability in the system due to climate change and aging infrastructure.

Infiltration and Inflow (I & I) Reduction Program

The 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, the reduction of treatment and pumping costs, and overall effective service delivery. The FRP aims to reduce average and peak flows in the sewer system significantly and cost-effectively. In addition, this reduction of flow into the conveyance system provides an opportunity to reduce the required capacity improvement infrastructure projects, thereby offering additional savings to the Department and ratepayers. The objective of the FRP is to develop a cost-effective solution that reduces I/I while prioritizing repairs and quantifying savings.

The Department continues to perform sanitary sewer evaluation surveys on the approximate 6,500 miles of sewage collection mains and laterals. During Fiscal Year 2021, more than 3,541 repairs were performed to the gravity system. Resulting in 1,621 digital manhole inspections, 339,601 lineal feet of gravity sewer mains cleaned and inspected via CCTV, 44 total manhole rehabilitations, 18 major wet wells cleaned, 610 installed cured-in-place liners totaling 37,472 lineal feet of rehabilitated gravity sewer mains. These activities help reduce miscellaneous water entering the wastewater collection system through defects in existing pipe systems. This, in turn, reduces the cost associated with wastewater treatment and disposal.

Supervisory Control and Data Acquisition System (SCADA)

Essential to the Department's daily operations is the ability to monitor and control its water and wastewater functions from a remote location. The Department's SCADA system is at the heart of this capability and is one of the largest of its kind in the country. The SCADA system, which is particularly important in cases of emergency operations and as a tool in meeting requirements of the Consent Decree/Settlement Management (CD/SA) program, has allowed workers in the Department's 24-hour emergency call center to continuously oversee the operations at its pump stations. It has also allowed water and wastewater treatment plant operators to manage plant functions from remote SCADA terminals, providing an increased level of efficiency. To-date, all pump stations owned and operated by the Department have SCADA installed.

The Department's three regional water and three regional wastewater treatment plants also have SCADA installed and operational. All water wellfields are monitored and controlled by SCADA, and all 95 production wells have flow meters installed with SCADA monitoring for compliance with SFWMD regulations.

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

Performance Improvement

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

The business plan is prepared in accordance with the process prescribed by the County's Office of Management and Budget. The plan identifies key issues and priority initiatives, in keeping with the County's Strategic Plan and in furtherance of the Department's mission. Performance measures are developed and

aligned with each division's key priorities and associated resources, to allow the Department to meet the defined objectives. The business plan is currently being updated.

Rate Increase

On September 30, 2020, the Board of County commissioners adopted County Budget Ordinance Number 20-96 authorizing continued modifications to the Department's retail tiered-based structure effective October 1, 2020. The median monthly water and sewer bill of the residential customer using 5,236 gallons (7 ccf) per month was \$50.50, or \$3.01 higher from the prior year's bill of \$47.49. In addition, the County Budget Ordinance increased the water wholesale rate by \$0.1043, or to \$1.7947 per thousand gallons from \$1.6904, and the wastewater wholesale rate by \$0.1017 per thousand gallons to \$3.2971 from \$3.1954.

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).

May 28, 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. The second WIFIA loan was executed at an interest of 1.38%

July 15, 2020, the Department received its third consecutive WIFIA low-interest loan from the EPA at an interest rate of 1.27%. The Department will use the \$235 million dollars to fund nearly half of a \$480 million upgrade to the department's south district wastewater treatment plant, and additional industrial injection wells related to the Ocean Outfall Reduction and Resiliency Enhancement Project.

At the end of FY 2021, the fourth consecutive low-interest EPA WIFIA loan was closed with an interest rate of 1.82%. The Department is the only government agency in the nation to receive four consecutive low interest allocation since the inception of the WIFIA program. This \$424.2 million loan will provide funding for improvements to the North and Central District Wastewater Treatment plants totaling \$865.8 million

To date, the Department has received a total of \$1.1 billion in WIFIA loans. These loans will help to finance approximately \$2.2 billion worth of projects with the department's multi-billion-dollar CIP, create 760 direct jobs and save ratepayers \$297.6 million in interest for the life of these loans when compared to other financing options.

Building Better Communities General Obligation Bonds (GOB)

In November 2004, Miami-Dade County voters approved a \$2.9 billion bond program 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 are underway. Also, Basis of Design Report for ten (10) areas within the commercial corridor began in FY2016 and is ongoing. Other planned projects include water and wastewater main installation, pump station rehabilitation projects. GOB funding has been utilized to mediate the risk of Dieldrin contamination of private wells in the Falls area at Caribbean Estates an extensive area at Continental Park. As of September 30, 2021 the Department has access to \$23.5 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 2021, 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:

- Meter Analysis
- Data Warehousing Auditing Reports
- Report Portal
- SCADA Actuals (Supervisory Control and Data Acquisition)
- MWM Task Scheduling (Mobile Workforce Management)

- Executive Dashboard rebuild from Pyramid and other Pyramid report conversion
- Pump Station Performance
- Consumption Reports
- Retail Customer Division Activity Log Report

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

Phase 1 of the new Modern Data Architecture (MDA) was completed. This architecture enhances and improves existing cloud data warehousing functionality by providing additional performance and lays the foundation for predictive analytics. Initial phase uses the latest technologies for better performance, development maintainability and advanced storage capabilities. Subsequent phases will include additional datasets from operational systems including Financials, SCADA, EAMS (Enterprise Asset Management System), and supporting systems.

SharePoint/Intranets

All WASD Intranet sites have been converted to SharePoint Online. This cloud-based environment provides a robust, user-friendly ecosystem that allows users to share and collaborate information within the WASD department. Information is available from anywhere on any type of device with a web browser that is connected to the County network. It provides a rich user experience for sharing files and storing documents and provides users flexibility and freedom to manage their own lists and document libraries. In addition, it provides a development platform for specialized applications within the same framework when needed.

We continue to expand our Divisional Team sites as they are requested and enhance existing sites with advanced functionality. Several areas are starting to use SharePoint for task tracking with enhanced workflow functionality to keep track of department tasks with automated notifications and updates.

In-house Development

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 2021, we continue to gain progress with several ongoing projects undertaken; Lenel Access Control & Badging and INFO360 to name a few. In addition, 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 Payment Extension were developed. This feature to allow customers to request online time extensions to pay their bills with direct integrations to WASD's Payment Processor vendor to take partial payments when applicable, and to WASD's Customer Care and Billing system to generate automated extension process. Another new feature developed was the Reconnect request, which allows customers who have had their service stopped for non-payment to make payment, which immediately triggers the order to send crew to reconnect their service. One other project included automatically granting Payment Plans to customers that needed assistance after the Moratorium was lifted. On-going projects included a new Self-Service feature called Customer Call-Ins, to allow customers to submit reads for submeters associated to a main meter for cooling towers.

Future projects include implementation the upgrade of Customer Care and Billing (CCB) system.

Enterprise Resource Planning (ERP) Financials

In FY 2021, the Department was focused on development efforts to support the countywide ERP implementation or INFORMS project. Rollout 1 of INFORMS replaced ADPICS and FAMIS and required redevelopment of procurement integrations to WASD's ERP implementation, not yet to be folded to INFORMS. This effort was successfully implemented with minimal impact to WASD operations. Rollout 2 of INFORMS project is underway and will involve the replacement of current Time & Labor and Payroll systems. ITD has been redeveloping custom solutions in Time & Labor and assisting with parallel testing efforts. Other key initiatives included the development of the integrations to eBuilder, ACH CTX payments to FPL for WASD electricity invoices, and initiated the implementation of the Workiva software to support preparation of the Annual Comprehensive Financial Report.

Enterprise Asset Management System (EAMS)

In FY 2021, two Asset Management Framework (AMF) initiatives were completed to support the Pump Station Maintenance Division: the automation of data capture for preventative maintenance work orders in EAMS and enhancements to the Work Mobile application. Major enhancements were made to the Work Mobile application including adding checklist functionality, map and document improvements, and configuration enhancements and bug fixes. In addition, 100 new tablets were deployed, and replacement of old tablets is underway. Numerous enhancements to the base product were also completed, including support for overtime tracking and fleet management.

eBuilder Implementation

In FY 2021, the initial rollout of eBuilder for the Capital Improvement Projects (CIP) was completed. This included implementing the projects for the Ocean Outfall Legislation Program. ITD deployed integrations to ERP, migrated all project documents, and assisted with data migration/clean-up tasks. The migration of the WASD Managed projects to eBuilder is now in progress. Support for the eBuilder WASD Development Projects production instance continued.

Geographic Information System (GIS) Solutions

Well and Septic to Sewer Solution proof of concept (POC) viewer was initiated in FY 2021 as a collaborative effort between WASD, Miami-Dade County Department of Environmental Resources Management and other departments for prioritizing County wide septic to sewer projects and septic vulnerability to groundwater intrusion. Due to this effort WASD has been able secure Ten Million Dollars, with approximately Two Hundred Fifty Million Dollars pending review and approvals. This solution includes an automated and robust geospatial process that produces numerous layers and datasets, which highlight potential wells and septic systems, septic vulnerability, and other potential data issues throughout the County.

MyWASD Utility Coordination process continues for FY 2021 as WASD and the Geospatial Utility Solutions (GUS) group coordinate to bring in additional Municipalities to the County wide process for utility coordination of roadway construction projects. This year the City of Miami finalized the MOU allowing WASD to share submitted roadway project data with the rest of the public. Additionally, we continuing to work with the City of Coral Gables' IT and Right of Way (ROW) department for finalizing their data as well.

AutoCAD to GIS Solution phase 2 was initiated for FY 2021. This solution will provide additional schema support for contractors submitting Autodesk/CAD projects in Civil 3D and Pressure pipe networks. The CAD files will be processed and migrated to a GIS intermediate layer for additional quality checks before being incorporated into the production geospatial network. Internal testing and peer review has been on-going as we continue to finalize the GIS process integration with eBuilder and the WASD Data Maintenance team. Once completed the automated process will provide a seamless integration between eBuilder and GIS for importing and validating submitted As-Built projects based on WASD standards and significantly reduce project digitization into GIS.

As-built to GIS process improvements were implemented in FY 2021 to streamline the digitization of WASD utility assets in GIS. The measures taken were starting a bi-weekly review meeting with WASD and GIS Data Maintenance staff, creation of new statuses in e-Builder, creation of an expedited as-built to GIS process which allows Data Maintenance to digitize as-builts using judgement calls based on experience and

decisions made in the bi-weekly review meetings. The bi-weekly meeting provided the opportunity to review as-builts with issues that could not be digitized by established best practices, instructions given by WASD on how to proceed are added to the SOP for future reference when similar issues arise. The new e-Builder statuses simplified the accept/revise step and made it possible for Data Maintenance staff to digitize and accept as-builts with minor issues without revising back to WASD for corrections; the issues were documented in e-Builder for WASD's review. The expedited digitizing process has resulted in a 22% improvement in the time to complete the as-built process.

COMMUNITY OUTREACH

The Department's Office of Public Engagement 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.

In 2021, Public Engagement had additional targeted marketing campaigns as it related to the on-going COVID-19 pandemic. This included informing the public that the drinking water had not been impacted by Coronavirus, as well as messaging customers to "pay what they can, when they can" do avoid accumulating multiple bill balances while there was a moratorium on service disconnections for non-payment.

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 Annual Comprehensive Financial Report for the fiscal year ended September 30, 2020. The Certificate of Achievement is a prestigious national award that recognizes conformance with the highest standards for preparation of state and local government financial reports. To be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized annual comprehensive financial report, whose contents conform to program standards. Such report must satisfy both generally accepted accounting principles and applicable legal requirements. A Certificate of Achievement is valid for a period of one year only. The Department has received a Certificate of Achievement for the past 38 fiscal years. We believe our current report continues to conform to the Certificate of Achievement program requirements and are submitting it to the GFOA.

ACKNOWLEDGMENTS

We would like to thank all the Department's employees for their hard work and dedication during the past fiscal year. We would also like to thank the Department's Controller Division and the 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.



Roy Coley
Director



Frances G. Morris
Deputy Director, Chief Financial Officer



Government Finance Officers Association

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

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

For its Annual Comprehensive
Financial Report
For the Fiscal Year Ended

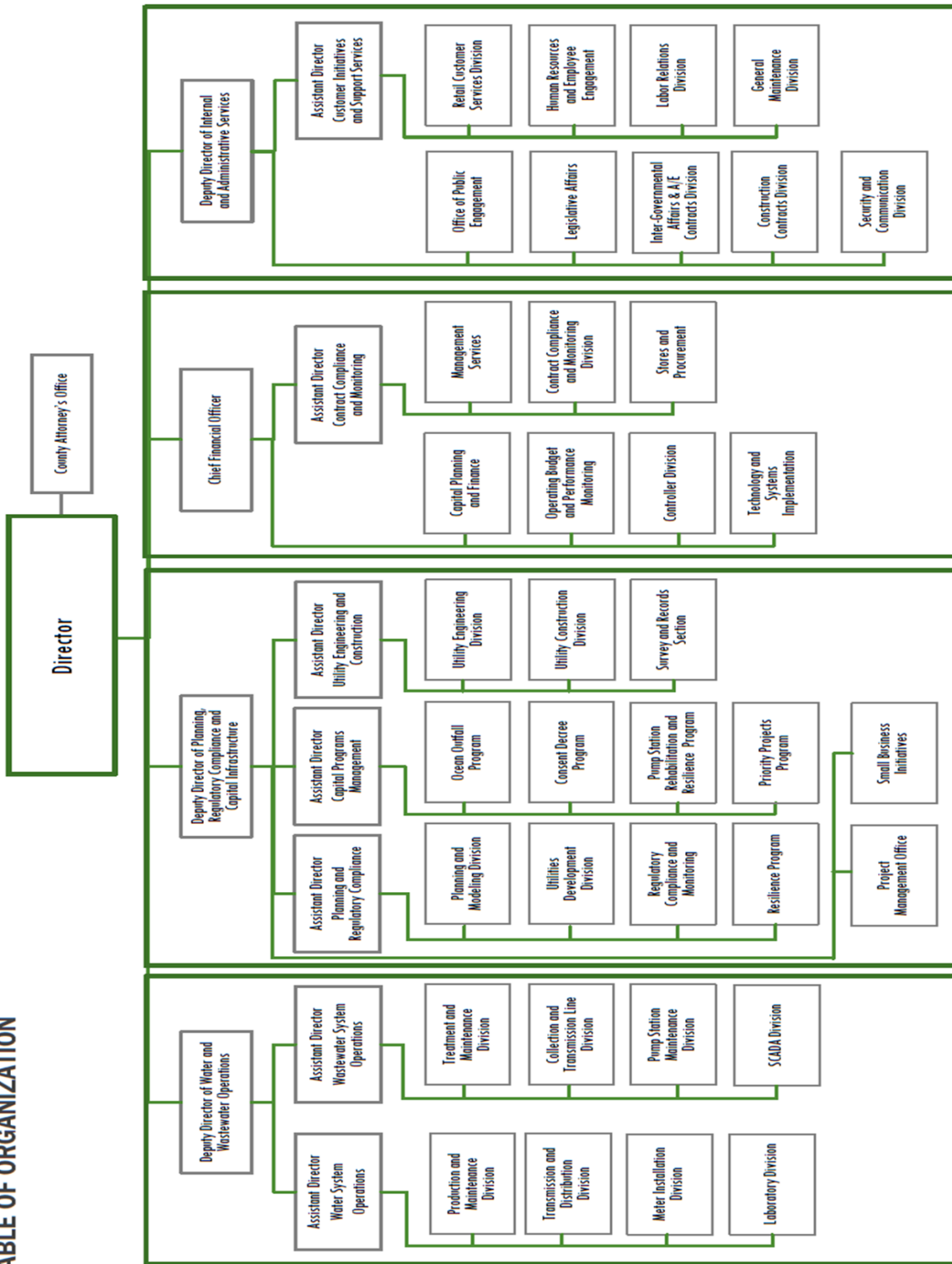
September 30, 2020

Christopher P. Morill

Executive Director/CEO

ORGANIZATIONAL CHART

MIAMI-DADE WATER AND SEWER DEPARTMENT TABLE OF ORGANIZATION



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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, 2021, 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, 2021, and the respective changes in financial position and cash flows thereof 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, 2021, 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 28-31, and the schedule of changes in total OPEB liability and related ratios, the schedules of the Department's proportionate share of the net pension liability and the schedules of Department contributions on pages 63-65 be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the financial statements, and other knowledge we obtained during our audit of the financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary 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 May 31, 2022, 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 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
May 31, 2022

Management's Discussion & Analysis

OVERVIEW

The following Management's Discussion and Analysis (MD&A) serves as an introduction to the financial statements of the Miami-Dade Water and Sewer Department (the Department) for the fiscal year ended September 30, 2021. 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, 2021 and 2020 is shown on the following page. The unrestricted portion of net position (available to meet ongoing and future obligations of the Department) decreased by \$24.2 million, or 12.61% in 2021.

