

FY 2016 - 17 Proposed Budget and Multi-Year Capital Plan

Water and Sewer

The Miami-Dade Water and Sewer Department (WASD) provides high-quality drinking water and wastewater disposal services, safeguarding public health and the environment, while planning for future growth, implementing water conservation measures, and providing for process improvements and cost efficiencies.

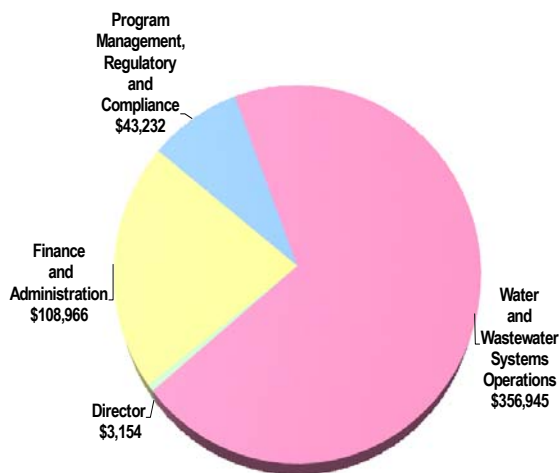
As part of the Neighborhood and Infrastructure strategic area, the Department's main functions are water production and distribution, as well as wastewater collection, treatment, reuse, and disposal. WASD operates three regional and five local water treatment plants, with a total permitted capacity of 464 million gallons per day (MGD), and three regional wastewater treatment plants with a total permitted capacity of 376 MGD. Additionally, WASD operates and maintains 94 water supply wells (grouped into 14 wellfields) in the Biscayne Aquifer; five aquifer storage and recovery wells in the Floridian Aquifer; more than 1,000 sewer pump stations; more than 8,200 miles of water distribution mains; and nearly 6,300 miles of wastewater mains and lateral collection pipes. The Department implements water conservation measures, provides high quality drinking water, and plans and improves infrastructure for future growth.

The Department delivers water and sewer services to most residents and businesses within Miami-Dade County, serving approximately 437,000 water and 354,000 wastewater retail customers as of September 30, 2015. Additionally, service is provided to 15 wholesale (municipal) water customers and to 13 wholesale (12 municipal and the Homestead Air Reserve Base) wastewater customers within Miami-Dade County on a daily basis. The total combined population served at the retail and wholesale level is about 2.3 million residents. In providing these services, the Department interacts with and is regulated by the United States Environmental Protection Agency, the Florida Department of Environmental Protection, the Miami-Dade County Health Department, the South Florida Water Management District, and the Regulatory and Economic Resources Department (RER).

FY 2016-17 Proposed Budget

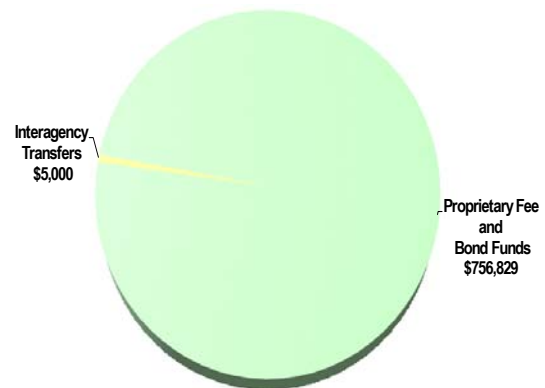
Expenditures by Activity

(dollars in thousands)



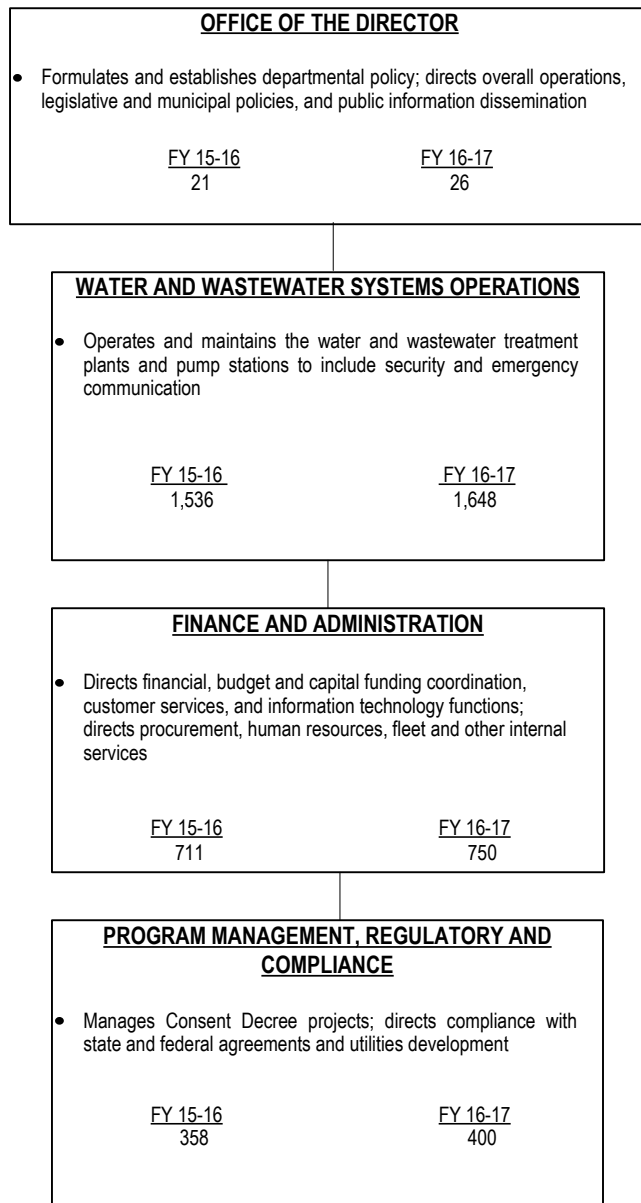
Revenues by Source

(dollars in thousands)



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TABLE OF ORGANIZATION



The FY 2016-17 total number of full-time equivalent positions is 2,824

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FINANCIAL SUMMARY

(dollars in thousands)	Actual FY 13-14	Actual FY 14-15	Budget FY 15-16	Proposed FY 16-17
Revenue Summary				
Carryover	57,383	59,430	63,834	68,551
Miscellaneous Non-Operating	1,593	1,475	1,574	1,502
Other Revenues	28,022	28,305	28,072	27,980
Retail Wastewater	245,167	252,737	270,375	285,603
Retail Water	219,890	233,464	242,715	264,785
Transfer From Other Funds	0	5,000	23,685	0
Wholesale Wastewater	56,956	61,802	72,198	72,527
Wholesale Water	28,815	37,008	24,169	35,881
Loan Repayments	5,000	5,000	5,000	5,000
Total Revenues	642,826	684,221	731,622	761,829

Operating Expenditures

Summary

Salary	151,606	162,569	159,851	170,419
Fringe Benefits	42,901	51,008	52,835	61,598
Contractual Services	68,059	75,619	95,264	99,173
Other Operating	46,036	39,513	52,386	47,240
Charges for County Services	41,241	47,147	50,416	51,398
Capital	65,362	72,648	82,222	82,469
Total Operating Expenditures	415,205	448,504	492,974	512,297

Non-Operating Expenditures

Summary

Transfers	13,236	0	0	4,608
Distribution of Funds In Trust	0	0	0	0
Debt Service	154,955	164,722	170,097	173,286
Depreciation, Amortizations and Depletion	0	0	0	0
Reserve	0	0	68,551	71,638
Total Non-Operating Expenditures	168,191	164,722	238,648	249,532