Total expenses increased by \$22.1 million, or by 2.7%, in 2021. 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, 2021 is approximately \$2.7 billion. The Department's total net position increased by \$48 million, or by 1.82%.

Management's Discussion & Analysis

	(In thousands)	
	2021	2020
SUMMARY OF NET POSITION		
Current and other assets	\$ 2,121,145	\$ 1,379,515
Capital assets, net	5,315,561	5,090,429
Total assets	<u>7,436,706</u>	<u>6,469,944</u>
Deferred outflows of resources	200,970	231,697
Total assets and deferred outflows of resources	<u>7,637,676</u>	<u>6,701,641</u>
Current liabilities	384,999	395,183
Long-term liabilities	4,432,778	3,648,093
Total liabilities	<u>4,817,777</u>	<u>4,043,276</u>
Deferred inflows of resources	120,139	6,914
Total liabilities and deferred inflows of resources	<u>4,937,916</u>	<u>4,050,190</u>
Net position		
Net investment in capital assets	1,967,212	1,967,658
Restricted	564,710	491,735
Unrestricted	167,838	192,058
Total net position	<u>\$ 2,699,760</u>	<u>\$ 2,651,451</u>
SUMMARY OF CHANGES IN NET POSITION		
Water operating revenues	\$ 375,809	\$ 341,959
Wastewater operating revenues	451,316	427,522
Investment income	1,445	14,559
Other nonoperating revenues	29,892	35,412
Total revenues	<u>858,462</u>	<u>819,452</u>
Water source of supply	14,291	14,179
Water power and pumping	2,106	2,040
Water purification	71,767	64,517
Water transmission and distribution	37,825	40,328
Wastewater collection system	36,695	33,169
Wastewater pumping	53,855	50,188
Wastewater treatment	107,045	100,505
Customer accounting	34,660	25,163
Customer service	24,966	24,568
General and administrative	93,828	124,023
Depreciation	226,059	206,311
Interest expense	129,755	122,239
Other nonoperating expenses	15,689	19,205
Total expenses	<u>848,541</u>	<u>826,435</u>
Income (loss) before contributions	9,921	(6,983)
Capital contributions	38,388	57,949
Increase in net position	48,309	50,966
Net position at beginning of year	2,651,451	2,600,485
Net position at end of year	<u>\$ 2,699,760</u>	<u>\$ 2,651,451</u>

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, 2021 and 2020 (in thousands). Total Capital Asset increased by \$225.1 million, or 4.4%. This increase was due to an increase in capital additions, net of plant retirements and reclassifications of \$385.3 million, offset by \$160 million net increase in accumulated depreciation. Additional information on changes in capital assets can be found in Note 6 to the financial statements.

	(In thousands)	
	2021	2020
Land	\$ 80,571	\$ 80,563
Structures and improvements	3,162,774	2,944,630
Equipment	404,707	379,580
Construction work in progress	1,667,509	1,685,656
Total capital assets	<u>\$ 5,315,561</u>	<u>\$ 5,090,429</u>

This year's major expenditures in capital assets included:

Water projects:

- Transmission mains, meters, and services (\$36.5 million)
- Treatment facilities and equipment (\$18.4 million)
- Hydrants and Related Costs (\$2.4 million)
- Transportation equipment (\$3.3 million)
- Construction equipment (\$3.3 million)

Wastewater projects:

- Treatment facilities (\$275.9 million)
- Force mains (\$18.0 million)
- Pump stations (\$39.0 million)
- Inflow/infiltration/exfiltration (\$5.3 million)
- Gravity mains and services (\$10.4 million)

Budgeted capital expenditures for fiscal year 2022 amount to \$719 million and include \$162 million in water projects and \$557 million in wastewater projects.

LONG-TERM DEBT

Long-term debt outstanding (including current portion) at September 30, 2021 and 2020 is presented in the following table. FY 2021 shows an increase of \$922.0 million from FY 2020.

	(In thousands)	
	2021	2020
Revenue bonds	\$ 4,146,417	\$ 3,236,961
State loan obligations	197,807	185,282
Notes payable	1,284	1,229
Total long-term debt	<u>\$ 4,345,508</u>	<u>\$ 3,423,472</u>

Management's Discussion & Analysis

In April 20, 2021, the Department issued the Water and Sewer System Revenue Bonds, Series 2021 for \$605.6 million. The Series 2021 Bonds are used to pay the cost of the Series 2021 Projects, make a deposit to the Reserve Account, and pay the costs of issuance of the Series 2021 Bonds.

In July 8, 2021, the Department issued the Subordinate Water and Sewer System Revenue Bonds, Sub Series 2021 for \$236.1 million. The Sub Series 2021 Bonds will be used to pay the costs of the Series 2021 Projects and pay the cost of issuance of the Series 2021 Subordinate Bonds.

In September 15, 2021, the Department received its fourth consecutive WIFIA low-interest loan from the US EPA. The Department is the only government agency in the nation to receive funding allocations from the first four offerings, an estimated total of \$1.1 billion of the Water Infrastructure Finance and Innovation Act (WIFIA). The Department will use the \$424 million dollars to fund nearly half of \$865.8 million in upgrades to the Central and North District Wastewater Treatment Plants.

The Department is required to maintain rates and charges sufficient to meet three tiers of debt service coverage requirements. First, adjusted annual net operating revenues must equal or exceed 1.25 percent of the debt service on senior lien revenue bonds. The Department met the primary debt coverage for the year with a ratio of 1.74 percent. Second, adjusted net operating revenues, after payment of revenue bond debt service, must be at least equal to 5.88 percent of the debt service for the subordinate state loan obligations. The Department met the second debt service coverage with a ratio of 7.50 percent.

REQUEST FOR INFORMATION

Questions concerning this report or request for additional information should be directed to Frances G. Morris, Chief Financial Officer at 786-552-8104 or, at her office address at 3071 SW 38th Avenue, Miami, Florida 33146.

Statement of Net Position

	September 30,	<u>2021</u>
		(In thousands)
ASSETS		
<i>CURRENT ASSETS:</i>		
Cash and cash equivalents	\$	32,190
Investments		101,057
Accounts receivable (net of allowance for uncollectible accounts of \$59.3 million)		202,569
Inventory of materials and supplies		46,283
Other current assets		1,448
Restricted cash and cash equivalents		274,354
Total current assets		<u>657,901</u>
 <i>NONCURRENT RESTRICTED ASSETS:</i>		
Restricted cash and cash equivalents		97,787
Investments		1,359,081
Long-term receivable		2,000
Total restricted assets		<u>1,458,868</u>
 <i>OTHER ASSETS:</i>		
Bond insurance		283
Other charges, net		4,093
Total other assets		<u>4,376</u>
 <i>CAPITAL ASSETS:</i>		
Land		80,571
Structures and improvements		5,875,729
Equipment		1,438,691
Utility plant in service before depreciation		7,394,990
Less accumulated depreciation		(3,746,939)
Net utility plant in service		3,648,051
Construction work in progress		1,667,509
Total capital assets		<u>5,315,561</u>
Total noncurrent assets		<u>6,778,805</u>
Total assets		<u>7,436,706</u>
 <i>DEFERRED OUTFLOWS OF RESOURCES:</i>		
Loss on refundings		145,617
Outflow related to pension		41,104
Outflow related to post-employment benefits		14,249
Total deferred outflows of resources		200,970
Total assets and deferred outflows of resources	\$	<u>7,637,676</u>

(Continued)

Statement of Net Position

(Continued)	September 30,	<u>2021</u>
		(In thousands)
LIABILITIES		
<i>CURRENT LIABILITIES (PAYABLE FROM UNRESTRICTED CURRENT ASSETS):</i>		
Accounts payable and accrued expenses	\$	74,511
Customer and developer deposits		18,947
Liability for compensated absences		11,517
Other liabilities		5,670
Total current liabilities (payable from unrestricted current assets)		<u>110,645</u>
<i>CURRENT LIABILITIES (PAYABLE FROM RESTRICTED CURRENT ASSETS):</i>		
Accounts payable and accrued expenses		63,999
Retainage payable		38,078
Current portion of long-term debt		96,337
Accrued interest payable		74,798
Liability for self insurance		1,142
Total current liabilities (payable from restricted current assets)		<u>274,354</u>
Total current liabilities		<u>384,999</u>
<i>NONCURRENT LIABILITIES:</i>		
Revenue bonds payable, net		4,064,162
State loan obligations, net		183,726
Notes Payable		1,284
Liability for self-insurance		3,189
Liability for compensated absences		45,509
Liability for post-employment benefits		58,794
Net pension liability		76,114
Total noncurrent liabilities		<u>4,432,778</u>
Total liabilities		<u>4,817,777</u>
<i>DEFERRED INFLOWS OF RESOURCES:</i>		
Inflow related to pension		116,197
Inflow related to post-employment benefits		3,942
Total deferred inflows of resources		<u>120,139</u>
Total liabilities and deferred inflows of resources		<u>4,937,916</u>
NET POSITION		
Net investment in capital assets		1,967,212
Restricted for:		
Capital projects		317,431
Debt service		247,279
Unrestricted		167,838
Total net position		<u>2,699,760</u>
Total liabilities, deferred inflows of resources and net position	\$	<u><u>7,637,676</u></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,

2021

(In thousands)

OPERATING REVENUES:

Water	\$	375,809
Wastewater		451,316
Total operating revenues		827,125

OPERATING AND MAINTENANCE EXPENSES:

Water source of supply		14,291
Water power and pumping		2,106
Water purification		71,767
Water transmission and distribution		37,825
Wastewater collection system		36,695
Wastewater pumping		53,855
Wastewater treatment		107,045
Customer accounting		34,660
Customer service		24,966
General and administrative		93,828
Total operating and maintenance expenses		477,038

Operating income before depreciation		350,087
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DEPRECIATION EXPENSE

226,059

Operating income		124,028
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NON-OPERATING REVENUES (EXPENSES):

Investment income		1,445
Interest expense		(129,755)
Amortization of issuance costs		(13,799)
Disaster Revenue		367
Customer connection fees		28,097
Other revenues		1,428
Other expenses		(1,890)
Income (loss) before contributions		9,921

Capital contributions		38,388
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Increase in net position		48,309
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Net position at beginning of year		2,651,451
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Net position at end of year	\$	2,699,760
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The accompanying notes to financial statements are an integral part of this statement.

Statement of Cash Flows

For the fiscal year ended September 30,

2021

(In thousands)

CASH FLOWS FROM OPERATING ACTIVITIES:

Cash received from customers	\$ 808,863
Cash paid to suppliers for goods and services	(197,490)
Cash paid to employees for services	(260,901)
Net cash provided by operating activities	<u>350,472</u>

CASH FLOWS FROM NON-CAPITAL FINANCING ACTIVITIES:

Long Term Receivable	1,000
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	1,030,089
Principal payments - bond, loans	(93,017)
Interest paid	(134,490)
Acquisition and construction of capital assets	(430,216)
Net cash provided by capital and related financing activities	<u>372,366</u>

CASH FLOWS FROM INVESTING ACTIVITIES:

Purchase of investment securities	(1,938,407)
Proceeds from sale and maturity of investment securities	1,321,651
Interest on investments	2,788
Net cash used by investing activities	<u>(613,968)</u>

Net increase in cash and cash equivalents, and restricted cash and cash equivalents	109,869
Cash and cash equivalents, including restricted cash and cash equivalents, at beginning of year	<u>294,462</u>

Cash and cash equivalents, including restricted cash and cash equivalents, at end of year	<u>\$ 404,331</u>
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Statement of Cash Flows

(Continued)	For the fiscal year ended September 30,	<u>2021</u>
		(In thousands)
<i>RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES:</i>		
Operating income		\$ 124,028
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation		226,059
Provision for uncollectible accounts		27,305
Non-operating other, net		114,663
(Increase) decrease in assets and deferred outflows:		
Accounts receivable		(48,734)
Inventory of materials and supplies		(1,767)
Other current assets		30
Contracts/Grants receivable		77
Other charges		5,740
Deferred outflows related to pension and OPEB		23,105
Increase (decrease) in liabilities and deferred inflows:		
Accounts payable and accrued expenses		(7,586)
Customer and developer deposits		503
Accrued interest payable		11,019
Liability for compensated absences		4,984
Other liabilities		(101,941)
Liability for other post-employment benefits		360
Liability for self-insurance		469
Net pension liability		(141,066)
Deferred Inflows related to pension and OPEB		113,224
		<hr/>
Net cash provided by operating activities		<u>\$ 350,472</u>

NONCASH INVESTING, CAPITAL AND FINANCING ACTIVITIES

Property, plant and equipment contributions were received in amounts of \$38.4 million in fiscal year 2021.

The change in the fair value of investments was a \$0.4 million decrease in fiscal year 2021.

RECONCILIATION OF CASH AND CASH EQUIVALENTS AT END OF YEAR

Unrestricted current cash and cash equivalents	32,190
Restricted current cash and cash equivalents	274,354
Restricted noncurrent cash and cash equivalents	\$ 97,787
Total cash and cash equivalents at end of year	<u>\$ 404,331</u>

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

Notes to Financial Statements

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

REPORTING ENTITY

The Miami-Dade Water and Sewer Department (the Department) functions as a self-supporting governmental enterprise fund of Miami-Dade County, Florida (the County). An enterprise fund is used to account for providing services to the general public on a continuing basis with costs recovered primarily through user charges. Accordingly, its financial statements have been prepared on the accrual basis of accounting. The Department issues a separate annual comprehensive financial report and its financial statements are combined in the County's annual comprehensive financial report.

The accompanying financial statements combine the accounts of both the Water and Wastewater Systems to provide meaningful information with respect to the Department, with all transactions of the Department accounted for as one enterprise fund. All significant intersystem accounts and transactions have been eliminated.

BASIS OF ACCOUNTING

The financial statements are prepared in conformity with generally accepted accounting principles established by the Governmental Accounting Standards Board (GASB).

OPERATING/NONOPERATING REVENUES AND EXPENSES

Operating revenues and expenses are those that result from providing water and wastewater services. Non-operating revenues and expenses include capital, financing, investing and other activities either not related to or incidental to the provision of water and wastewater services.

REVENUE RECOGNITION

All water and wastewater revenues are recognized when the related services are provided. Unbilled receivables have been estimated and accrued as revenue from the date of the last reading of the meters based on the billing cycle. Unbilled accounts receivable for fiscal year 2021 were approximately \$55.6 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 2021, no separately identifiable intangible assets met the threshold for recording.

Annualized depreciation expense, expressed as a percent of depreciable capital assets, was 3.1% for fiscal year ended September 30, 2021. 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:

	<u>Water System</u>	<u>Wastewater System</u>
	(Years)	
Structures and improvements	25-45	25-45
Equipment	3-20	3-20

Total depreciation expense for the fiscal year ended September 30, 2021 was \$226.1 million.

Notes to Financial Statements

CASH, CASH EQUIVALENTS AND INVESTMENTS

Cash includes cash on hand, amounts in demand deposits, and positions in investment pools that can be deposited or withdrawn without notice or penalty. Cash equivalents are short-term, highly liquid securities with known fair values and maturities, when acquired, of less than three months.

The Department has opted to report money market and non-participating investments, with remaining maturities of one year or less at the time of purchase, at amortized cost.

Investments are carried at fair value. Fair Value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The net increase or decrease in the fair value of investments is included as part of investment income in the accompanying statement of revenues, expenses, and changes in net position.

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

INVENTORY

Materials and supplies inventories are stated at weighted average cost.

INTEREST ON INDEBTEDNESS

The Department expenses interest as incurred.

BOND DISCOUNT AND PREMIUM

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

CAPITAL CONTRIBUTIONS

The Department records external capital contributions as revenues.

GRANTS FROM GOVERNMENT AGENCIES

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

IMPLEMENTATION OF NEW ACCOUNTING STANDARDS

In May 2020, GASB issued Statement No. 95, Postponement of the Effective Dates of Certain Authoritative Guidance, which is effective for reporting periods beginning after June 15, 2018. The effective dates of the pronouncements, which includes Statement No. 87, Leases, are postponed by 18 months.

In October 2021, GASB issued Statement No. 98, The Annual Comprehensive Financial Report, which is effective for reporting periods beginning after December 15, 2021. The Department chose an early implementation of the term and acronym (ACFR).

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.

Notes to Financial Statements

USE OF ESTIMATES

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

2. CASH, CASH EQUIVALENTS AND INVESTMENTS

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

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

DEPOSITS

The carrying amounts of the Department's local deposits as of September 30, 2021 was \$15.5 million. The bank balances at local depositories were \$23.7 million, consisting of demand deposit accounts only. All deposits are fully insured by Federal Depository Insurance and a multiple financial institution collateral pool required by Chapter 280 Florida Statutes, "Florida Security for Public Deposits Act". Under the Act, all qualified public depositories are required to pledge eligible collateral having a market value equal to or greater than the average daily or monthly balance of all public deposits, times the depository's collateral pledging level. The pledging level may range from 50% to 125% depending upon the depository's financial condition and establishment period. All collateral must be deposited with a State-approved financial institution. Any losses to public depositors are covered by applicable deposit insurance, sale of securities pledged as collateral and, if necessary, assessments against other qualified public depositories of the same type as the depository in default.

As a rule, the County intends to hold all purchased securities until their final maturity date. There may be occasional exceptions, including, but not limited to the need to sell securities to meet unexpected liquidity needs.

Cash on hand and cash held by other parties as of September 30, 2021 was approximately \$15.8 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, 2021:

Notes to Financial Statements

Investments Level 2	Fair Value 2021
Commercial Paper	\$ 157,552
Federal Home Loan Bank	429,871
Federal Home Loan Mortgage Corporation	31,118
Federal Farm Credit Bank	213,076
Federal National Mortgage Association	45,290
Treasury Notes	798,786
Jubilee Issue Bonds	6,322
Total Investments	\$ 1,682,015
Cash Equivalents	
Interest Bearing	166,658
Total Investments and Cash Equivalents	\$ 1,848,673

CREDIT RISK

The Policy, minimizes credit risk by restricting authorized investments to: Local Government Surplus Funds Trust Fund, or any intergovernmental investment pool authorized pursuant to the Florida Interlocal Cooperation Act; Securities and Exchange Commission (SEC) registered money market funds with the highest credit rating from a nationally recognized rating agency; interest bearing time deposits or saving accounts in qualified public depositories, pursuant to Florida Statutes §280.02, which are defined as banks, savings banks, or savings associations organized under the laws of the United States with an office in this state that is authorized to receive deposits, and has deposit insurance under the provisions of the Federal Deposit Insurance Act; direct obligations of the United States Treasury; federal agencies and instrumentalities; securities of, or other interests in, and open-end or closed-end management-type investment company or investment trust registered under the Investment Company Act of 1940, provided that the portfolio is limited to the obligations of the United States government or any agency or instrumentality thereof and fully collateralized by such United States government obligations, and provided that such investment company or investment trust takes delivery of such collateral either directly or through an authorized custodian; commercial paper of prime quality with a stated maturity of 270 days or less from the date of its issuance, which has the highest letter and numerical rating as provided for by at least two nationally recognized rating services; banker acceptances which have a stated maturity of 180 days or less from the date of issuance, and have the highest letter and numerical rating as provided for by at least two nationally recognized rating services, and are drawn on and accepted by commercial banks and which are eligible for purchase by the Federal Reserve Bank, investments in repurchase agreements (“Repos”) collateralized by securities authorized by this policy. All Repos shall be governed by a standard SIFMA Master Repurchase Agreement; municipal securities issued by U.S., state or local governments, having at time of purchase, a stand-alone credit rating of AA or better assigned by two or more recognized credit rating agencies or a short-term rating of A1/P1 or equivalent from one or more recognized credit rating agencies. Securities lending, securities or investments purchased or held under the provisions of this section, may be loaned to securities dealers or financial institutions provided the loan is collateralized by cash or securities having a market value of at least 102 percent of the market value of the securities loan upon initiation of the transaction.

Notes to Financial Statements

The following table summarizes the investments by type and credit ratings at September 30, 2021:

	Credit Ratings
	2021
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, 2021, all the County's bank deposits were in qualified public depositories.

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

CONCENTRATION OF CREDIT RISK

The Policy establishes limitations on portfolio composition by investment type and by issuer to limit its exposure to concentration of credit risk. The Policy provides that a maximum of 50% of the portfolio may be invested in the State of Florida Local Government Surplus Funds Trust Fund ("Pool"); however, the bond proceeds may be temporarily deposited in the Pool until alternative investments have been purchased. Prior to any investment in the Pool, approval must be received from the Board of County Commissioners. A maximum of 30% of the portfolio may be invested in SEC registered money market funds with no more than 10% to any single money market fund; a maximum of 20% of the portfolio may be invested in non-negotiable interest-bearing time certificates of deposit and savings account with no more than 5% deposited with any one insurer. There is no limit on the percent of the total portfolio that may be invested in direct obligations of the U.S. Treasury or federal agencies and instrumentalities; with no limits on individual issuers (investment in agencies containing call options shall be limited to a maximum of 25% of total portfolio). A maximum of 5% of the portfolio may be invested in open-end or closed-end funds; a maximum of 50% of the portfolio may be invested in prime commercial paper with a maximum of 5% with any one issuer; a maximum of 25% of the portfolio may be invested in banker's acceptances with a maximum of 10% with any one issuer, but a maximum of 60% of the portfolio may be invested in both commercial paper and banker's acceptances. A maximum of 20% of the portfolio may be invested in repurchase agreements with the exception of one (1) business day agreements, with a maximum of 10% of the portfolio with any one institution or dealer with the exception of one (1) business day agreements. A maximum of 25% of the portfolio may be directly invested in municipal obligations, up to 5% with any one municipal issuer.

Notes to Financial Statements

As of September 30, 2021, the following issuers held 5% or more of the investment portfolio:

	% of Portfolio 2021
Commercial Paper	8.52
Federal Home Loan Bank	23.25
Federal Farm Credit Bank	11.53
Treasury Notes	43.21
Interest Bearing	9.01

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, 2021, the Department had the following investments with the weighted average maturity in years.

	Weighted Average in Years 2021
Federal Home Loan Mortgage Corporation	3.41
Federal Home Loan Bank	1.19
Federal Farm Credit Bank	1.13
Federal National Mortgage Association	2.49
Treasury Notes	.34
Commercial Paper	.13
Jubilee Issue Bonds	1.51
Interest Bearing	0.00

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, 2021 was as follows (in thousands):

	2021
Trade accounts	\$ 242,068
Non-retail accounts	18,536
Grants & contracts	2,000
Other county funds	1,283
Gross receivables	263,887
Less: allowance for doubtful accounts	(59,318)
Net receivables	<u>\$ 204,569</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 2021, 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 \$59 million and \$33 million, as of September 30, 2021 and 2020, respectively.

4. OTHER CURRENT ASSETS

Other current assets activity for fiscal year ended September 30, 2021 was as follows (in thousands):

	<u>2021</u>
Beginning balance	\$ 1,478
Prepaid property insurance	(30)
Ending balance	<u>\$ 1,448</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 2021, no monies were contributed to the City and the Department incurred \$2.8 million in operating expenses. As of September 30, 2021, the Department contributed approximately \$55.9 million towards the construction of the WTP.

5. RESTRICTED ASSETS

Certain bond ordinances and loan agreements require the Department to establish accounts to be used in accounting for proceeds and collateral pledged because of the various issues of debt. In many cases, the applicable ordinances refer to the restricted accounts as “funds”. Such accounts are not “funds” as defined by the National Council of Governmental Accounting (NCGA) *Statement No. 1: Governmental Accounting and Financial Reporting Principles* and, therefore, are not funds for financial reporting purposes, but are maintained as separate accounts. Restricted assets for fiscal year ended September 30, 2021 is represented in the following table (in thousands):

	<u>2021</u>
Debt service	\$ 668,138
Construction	688,339
Other	112,242
Plant expansion	109,120
Renewal and replacement	148,428
Self-insurance	6,955
Total restricted assets	<u>\$ 1,733,222</u>

Notes to Financial Statements

6. CAPITAL ASSETS

Capital asset activity during fiscal year 2021 was as follows (in thousands):

	Balance	2021		Balance
	9/30/2020	Additions	Deletions	9/30/2021
Capital assets, not being depreciated:				
Land	\$ 80,563	\$ 8	\$ —	\$ 80,571
Construction work in progress	1,685,656	419,998	(438,145)	1,667,509
Total capital assets, not being depreciated	<u>1,766,219</u>	<u>420,006</u>	<u>(438,145)</u>	<u>1,748,080</u>
Capital assets, being depreciated:				
Structures and improvements	5,532,296	393,237	(49,804)	5,875,729
Equipment	1,378,667	78,361	(18,337)	1,438,691
Total capital assets, being depreciated	<u>6,910,963</u>	<u>471,598</u>	<u>(68,141)</u>	<u>7,314,420</u>
Less accumulated depreciation:				
Structures and improvements	(2,587,667)	(173,116)	47,828	(2,712,955)
Equipment	(999,086)	(52,942)	18,044	(1,033,984)
Total accumulated depreciation	<u>(3,586,753)</u>	<u>(226,058)</u>	<u>65,872</u>	<u>(3,746,939)</u>
Total capital assets, being depreciated, net	<u>3,324,210</u>	<u>245,540</u>	<u>(2,269)</u>	<u>3,567,481</u>
Total capital assets, net	<u>\$ 5,090,429</u>	<u>\$ 665,546</u>	<u>\$ (440,414)</u>	<u>\$ 5,315,561</u>

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 46. 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, 2021.

Notes to Financial Statements

CHANGES IN LONG-TERM LIABILITIES

A summary of long-term liability activity during fiscal year 2021 is presented in the following table (in thousands):

Description	Outstanding Rate	Balance 9/30/2020	2021		Balance 9/30/2021	Due in 2022
			Additions	Deletions		
Dade County Revenue Bonds						
Series 2008A & B	3.25%-5.25%	\$ 162,535	\$ —	\$ 51,395	\$ 111,140	\$ 54,135
Series 2010	2.00%-5.00%	3,350	—	3,350	—	—
Series 2015	4.00%-5.00%	444,995	—	23,845	421,150	25,055
Series 2017A	4.00%-5.00%	381,355	—	—	381,355	—
Series 2017B	3.00%-5.00%	548,025	—	—	548,025	3,065
Series 2019	5.00%	233,305	—	—	233,305	—
Series 2019B	3.00%-4.00%	663,860	—	—	663,860	—
Series 2019C	2.5%-3.00%	548,090	—	—	548,090	—
Series 2021	3.00%-5.00%	—	605,600	—	605,600	—
Sub Series 2021	4.00%-5.00%	—	236,135	—	236,135	—
Plus: unamortized premium		251,446	161,347	15,036	397,757	—
Total revenue bonds		\$3,236,961	\$1,003,082	\$ 93,626	\$4,146,417	\$ 82,255
State Loan Obligations						
State revolving fund	2.56%-4.17%	\$ 185,282	\$ 26,952	\$ 14,427	\$ 197,807	\$ 14,082
Total state revolving funds		\$ 185,282	\$ 26,952	\$ 14,427	\$ 197,807	\$ 14,082
Notes Payable						
WIFIA loan program	2.89%	\$ 1,229	\$ 55	\$ —	\$ 1,284	\$ —
Total notes payable		\$ 1,229	\$ 55	\$ —	\$ 1,284	\$ —
Total long-term debt		\$3,423,472	\$1,030,089	\$ 108,053	\$4,345,508	\$ 96,337
Other Liabilities:						
Compensated absences		\$ 52,042	\$ 5,663	\$ 679	\$ 57,026	\$ 11,517
Self-insurance		3,862	982	513	4,331	1,142
Other post-employment benefits		58,434	1,581	1,221	58,794	—
Net pension liability		217,181	145,012	286,079	76,114	—
Total long-term liabilities		\$3,754,991	\$1,183,327	\$ 396,545	\$4,541,773	\$ 108,996

Notes to Financial Statements

DEBT SERVICE REQUIREMENTS

As of September 30, 2021, 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	
2022	\$ 82,255	\$ 153,362	\$ 14,082	\$ 2,285	\$ —	\$ —	\$ 96,337	\$ 155,647	\$ 251,984
2023	86,510	149,080	9,806	2,051	—	—	96,316	151,131	247,447
2024	89,340	144,643	10,759	2,008	—	—	100,099	146,651	246,750
2025	93,735	140,066	11,797	1,984	—	—	105,532	142,050	247,582
2026	98,615	135,258	12,520	1,814	—	—	111,135	137,072	248,207
2027 - 2031	506,480	610,208	65,241	6,389	236	167	571,957	616,764	1,188,721
2032 - 2036	528,810	507,303	49,486	1,940	209	140	578,505	509,383	1,087,888
2037 - 2041	671,380	388,864	17,870	299	241	107	689,491	389,270	1,078,761
2042 - 2046	833,500	244,678	6,246	26	278	71	840,024	244,775	1,084,799
2047 - 2051	758,035	68,863	—	—	320	28	758,355	68,891	827,246
2052	—	184	—	—	—	—	—	184	184
	3,748,660	2,542,509	197,807	18,796	1,284	513	3,947,751	2,561,818	6,509,569
Unamortized Discount & Premium Amounts	397,757	—	—	—	—	—	397,757	—	397,757
Total	<u>\$ 4,146,417</u>	<u>\$ 2,542,509</u>	<u>\$ 197,807</u>	<u>\$ 18,796</u>	<u>\$ 1,284</u>	<u>\$ 513</u>	<u>\$ 4,345,508</u>	<u>\$ 2,561,818</u>	<u>\$ 6,907,326</u>

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

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

The Series 2008A Revenue Bonds are collateralized by the net operating revenues of the Department and are due serially October 1 starting in 2009 through fiscal year 2023 with semi-annual interest due on April 1 and October 1 of each year. Net revenue requirements of at least 1.25 times the current year's debt service requirements were met in fiscal year 2021.

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

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

The Series 2008B Refunding Bonds are collateralized by the net operating revenues of the Department and are due serially on October 1 starting in 2009 through fiscal year 2023 with semi-annual interest due on April 1 and October 1 of each year. Net revenue requirements of at least 1.25 times the current year's debt service requirements were met in fiscal year 2021.

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.

Notes to Financial Statements

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 2021.

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 2021.

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.

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 2021.

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

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

The Series 2019 Bonds are collateralized by the net operating revenues of the Department and are due serially on October 1 starting in 2020 through the year 2049 with semi-annual interest due on April 1 and October 1 of each year. Net revenues requirements of at least 1.25 times the current year's debt service requirement were met in fiscal year 2021.

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.

Notes to Financial Statements

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

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

The Series 2019C Bonds are collateralized by the net operating revenues of the Department and are due serially on October 1 starting in 2020 through the year 2049 with semi-annual interest due on April 1 and October 1 of each year. Net revenues requirements of at least 1.25 times the current year's debt service requirement were met in fiscal year 2021.