(dollars in thousands)	Total Funding		Total Positions	
Expenditure By Program	Budget FY 15-16	Proposed FY 16-17	Budget FY 15-16	Proposed FY 16-17
Strategic Area: Neighborhood and Infrastructure				
Director	5,647	3,154	21	26
Water and Wastewater	344,056	356,945	1,536	1,648
Systems Operations				
Finance and Administration	105,114	108,966	711	750
Program Management,	38,157	43,232	358	400
Regulatory and Compliance				
Total Operating Expenditures	492,974	512,297	2,626	2,824

SELECTED ITEM HIGHLIGHTS AND DETAILS

Line Item Highlights	(dollars in thousands)				
	Actual FY 13-14	Actual FY 14-15	Budget FY 15-16	Projection FY 15-16	Proposed FY 16-17
Advertising	776	632	840	684	810
Fuel	3,715	3,084	4,213	3,720	3,609
Overtime	13,577	16,037	11,755	13,051	12,503
Rent	330	104	377	396	2,187
Security Services	11,240	12,952	12,903	13,045	14,800
Temporary Services	884	2,181	1,379	2,100	3,320
Travel and Registration	131	151	289	268	321

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DIVISION: DIRECTOR

Formulates and establishes departmental policy; directs overall operations, legislative and municipal policies, and public information dissemination.

- Defines department policies and strategic goals
- Provides legal support
- Coordinates communications with media and customers
- Coordinates state and federal legislative actions and liaises with municipalities
- Coordinates items submitted to the Board of County Commissioners

DIVISION COMMENTS

- The FY 2016-17 Proposed Budget includes payments to the Audit and Management Services Department for expenses associated with audits and reviews (\$500,000)
- In FY 2016-17, the bill of the average retail water and sewer customer (6,750 gallons per month) will increase by nine percent, from \$51.11 to \$55.71, or by approximately \$4.60, per month; future adjustments will be needed based on debt service obligations and operating requirements
- Effective October 1, 2016, the wholesale wastewater rate will increase from \$2.7879 to \$2.9477 or by \$0.1598 per thousand gallons; the water wholesale rate will remain at \$1.7341 per thousand gallons; wholesale customers' bills include a true-up adjustment to recover actual cost for FY 2014-15
- The FY 2016-17 Proposed Budget includes a Memorandum of Understanding with the Office of the Inspector General to perform specialized audits as required (\$100,000)
- The FY 2016-17 Proposed Budget includes funding to the Miami-Dade Fire Rescue Department (MDFR) for fire hydrant maintenance (\$1 million)
- In FY 2016-17, the Department will continue an on-going reorganizational review to streamline management and business practices and the Proposed Budget includes funding to the Office of Management and Budget (OMB) for consulting services to fund organizational reviews/studies (\$192,000)
- The Department is currently working on an advertising campaign that includes the Department's branding for community recognition and to inform the citizens on water and wastewater services and the Multi-Year Capital Improvements Plan

DIVISION: WATER AND WASTEWATER SYSTEMS OPERATIONS

Operates and maintains the water and wastewater treatment plants and pump stations, including security and emergency communication.

- Directs water and wastewater systems operating goals and procedures
- Directs and oversees operation of water system including installations, repairs and maintenance of water infrastructure
- Directs and oversees operation of wastewater system including treatment and disposal as well as the maintenance of wastewater pumping and collection systems
- Installs, repairs, relocates, maintains and replaces water mains, valves, fire lines and water meters countywide
- Installs, repairs, relocates, maintains and replaces wastewater gravity sewer lines, force mains, valves, sewer laterals, and manholes countywide
- Performs mechanical, electrical, and structural maintenance of water and wastewater plants and wastewater lift stations
- Administers the SCADA system, telemetry and radios
- Provides Water Cross Connection Control Program
- Provides laboratory analysis to comply with regulatory agencies' requirements

Strategic Objectives - Measures

- GG1-1: Provide easy access to information and services

Objectives	Measures			FY 13-14	FY 14-15	FY 15-16	FY 15-16	FY 16-17
				Actual	Actual	Budget	Projection	Target
Maintain high level of responsiveness to customer service requests	Percentage of non-emergency requests dispatched in less than three business days	OC	↑	99%	98%	98%	98%	99%

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• NI2-1: Provide adequate potable water supply and wastewater disposal								
Objectives	Measures			FY 13-14	FY 14-15	FY 15-16	FY 15-16	FY 16-17
				Actual	Actual	Budget	Projection	Target
Ensure compliance with 20-year Water Use Permit with the South Florida Water Management District	Estimated gallons of water saved per day (GPD) through the Water Use Efficiency Program (in thousands)	OC	↑	1,181	1,782	1,124	1,124	1,124
Fully comply with drinking water standards	Percentage compliance with drinking water standards	OC	↑	100%	100%	100%	100%	100%
Reduce response time to sanitary sewer overflows	Average time to respond to sewage overflows (in minutes)	EF	↓	45	39	60	45	45
Ensure proper maintenance and operation of the sewage system	Percentage compliance with wastewater effluent limits*	OC	↑	97%	67%	100%	90%	100%
	Percentage of pumps in service	EF	↑	97%	97%	99%	98%	99%
	Wastewater mainline valves exercised	OP	↔	6,135	6,167	6,000	6,000	6,000

*Unforeseen factors such as severe mechanical failures, loss of clarifiers, and repairs to broken equipment negatively impacted performance for FY 2014-15; plans are in progress to address deficiencies.

DIVISION COMMENTS

- The FY 2016-17 Proposed Budget includes the addition of 115 positions for Wastewater Operations to continue to address staffing shortfalls identified in the Capacity, Management, and Operational and Maintenance Reports that have been submitted to the Environmental Protection Agency in response to the Consent Decree, and one position for the emergency call center to handle customer calls during increased construction phase; in addition, 20 positions are included in the FY 2016-17 Proposed Budget to support water treatment operations and infrastructure repairs; the total of 136 positions being added will be phased in and funded beginning September 2017

DIVISION: FINANCE AND ADMINISTRATION

Directs financial, budget and capital funding coordination, customer services, and information technology functions; directs procurement, human resources, fleet and other internal services.

- Coordinates financial activities including debt administration, investments, grants and cash management
- Administers Controller's functions, general ledger, assets control and accounts payable; prepares retail, wholesale and special billings and collection
- Manages the Department's operating and capital budgets
- Manages human capital planning and procurement
- Manages business process support for customer, care and billing, enterprise resource planning financial and enterprise asset management software systems
- Manages Retail Customer Services and Information Technology Divisions
- Manages general maintenance services

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Strategic Objectives - Measures								
<ul style="list-style-type: none"> GG1-1: Provide easy access to information and services 								
Objectives	Measures			FY 13-14	FY 14-15	FY 15-16	FY 15-16	FY 16-17
				Actual	Actual	Budget	Projection	Target
Provide information to customers in a timely manner	Average call wait time (in minutes)*	EF	↓	9	8	3	6	5
	Percentage of calls answered within two minutes (monthly)*	OC	↑	29%	41%	80%	50%	50%

* In FY 2014-15, the Department experienced problems with the implementation of the Interactive Response System (IVR) and in cross-training staff that impacted targeted improvements of the Department's call wait time; planned Improvements for FY 2015-16 included new interactive WASD website and phone application, introduction of a fully functional self-service IVR, and extended hours of operation; limited staffing and vacancies have also impacted performance.