MIAMI-DADE COUNTY WATER AND SEWER SYSTEM REVENUE BONDS, SERIES 2021

On April 20, 2021, the County issued \$605.6 million of Miami-Dade County Water and Sewer System Revenue Bonds, Series 2021. The Series 2021 Bonds pay the cost of the Series 2021 Project, make a deposit to the Reserve Account, and pay the costs of issuance of the Series 2021 Bonds. The Series 2021 Bonds are collateralized by the net operating revenues of the Department and are due serially on October 1 starting in 2021 through the year 2051 with semi-annual interest due on April 1 and October 1 of each year. Net revenues requirements of at least 1.25 times the current year's debt service requirement were met in fiscal year.

MIAMI-DADE COUNTY WATER AND SEWER SYSTEM SUBORDINATE REVENUE BONDS, SERIES 2021

On July 8, 2021, the County issued \$236.1 million of Miami-Dade County Subordinate Water and Sewer System Revenue Bonds, Series 2021. The proceeds of the Series 2021 Subordinate Bonds will be used to pay the costs of the Series 2021 Project and pay the costs of issuance of the Series 2021 Subordinate Bonds. Payment terms are due serially starting in 2021 through 2052 with semi-annual interest due on April 1 and October 1 of each year. Net revenues requirements of at least 1.0 times the current year's debt service.

MIAMI-DADE COUNTY REVENUE BONDS- REMEDIES

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

Notes to Financial Statements

STATE REVOLVING FUND

Under the State Revolving Fund program, the Department has received various loan commitments for the construction of water and wastewater treatment facilities. Draws to date against committed loans as of September 30, 2021, are detailed in the following table (in thousands):

<u>Loan #</u>	<u>Draws</u>	<u>Close Out Date</u>
377860	362	11/13/2006
377870	468	11/16/2006
37788P	682	09/27/2004
37789A	163	11/15/2006
37789L	319	11/22/2006
1300010	2,753	10/10/2008
377900	88,324	09/05/2014
130200	103	08/08/2016
130201	55	08/08/2016
130230	14,426	Active
130240	16,462	Active
130260	24,502	Active
1302A0	49,190	Active
	<u>\$ 197,807</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 2021.

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, 2021, 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

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 transferable direct-pay letter of credit issued by Barclays Bank PLC and Sumitomo Mitsui Banking Corp respectively.

8. PAYABLES

Accounts payables and accrued expenses for fiscal year ended September 30, 2021 were as follows (in thousands):

	<u>2021</u>
Other county funds	\$ 22,621
Vendors	22,920
Other governments	24,139
Salaries and benefits	10,548
Contractors	58,213
Other	69
Total payables	<u>\$ 138,510</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. An annual comprehensive financial report of the FRS, which includes its financial statements, required supplementary information, actuarial report, and other relevant information, is available from the Florida Department of Management Services' Web site: (http://www.dms.myflorida.com/workforce_operations/retirement/publications).

FRS Pension Plan Description

The FRS Pension Plan (Plan) is a cost-sharing multiple-employer defined benefit pension plan, with a Deferred Retirement Option Program (DROP) for eligible employees.

Notes to Financial Statements

Employees enrolled in the Plan prior to July 1, 2011, vest at 6 years of creditable service and employees enrolled in the Plan on or after July 1, 2011, vest at 8 years of creditable service. All vested members enrolled prior to July 1, 2011 are eligible for normal retirement benefits at age 62 or at any age after 30 years of service (except for members classified as special risk who are eligible for normal retirement benefits at age 55 or at any age after 25 years of service). All members enrolled in the Plan on or after July 1, 2011, once vested, are eligible for normal retirement benefits at age 65 or any time after 33 years of creditable service (except for members classified as special risk who are eligible for normal retirement benefits at age 60 or at any age after 30 years of service). Members of the Plan may include up to 4 years of credit for military service toward creditable service.

The Plan also includes an early retirement provision; however, there is a 5 percent benefit reduction for each year a member retires before his or her normal retirement date. The Plan provides retirement, disability, death benefits, and annual cost-of-living adjustments to eligible participants.

DROP, subject to provisions of Section 121.091, Florida Statutes, permits employees eligible for normal retirement under the Plan to defer receipt of monthly benefit payments while continuing employment with an FRS employer. An employee may participate in DROP for a period not to exceed 60 months after electing to participate, except that certain instructional personnel may participate for up to 96 months. During the period of DROP participation, deferred monthly benefits are held in the FRS Trust Fund and accrue interest. The net pension liability does not include amounts for DROP participants, as these members are considered retired and are not accruing additional pension benefits.

Benefits Provided

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

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

Notes to Financial Statements

Contributions

The Florida Legislature establishes contribution rates for participating employers and employees. Contributions rates in effect from July 1, 2020 through June 30, 2022 were as follows:

Class	Effective July 1, 2020 through June 30, 2021		Effective July 1, 2021 through June 30, 2022	
	Percentage of Gross Salary		Percentage of Gross Salary	
	Employee	Employer ¹	Employee	Employer ¹
FRS, Regular	3.00	10.00	3.00	10.82
FRS, Elected County Officers	3.00	49.18	3.00	51.42
FRS, Senior Management Service	3.00	27.29	3.00	29.01
FRS, Special Risk Regular	3.00	24.45	3.00	25.89
DROP - Applicable to members from all of the above classes	N/A	16.98	N/A	18.34

¹ Employer rates include 1.66% for the postemployment health insurance subsidy, and employer rates, other than for DROP participants, include 0.06% for administrative costs.

The Department's contributions for FRS totaled \$18.3 million and employee contributions totaled \$4.2 million for the fiscal year ended September 30, 2021.

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

At September 30, 2021, the Department reported a liability of \$32.3 million for its proportionate share of the Plan's net pension liability. The net pension liability was measured as of June 30, 2021, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of July 1, 2021.

For the fiscal year ended September 30, 2021, the Department recognized pension expense/(income) of \$(9.5) million related to the Plan. In addition, the Department reported, deferred outflows of resources and deferred inflows of resources related to pensions from the following sources (in thousands):

Description	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 5,543	\$ —
Change of assumptions	22,128	—
Net difference between projected and actual earnings on FRS pension plan investments	—	(112,825)
Changes in proportion and differences between the Department FRS contributions and proportionate share of contributions	1,225	(1,362)
The Department contributions subsequent to measurement date	4,984	—
Total	<u>\$ 33,880</u>	<u>\$ (114,187)</u>

For fiscal year ended September 30, 2021, the deferred outflows of resources related to pensions of approximately \$5.0 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, 2022. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows (in thousands):

Notes to Financial Statements

<u>Fiscal Year Ending September 30,</u>	Deferred Outflows/(Inflows), Net
2022	\$ (14,724)
2023	(17,432)
2024	(23,231)
2025	(29,901)
2026	(3)
Thereafter	—
Total	<u>\$ (85,291)</u>

Actuarial Assumptions

The FRS pension actuarial assumptions that determined the total pension liability as of June 30, 2021, 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, 2021, 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, 2021, 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:

<u>Asset Class</u>	<u>Target Allocation¹</u>	<u>Annual Arithmetic Return</u>	<u>Compound Annual (Geometric) Return</u>	<u>Standard Deviation</u>
Cash	1.0%	2.1%	2.1%	1.1%
Fixed income	20.0%	3.8%	3.7%	3.3%
Global equity	54.2%	8.2%	6.7%	17.8%
Real estate	10.3%	7.1%	6.2%	13.8%
Private equity	10.8%	11.7%	8.5%	26.4%
Strategic investments	3.7%	5.7%	5.4%	8.4%
	<u>100.0%</u>			
Assumed Inflation - Mean			2.4%	1.2%

¹ As outlined in the FRS Pension Plan's investment policy.

Discount Rate

For fiscal year ended September 30, 2021, 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.

Notes to Financial Statements

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

For fiscal year ended September 30, 2021, the following represents the Department's proportionate share of the net pension liability/(asset) calculated using the discount rate of 6.80 percent; as well as what the Department's proportionate share of the net pension liability/(asset) 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):

	1% Decrease (5.80%)	Current Discount Rate (6.80%)	1% Increase (7.80%)
Miami Dade County's proportionate share of net pension liability/(asset) allocated to the Department	\$ 144,626	\$ 32,340	\$ (61,519)

Pension Plan Fiduciary Net Position

Detailed information about the Plan's fiduciary net position is available in the separately issued FRS Pension Plan and Other State-Administered Systems Annual Comprehensive Financial Report.

Department's Allocation

The Department's proportionate share of the FRS Plan's net pension liability, deferred outflow of resources and deferred inflow of resources, and pension expense / adjustment for the fiscal year ended September 30, 2021 were allocated as follows (in thousands):

FLORIDA RETIREMENT SYSTEM (FRS) PENSION					
	Percent Allocation	Net Pension Liability	Deferred Outflow of Resources	Deferred Inflow of Resources	Pension Expense/ (Income) Adjustment
Water and Sewer 2021	5.46%	\$ 32,340	\$ 33,880	\$ (114,187)	\$ (9,540)

THE RETIREE HEALTH INSURANCE SUBSIDY PROGRAM (HIS)

Plan Description

The Retiree Health Insurance Subsidy Program (HIS Plan) is a non-qualified cost-sharing multiple-employer defined benefit pension plan established under Section 112.363, Florida Statutes, and may be amended by the Florida Legislature at any time. The benefit is a monthly payment to assist retirees of the State-administered retirement systems in paying their health insurance costs and is administered by the Division of Retirement within the Florida Department of Management Services.

Benefits Provided

For the fiscal year ended September 30, 2021, eligible retirees and surviving beneficiaries received a monthly HIS payment equal to the number of years of creditable service completed at the time of retirement multiplied by \$5, with a minimum HIS payment of \$30 and a maximum HIS payment of \$150 per month, pursuant to Section 112.363, Florida Statutes. To be eligible to receive a HIS Plan benefit, a retiree under a State-administered retirement system must provide proof of health insurance coverage, which may include Medicare.

Contributions

The HIS Plan is funded by required contributions from FRS participating employers as set by the Florida Legislature. Employer contributions are a percentage of gross compensation for all active FRS members. For the fiscal year ended September 30, 2021, the HIS contribution rate was 1.66%. The County contributed

Notes to Financial Statements

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, 2021, the Department's contributions to the HIS Plan totaled \$2.1 million.

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

At September 30, 2021, the Department reported a net pension liability of \$43.8 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 July 1, 2020 and was recalculated and projected to the measurement date of June 30, 2021 using a standard actuarial roll-forward technique.

For the fiscal year ended September 30, 2021, the Department recognized a pension expense/(income) of \$3.3 million related to the HIS Plan. In addition, the Department reported, deferred outflows or resources and deferred inflows of resources related to the HIS Plan from the following sources (in thousands):

Description	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 1,465	\$ (18)
Change of assumptions	3,439	(1,804)
Net difference between projected and actual earnings on HIS pension plan investments	46	—
Changes in proportion and differences between the Department HIS contributions and proportionate share of HIS contributions	1,686	(187)
The Department contributions subsequent to measurement date	588	—
Total	<u>\$ 7,224</u>	<u>\$ (2,009)</u>

For fiscal year ended September 30, 2021, the deferred outflows of resources related to pensions of approximately \$588 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, 2022. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense as follows (in thousands):

Fiscal Year Ending September 30,	Deferred Outflows/(Inflows), Net
2022	\$ 1,199
2023	630
2024	877
2025	989
2026	745
Thereafter	187
Total	<u>\$ 4,627</u>

Actuarial Assumptions

The HIS pension as of July 1, 2021 actuarial valuations were determined using the following actuarial assumptions, applied to all periods included in the measurement.

Notes to Financial Statements

Inflation	2.40%
Salary increases	3.25% average, including inflation
Investment rate of return	N/A
Discount rate	2.16%

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

The actuarial assumptions used in the June 30, 2021 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, 2021, the discount rate used to measure the total pension liability for the HIS Plan was 2.16 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, 2021, the following represents the Department's proportionate share of the net pension liability calculated using the discount rate of 2.16 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 (1.16 percent) or one percentage point higher (3.16 percent) than the current rate (in thousands):

	1% Decrease (1.16%)	Current Discount Rate (2.16%)	1% Increase (3.16%)
Miami Dade County's proportionate share of the net pension liability allocated to the Department	\$ 50,608	\$ 43,774	\$ 38,176

Pension plan fiduciary net position

Detailed information regarding the HIS Plan's fiduciary net position is available in the separately issued FRS Pension Plan and Other State-Administered Systems Annual Comprehensive Financial Report.

Department's Allocation

The Department's proportionate share of the HIS Plan's net pension liability, deferred outflow of resources and deferred inflow of resources, and pension expense / adjustment for the fiscal year ended September 30, 2021 were allocated as follows (in thousands):

	HIS PLAN				
	Percent Allocation	Net Pension Liability	Deferred Outflow of Resources	Deferred Inflow of Resources	Pension Expense/ (Income) Adjustment
Water and Sewer 2021	5.46%	\$ 43,774	\$ 7,224	\$ (2,009)	\$ 3,357

Notes to Financial Statements

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					
	Percent Allocation	Net Pension Liability	Deferred Outflow of Resources	Deferred Inflow of Resources	Pension Expense/ (Income) Adjustment
Water and Sewer 2021	5.46%	\$ 76,114	\$ 41,104	\$ (116,197)	\$ (6,183)

FRS – Defined Contribution Investment Plan

The Department contributes to the FRS Defined Contribution Investment Plan (Investment Plan). The Investment Plan is administered by the State Board of Administration (SBA) and is reported in the SBA's annual financial statements and in the State of Florida Annual Comprehensive Financial Report.

As provided in Section 121.4501, Florida Statutes, eligible FRS members may elect to participate in the Investment Plan in lieu of the FRS defined benefit plan. Miami-Dade County employees participating in the DROP are not eligible to participate in the Investment Plan. Employer and employee contributions, including amounts contributed to individual member's accounts, are defined by law, but the ultimate benefit depends in part on the performance of investment funds. Benefit terms, including contribution requirements, for the Investment Plan are established and may be amended by the Florida Legislature. The Investment Plan is funded with the same employer and employee contribution rates that are based on salary and membership class (Regular Class, Elected County Officers, etc.), as the FRS Pension Plan. Contributions are directed to individual member accounts, and the individual members allocate contributions and account balances among various approved investment choices. Allocations to the investment member's accounts, as established by Section 121.72, Florida Statutes, are based on a percentage of gross compensation, by class.

For all membership classes, employees are immediately vested in their own contributions and are vested after one year of service for employer contributions and investment earnings. If an accumulated benefit obligation for service credit originally earned under the FRS Pension Plan is transferred to the Investment Plan, the member must have the years of service required for FRS Pension Plan vesting (including the service credit represented by the transferred funds) to be vested for these funds and the earnings on the funds. Non-vested employer contributions are placed in a suspense account for up to five years. If the employee returns to FRS-covered employment within the five-year period, the employee will regain control over their account. If the employee does not return within the five-year period, the employee will forfeit the accumulated account balance. At fiscal year ended September 30, 2021, 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, 2021, the information for forfeitures was unavailable from the SBA; however, management believes that these amounts, if any, would be insignificant to Miami Dade County.

After termination and applying to receive benefits, the member may rollover vested funds to another qualified plan, structure a periodic payment under the Investment Plan, receive a lump-sum distribution, leave the funds invested for future distribution, or any combination of these options. Disability coverage is provided under the Investment Plan if the member becomes permanently and totally disabled. The member must transfer the account balance to the FRS Trust Fund when approved for disability retirement to receive guaranteed lifetime monthly benefits under the FRS Pension Plan.

For the fiscal year ended September 30, 2021, the Department's Investment Plan pension contributions totaled \$1.5 million.

Notes to Financial Statements

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 2021 and 2020 were as follows (in thousands):

	2021	2020
Balance at beginning of year	\$ 3,862	\$ 3,167
Claims and changes in estimates	469	1,383
Less: payments	—	(688)
Balance at end of year	\$ 4,331	\$ 3,862

The Department participates in the workers' compensation self-insurance program of the County, administered by the Risk Management Division. Risk Management charges a "premium" to each County department based on amounts necessary to provide funding for expected payments during the fiscal year. The estimate of IBNR losses is performed by an independent actuary. The Department maintained a liability in the amount of \$4.3 million at September 30, 2021 for possible funding of these IBNR losses. The County maintains no excess coverage with independent carriers for workers' compensation. The Department's total self-insurance liability was \$6 million as of September 30, 2021.