<ul style="list-style-type: none"> GG2-2: Develop and retain excellent employees and leaders 								
Objectives	Measures			FY 13-14	FY 14-15	FY 15-16	FY 15-16	FY 16-17
				Actual	Actual	Budget	Projection	Target
Workforce skills to support County priorities	Training hours per employee	OP	↔	7	11	12	12	15

<ul style="list-style-type: none"> GG4-1: Provide sound financial and risk management 								
Objectives	Measures			FY 13-14	FY 14-15	FY 15-16	FY 15-16	FY 16-17
				Actual	Actual	Budget	Projection	Target
Ensure sound asset management and financial investment strategies	Bond rating evaluation by Fitch	OC	↑	A+	A+	A+	A+	A+
	Bond rating evaluation by Standard and Poor's	OC	↑	A+	A+	A+	A+	A+
	Bond rating evaluation by Moody's	OC	↑	Aa3	Aa3	Aa3	Aa3	Aa3

DIVISION COMMENTS

- The FY 2016-17 Proposed Budget includes payments to the Finance Department for expenses associated with cash management services (\$50,000) and for expenses associated with credit and collection services (payments are based on a percentage of collected revenue)
- The FY 2016-17 Proposed Budget includes two Customer Service Representative positions to help meet the demands of customers and improve call wait time
- The FY 2016-17 Proposed Budget includes one additional position in Human Resources to improve the hiring process in the Department and 23 positions that provide support in the procurement, heavy-equipment fleet, maintenance, and accountability functions that have increased workload from the Capacity, Management, and Operational and Maintenance Reports submitted to the EPA
- The FY 2015-16 year end combined fund balance is projected to be \$69.6 million in rate stabilization and general reserve funds; in FY2016-17, the Department will also be funding an additional reserve of \$16.3 million in order to strengthen bonding capacity and meet additional bonds test necessary to issue debt to support the Department's \$13 billion capital program; a combined balance of \$91.2 million is projected between these reserves, and the Department will have a year-end fund balance of \$71.6 million in the operating budget as required for bond ordinances
- In the FY 2016-17 Proposed Budget, the Department will continue its Service Level Agreement with the Communications Department for initial customer call triage to improve customer service and reduce call wait times (\$1.4 million)

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DIVISION: PROGRAM MANAGEMENT, REGULATORY AND COMPLIANCE

Manages Consent Decree projects; directs compliance with state and federal agreements and utilities development.

- Directs planning of water and wastewater facilities and infrastructure
- Directs design and construction activities for both the water and wastewater systems
- Oversees environmental regulations and compliance with federal and state agreements
- Directs Water Use Efficiency and Water Loss Reduction Programs
- Processes applications for new water services, mains, pump stations and fire hydrant installations by private contractors
- Oversees contract compliance, provides strategic planning, and directs performance improvement and efficiency savings programs

Strategic Objectives - Measures

- NI2-1: Provide adequate potable water supply and wastewater disposal

Objectives	Measures			FY 13-14	FY 14-15	FY 15-16	FY 15-16	FY 16-17
				Actual	Actual	Budget	Projection	Target
Ensure compliance with 20-year Water Use Permit with the South Florida Water Management District	Percent compliance with 20-Year Water Use Permit (WUP) as scheduled	OC	↑	100%	100%	98%	100%	100%
Ensure compliance with Comprehensive Development of Master Plan	Percentage of Comprehensive Development Master Plan comments submitted timely	EF	↑	100%	100%	98%	100%	100%
	Percentage of Development Impact Committee comments provided timely	EF	↑	100%	100%	98%	100%	100%
Ensure proper maintenance and operation of the sewage system	Percentage of Consent Decree Wastewater Projects on Schedule	OC	↑	100%	100%	100%	100%	100%
	Percentage of Ocean Outfall Legislation projects on schedule*	OC	↑	N/A	100%	100%	100%	100%

* This measure began being tracked in FY 2014-15

DIVISION COMMENTS

- ☛ In FY 2016-17, the Department will continue a program to reduce energy consumption encompassing facilities lighting and controls, operational equipment energy consumption, the implementation of the Energy Star Power plan, and an employee awareness program, which includes an energy conservation website, newsletter, and workshops
- The FY 2016-17 Proposed Budget includes funding to the Parks, Recreation and Open Spaces (PROS) Department for the Florida Yards and Neighborhoods Program (\$285,000)
- The FY 2016-17 Proposed Budget includes 23 new positions for Program Management and Construction and 13 new positions for Contract Compliance and Quality Assurance of construction/contractual work related to the \$13.3 billion Capital Improvement Plan; 31 of the 36 positions being added will be phased in and funded beginning September 2017
- ☛ The Department has established and is continuing to develop a Small Business Office to coordinate construction, architectural and engineering firms' compliance with Small Business Enterprise Program, Responsible Wages and Prompt Payment Ordinances to facilitate the achievement of economic stimulus programs in the community; the office will also be responsible for the monitoring and oversight of capital projects with an estimated value of \$13.3 billion over a twenty-year period

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ADDITIONAL INFORMATION

- The FY 2016-17 Proposed Budget includes payments in the amount of \$3.989 million for salary reimbursements and/or services provided to: Parks, Recreation and Open Spaces (\$285,000); Audit and Management Services (\$500,000); Human Resources Department (\$12,000); Finance Department (\$50,000); Inspector General (\$200,000); Office of Management and Budget (\$192,000); Communications Department (\$1,400,000); Fire Rescue Department (\$1,000,000); Community Action and Human Services (\$100,000); and an allocation of \$200,000 for Community-based Organizations for environmental education programs and presentations
- The FY 2016-17 Proposed Budget includes a \$5 million final loan repayment from the General Fund

Department Operational Unmet Needs

Description	(dollars in thousands)		Positions
	Startup Costs/ Non Recurring Costs	Recurring Costs	
Fund 12 positions in the Wastewater Treatment and Maintenance Division needed to accommodate the vast amount of additional work required for the consent decree and related work in a timely manner and establish a Tank Cleaning Crew at the SDWWTP.	\$0	\$740	12
Fund 14 positions in the Wastewater Treatment and Maintenance Division needed to maintain accommodate the new HLD at SDWWTP and the vast amount of additional work required for the Consent Decree and related work in a timely manner.	\$0	\$1,080	14
Fund 11 positions in the Wastewater Treatment and Maintenance Division Needed to establish a Tank Cleaning Crew at CDWWTP and assure complete coverage of the Sludge Dewatering Building.	\$0	\$566	11
Fund 18 positions in the Wastewater Treatment and Maintenance Division Needed to maintain and install new equipment at CDWWTP and accommodate the vast amount of additional work required for the Consent Decree and related work in a timely manner.	\$0	\$1,360	18
Fund eight (8) positions in the Wastewater Treatment and Maintenance Division Needed to properly Maintain the structures of the Treatment Vessels in the 3 Regional Wastewater Treatment Plants and 2 Regional Master Pumping Stations at NDWWT and accommodate the vast amount of additional work required for the Consent Decree and related work in a timely manner.	\$0	\$591	8
Fund nine (9) positions in the Wastewater Treatment and Maintenance Division Needed to establish a Tank Cleaning Crew at the NDWWTP - staff required for Oxygen Plant assignment and to accommodate the vast amount of additional work required for the Consent Decree and related work in a timely manner.	\$0	\$656	9
Fund six (6) positions in the Wastewater Treatment and Maintenance Division Needed for monitoring, controlling and adjusting of wastewater treatment equipment within the treatment plant.	\$0	\$450	6
Fund two (2) position in the Wastewater Treatment and Maintenance Division Needed to develop and administer training programs.	\$0	\$161	2
Fund 10 positions in the Wastewater Collection and Transmission Line Division Needed to support staff augmentation identified in the Gravity Sewer System Operations and Maintenance Plan (GSSOMP), the Force Main Operations, Preventive Maintenance and Assessment/Rehabilitation Program (FMOPMARF). South	\$0	\$547	10
Fund six (6) positions in the Wastewater Collection and Transmission Line Division needed to support staff augmentation identified in the Gravity Sewer System Operations and Maintenance Plan (GSSOMP), the Force Main Operations, Preventive Maintenance and Assessment/Rehabilitation Program (FMOPMARF). North	\$0	\$325	6
Fund six (6) positions in the Wastewater Collection and Transmission Line Division needed to support staff augmentation identified in the Gravity Sewer System Operations and Maintenance Plan (GSSOMP), the Force Main Operations, Preventive Maintenance and Assessment/Rehabilitation Program (FMOPMARF). Central	\$0	\$325	6
Fund 13 positions in the Wastewater Collection and Transmission Line Division Needed to support staff augmentation identified in the Gravity Sewer System Operations and Maintenance Plan (GSSOMP), the Force Main Operations, Preventive Maintenance and Assessment/Rehabilitation Program (FMOPMARF).	\$0	\$717	13

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Description	(dollars in thousands)		Positions
	Startup Costs/ Non Recurring Costs	Recurring Costs	
Fund two (2) positions in the Wastewater Collection and Transmission Line Division Needed to support staff augmentation identified in the Gravity Sewer System Operations and Maintenance Plan (GSSOMP), the Force Main Operations, Preventive Maintenance and Assessment/Rehabilitation Program (FMOPMARP).	\$0	\$152	2
Fund six (6) positions in the Wastewater Collection and Transmission Line Division needed to support staff augmentation identified in the Gravity Sewer System Operations and Maintenance Plan (GSSOMP), the Force Main Operations, Preventive Maintenance and Assessment/Rehabilitation Program (FMOPMARP).	\$0	\$312	6
Fund six (6) positions in the Wastewater Collection and Transmission Line Division needed to support staff augmentation identified in the Gravity Sewer System Operations and Maintenance Plan (GSSOMP), the Force Main Operations, Preventive Maintenance and Assessment/Rehabilitation Program (FMOPMARP).	\$0	\$312	6
Fund two (2) positions in the Wastewater Collection and Transmission Line Division needed to support staff augmentation identified in the Gravity Sewer System Operations and Maintenance Plan (GSSOMP), the Force Main Operations, Preventive Maintenance and Assessment/Rehabilitation Program (FMOPMARP).	\$0	\$141	2
Total	\$0	\$8,435	131

CAPITAL BUDGET SUMMARY

(dollars in thousands)	PRIOR	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FUTURE	TOTAL
Revenue									
BBC GOB Financing	10,204	9,846	19,538	25,373	16,325	18,397	28,200	29,098	156,981
State Revolving Loan Wastewater Program	19,888	0	0	0	0	0	0	0	19,888
WASD Revenue Bonds Sold	311,028	0	0	0	0	0	0	0	311,028
Rock Mining Mitigation Fees	20,979	0	0	0	0	0	0	0	20,979
BBC GOB Series 2005A	2,399	0	0	0	0	0	0	0	2,399
BBC GOB Series 2011A	2,606	0	0	0	0	0	0	0	2,606
WASD Future Funding	0	0	0	0	0	0	0	1,529,974	1,529,974
State Revolving Loan Water Program	4,452	4,426	7,309	3,000	2,500	1,159	0	0	22,846
Miami Springs Wastewater Construction Fund	1,326	0	0	0	0	0	0	0	1,326
Water Renewal and Replacement Fund	136,162	29,728	34,500	34,500	34,500	34,500	34,500	34,500	372,890
Wastewater Connection Charges	88,165	23,476	12,068	15,837	9,696	7,000	7,000	17,732	180,974
Wastewater Renewal Fund	173,897	50,272	45,500	45,500	45,500	45,500	45,500	45,500	497,169
Wastewater Special Construction Fund	50,380	0	0	0	0	0	0	0	50,380
Water Special Construction Fund	7,087	595	1,000	1,000	1,000	2,000	2,000	0	14,682
BBC GOB Series 2008B-1	5,259	0	0	0	0	0	0	0	5,259
Water Construction Fund	344	0	0	0	0	0	0	0	344
Water Connection Charges	25,697	8,821	3,590	0	0	0	0	0	38,108
BBC GOB Series 2014A	1,531	0	0	0	0	0	0	0	1,531
Future WASD Revenue Bonds	400,000	249,608	555,222	571,560	506,151	567,919	553,359	6,565,522	9,969,341
Fire Hydrant Fund	36,978	3,500	3,500	3,500	3,500	3,500	3,500	3,500	61,478
Miami Springs Water Construction Fund	5,963	0	0	0	0	0	0	0	5,963
BBC GOB Series 2008B	2,952	0	0	0	0	0	0	0	2,952
BBC GOB Series 2013A	246	0	0	0	0	0	0	0	246
Total:	1,307,543	380,272	682,227	700,270	619,172	679,975	674,059	8,225,826	13,269,344
Expenditures									
Strategic Area: NI									
GOB Water and Wastewater Projects	25,197	9,846	19,538	25,373	16,325	18,397	28,200	29,098	171,974
Wastewater Projects	684,574	405,726	455,845	450,626	430,838	432,921	445,401	7,120,828	10,426,759
Water Projects	299,026	189,803	219,707	223,976	181,902	229,854	233,050	1,093,293	2,670,611
Total:	1,008,797	605,375	695,090	699,975	629,065	681,172	706,651	8,243,219	13,269,344

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CAPITAL HIGHLIGHTS AND OPERATIONAL IMPACTS

- In FY 2012-13, the Department negotiated a consent agreement with the Federal Environmental Protection Agency (EPA) to address regulatory violations resulting from failing wastewater infrastructure for approximately \$1.6 billion; the agreement was adopted by the BCC on May 21, 2013; on April 9, 2014, the U.S. District Court for the Southern District approved the Consent Decree, replacing and superseding the two existing consent decrees issued in the early-mid 1990's; all projects contained in the consent decree are currently included in the capital plan, but as projects advance, schedules for completion may need to be modified, with the approval of the EPA; increased debt requirements will lead to future rate adjustments

FUNDED CAPITAL PROJECTS

(dollars in thousands)

OUTFALL LEGISLATION

PROJECT #: 962670



DESCRIPTION: Elimination of outfall flows to the ocean
 LOCATION: Systemwide
 Various Sites

District Located:
 District(s) Served:

Systemwide
 Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	41,675	11,793	44,789	52,572	63,206	72,848	107,726	3,255,334	3,649,943
State Revolving Loan Wastewater Program	19,888	0	0	0	0	0	0	0	19,888
WASD Revenue Bonds Sold	18,525	0	0	0	0	0	0	0	18,525
Wastewater Connection Charges	6,049	0	0	0	0	0	0	0	6,049
TOTAL REVENUES:	86,137	11,793	44,789	52,572	63,206	72,848	107,726	3,255,334	3,694,405
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	59,113	38,817	44,789	52,572	63,206	72,848	107,726	3,255,334	3,694,405
TOTAL EXPENDITURES:	59,113	38,817	44,789	52,572	63,206	72,848	107,726	3,255,334	3,694,405

Estimated Annual Operating Impact will begin in FY 2018-19 in the amount of \$270,000

SYSTEM IMPROVEMENTS PROJECT - GENERAL OBLIGATION BONDS (GOB)

PROJECT #: 962830

DESCRIPTION: Replace undersized water mains and install new fire hydrants
 LOCATION: Various Sites
 Various Sites

District Located:
 District(s) Served:

Systemwide
 Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
BBC GOB Financing	2,279	2,164	865	795	1,197	734	0	1,205	9,239
BBC GOB Series 2005A	709	0	0	0	0	0	0	0	709
BBC GOB Series 2008B	1,018	0	0	0	0	0	0	0	1,018
BBC GOB Series 2008B-1	2,222	0	0	0	0	0	0	0	2,222
BBC GOB Series 2011A	2,598	0	0	0	0	0	0	0	2,598
BBC GOB Series 2013A	221	0	0	0	0	0	0	0	221
BBC GOB Series 2014A	1,263	0	0	0	0	0	0	0	1,263
TOTAL REVENUES:	10,310	2,164	865	795	1,197	734	0	1,205	17,270
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	8,920	2,164	865	795	1,197	734	0	1,205	15,880
Permitting	100	0	0	0	0	0	0	0	100
Planning and Design	1,140	0	0	0	0	0	0	0	1,140
Project Administration	150	0	0	0	0	0	0	0	150
TOTAL EXPENDITURES:	10,310	2,164	865	795	1,197	734	0	1,205	17,270

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AUTOMATION OF WATER TREATMENT PLANTS

PROJECT #: 963110

DESCRIPTION: Construct facilities and install equipment to automate functions at water treatment plants
 LOCATION: Systemwide
 Various Sites

District Located: Systemwide
 District(s) Served: Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	0	330	0	0	0	0	0	0	330
WASD Revenue Bonds Sold	1,916	0	0	0	0	0	0	0	1,916
TOTAL REVENUES:	1,916	330	0	0	0	0	0	0	2,246
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	1,916	330	0	0	0	0	0	0	2,246
TOTAL EXPENDITURES:	1,916	330	0	0	0	0	0	0	2,246

WASTEWATER TREATMENT PLANTS - CONSENT DECREE PROJECTS

PROJECT #: 964120

DESCRIPTION: Design, construct, and rehabilitate infrastructure at wastewater treatment plants to comply with EPA Consent Decree
 LOCATION: Various Sites
 Throughout Miami-Dade County

District Located: Countywide
 District(s) Served: Countywide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	123,944	59,544	111,162	96,624	93,374	91,218	101,119	939,289	1,616,274
WASD Revenue Bonds Sold	48,676	0	0	0	0	0	0	0	48,676
Wastewater Renewal Fund	17,619	0	0	0	0	0	0	0	17,619
TOTAL REVENUES:	190,239	59,544	111,162	96,624	93,374	91,218	101,119	939,289	1,682,569
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	124,414	102,889	101,158	87,928	84,970	83,008	92,019	854,753	1,531,139
Major Machinery and Equipment	2,734	2,261	2,223	1,932	1,868	1,825	2,022	18,786	33,651
Planning and Design	9,570	7,915	7,781	6,764	6,536	6,385	7,078	65,750	117,779
TOTAL EXPENDITURES:	136,718	113,065	111,162	96,624	93,374	91,218	101,119	939,289	1,682,569

Estimated Annual Operating Impact will begin in FY 2018-19 in the amount of \$50,000,000

NEEDS ASSESSMENTS PROJECTS - GENERAL OBLIGATION BONDS (GOB)

PROJECT #: 964350

DESCRIPTION: Construction of water and sewer enhancements including water mains, pipelines and sewer collection systems
 LOCATION: Various Sites
 Various Sites

District Located: Systemwide
 District(s) Served: Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
BBC GOB Financing	1,857	1,845	2,630	2,555	2,446	350	200	0	11,883
BBC GOB Series 2005A	1,686	0	0	0	0	0	0	0	1,686
BBC GOB Series 2008B	1,504	0	0	0	0	0	0	0	1,504
BBC GOB Series 2008B-1	2,288	0	0	0	0	0	0	0	2,288
BBC GOB Series 2013A	25	0	0	0	0	0	0	0	25
BBC GOB Series 2014A	259	0	0	0	0	0	0	0	259
TOTAL REVENUES:	7,619	1,845	2,630	2,555	2,446	350	200	0	17,645
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	5,405	1,845	2,630	2,555	2,446	350	200	0	15,431
Permitting	179	0	0	0	0	0	0	0	179
Planning and Design	2,035	0	0	0	0	0	0	0	2,035
TOTAL EXPENDITURES:	7,619	1,845	2,630	2,555	2,446	350	200	0	17,645

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SEWER PUMP STATION SYSTEMS - CONSENT DECREE PROJECTS

PROJECT #: 964440



DESCRIPTION: Design, construct, and rehabilitate pump stations infrastructure systems to comply with EPA Consent Decree
 LOCATION: Various Sites
 Throughout Miami-Dade County

District Located: Countywide
 District(s) Served: Countywide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	16,334	19,307	38,890	23,678	15,000	7,184	1,000	0	121,393
WASD Revenue Bonds Sold	8,513	0	0	0	0	0	0	0	8,513
Wastewater Connection Charges	1,006	0	0	0	0	0	0	0	1,006
TOTAL REVENUES:	25,853	19,307	38,890	23,678	15,000	7,184	1,000	0	130,912
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	19,850	21,697	35,779	21,784	13,800	6,609	920	0	120,439
Planning and Design	1,725	1,888	3,111	1,894	1,200	575	80	0	10,473
TOTAL EXPENDITURES:	21,575	23,585	38,890	23,678	15,000	7,184	1,000	0	130,912

Estimated Annual Operating Impact will begin in FY 2019-20 in the amount of \$1,200,000

MIAMI SPRINGS CONSTRUCTION FUND - WATER

PROJECT #: 965450

DESCRIPTION: Repair and or replacement water transmission pipes in Miami Springs
 LOCATION: Miami Springs
 Miami Springs

District Located: 6
 District(s) Served: 6

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Miami Springs Water Construction Fund	5,963	0	0	0	0	0	0	0	5,963
TOTAL REVENUES:	5,963	0	0	0	0	0	0	0	5,963
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	1,147	3,505	417	0	0	0	0	0	5,069
Planning and Design	202	619	73	0	0	0	0	0	894
TOTAL EXPENDITURES:	1,349	4,124	490	0	0	0	0	0	5,963

NW 37 AVE INDUSTRIAL DEVELOPMENT AREA - GENERAL OBLIGATION BONDS (GOB)

PROJECT #: 965520

DESCRIPTION: Replace water and sewer mains in the NW 37 Ave Industrial Development Area
 LOCATION: NW 37 Ave and NW 36 St
 Various Sites

District Located: 2
 District(s) Served: Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
BBC GOB Financing	3,985	2,162	1,848	740	853	0	0	0	9,588
BBC GOB Series 2005A	4	0	0	0	0	0	0	0	4
BBC GOB Series 2008B	430	0	0	0	0	0	0	0	430
BBC GOB Series 2008B-1	190	0	0	0	0	0	0	0	190
BBC GOB Series 2014A	9	0	0	0	0	0	0	0	9
TOTAL REVENUES:	4,618	2,162	1,848	740	853	0	0	0	10,221
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	3,998	2,162	1,848	740	853	0	0	0	9,601
Planning and Design	620	0	0	0	0	0	0	0	620
TOTAL EXPENDITURES:	4,618	2,162	1,848	740	853	0	0	0	10,221

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WATER TREATMENT PLANT - FLORIDIAN REVERSE OSMOSIS

PROJECT #: 966620

DESCRIPTION: Construct a 10-million gallons per day (MGD) Reverse Osmosis Treatment Plant using Upper Floridian Aquifer; the jointly-owned plant will equally serve the City of Hialeah and WASD service areas; total cost of \$160 million, includes contribution and expenditures of \$80 million from City of Hialeah