The Department also participates in the County's group health and life self-insurance program, administered by an independent administrator. The County charges a uniform "premium" per employee to each County department based on recent trends in actual claims experience and makes provisions for catastrophic losses. Current year premiums are adjusted for County-wide prior year actual claims experience.

The Department purchases a master property insurance policy which covers up to \$200,000,000 per occurrence for most perils. The Department also has selected properties covered under the National Flood Insurance Program (NFIP) and supplements the NFIP with excess flood policies. The named windstorm deductible is \$35,000,000 and the deductible for flood insurance is \$1,000,000.

The Department continues to carry commercial insurance for all other risks of loss. Settled claims resulting from these risks have not exceeded commercial insurance coverage in any of the past three fiscal years.

Notes to Financial Statements

11. CONTRIBUTIONS

Contributions during fiscal year 2021 are presented as follows (in thousands):

	<u>2021</u>
Contributed facilities:	
Developers	\$ 33,461
Contributions - GOB	4,927
Total additions	<u>\$ 38,388</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, 2021 (in thousands):

	<u>2021</u>
General Fund	\$ 23,710
Other County Departments	48,733
Regulatory	29,773
Information Technology	23,962
Internal Services Department	13,610
Solid Waste	16,961

In addition to the payments, the Department had related payables of \$20.6 million at September 30, 2021. The Department also has receivables from other County departments amounting to \$1.3 Million at September 30, 2021. 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, 2021, the Department had contractual commitments of \$733.6 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.

Notes to Financial Statements

REBATABLE ARBITRAGE EARNINGS

Federal tax law requires that arbitrage interest earnings be remitted to the federal government, unless the local government qualifies for an exemption. As of September 30, 2021, the Department had no obligation to rebate and did not record any obligation of interest earned on bond proceeds invested in taxable securities in excess of interest costs. These arbitrage rebates are payable five years from the date of bond issuance and each five years thereafter. The amount of the obligation, if any, will be determined based on actual interest earned.

14. POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS

PLAN DESCRIPTION

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

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

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

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

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

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

FUNDING POLICY

The County contributes to both the pre-65 and post-65 retiree medical coverage. Medical contributions vary based on plan and tier. Retirees pay the full cost of dental coverage. The postretirement medical is currently funded on a pay-as-you go basis. Contributions are required for both retiree and dependent coverage. Retirees contribute a portion of the full active premium equivalent rates for health coverage. The County subsidy is assumed to remain flat. The plan is funded on a pay-as-you-go basis and there are no assets accumulated in a qualifying trust.

The County's contribution is the actual pay-as-you-go postemployment benefit payments less participant contributions. No assets have been segregated and restricted to provide postretirement benefits.

TOTAL OPEB LIABILITY

The Department's total OPEB liability of \$58.8 million was measured as of September 30, 2021 and was determined by an actuarial valuation as of that date.

Notes to Financial Statements

Actual assumptions and other inputs

The total OPEB liability in the September 30, 2021 actuarial valuation was determined using the following actuarial assumptions and other inputs, applied to all periods included in the measurement unless otherwise specified:

Valuation date	September 30, 2021
Measurement date	September 30, 2021
Discount rate	2.26%
Salary increase rate	3.0% per annum
Actuarial cost method	Entry Age Normal based on level percentage of projected salary.
Amortization method	Experience/Assumptions gains and losses are amortized over a close period of 11.7 years starting October 1, 2021, equal to the average remaining service of active and inactive plan members (who have no future service).
Healthcare cost trend rates	Medical/Rx Select 5.5% and Ultimate 4.5%
Retirees' share of benefit-related costs	25.64%
Mortality rates	Pub-2010, projected forward using SOA scale MP-2019

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

The actuarial assumptions used in the September 30, 2021 valuation were based on the Florida Retirement System's valuation assumptions and Miami Dade County's claims experience for the period of October 1, 2020 to September 30, 2021.

CHANGES IN TOTAL OPEB LIABILITY

Changes in the Department's total OPEB liability for the fiscal year ended September 30, 2021 were as follows (in thousands):

	Total OPEB Liability
Balance at September 30, 2020	\$ 58,434
Changes for the year:	
Service cost	1,116
Interest	584
Change in assumptions	(119)
Difference between expected and actual experience	—
Benefits payments	(1,221)
Balance at September 30, 2021	\$ 58,794

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

Notes to Financial Statements

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

For fiscal year ended September 30, 2021, the following presents the total OPEB liability of the Department, as well as what the Department's total OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current discount rate (in thousands):

	1% Decrease (1.26%)		Current Discount Rate (2.26%)		1% Increase (3.26%)
Total OPEB Liability	\$ 64,521	\$	58,794	\$	53,729

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

For fiscal year ended September 30, 2021, the following presents the total OPEB liability of the Department, as well as what the Department's total OPEB liability would be if it were calculated using healthcare cost trend rates that are 1-percentage-point lower or 1-percentage-point higher than the current healthcare cost trend rates (in thousands):

	1% decrease (4.5% initial to 3.5%)		Current Trend (5.5% initial to 4.5%)		1% increase (6.5% initial to 5.5%)
Total OPEB Liability	\$ 53,854	\$	58,794	\$	64,676

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

For fiscal year ended September 30, 2021, the Department recognized OPEB expense/(income) of \$4.8 million. At September 30, 2021, the Department reported Deferred Inflow of Resources related to OPEB from the following sources (in thousands):

	Deferred Outflow of Resources	Deferred Inflow of Resources
Differences between expected and actual experience	\$ —	\$ (2,115)
Changes in assumptions / inputs	14,249	(1,827)
Total	\$ 14,249	\$ (3,942)

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):

Notes to Financial Statements

Fiscal Year Ending September 30,	Deferred Outflows/(Inflows), Net
2022	\$ 1,090
2023	1,090
2024	1,090
2025	1,090
2026	1,090
Thereafter	4,857
Total	\$ 10,307

15. SUBSEQUENT EVENTS

On September 28, 2021 the Board of County commissioners adopted County Budget Ordinance Number 21-98 authorizing a 3.68% rate increase to the Department's retail tiered-based structure that will generate enough revenues to support costs including fiscal requirements related to capital investments. Changes will be effective October 1, 2021.

On September 28, 2021, Mayor Daniella Levine Cava waived the moratorium on disconnection for non-payments. Effective October 1, 2021 the Department will resume its Collection efforts to all affected customers.

In addition, effective October 1, 2021 the County Budget Ordinance increased the water wholesale rate by \$0.0697 per thousand gallons to \$1.8644 from \$1.7947 and the wastewater wholesale rate by \$0.1770 to \$3.4741 from \$3.2971 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 (Dollars in thousands)

<u>Total OPEB Liability</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>
Changes for the Year:				
Service Cost	\$ 1,116	\$ 914	\$ 795	\$ 821
Interest	584	1,371	1,682	1,540
Change of Benefit Terms	(119)	11,845	6,225	(2,463)
Difference Between Expected and Actual Experience	—	(2,677)	—	—
Benefits Payments	(1,221)	(2,365)	(2,645)	(2,354)
Net Change in Total OPEB Liability	\$ 360	\$ 9,088	\$ 6,056	\$ (2,456)
Total OPEB Liability – Beginning	\$ 58,434	\$ 49,346	\$ 43,290	\$ 45,746
Total OPEB Liability – Ending	\$ 58,794	\$ 58,434	\$ 49,346	\$ 43,290
Covered – Employee Payroll	\$ 171,274	\$ 166,285	\$ 193,094	\$ 161,279
Total OPEB Liability as a Percentage of Covered – Employee Payroll	34.3 %	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:

2021	2.26 %
2020	2.21 %
2019	2.66 %
2018	4.24 %

No assets are accumulated in a trust that meets the criteria in paragraph 4 of GASB 75 to pay related benefits. The increase in the total OPEB liability is mostly due to changes in actuarial assumptions and 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 2021 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,	2021	2020	2019	2018	2017	2016	2015	2014
Department's proportion of the County's FRS net pension liability	5.46%	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	\$ 32,340	\$ 177,352	\$ 138,669	\$ 124,066	\$ 121,477	\$ 111,748	\$ 56,648	\$ 27,104
Department's covered payroll	\$ 191,779	\$ 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	16.86 %	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	96.00 %	79.00 %	83.00 %	84.00 %	84.00 %	85.00 %	92.00 %	96.00 %

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

SEPTEMBER 30th,	2021	2020	2019	2018	2017	2016	2015	2014
Contractually required FRS contribution	\$ 16,310	\$ 13,596	\$ 12,485	\$ 10,637	\$ 10,691	\$ 10,534	\$ 10,693	\$ 9,730
FRS contribution in relation to the contractually required contribution	16,310	13,596	12,485	10,637	10,691	10,534	10,693	9,730
FRS contribution deficiency (excess)	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
Department's covered payroll	\$ 201,497	\$ 192,766	\$ 186,248	\$ 183,327	\$ 169,397	\$ 174,697	\$ 141,267	\$ 126,719
FRS contribution as a percentage of covered payroll	8.09 %	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)

JUNE 30th,	2021	2020	2019	2018	2017	2016	2015	2014
Department's proportion of the County's HIS net pension liability	5.46%	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	\$ 43,774	\$ 39,829	\$ 36,069	\$ 35,055	\$ 35,033	\$ 42,010	\$ 37,204	\$ 33,960
Department's covered payroll	\$ 196,874	\$ 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	22.23 %	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	3.56 %	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)

SEPTEMBER 30th,	2021	2020	2019	2018	2017	2016	2015	2014
Contractually required HIS contribution	\$ 2,098	\$ 1,880	\$ 1,790	\$ 1,725	\$ 1,734	\$ 1,770	\$ 1,394	\$ 1,244
HIS contribution in relation to the contractually required contribution	2,098	1,880	1,790	1,725	1,734	1,770	1,394	1,244
HIS contribution deficiency (excess)	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>
Department's covered payroll	\$ 157,567	\$ 153,512	\$ 148,970	\$ 146,648	\$ 135,685	\$ 139,403	\$ 162,174	\$ 156,889
HIS contribution as a percentage of covered payroll	1.33 %	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,	2021
		(In thousands)
ASSETS		
<i>CURRENT ASSETS:</i>		
Cash and cash equivalents	\$	3,106
Investments		55,940
Accounts receivable (net of allowance for uncollectible accounts of \$28.9 million)		76,885
Inventory of materials and supplies		22,514
Other current assets		1,448
Restricted cash and cash equivalents		53,693
Total current assets		213,586
 <i>NONCURRENT RESTRICTED ASSETS:</i>		
Restricted cash and cash equivalents		59,096
Investments		358,271
Total restricted assets		417,367
 <i>OTHER ASSETS:</i>		
Bond insurance		53
Other charges, net		764
Total other assets		817
 <i>CAPITAL ASSETS:</i>		
Land		28,482
Structures and improvements		2,298,078
Equipment		421,454
Utility plant in service before depreciation		2,748,014
Less accumulated depreciation		(1,315,941)
Net utility plant in service		1,432,073
Construction work in progress		232,560
Total capital assets		1,664,633
Total noncurrent assets		2,082,818
Total assets		2,296,404
 <i>DEFERRED OUTFLOWS OF RESOURCES:</i>		
Loss on refundings		36,282
Outflow related to pension		19,284
Outflow related to post-employment benefits		14,249
Total deferred outflows of resources		69,815
Total assets and deferred outflows of resources	\$	2,366,219

(Continued)

Water System

SCHEDULE OF NET POSITION

(Continued)	September 30,	2021
		(In thousands)
LIABILITIES		
<i>CURRENT LIABILITIES (PAYABLE FROM UNRESTRICTED CURRENT ASSETS):</i>		
Accounts payable and accrued expenses	\$	25,930
Customer and developer deposits		12,607
Liability for compensated absences		2,432
Other liabilities		3,516
Total current liabilities (payable from unrestricted current assets)		44,485
<i>CURRENT LIABILITIES (PAYABLE FROM RESTRICTED CURRENT ASSETS):</i>		
Accounts payable and accrued expenses		9,273
Retainage payable		5,497
Current portion of long-term debt		20,944
Accrued interest payable		16,837
Liability for self insurance		1,142
Total current liabilities (payable from restricted current assets)		53,693
Total current liabilities		98,178
<i>NONCURRENT LIABILITIES:</i>		
Revenue bonds payable, net		890,036
State loan obligations, net		36,013
Liability for self-insurance		3,189
Liability for compensated absences		18,764
Liability for post-employment benefits		58,794
Net pension liability		38,944
Total noncurrent liabilities		1,045,741
Total liabilities		1,143,919
<i>DEFERRED INFLOWS OF RESOURCES:</i>		
Inflow related to pension		53,325
Inflow related to post-employment benefits		3,942
Total deferred inflows of resources		57,267
Total liabilities and deferred inflows of resources		1,201,186
NET POSITION		
Net investment in capital assets		851,796
Restricted for:		
Capital projects		164,279
Debt service		60,869
Unrestricted		88,089
Total net position		1,165,033
Total liabilities, deferred inflows of resources and net position	\$	2,366,219

Water System

SCHEDULE OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

For the fiscal year ended September 30,

2021

(In thousands)

OPERATING REVENUES:

Retail	\$ 331,651
Wholesale	34,682
Other revenues	9,476
Total operating revenues	375,809

OPERATING AND MAINTENANCE EXPENSES:

Source of supply	14,291
Power and pumping	2,106
Treatment	71,767
Transmission and distribution	37,825
Customer accounting	17,790
Customer service	13,981
General and administrative	42,205
Total operating and maintenance expenses	199,965

Operating income before depreciation	175,844
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DEPRECIATION EXPENSE

82,330

Operating income	93,514
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NON-OPERATING REVENUES (EXPENSES):

Investment income	557
Interest expense	(31,598)
Amortization of issuance costs	(2,354)
Operating disaster revenue	239
Customer connection fees	6,187
Other revenues	1,561
Other expenses	(1,092)
Income before contributions	67,014

Capital contributions	21,995
Transfer (to) Wastewater System	(151,009)

Decrease in net position	(62,000)
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Net position at beginning of year	1,227,033
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Net position at end of year	\$ 1,165,033
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Water System

SCHEDULE OF CASH FLOWS

For the fiscal year ended September 30,	<u>2021</u>
	(In thousands)
<i>CASH FLOWS FROM OPERATING ACTIVITIES:</i>	
Cash received from customers	\$ 366,810
Cash paid to suppliers for goods and services	(89,838)
Cash paid to employees for services	(105,236)
Transfer to Wastewater System	(151,009)
Net cash provided by operating activities	<u>20,727</u>
 <i>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:</i>	
Proceeds from bond issues, loan agreements and Notes	101,004
Principal payments - bond and loans	(20,571)
Interest paid	(32,958)
Acquisition and construction of capital assets	(63,842)
Net cash used by capital and related financing activities	<u>(16,367)</u>
 <i>CASH FLOWS FROM INVESTING ACTIVITIES:</i>	
Purchase of investment securities	(238,734)
Proceeds from sale and maturity of investment securities	280,886
Interest on investments	1,212
Net cash provided by investing activities	<u>43,364</u>
Net increase in cash and cash equivalents	47,724
Cash and cash equivalents at beginning of year	<u>68,171</u>
Cash and cash equivalents at end of year	<u><u>\$ 115,895</u></u>

Water System

SCHEDULE OF CASH FLOWS

For the fiscal year ended September 30,

2021

(Continued)

(In thousands)

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

Operating income	\$	93,514
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation		82,330
Provision for uncollectible accounts		13,671
Non-operating other, net		27,056
Transfer to Wastewater System		(151,009)
(Increase) decrease in assets and deferred outflows:		
Accounts Receivable		(17,601)
Inventory of materials and supplies		(6,274)
Other current assets		30
Contracts/Grants Receivable		77
Other charges		1,073
Deferred outflows related to pension and OPEB		11,313
Increase (decrease) in liabilities and deferred inflows:		
Accounts payable and accrued expenses		(3,043)
Customer and developer deposits		537
Accrued interest payable		1,207
Liability for compensated absences		1,894
Other liabilities		(22,227)
Liability for other post-employment benefits		360
Liability for self-insurance		469
Net pension liability		(63,480)
Deferred inflows related to pension and OPEB		50,830
Net cash provided by operating activities	\$	<u>20,727</u>

NONCASH INVESTING, CAPITAL AND FINANCING ACTIVITIES

Property, plant and equipment contributions were received in amounts of \$22 million in fiscal year 2021.