LOCATION: 700 W 2 Ave
Hialeah

District Located: 6
District(s) Served: Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Water Connection Charges	3,091	3,300	0	0	0	0	0	0	6,391
TOTAL REVENUES:	3,091	3,300	0	0	0	0	0	0	6,391
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	2,009	3,360	0	0	0	0	0	0	5,369
Planning and Design	382	640	0	0	0	0	0	0	1,022
TOTAL EXPENDITURES:	2,391	4,000	0	0	0	0	0	0	6,391

EXTENSION OF SEWER SYSTEM TO COMMERCIAL AND INDUSTRIAL CORRIDORS OF THE COUNTY AS PER BCC RESOLUTION R-537-14 - BUILDING BETTER COMMUNITIES BOND PROGRAM

PROJECT #: 967090

DESCRIPTION: Extend sewer service to developed commercial and industrial corridors in Miami-Dade County

LOCATION: Various Sites
Throughout Miami-Dade County

District Located: Countywide
District(s) Served: Countywide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
BBC GOB Financing	2,063	3,635	14,084	21,183	11,829	17,313	28,000	27,893	126,000
TOTAL REVENUES:	2,063	3,635	14,084	21,183	11,829	17,313	28,000	27,893	126,000
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	15	357	14,084	21,183	11,829	17,313	28,000	27,893	120,674
Planning and Design	2,048	3,278	0	0	0	0	0	0	5,326
TOTAL EXPENDITURES:	2,063	3,635	14,084	21,183	11,829	17,313	28,000	27,893	126,000

WATER PIPES AND INFRASTRUCTURE PROJECTS

PROJECT #: 967190

DESCRIPTION: Replace pipe and construct infrastructure repairs

LOCATION: Countywide
Various Sites

District Located: Systemwide
District(s) Served: Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	0	1,752	6,047	11,157	0	0	0	0	18,956
WASD Revenue Bonds Sold	15,410	0	0	0	0	0	0	0	15,410
Water Renewal and Replacement Fund	10,963	8,000	8,000	8,000	8,000	8,000	8,000	8,000	66,963
TOTAL REVENUES:	26,373	9,752	14,047	19,157	8,000	8,000	8,000	8,000	101,329
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	25,054	9,264	13,345	18,199	7,600	7,600	7,600	7,600	96,262
Planning and Design	1,319	488	702	958	400	400	400	400	5,067
TOTAL EXPENDITURES:	26,373	9,752	14,047	19,157	8,000	8,000	8,000	8,000	101,329

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UPGRADE OF MIAMI SPRINGS PUMP STATIONS - GENERAL OBLIGATION BONDS (GOB)

PROJECT #: 967730

DESCRIPTION: Upgrade electrical control panels, pumps and proprietary SCADA system
 LOCATION: Various Sites
 District Located: 6
 District(s) Served: Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
BBC GOB Financing	20	40	111	100	0	0	0	0	271
BBC GOB Series 2008B-1	559	0	0	0	0	0	0	0	559
BBC GOB Series 2011A	8	0	0	0	0	0	0	0	8
TOTAL REVENUES:	587	40	111	100	0	0	0	0	838
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	587	40	111	100	0	0	0	0	838
TOTAL EXPENDITURES:	587	40	111	100	0	0	0	0	838

WASTEWATER COMMERCIAL CORRIDORS ECONOMIC DEVELOPMENT

PROJECT #: 968090

DESCRIPTION: Install new sewer service to commercial properties utilizing septic tanks
 LOCATION: Various Sites
 District Located: TBD
 District(s) Served: TBD

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	0	561	882	435	5,364	5,859	3,000	134,493	150,594
WASD Revenue Bonds Sold	3,319	0	0	0	0	0	0	0	3,319
TOTAL REVENUES:	3,319	561	882	435	5,364	5,859	3,000	134,493	153,913
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	2,656	449	706	348	4,291	4,687	2,400	107,594	123,131
Land Acquisition/Improvements	132	22	35	17	215	234	120	5,380	6,155
Planning and Design	531	90	141	70	858	938	480	21,519	24,627
TOTAL EXPENDITURES:	3,319	561	882	435	5,364	5,859	3,000	134,493	153,913

WASTEWATER COLLECTION AND TRANSMISSION LINES - CONSENT

PROJECT #: 968150

DESCRIPTION: Design, construct, and rehabilitate collection and transmission infrastructure lines to comply with EPA Consent Decree
 LOCATION: Various Sites
 District Located: Countywide
 District(s) Served: Countywide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	78,223	7,223	54,200	42,277	20,770	15,024	15,273	136,984	369,974
WASD Revenue Bonds Sold	42,645	0	0	0	0	0	0	0	42,645
Wastewater Connection Charges	16,489	4,964	0	0	0	0	0	0	21,453
Wastewater Renewal Fund	8,082	0	0	0	0	0	0	0	8,082
TOTAL REVENUES:	145,439	12,187	54,200	42,277	20,770	15,024	15,273	136,984	442,154
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	92,876	47,411	48,238	37,627	18,485	13,371	13,593	121,916	393,517
Major Machinery and Equipment	7,304	3,729	3,794	2,959	1,454	1,052	1,069	9,589	30,950
Planning and Design	4,175	2,131	2,168	1,691	831	601	611	5,479	17,687
TOTAL EXPENDITURES:	104,355	53,271	54,200	42,277	20,770	15,024	15,273	136,984	442,154

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WASTEWATER PIPES AND INFRASTRUCTURE PROJECTS

PROJECT #: 968750

DESCRIPTION: Replace and install new pipelines in areas requiring service improvements
 LOCATION: Various Sites
 District Located: Systemwide
 District(s) Served: Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
WASD Revenue Bonds Sold	1,438	0	0	0	0	0	0	0	1,438
Wastewater Renewal Fund	10,933	0	3,000	3,000	3,000	3,000	3,000	3,000	28,933
TOTAL REVENUES:	12,371	0	3,000	3,000	3,000	3,000	3,000	3,000	30,371
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	9,371	3,000	3,000	3,000	3,000	3,000	3,000	3,000	30,371
TOTAL EXPENDITURES:	9,371	3,000	3,000	3,000	3,000	3,000	3,000	3,000	30,371

MIAMI SPRINGS CONSTRUCTION FUND - WASTEWATER

PROJECT #: 969110

DESCRIPTION: Construct wastewater collection system improvements in Miami Springs
 LOCATION: Miami Springs
 District Located: 6
 District(s) Served: 6

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Miami Springs Wastewater Construction Fund	1,326	0	0	0	0	0	0	0	1,326
TOTAL REVENUES:	1,326	0	0	0	0	0	0	0	1,326
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	866	148	312	0	0	0	0	0	1,326
TOTAL EXPENDITURES:	866	148	312	0	0	0	0	0	1,326

WATER TREATMENT PLANTS MISCELLANEOUS UPGRADES

PROJECT #: 9610960

DESCRIPTION: Upgrade water treatment plants to meet regulatory requirements
 LOCATION: Water Treatment Plants
 District Located: Systemwide
 District(s) Served: Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	0	2,500	8,032	7,366	127	0	0	0	18,025
WASD Revenue Bonds Sold	2,934	0	0	0	0	0	0	0	2,934
Water Construction Fund	344	0	0	0	0	0	0	0	344
Water Renewal and Replacement Fund	335	0	0	0	0	0	0	0	335
TOTAL REVENUES:	3,613	2,500	8,032	7,366	127	0	0	0	21,638
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	3,578	2,475	7,952	7,292	125	0	0	0	21,422
Planning and Design	35	25	80	74	2	0	0	0	216
TOTAL EXPENDITURES:	3,613	2,500	8,032	7,366	127	0	0	0	21,638