The change in the fair value of investments was a \$0.1 million decrease in fiscal year 2021.

RECONCILIATION OF CASH AND CASH EQUIVALENTS AT END OF YEAR

Unrestricted current cash and cash equivalents	\$	3,106
Restricted current cash and cash equivalents		53,693
Restricted noncurrent cash and cash equivalents		59,096
Total cash and cash equivalents at end of year	\$	<u>115,895</u>

Water System

SCHEDULE OF OPERATING AND MAINTENANCE EXPENSES

Budget and Actual
For the fiscal year ended September 30, 2021
(In thousands)

	Budget	Actuals	Variance under/(over)
Source of supply	\$ 16,290	\$ 14,291	\$ 1,999
Power and pumping	1,826	2,106	(280)
Treatment	74,997	71,767	3,230
Transmission and distribution	42,481	37,825	4,656
Customer accounting	5,946	17,790	(11,844)
Customer service	13,102	13,981	(879)
General and administrative	50,538	42,205	8,333
Totals	<u>\$ 205,180</u>	<u>\$ 199,965</u>	<u>\$ 5,215</u>

Wastewater System

SCHEDULE OF NET POSITION

	September 30,	<u>2021</u>
		(In thousands)
ASSETS		
<i>CURRENT ASSETS:</i>		
Cash and cash equivalents	\$	29,084
Investments		45,117
Accounts receivable (net of allowance for uncollectible accounts of \$30.4 million)		125,684
Inventory of materials and supplies		23,769
Restricted cash and cash equivalents		220,661
Total current assets		<u>444,315</u>
 <i>NONCURRENT RESTRICTED ASSETS:</i>		
Restricted cash and cash equivalents		38,691
Investments		1,000,810
Long-term receivable		2,000
Total restricted assets		<u>1,041,501</u>
 <i>OTHER ASSETS:</i>		
Bond insurance		230
Other charges, net		3,329
Total other assets		<u>3,559</u>
 <i>CAPITAL ASSETS:</i>		
Land		52,089
Structures and improvements		3,577,650
Equipment		1,017,237
Utility plant in service before depreciation		4,646,976
Less accumulated depreciation		<u>(2,430,998)</u>
Net utility plant in service		2,215,978
Construction work in progress		1,434,950
Total capital assets		<u>3,650,928</u>
Total noncurrent assets		<u>4,695,987</u>
Total assets		<u>5,140,302</u>
 <i>DEFERRED OUTFLOWS OF RESOURCES:</i>		
Loss on refundings		109,335
Outflow related to pension		21,820
Total deferred outflows of resources		<u>131,155</u>
Total assets and deferred outflows of resources	\$	<u><u>5,271,457</u></u>

(Continued)

Wastewater System

SCHEDULE OF NET POSITION

(Continued)	September 30,	2021
		(In thousands)
LIABILITIES		
<i>CURRENT LIABILITIES (PAYABLE FROM UNRESTRICTED CURRENT ASSETS):</i>		
Accounts payable and accrued expenses	\$	48,581
Customer and developer deposits		6,340
Liability for compensated absences		9,085
Other liabilities		2,154
Total current liabilities (payable from unrestricted current assets)		66,160
<i>CURRENT LIABILITIES (PAYABLE FROM RESTRICTED CURRENT ASSETS):</i>		
Accounts payable and accrued expenses		54,726
Retainage payable		32,581
Current portion of long-term debt		75,393
Accrued interest payable		57,961
Total current liabilities (payable from restricted current assets)		220,661
Total current liabilities		286,821
<i>NONCURRENT LIABILITIES:</i>		
Revenue bonds payable, net		3,174,126
State loan obligations, net		147,712
Notes Payable		1,284
Liability for compensated absences		26,745
Net pension liability		37,170
Total noncurrent liabilities		3,387,037
Total liabilities		3,673,858
<i>DEFERRED INFLOWS OF RESOURCES:</i>		
Inflow related to pension		62,872
Total deferred inflows of resources		62,872
Total liabilities and deferred inflows of resources		3,736,731
NET POSITION		
Net investment in capital assets		1,115,416
Restricted for:		
Capital projects		153,152
Debt service		186,410
Unrestricted		79,749
Total net position		1,534,727
Total liabilities, deferred Inflows of resources and net position	\$	5,271,457

Wastewater System

SCHEDULE OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

For the fiscal year ended September 30,

2021

(In thousands)

OPERATING REVENUES:

Retail	\$ 343,224
Wholesale	97,410
Other revenues	10,682
Total operating revenues	451,316

OPERATING AND MAINTENANCE EXPENSES:

Collection system	36,695
Pumping	53,855
Treatment	107,045
Customer accounting	16,870
Customer service	10,985
General and administrative	51,623
Total operating and maintenance expenses	277,073

Operating income before depreciation	174,243
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DEPRECIATION EXPENSE

143,729

Operating income	30,514
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NON-OPERATING REVENUES (EXPENSES):

Investment income	888
Interest expense	(98,157)
Amortization of issuance costs	(11,445)
Operating Disaster Revenue	128
Customer connection fees	21,910
Other revenues	(133)
Other expenses	(798)
	(798)

Income (loss) before contributions	(57,093)
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Capital contributions	16,393
Transfer from Water System	151,009
	151,009

Increase in net position	110,309
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Net position at beginning of year	1,424,418
	1,424,418

Net position at end of year	\$ 1,534,727
	\$ 1,534,727

Wastewater System

SCHEDULE OF CASH FLOWS

For the fiscal year ended September 30,	2021
	(In thousands)
<i>CASH FLOWS FROM OPERATING ACTIVITIES:</i>	
Cash received from customers	\$ 442,053
Cash paid to suppliers for goods and services	(107,652)
Cash paid to employees for services	(155,665)
Transfer from Water System	151,009
Net cash provided by operating activities	<u>329,745</u>
<i>CASH FLOWS FROM NON-CAPITAL FINANCING ACTIVITIES:</i>	
Long term receivable	1,000
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	929,085
Principal payments - bond and loans	(72,446)
Interest paid	(101,532)
Acquisition and construction of capital assets	(366,374)
Net cash provided by capital and related financing activities	<u>388,733</u>
<i>CASH FLOWS FROM INVESTING ACTIVITIES:</i>	
Purchase of investment securities	(1,699,673)
Proceeds from sale and maturity of investment securities	1,040,765
Interest on investments	1,576
Net cash used by investing activities	<u>(657,332)</u>
Net increase in cash and cash equivalents	62,145
Cash and cash equivalents at beginning of year	<u>226,291</u>
Cash and cash equivalents at end of year	<u>\$ 288,436</u>

Wastewater System

SCHEDULE OF CASH FLOWS

For the fiscal year ended September 30,

2021

(Continued)

(In thousands)

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

Operating income	\$	30,514
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation		143,729
Provision for uncollectible accounts		13,634
Non-operating other, net		87,607
Transfer from Water System		151,009
(Increase) decrease in assets and deferred outflows:		
Accounts Receivable		(31,133)
Inventory of materials and supplies		4,507
Other charges		4,667
Deferred outflows related to pension and OPEB		11,792
Increase (decrease) in liabilities and deferred inflows:		
Accounts payable and accrued expenses		(4,543)
Customer and developer deposits		(34)
Accrued interest payable		9,812
Liability for compensated absences		3,090
Other liabilities		(79,714)
Net pension liability		(77,586)
Deferred Inflows related to pension and OPEB		62,394
		<hr/>
Net cash provided by operating activities	\$	<u><u>329,745</u></u>

NONCASH INVESTING, CAPITAL AND FINANCING ACTIVITIES

Property, plant and equipment contributions were received in amounts of \$16.4 million in fiscal year 2021.

The change in the fair value of investments was a \$0.3 million decrease in fiscal year 2021.

RECONCILIATION OF CASH AND CASH EQUIVALENTS AT END OF YEAR

Unrestricted current cash and cash equivalents	\$	29,084
Restricted current cash and cash equivalents		220,661
Restricted noncurrent cash and cash equivalents		38,691
		<hr/>
Total cash and cash equivalents at end of year	\$	<u><u>288,436</u></u>

Wastewater System

SCHEDULE OF OPERATING AND MAINTENANCE EXPENSES

Budget and Actual
For the fiscal year ended September 30, 2021
(In thousands)

	Budget	Actuals	Variance under/(over)
Collection system	\$ 35,666	\$ 36,695	\$ (1,029)
Pumping	50,171	53,855	(3,684)
Treatment	109,216	107,045	2,171
Customer accounting	4,886	16,870	(11,984)
Customer service	8,675	10,985	(2,310)
General and administrative	61,769	51,623	10,146
Totals	<u>\$ 270,383</u>	<u>\$ 277,073</u>	<u>\$ (6,690)</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 82-85, 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 86-88, contain information to help the reader assess the factors affecting the Department's ability to generate revenue.

Debt Capacity

These schedules, found on pages 89-90, 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 91-97, 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 98-100, 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)	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
<i>COMBINED WATER AND WASTEWATER SYSTEMS:</i>										
Net investment in capital assets	\$1,967,212	\$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
Restricted	564,710	491,735	419,134	342,400	356,540	330,257	340,066	321,122	273,623	223,887
Unrestricted	167,838	192,058	218,794	237,744	260,899	266,833	266,597	355,635	449,515	431,933
Total net position	<u>\$2,699,760</u>	<u>\$2,651,451</u>	<u>\$2,600,485</u>	<u>\$2,521,288</u>	<u>\$2,468,480</u>	<u>\$2,327,618</u>	<u>\$2,197,316</u>	<u>\$2,219,687</u>	<u>\$2,197,335</u>	<u>\$2,223,275</u>
<i>WATER SYSTEM:</i>										
Net investment in capital assets	\$ 851,796	\$ 931,597	\$ 989,270	\$ 986,573	\$ 975,646	\$ 965,055	\$1,013,229	\$ 988,585	\$ 943,883	\$ 971,727
Restricted	225,148	210,526	141,881	108,344	111,646	80,115	80,841	93,302	96,841	73,822
Unrestricted	88,089	84,910	108,306	123,265	139,835	137,622	146,403	189,084	252,612	222,278
Total net position	<u>\$1,165,033</u>	<u>\$1,227,033</u>	<u>\$1,239,457</u>	<u>\$1,218,182</u>	<u>\$1,227,127</u>	<u>\$1,182,792</u>	<u>\$1,240,473</u>	<u>\$1,270,971</u>	<u>\$1,293,336</u>	<u>\$1,267,827</u>
<i>WASTEWATER SYSTEM:</i>										
Net investment in capital assets	\$1,115,416	\$1,036,061	\$ 973,287	\$ 954,571	\$ 875,395	\$ 765,473	\$ 577,424	\$ 554,345	\$ 530,314	\$ 595,728
Restricted	339,562	281,209	277,253	234,056	244,894	250,142	259,225	227,820	176,782	150,065
Unrestricted	79,749	107,148	110,488	114,479	121,064	129,211	120,194	166,551	196,903	209,655
Total net position	<u>\$1,534,727</u>	<u>\$1,424,418</u>	<u>\$1,361,028</u>	<u>\$1,303,106</u>	<u>\$1,241,353</u>	<u>\$1,144,826</u>	<u>\$ 956,843</u>	<u>\$ 948,716</u>	<u>\$ 903,999</u>	<u>\$ 955,448</u>

Combined Water and Wastewater Systems

SCHEDULE OF REVENUES AND EXPENSES – LAST TEN FISCAL YEARS

(In thousands)	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
<i>OPERATING REVENUES:</i>										
Retail	\$ 674,875	\$ 627,340	\$ 586,158	\$ 563,839	\$ 554,546	\$ 520,146	\$ 486,201	\$ 465,057	\$ 437,778	\$ 429,003
Wholesale	132,092	118,383	118,260	117,735	123,854	110,951	98,810	85,771	88,754	82,710
Other	20,158	23,758	30,033	30,275	28,932	28,685	28,305	28,022	21,876	24,589
Total operating revenues	<u>827,125</u>	<u>769,481</u>	<u>734,451</u>	<u>711,849</u>	<u>707,332</u>	<u>659,782</u>	<u>613,316</u>	<u>578,850</u>	<u>548,408</u>	<u>536,302</u>
<i>OPERATING AND MAINTENANCE EXPENSES:</i>										
Source of supply	14,291	14,179	13,966	9,578	14,193	14,284	10,931	10,788	10,874	10,705
Collection system	36,695	33,169	32,481	34,049	33,457	26,866	27,634	22,500	21,638	20,150
Pumping	55,962	52,228	50,162	45,426	44,519	41,532	39,384	37,355	36,508	35,883
Treatment	178,812	165,021	169,240	163,435	152,734	160,186	156,229	145,513	139,555	134,178
Transmission and distribution	37,825	40,328	39,058	35,783	31,228	30,554	30,892	28,844	27,882	27,423
Customer accounting and service	59,626	49,731	33,422	34,787	34,160	30,239	28,068	23,180	25,155	23,574
General and administrative	93,828	124,023	103,896	100,250	88,239	84,827	75,769	81,662	78,552	73,164
Total operating and maintenance expense	<u>477,038</u>	<u>478,679</u>	<u>442,225</u>	<u>423,308</u>	<u>398,530</u>	<u>388,488</u>	<u>368,907</u>	<u>349,842</u>	<u>340,164</u>	<u>325,077</u>
Operating income before depreciation	350,087	290,802	292,226	288,541	308,802	271,294	244,409	229,008	208,244	211,225
<i>DEPRECIATION EXPENSE</i>	226,059	206,311	201,173	199,694	187,921	184,424	188,909	183,557	177,570	163,315
Operating income (loss)	124,028	84,491	91,053	88,847	120,881	86,870	55,500	45,451	30,674	47,910
<i>NON-OPERATING REVENUES (EXPENSES):</i>										
Investment income (loss)	1,445	14,559	27,954	1,407	(9,649)	(4,853)	20,557	3,933	(18,351)	21,797
Interest expense	(129,755)	(122,239)	(111,875)	(42,861)	(25,978)	(46,369)	(75,728)	(89,678)	(78,538)	(85,478)
Other income	14,203	16,207	38,358	16,075	20,499	41,043	36,186	42,670	28,572	24,269
Income (loss) before contributions and transfers	9,921	(6,982)	45,490	63,468	105,753	76,691	36,515	2,376	(37,643)	8,498
Capital contributions	38,388	57,949	33,707	28,330	35,109	53,611	46,692	35,810	19,459	28,156
Increase (decrease) in net position	<u>\$ 48,309</u>	<u>\$ 50,967</u>	<u>\$ 79,197</u>	<u>\$ 91,798</u>	<u>\$ 140,862</u>	<u>\$ 130,302</u>	<u>\$ 83,207</u>	<u>\$ 38,186</u>	<u>\$ (18,184)</u>	<u>\$ 36,654</u>

Water System

SCHEDULE OF REVENUES AND EXPENSES – LAST TEN FISCAL YEARS

(In thousands)	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
<i>OPERATING REVENUES:</i>										
Retail	\$ 331,651	\$ 302,360	\$ 277,305	\$ 268,275	\$ 265,636	\$ 247,088	\$ 233,464	\$ 219,880	\$ 207,117	\$ 202,633
Wholesale	34,682	27,779	34,810	39,310	34,916	28,572	37,008	28,815	29,210	35,330
Other	9,476	11,820	15,937	16,159	15,493	15,383	14,966	14,908	11,985	13,167
Total operating revenues	<u>375,809</u>	<u>341,959</u>	<u>328,052</u>	<u>323,744</u>	<u>316,045</u>	<u>291,043</u>	<u>285,438</u>	<u>263,603</u>	<u>248,312</u>	<u>251,130</u>
<i>OPERATING AND MAINTENANCE EXPENSES:</i>										
Source of supply	14,291	14,179	13,966	9,578	14,193	14,284	10,931	10,788	10,874	10,705
Pumping	2,106	2,040	2,224	1,927	1,976	1,982	2,054	1,911	1,816	1,798
Treatment	71,767	64,517	68,717	62,707	60,387	68,272	63,921	58,741	60,188	59,811
Transmission and distribution	37,825	40,328	39,058	35,783	31,228	30,554	30,892	28,844	27,882	27,423
Customer accounting and service	31,771	26,719	18,850	19,300	19,066	16,859	15,651	13,025	13,908	12,841
General and administrative	42,207	55,875	46,754	45,077	39,683	37,983	34,078	36,711	35,292	32,936
Total operating and maintenance expenses	<u>199,966</u>	<u>203,658</u>	<u>189,569</u>	<u>174,372</u>	<u>166,533</u>	<u>169,934</u>	<u>157,527</u>	<u>150,020</u>	<u>149,960</u>	<u>145,514</u>
Operating income before depreciation	175,843	138,301	138,483	149,372	149,512	121,109	127,911	113,583	98,352	105,616
DEPRECIATION EXPENSE	<u>82,330</u>	<u>76,720</u>	<u>73,078</u>	<u>74,858</u>	<u>74,142</u>	<u>72,180</u>	<u>66,642</u>	<u>65,456</u>	<u>69,581</u>	<u>61,158</u>
Operating income (loss)	93,513	61,581	65,405	74,514	75,370	48,929	61,269	48,127	28,771	44,458
<i>NON-OPERATING REVENUES (EXPENSES):</i>										
Investment income (loss)	557	6,218	12,535	5	(5,178)	(2,650)	10,127	1,769	(8,574)	10,980
Interest expense	(31,598)	(30,133)	(26,497)	(16,158)	(17,434)	(16,290)	(19,169)	(21,731)	(14,203)	(17,437)
Other income	4,541	9,191	7,161	7,161	2,463	11,843	9,812	13,090	6,461	10,024
Income (loss) before contributions and transfers	67,013	46,857	58,604	65,522	55,221	41,832	62,039	41,255	12,455	48,025
Capital contributions	21,995	19,804	21,115	16,895	21,632	28,860	27,918	21,370	11,490	15,749
Transfer (to) from Wastewater System	<u>(151,009)</u>	<u>(79,085)</u>	<u>(58,444)</u>	<u>(71,867)</u>	<u>(32,520)</u>	<u>(128,373)</u>	<u>(67,666)</u>	<u>(80,939)</u>	<u>1,564</u>	<u>(43,218)</u>
Increase (decrease) in net position	<u>\$ (62,001)</u>	<u>\$ (12,424)</u>	<u>\$21,275</u>	<u>\$ 10,550</u>	<u>\$ 44,333</u>	<u>\$ (57,681)</u>	<u>\$ 22,291</u>	<u>\$ (18,314)</u>	<u>\$ 25,509</u>	<u>\$ 20,556</u>

Wastewater System

SCHEDULE OF REVENUES AND EXPENSES – LAST TEN FISCAL YEARS

(In thousands)	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
<i>OPERATING REVENUES:</i>										
Retail	\$ 343,224	\$ 324,980	\$ 308,853	\$ 295,564	\$ 288,910	\$ 273,058	\$ 252,737	\$ 245,167	\$ 230,661	\$ 226,370
Wholesale	97,410	90,604	83,450	78,425	88,938	82,380	61,802	56,956	59,544	47,380
Other	10,682	11,938	14,096	14,116	13,439	13,301	13,339	13,114	9,891	11,422
Total operating revenues	<u>451,316</u>	<u>427,522</u>	<u>406,399</u>	<u>388,105</u>	<u>391,287</u>	<u>368,739</u>	<u>327,878</u>	<u>315,237</u>	<u>300,096</u>	<u>285,172</u>
<i>OPERATING AND MAINTENANCE EXPENSES:</i>										
Collection system	36,695	33,169	32,481	34,049	33,457	26,866	27,634	22,500	21,638	20,150
Pumping	53,855	50,188	47,938	43,499	42,543	39,549	37,330	35,444	34,692	34,085
Treatment	107,045	100,504	100,523	100,728	92,347	91,915	92,308	86,772	79,367	74,367
Customer accounting and service	27,855	23,012	14,572	15,487	15,094	13,380	12,417	10,155	11,247	10,733
General and administrative	51,623	68,148	57,142	55,173	48,556	46,844	41,691	44,951	43,260	40,228
Total operating and maintenance expenses	<u>277,073</u>	<u>275,021</u>	<u>252,656</u>	<u>248,936</u>	<u>231,997</u>	<u>218,554</u>	<u>211,380</u>	<u>199,822</u>	<u>190,204</u>	<u>179,563</u>
Operating income before depreciation	174,243	152,501	153,743	139,169	159,290	150,185	116,498	115,415	109,892	105,609
DEPRECIATION EXPENSE	<u>143,729</u>	<u>129,591</u>	<u>128,095</u>	<u>124,836</u>	<u>113,779</u>	<u>112,244</u>	<u>122,267</u>	<u>118,101</u>	<u>107,989</u>	<u>102,157</u>
Operating income (loss)	30,514	22,910	25,648	14,333	45,511	37,941	(5,769)	(2,686)	1,903	3,452
<i>NON-OPERATING REVENUES (EXPENSES):</i>										
Investment income (loss)	888	8,341	15,419	1,402	(4,471)	(2,203)	10,430	2,164	(9,777)	10,817
Interest expense	(98,157)	(92,106)	(85,378)	(26,703)	(8,544)	(30,079)	(56,559)	(67,947)	(64,335)	(68,041)
Other income	9,662	7,017	31,197	8,914	18,034	29,200	26,374	29,580	22,111	14,245
Income (loss) before contributions and transfers	<u>(57,093)</u>	<u>(53,838)</u>	<u>(13,114)</u>	<u>(2,054)</u>	<u>50,530</u>	<u>34,859</u>	<u>(25,524)</u>	<u>(38,889)</u>	<u>(50,098)</u>	<u>(39,527)</u>
Capital contributions	16,393	38,145	12,592	11,435	13,477	24,751	18,774	14,440	7,969	12,407
Transfer (to) from Water System	<u>151,009</u>	<u>79,085</u>	<u>58,444</u>	<u>71,867</u>	<u>32,520</u>	<u>128,373</u>	<u>67,666</u>	<u>80,939</u>	<u>(1,564)</u>	<u>43,218</u>
Increase (decrease) in net position	<u>\$ 110,309</u>	<u>\$ 63,392</u>	<u>\$ 57,922</u>	<u>\$ 81,248</u>	<u>\$ 96,527</u>	<u>\$ 187,983</u>	<u>\$ 60,916</u>	<u>\$ 56,490</u>	<u>\$ (43,693)</u>	<u>\$ 16,098</u>

Water and Wastewater System Rates

LAST TEN FISCAL YEARS

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
<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"	13.62	12.38	12.38	12.38	12.38	11.42	10.77	10.16	9.41	9.41
1.5"	27.24	24.76	24.76	24.76	24.76	22.84	21.55	20.33	18.82	18.82
2"	43.56	39.60	39.60	39.60	39.60	36.53	34.46	32.51	30.10	30.10
3"	87.13	79.21	79.21	79.21	79.21	73.07	68.93	65.03	60.21	60.21
4"	136.14	123.76	123.76	123.76	123.76	114.17	107.71	101.61	94.08	94.08
6"	272.25	247.50	247.50	247.50	247.50	228.32	215.40	203.21	188.16	188.16
8"	435.62	369.02	396.02	396.02	396.02	365.33	344.65	325.14	301.06	301.06
10"	626.21	569.28	569.28	569.28	569.28	525.16	495.43	467.39	432.77	432.77
12"	1,170.73	1,064.30	1,064.30	1,064.30	1,064.30	981.83	926.25	873.82	809.09	809.09
14"	2,178.08	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
16"	2,994.87	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
Composite rate (revenues/flows)	5.28	4.86	4.47	4.30	4.09	3.85	3.66	3.46	2.99	2.93
<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	\$ 5.05	\$ 3.25	\$ 3.25	\$ 3.25	\$ 3.25	\$ 3.25	\$ 3.25	\$ 3.25
1"	18.78	17.07	17.07	12.57	12.53	11.60	10.94	10.32	9.56	9.56
1.5"	37.55	34.14	34.14	25.14	25.05	23.19	21.88	20.64	19.11	19.11
2"	60.09	54.63	54.63	40.23	40.08	37.11	35.01	33.03	30.58	30.58
3"	120.15	109.23	109.23	80.43	80.14	74.20	70.00	66.04	61.15	61.15
4"	187.75	170.68	170.68	125.68	125.22	115.94	109.38	103.19	95.55	95.55
6"	375.52	341.38	341.38	251.38	250.46	231.90	218.77	206.39	191.10	191.10
8"	600.82	546.20	546.20	402.20	400.72	371.03	350.03	330.22	305.76	305.76
10"	863.68	785.16	785.16	578.16	576.03	533.36	503.17	474.69	439.53	439.53
12"	1,614.00	1,467.92	1,467.92	1,080.92	1,076.93	997.16	940.72	887.47	821.73	821.73
14"	3,004.12	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
16"	4,130.67	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
Composite rate (revenues/flows)	7.01	6.70	6.41	6.10	5.74	5.51	5.16	4.98	4.69	4.64

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

Water Treatment

LAST TEN FISCAL YEARS

(millions of gallons)	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
<i>WATER PUMPED:</i>										
Water treatment plants:										
Alexander Orr, Jr.	66,281	67,283	66,620	66,096	66,190	65,968	62,566	60,183	58,666	59,805
John E. Preston	38,102	31,791	30,138	26,555	27,891	26,789	27,044	26,942	30,586	27,232
Hialeah	10,283	14,531	16,939	20,467	20,093	20,142	19,488	19,248	21,241	22,688
South Dade Water System	3,765	3,845	3,790	3,920	3,752	3,921	3,570	2,607	2,670	2,658
Purchase water	88	89	99	116	116	192	164	124	178	152
Total water pumped	118,519	117,539	117,586	117,154	118,042	117,012	112,832	109,104	113,341	112,535
<i>WATER SOLD:</i>										
Wholesale:										
Miami Beach	6,926	7,195	8,109	8,381	8,566	8,249	8,346	7,615	7,903	7,918
Hialeah	6,263	6,146	6,376	6,566	7,040	6,857	6,623	7,285	9,429	9,121
North Miami	2,218	2,318	2,792	3,468	2,313	1,538	2,096	1,693	1,655	1,374
Opa-Locka	771	861	998	909	894	993	950	895	876	876
Hialeah Gardens	743	766	764	703	742	768	694	638	576	591
Homestead ¹	888	810	668	723	668	684	520	188	151	40
Bal Harbor	415	454	437	455	487	506	503	407	494	430
North Bay Village	419	423	404	419	435	419	430	405	415	391
Medley	405	403	368	389	378	381	365	470	516	479
Bay Harbor Islands	414	317	319	338	319	291	328	318	309	310
Surfside	337	340	358	386	389	325	326	303	299	312
West Miami	328	347	321	334	344	319	251	278	236	292
Indian Creek Village	167	195	179	154	143	119	134	117	120	122
Virginia Gardens	78	82	86	80	80	84	82	91	95	93
North Miami Beach	—	—	—	—	83	—	3	—	—	—
Total wholesale	20,372	20,657	22,179	23,305	22,881	21,533	21,651	20,703	23,074	22,349
Retail	62,860	62,243	62,051	62,421	64,968	64,108	63,783	63,539	63,386	63,169
Total water sold	83,232	82,900	84,230	85,726	87,849	85,641	85,434	84,242	86,460	85,518
Non-account water	35,284	34,632	33,357	31,428	30,193	31,373	27,398	24,862	26,881	27,017
Non-account water as a percentage of total water pumped	29.77%	29.46%	28.37%	26.83%	25.58%	26.81%	24.28%	22.79%	23.72%	24.01%
Unaccounted for water as a percentage of total water pumped	8.37%	10.15%	9.18%	5.65%	6.69%	10.10%	8.37%	5.67%	8.88%	3.02%

¹ Homestead usage of water is limited to an as needed basis. Their usage is not consistent to that of a wholesale customer.

Wastewater Treatment

LAST TEN FISCAL YEARS

(millions of gallons)	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
<i>WASTEWATER PLANT FLOWS:</i>										
North District Plant	37,867	37,190	32,998	32,785	34,251	30,734	32,745	34,296	32,000	35,141
Central District Plant	32,841	36,495	41,449	40,344	40,000	46,432	40,662	44,044	43,696	45,014
South District Wastewater Treatment Plant	37,950	35,735	34,515	36,415	38,207	38,115	33,413	37,382	36,274	41,472
Total wastewater plant flows	108,658	109,420	108,962	109,544	112,458	115,281	106,820	115,722	111,970	121,627
<i>WASTEWATER TREATED:</i>										
<i>Wholesale:</i>										
Miami Beach	7,813	7,694	8,058	8,082	8,054	8,797	8,399	8,312	8,141	7,452
Hialeah	11,705	10,636	8,994	9,144	9,203	8,943	7,169	7,102	7,050	7,002
North Miami	3,679	3,607	3,400	3,544	3,654	3,711	3,722	3,619	3,745	3,699
Coral Gables	1,195	1,443	1,074	906	1,477	1,432	1,231	1,041	1,088	1,144
Homestead	1,311	1,202	1,117	1,106	1,763	1,643	938	1,374	736	946
Opa-Locka	909	876	893	703	702	729	861	1,174	733	684
Hialeah Gardens	761	703	661	679	704	700	757	877	865	940
North Miami Beach	1,061	1,241	1,258	1,250	580	510	505	499	622	727
Medley	573	602	464	438	456	617	477	644	544	708
Florida City	483	445	449	458	425	458	464	420	457	494
North Bay Village	353	315	322	353	409	457	433	418	408	316
West Miami	196	196	199	184	169	185	147	147	162	202
Homestead Air Force Base	99	85	79	73	86	98	78	79	69	65
Total wholesale	30,138	29,045	26,968	26,920	27,683	28,280	25,181	25,706	24,620	24,379
Retail	48,937	48,523	48,167	48,492	50,334	49,550	48,998	49,247	49,345	48,752
Unaccounted for wastewater	29,582	31,841	33,827	34,131	34,442	37,450	32,641	40,769	38,005	48,496
Total wastewater treated	108,657	109,409	108,963	109,543	112,459	115,280	106,820	115,722	111,970	121,627
Unaccounted for wastewater as a percentage of total wastewater treated	27.23%	29.10%	31.04%	31.16%	30.63%	32.49%	30.56%	35.23%	33.94%	39.87%
ANNUAL RAINFALL (inches): ¹	73.85	75.49	61.28	73.02	78.33	75.11	47.22	73.70	60.60	97.90

¹ Source: National Weather Service Forecast Office in Miami for rainfall recorded in inches at Miami International Airport.