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SOUTH MIAMI-DADE WATER TRANSMISSION MAINS IMPROVEMENTS

PROJECT #: 9650021

DESCRIPTION: Construct various water transmission mains to serve south Miami-Dade County after the new South Miami Heights water treatment plant is in service

LOCATION: South Miami-Dade County
Various Sites

District Located:
District(s) Served:

Systemwide
Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	0	258	751	4,782	851	2,492	8,738	978	18,850
TOTAL REVENUES:	0	258	751	4,782	851	2,492	8,738	978	18,850
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	0	214	623	3,969	706	2,068	7,253	812	15,645
Planning and Design	0	44	128	813	145	424	1,485	166	3,205
TOTAL EXPENDITURES:	0	258	751	4,782	851	2,492	8,738	978	18,850

WATER TREATMENT PLANT - ALEXANDER ORR, JR. EXPANSION

PROJECT #: 9650031

DESCRIPTION: Construct high service pumps, a 48-inch finished water line, install a new generator, and construct chlorine facilities

LOCATION: 6800 SW 87 Ave
Unincorporated Miami-Dade County

District Located: 7
District(s) Served:

Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	0	17,606	17,438	40,306	31,214	20,496	12,953	4,796	144,809
WASD Revenue Bonds Sold	9,159	0	0	0	0	0	0	0	9,159
TOTAL REVENUES:	9,159	17,606	17,438	40,306	31,214	20,496	12,953	4,796	153,968
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	7,877	15,141	14,996	34,663	26,844	17,626	11,140	4,125	132,412
Major Machinery and Equipment	92	176	175	403	312	206	129	48	1,541
Planning and Design	1,190	2,289	2,267	5,240	4,058	2,664	1,684	623	20,015
TOTAL EXPENDITURES:	9,159	17,606	17,438	40,306	31,214	20,496	12,953	4,796	153,968

WATER TREATMENT PLANT - HIALEAH/PRESTON IMPROVEMENTS

PROJECT #: 9650041

DESCRIPTION: Construct pump station east of the reservoir outside the transmission loop; construct five-mega-gal elevated remote storage, new laboratory, filter backwash water tank; install two emergency generators; construct chlorine facilities; and various upgrades to plant and remote storage

LOCATION: 700 W 2 Ave and 1100 W 2 Ave
Hialeah

District Located:
District(s) Served:

6
Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	1,138	10,801	2,991	4,373	5,172	744	12,401	30,283	67,903
WASD Revenue Bonds Sold	12,075	0	0	0	0	0	0	0	12,075
TOTAL REVENUES:	13,213	10,801	2,991	4,373	5,172	744	12,401	30,283	79,978
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	9,513	7,777	2,153	3,149	3,724	536	8,929	21,804	57,585
Land Acquisition/Improvements	1,850	1,512	419	612	724	104	1,736	4,239	11,196
Planning and Design	1,850	1,512	419	612	724	104	1,736	4,240	11,197
TOTAL EXPENDITURES:	13,213	10,801	2,991	4,373	5,172	744	12,401	30,283	79,978

Estimated Annual Operating Impact will begin in FY 2019-20 in the amount of \$15,000,000

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WATER EQUIPMENT AND VEHICLES

PROJECT #: 9650141

DESCRIPTION: Acquire vehicles, equipment, and associated water system capital support materials
 LOCATION: Systemwide
 Various Sites

District Located: Systemwide
 District(s) Served: Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	0	0	750	1,850	3,363	7,842	12,713	223,084	249,602
WASD Revenue Bonds Sold	52	0	0	0	0	0	0	0	52
Water Renewal and Replacement Fund	42,806	5,842	5,200	5,200	5,200	5,200	5,200	5,200	79,848
TOTAL REVENUES:	42,858	5,842	5,950	7,050	8,563	13,042	17,913	228,284	329,502
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Major Machinery and Equipment	35,704	12,996	5,950	7,050	8,563	13,042	17,913	228,284	329,502
TOTAL EXPENDITURES:	35,704	12,996	5,950	7,050	8,563	13,042	17,913	228,284	329,502

WATER TREATMENT PLANTS REPLACEMENT AND RENOVATIONS

PROJECT #: 9650161

DESCRIPTION: Renovate and replace water treatment plant facilities and structures within plant sites
 LOCATION: Water Treatment Plants
 Various Sites

District Located: Systemwide
 District(s) Served: Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	0	5,500	4,045	5,516	0	0	0	0	15,061
WASD Revenue Bonds Sold	3,089	0	0	0	0	0	0	0	3,089
Water Renewal and Replacement Fund	12,695	0	2,500	2,500	2,500	2,500	2,500	2,500	27,695
TOTAL REVENUES:	15,784	5,500	6,545	8,016	2,500	2,500	2,500	2,500	45,845
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	13,601	7,683	6,545	8,016	2,500	2,500	2,500	2,500	45,845
TOTAL EXPENDITURES:	13,601	7,683	6,545	8,016	2,500	2,500	2,500	2,500	45,845

WATER SYSTEM MAINTENANCE AND UPGRADES

PROJECT #: 9650181

DESCRIPTION: Maintain and develop existing water system facilities, structures, and equipment
 LOCATION: Systemwide
 Various Sites

District Located: Systemwide
 District(s) Served: Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
WASD Revenue Bonds Sold	6,593	0	0	0	0	0	0	0	6,593
Water Renewal and Replacement Fund	33,695	15,886	15,000	15,000	15,000	15,000	15,000	15,000	139,581
TOTAL REVENUES:	40,288	15,886	15,000	15,000	15,000	15,000	15,000	15,000	146,174
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	36,868	17,059	14,400	14,400	14,400	14,400	14,400	14,400	140,327
Planning and Design	1,536	711	600	600	600	600	600	600	5,847
TOTAL EXPENDITURES:	38,404	17,770	15,000	15,000	15,000	15,000	15,000	15,000	146,174

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GRAVITY SEWER RENOVATIONS

PROJECT #: 9650201

DESCRIPTION: Rehabilitate gravity sewers to reduce infiltration and inflow

LOCATION: Systemwide
Various Sites

District Located:
District(s) Served:

Systemwide
Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	3,670	1,376	1,258	1,050	650	350	224	0	8,578
WASD Revenue Bonds Sold	5,153	0	0	0	0	0	0	0	5,153
TOTAL REVENUES:	8,823	1,376	1,258	1,050	650	350	224	0	13,731
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	8,381	1,307	1,195	998	618	333	213	0	13,045
Planning and Design	442	69	63	52	32	17	11	0	686
TOTAL EXPENDITURES:	8,823	1,376	1,258	1,050	650	350	224	0	13,731

SANITARY SEWER SYSTEM IMPROVEMENTS

PROJECT #: 9650221

DESCRIPTION: Construct sanitary sewer system improvements using funds from the special construction fund including special taxing districts

LOCATION: Systemwide
Various Sites

District Located:
District(s) Served:

Systemwide
Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Wastewater Special Construction Fund	50,380	0	0	0	0	0	0	0	50,380
TOTAL REVENUES:	50,380	0	0	0	0	0	0	0	50,380
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	5,288	2,500	2,500	2,500	2,500	2,500	32,592	0	50,380
TOTAL EXPENDITURES:	5,288	2,500	2,500	2,500	2,500	2,500	32,592	0	50,380

CENTRAL MIAMI-DADE WASTEWATER TRANSMISSION MAINS AND PUMP STATION IMPROVEMENTS

PROJECT #: 9650241

DESCRIPTION: Construct a force main crossing Bear Cut, a force main in Flagler St from SW 37 Ave to SW 10 Ave, and a force main from Miami Beach to the Central District Wastewater Treatment Plant