Debt Services Coverage

LAST TEN FISCAL YEARS

(In thousands)	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
SENIOR OBLIGATIONS DEBT SERVICE COVERAGE:										
Net operating revenues	\$ 350,087	\$ 290,803	\$ 292,226	\$ 288,541	\$ 308,802	\$ 271,293	\$ 244,409	\$ 229,007	\$ 208,432	\$ 211,225
Investment earnings ¹	1,870	10,413	15,355	9,566	3,144	1,823	1,198	1,166	1,479	1,336
Net transfers from (to) Rate Stabilization Fund	—	—	—	—	—	—	—	—	—	—
Net revenues available for debt service	\$ 351,957	\$ 301,216	\$ 307,581	\$ 298,107	\$ 311,946	\$ 273,116	\$ 245,607	\$ 230,173	\$ 209,911	\$ 212,561
Debt service requirements ²	\$ 202,029	\$ 188,003	\$ 173,198	\$ 164,449	\$ 161,194	\$ 157,036	\$ 153,211	\$ 143,622	\$ 138,711	\$ 137,625
Actual coverage	1.74	1.60	1.78	1.81	1.94	1.74	1.60	1.60	1.51	1.54
Required coverage	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.10
SUBORDINATE OBLIGATIONS DEBT SERVICE COVERAGE:										
Net revenues available for debt service	\$ 351,957	\$ 301,216	\$ 307,581	\$ 298,107	\$ 311,946	\$ 273,116	\$ 245,607	\$ 230,173	\$ 209,911	\$ 212,561
Less: Maximum principal and interest ³	225,057	202,029	182,569	171,345	161,195	161,195	161,195	163,181	161,340	146,270
Adjusted net revenues	\$ 126,900	\$ 99,187	\$ 125,012	\$ 126,762	\$ 150,751	\$ 111,921	\$ 84,412	\$ 66,992	\$ 48,571	\$ 66,291
Debt service requirements ⁴	\$ 16,910	\$ 16,934	\$ 15,589	\$ 15,822	\$ 15,973	\$ 16,819	\$ 18,081	\$ 15,369	\$ 11,386	\$ 13,501
Actual coverage	7.50	5.86	8.02	8.01	9.44	6.65	4.67	4.36	4.27	4.91
Required coverage	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
TOTAL OBLIGATIONS DEBT SERVICE COVERAGE:										
Net revenues available for debt service	351,957	301,216	307,581	298,107	311,946	273,116	245,607	230,173	209,911	212,561
Senior debt service requirements	202,029	188,003	173,198	164,449	161,194	157,036	153,211	143,622	138,711	137,625
Subordinate debt service requirements ⁴	16,910	16,934	15,589	15,822	15,973	16,819	18,081	15,369	11,386	13,501
Total debt service requirements	218,939	204,937	188,787	180,271	177,167	173,855	171,292	158,991	150,097	151,126
Actual coverage	1.61	1.47	1.63	1.65	1.76	1.57	1.43	1.45	1.40	1.41
Required coverage	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
STATE REVOLVING FUND LOANS DEBT SERVICE COVERAGE:										
Net revenues available for debt service	\$ 351,957	\$ 301,216	\$ 307,581	\$ 298,107	\$ 311,946	\$ 273,116	\$ 245,607	\$ 230,173	\$ 209,911	\$ 212,561
Less: revenue required for primary debt service coverage ⁵	252,536	235,004	216,498	205,561	201,493	196,295	191,514	179,528	173,389	151,388
Adjusted net revenues	\$ 99,421	\$ 66,212	\$ 91,083	\$ 92,546	\$ 110,453	\$ 76,821	\$ 54,093	\$ 50,646	\$ 36,522	\$ 61,173
Debt service requirements ⁶	\$ 16,910	\$ 16,934	\$ 15,589	\$ 15,822	\$ 15,973	\$ 16,819	\$ 18,081	\$ 15,369	\$ 11,386	\$ 13,501
Actual coverage	5.88	3.91	5.84	5.85	6.92	4.57	2.99	3.30	3.21	4.53
Required coverage	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15	1.15
SUBORDINATE BONDS DEBT SERVICE COVERAGE RATIO:										
Net revenues available for debt service	\$ 351,957									
Less: revenue required for primary debt service coverage	252,536									
Adjusted net revenues	99,421									
Debt service requirements	—									
Actual coverage	—									
Required coverage	1.10									
WIFIA LOANS DEBT SERVICE COVERAGE RATIO:										
Net revenues available for debt service	\$ 351,957									
Less: revenue required for primary debt service coverage	252,536									
Adjusted net revenues	99,421									
Debt service requirements	—									
Actual coverage	—									
Required coverage	1.10									

Debt Services Coverage

LAST TEN FISCAL YEARS

(continued)

- ¹ Excludes interest income from Construction Fund
- ² Represents debt service requirements on outstanding Bonds for such fiscal year
- ³ Maximum principal and interest requirements on the Bonds for such fiscal year
- ⁴ Represents debt service requirements on outstanding State Revolving Fund Loans, Subordinate Bonds and WIFIA Loans for such fiscal year.
- ⁵ Represents 125% of primary debt service requirements
- ⁶ Represents debt service requirements on outstanding State Revolving Fund Loans for such fiscal year.

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

1. Debt service payments on 2021 Subordinate Bonds will commence on 10/01/2022
2. Debt service payments on WIFIA loans are not expected to commence until 2028

Ratio of Outstanding Debt by Types

LAST TEN FISCAL YEARS (IN THOUSANDS)

Fiscal Year	Revenue Bonds	Loans	Notes Payable	Commercial Paper¹	Total Outstanding Debt	Total Per Customer
2021	\$ 4,146,417	\$ 197,807	\$ 1,284	\$ —	\$ 4,345,508	\$ 5.23
2020	3,236,961	185,282	1,229	—	3,423,472	4.18
2019	2,548,020	160,430	—	300,000	3,008,450	3.41
2018	2,366,854	156,833	—	200,000	2,723,687	3.16
2017	1,980,348	165,449	—	375,000	2,520,797	2.90
2016	2,053,731	161,272	—	100,000	2,315,003	2.77
2015	2,024,019	164,698	—	—	2,188,717	2.95
2014	2,132,906	175,796	—	—	2,308,702	3.03
2013	2,193,562	154,873	—	—	2,348,435	2.66
2012	1,896,641	143,843	—	—	2,040,484	2.70

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

Customer Statistics

LARGEST SYSTEM CUSTOMERS – CURRENT YEAR AND NINE YEARS AGO

Name	Dollar Amount ¹ (In thousands)	Percent of System Gross Revenues
<i>WATER SYSTEM:</i>		
City of Miami Beach	\$ 12,431	3.3 %
City of Hialeah	11,240	3.0 %
Miami Int'l Airport	9,602	2.6 %
City of North Miami	3,981	1.1 %
FL Dep't of Corrections	2,507	0.7 %
FPL Turkey Point	2,443	0.7 %
City of Homestead	1,594	0.4 %
University of Miami	1,390	0.4 %
City of Opa-Locka	1,384	0.4 %
City of Hialeah Gardens	1,334	0.4 %
<i>WASTEWATER SYSTEM:</i>		
City of Hialeah	\$ 38,713	8.6 %
City of Miami Beach	25,744	5.7 %
City of North Miami	12,112	2.7 %
City of Homestead	4,413	1.0 %
City of Coral Gables	3,967	0.9 %
City of North Miami Beach	3,505	0.8 %
City of Opa-Locka	3,028	0.7 %
City of Hialeah Gardens	2,486	0.6 %
Miami Int'l Airport	2,355	0.5 %
Fl Dep't of Corrections	2,121	0.5 %

October 2011 - September 2012

Name	Dollar Amount ¹ (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 %

¹ Using billed flows in place of net amount

Retail Customer Statistics

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

Fiscal Year	Number of Customers		Ratio of Wastewater Customers to Water
	Water	Wastewater	
2021	457,286	372,681	81.5 %
2020	451,509	367,618	81.4 %
2019	449,985	366,069	81.4 %
2018	447,209	363,444	81.3 %
2017	443,615	361,055	81.4 %
2016	441,059	357,882	81.1 %
2015	436,862	354,006	81.0 %
2014	432,315	349,778	80.9 %
2013	428,631	346,285	80.8 %
2012	424,764	342,539	80.6 %

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	Number of Permits Issued		Value of Permits Issued
	Single Family Houses	Multi-family Buildings	Residential Construction (In thousands)
2021 ¹	1	1	1
2020 ¹	1	1	1
2019 ¹	1	1	1
2018 ¹	1	1	1
2017	2,285	8,269	1
2016	2,873	6,279	1
2015	2,800	9,817	1
2014	2,077	5,654	1
2013	2,266	8,050	1
2012	1,819	3,250	1

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

¹ Information unavailable as of the date of this report.

Population

MIAMI-DADE COUNTY, FLORIDA – LAST TEN FISCAL YEARS

Fiscal Year	Annual Resident Population	Increase (Decrease)	Percent Change
2021 ¹	2,731,939	(91,364)	(3.2)%
2020	2,823,303	11,173	0.4%
2019	2,812,130	32,808	1.2%
2018	2,779,322	36,227	1.3%
2017	2,743,095	46,742	1.7%
2016	2,696,353	42,419	1.6%
2015	2,653,934	67,644	2.5%
2014	2,586,290	20,605	0.8%
2013	2,565,685	14,430	0.6%
2012	2,551,255	32,129	(1.8)%

Source:

¹ U.S. Census Bureau, Population Division

Annual Estimates of the Resident Population for Counties in Florida: April 1, 2010 to July 1, 2019 (CO-EST2019-ANNRES-12) - Release Date: March 2020

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)
2021 ¹	—	—	—	—
2020 ¹	—	—	—	—
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

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

¹ For FY 2021 information unavailable as of the date of this report.

Principal Employers

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

Employer	2021 ¹			2012		
	Employees	Rank	Percentage of Total County Employment	Employees	Rank	Percentage of Total County Employment
Miami-Dade County Public Schools	33,477	1	2.51 %	44,132	1	3.39 %
Miami-Dade County	25,502	2	1.91 %	26,351	3	2.03 %
U.S. Federal Government	19,200	3	1.44 %	28,700	2	2.21 %
Florida State Government	17,100	4	1.28 %	19,400	4	1.49 %
University of Miami	12,818	5	0.96 %	13,233	7	1.02 %
Baptist Health South Florida	11,353	6	0.85 %	14,864	6	1.14 %
American Airlines	11,031	7	0.83 %	9,000	12	0.69 %
Jackson Health System	9,797	8	0.73 %	10,809	9	0.83 %
City of Miami	3,997	9	0.30 %	4,055	15	0.31 %
Florida International University	3,534	10	0.26 %	14,999	5	1.15 %
Carnival Cruise Lines	3,500	11	0.26 %	—	0	— %
Miami Children's Hospital	3,500	12	0.26 %	—	0	— %
Mount Sinai Medical Center	3,321	13	0.25 %	—	0	— %
Homestead AFB	3,250	14	0.24 %	10,100	11	0.78 %
Florida Power & Light Company	3,011	15	0.23 %	—	0	— %
Miami-Dade College	—	—	— %	12,500	8	0.96 %
U. S. Southern Command	—	—	— %	6,200	13	0.48 %
Precision Response Corporation	—	—	— %	5,000	14	0.38 %
	<u>164,391</u>		<u>12.31 %</u>	<u>230,143</u>		<u>17.69 %</u>

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

¹ Information 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
2021	¹	¹	5.2 %	1,307,815
2020	\$ 154,891,958	\$ 57,213	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

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

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
WATER:										
Water Distribution	228	240	224	222	222	230	221	220	205	206
Water Production and Maintenance	240	231	232	224	231	243	240	241	231	226
Laboratory Services	59	60	55	57	57	59	59	59	56	55
Meter ¹	95	94	97	96	—	—	—	—	—	—
SEWER:										
Sewer Collection	213	221	217	217	210	206	194	194	183	187
Wastewater Treatment and Maintenance	376	366	362	372	370	367	358	358	340	337
Pump Station Maintenance	227	241	226	228	230	208	195	197	193	192
SCADA ²	49	43	46	48	—	—	—	—	—	—
ENGINEERING:										
Utility Pipeline and Plant Engineering & Construction	75	74	78	77	66	71	71	71	70	75
Surveying	19	15	14	16	14	—	—	—	—	—
Utilities Development	120	113	110	111	107	105	104	94	73	73
Capital Improvements Program	32	25	27	26	29	55	50	69	65	71
ADMINISTRATION:										
Office of Director	3	3	29	20	21	24	17	32	15	30
Office of Deputy Director of Regulatory Compliance and Capital Improvements	20	17	11	15	16	21	9	6	5	6
Office of Deputy Director of Operations	4	3	12	14	3	4	47	45	43	13
Office of Assistant Director of Utility Engineering and Construction	4	4	4	3	2	1	1	1	1	1
Office of Chief Financial Officer	41	40	42	42	40	41	66	38	53	36
Office of Deputy Director of Internal and Administrative Services and Assistant Director of Customer Initiatives	97	89	76	79	73	77	114	114	112	143
Office of Assistant Director of Water	1	1	2	2	104	108	108	110	106	109
Office of Assistant Director of Wastewater	1	1	1	—	41	43	46	48	46	48
Office of Assistant Director of Regulatory Compliance and Planning	12	16	9	8	9	5	5	5	5	5
Office of Senior Advisor of Capital Projects sand Compliance ³	—	10	—	—	—	—	—	—	—	—
Attorney's Office	4	4	4	4	4	4	4	4	4	4
Controller	125	117	114	119	118	125	106	112	110	114
Information Technology	—	—	—	—	—	76	71	69	65	68
Retail Customer Service	238	242	247	248	219	238	255	243	227	224
Planning	23	22	23	22	25	25	19	19	17	17
Regulatory Compliance and Monitoring	12	14	14	15	15	17	17	16	14	15
General Maintenance	132	128	122	127	112	124	114	114	110	116
Human Resources Division	51	41	46	46	44	44	—	—	—	—
Security and Communications Division	34	39	40	40	43	44	—	—	—	—
Office of Assistant Contracts Compliance and Quality Assurance	2	2	3	3	3	4	—	—	—	—
Quality Assurance and Control Division	13	12	13	14	4	13	—	—	—	—
Performance Improvements & Management Division	13	10	12	12	13	17	—	—	—	—
Contract Compliance and Monitoring Division	19	21	22	26	20	27	—	—	—	—
Total	2,582	2,559	2,534	2,553	2,465	2,626	2,491	2,479	2,349	2,371

¹ Previously included in the Office of Assistant Director of Water

² Previously included in the Office of Assistant Director of Wastewater

³ Previously included in the Office of Director and Deputy Director of Operations

Capital Indicators

LAST TEN FISCAL YEARS

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
<i>WATER:</i>										
Water mains ¹ (miles)	6,316	6,288	6,271	6,269	6,264	6,131	6,035	6,004	5,988	5,969
Water treatment plants	9	9	9	9	9	9	9	9	9	8
Permitted water treatment capacity (million gallons per day)	464	464	464	464	461	461	464	464	454	454
Water supply wells	100	100	100	100	100	100	100	100	100	100
<i>WASTEWATER:</i>										
Sanitary sewers ¹ (miles)	4,225	4,214	4,191	4,191	4,184	4,165	4,110	4,072	4,048	4,027
Wastewater treatment plants	3	3	3	3	3	3	3	3	3	3
Permitted wastewater treatment capacity (million gallons per day)	376	376	376	376	376	376	376	376	376	376
Wastewater pump stations	1,041	1,041	1,041	1,052	1,049	1,049	1,047	1,047	1,042	1,039

¹ Does not include laterals.

Insurance in Force

Type of Coverage and Insurance Company	Policy Period	Details of Coverage	Limits of Liability
<i>Crime Policy:</i> Fidelity & Deposit Co. of Maryland	08/19/21 – 08/19/22	Employee Dishonesty	\$1,000,000
<i>Money and Securities:</i> Fidelity & Deposit Co. of Maryland	11/25/21 – 11/25/22	Theft of money and securities	Values scheduled per location
<i>Accidental Death:</i> Minnesota Life	01/01/22 – 01/01/23	Accidental death and dismemberment	\$25,000
<i>Property Insurance:</i> Ace American Ins. Co. Aspen Specialty Ins. Co. Liberty International Underwriters 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.	03/02/22 – 03/02/23	"All risk" coverage on real and personal property and outfalls	\$200,000,000
<i>Automobile Liability:</i>	Continuous	Self-Insured	\$200,000 per person/ \$300,000 per occurrence pursuant to F.S. 768.28 (certain claims may not fall with the parameters of FS)
<i>General Liability:</i>	Continuous	Self-Insured	\$200,000 per person/ \$300,000 per occurrence pursuant to F.S. 768.28 (certain claims may not fall with the parameters of FS)
<i>Workers' Compensation:</i>	Continuous	Self-Insured	Statutory coverage pursuant to F.S. 440

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MIAMI-DADE WATER AND SEWER DEPARTMENT

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