LOCATION: Wastewater System - Central District Area
City of Miami

District Located:
District(s) Served:

Systemwide
Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	1,132	7,127	17,360	17,450	18,583	19,421	13,430	55,255	149,758
WASD Future Funding	0	0	0	0	0	0	0	828	828
WASD Revenue Bonds Sold	6,505	0	0	0	0	0	0	0	6,505
Wastewater Connection Charges	13,352	6,132	4,000	5,000	5,000	7,000	7,000	17,732	65,216
TOTAL REVENUES:	20,989	13,259	21,360	22,450	23,583	26,421	20,430	73,815	222,307
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	10,010	9,419	17,377	17,673	19,717	21,601	17,570	77,816	191,183
Planning and Design	1,629	1,533	2,830	2,877	3,210	3,517	2,860	12,668	31,124
TOTAL EXPENDITURES:	11,639	10,952	20,207	20,550	22,927	25,118	20,430	90,484	222,307

Estimated Annual Operating Impact will begin in FY 2019-20 in the amount of \$2,253,000

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WATER GENERAL MAINTENANCE AND OFFICE FACILITIES

PROJECT #: 9650271

DESCRIPTION: Construct regional general maintenance centers, office facilities, and storage warehouses
 LOCATION: Systemwide
 Various Sites

District Located: Systemwide
 District(s) Served: Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	0	8,520	11,759	11,192	5,637	18,040	349	0	55,497
WASD Revenue Bonds Sold	1,335	0	0	0	0	0	0	0	1,335
TOTAL REVENUES:	1,335	8,520	11,759	11,192	5,637	18,040	349	0	56,832
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	1,201	7,668	10,583	10,073	5,073	16,236	314	0	51,148
Planning and Design	134	852	1,176	1,119	564	1,804	35	0	5,684
TOTAL EXPENDITURES:	1,335	8,520	11,759	11,192	5,637	18,040	349	0	56,832

WASTEWATER EQUIPMENT AND VEHICLES

PROJECT #: 9650301

DESCRIPTION: Acquire vehicles, equipment, and associated wastewater system capital support materials
 LOCATION: Systemwide
 Various Sites

District Located: Systemwide
 District(s) Served: Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
WASD Revenue Bonds Sold	552	0	0	0	0	0	0	0	552
Wastewater Renewal Fund	41,380	12,436	11,500	11,500	11,500	11,500	11,500	11,500	122,816
TOTAL REVENUES:	41,932	12,436	11,500	11,500	11,500	11,500	11,500	11,500	123,368
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Major Machinery and Equipment	35,875	18,493	11,500	11,500	11,500	11,500	11,500	11,500	123,368
TOTAL EXPENDITURES:	35,875	18,493	11,500	11,500	11,500	11,500	11,500	11,500	123,368

WASTEWATER SYSTEM MAINTENANCE AND UPGRADES

PROJECT #: 9650361

DESCRIPTION: Maintain and develop existing wastewater system facilities, structures, and equipment
 LOCATION: Systemwide
 Various Sites

District Located: Systemwide
 District(s) Served: Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
WASD Revenue Bonds Sold	3,188	0	0	0	0	0	0	0	3,188
Wastewater Renewal Fund	38,387	18,428	20,000	20,000	20,000	20,000	20,000	20,000	176,815
TOTAL REVENUES:	41,575	18,428	20,000	20,000	20,000	20,000	20,000	20,000	180,003
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	41,575	18,428	20,000	20,000	20,000	20,000	20,000	20,000	180,003
TOTAL EXPENDITURES:	41,575	18,428	20,000	20,000	20,000	20,000	20,000	20,000	180,003

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LIFT STATION UPGRADES AND STRUCTURAL MAINTENANCE IMPROVEMENTS

PROJECT #: 9650371

DESCRIPTION: Repair, replace, and upgrade existing lift stations throughout the wastewater system
 LOCATION: Systemwide
 Various Sites

District Located: Systemwide
 District(s) Served: Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	650	2,500	3,058	4,500	4,049	4,500	4,172	29,000	52,429
WASD Revenue Bonds Sold	2,009	0	0	0	0	0	0	0	2,009
Wastewater Renewal Fund	6,344	0	2,000	2,000	2,000	2,000	2,000	2,000	18,344
TOTAL REVENUES:	9,003	2,500	5,058	6,500	6,049	6,500	6,172	31,000	72,782
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	6,798	1,946	3,844	4,940	4,597	4,940	4,690	23,560	55,315
Land Acquisition/Improvements	1,251	358	708	910	847	910	864	4,340	10,188
Planning and Design	894	256	506	650	605	650	618	3,100	7,279
TOTAL EXPENDITURES:	8,943	2,560	5,058	6,500	6,049	6,500	6,172	31,000	72,782

Estimated Annual Operating Impact will begin in FY 2018-19 in the amount of \$5,000,000

WATER MAIN EXTENSIONS

PROJECT #: 9651051

DESCRIPTION: Construct water main extensions funded from the special construction fund, including special taxing districts
 LOCATION: Systemwide
 Various Sites

District Located: Systemwide
 District(s) Served: Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Water Special Construction Fund	7,087	595	1,000	1,000	1,000	2,000	2,000	0	14,682
TOTAL REVENUES:	7,087	595	1,000	1,000	1,000	2,000	2,000	0	14,682
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	6,182	1,500	1,000	1,000	1,000	2,000	2,000	0	14,682
TOTAL EXPENDITURES:	6,182	1,500	1,000	1,000	1,000	2,000	2,000	0	14,682

SOUTH DISTRICT WASTEWATER TRANSMISSION MAINS AND PUMP STATIONS IMPROVEMENTS

PROJECT #: 9651061

DESCRIPTION: Construct piping improvements to pump station number 536 and force main upgrade in SW 117 Ave
 LOCATION: Wastewater System - South District Area
 Various Sites

District Located: Systemwide
 District(s) Served: Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	1,962	8,212	18,269	23,917	28,324	23,162	17,911	160,934	282,691
WASD Future Funding	0	0	0	0	0	0	0	24,390	24,390
WASD Revenue Bonds Sold	1,360	0	0	0	0	0	0	0	1,360
TOTAL REVENUES:	3,322	8,212	18,269	23,917	28,324	23,162	17,911	185,324	308,441
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	2,724	6,734	14,981	19,612	23,226	18,993	14,687	151,966	252,923
Planning and Design	598	1,478	3,288	4,305	5,098	4,169	3,224	33,358	55,518
TOTAL EXPENDITURES:	3,322	8,212	18,269	23,917	28,324	23,162	17,911	185,324	308,441

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PUMP STATION IMPROVEMENTS PROGRAM

PROJECT #: 9651071

DESCRIPTION: Upgrade pump stations systemwide to meet forecasted demands

LOCATION: Systemwide
Various Sites

District Located:
District(s) Served:

Systemwide
Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	46,205	12,545	27,085	27,972	4,611	4,536	4,536	166,312	293,802
WASD Revenue Bonds Sold	13,450	0	0	0	0	0	0	0	13,450
Wastewater Connection Charges	13,000	11,300	7,000	8,056	0	0	0	0	39,356
TOTAL REVENUES:	72,655	23,845	34,085	36,028	4,611	4,536	4,536	166,312	346,608
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	51,197	29,174	30,716	31,620	11,394	4,082	4,082	149,681	311,946
Land Acquisition/Improvements	568	324	342	352	127	46	46	1,663	3,468
Major Machinery and Equipment	569	324	341	351	126	45	45	1,663	3,464
Planning and Design	4,551	2,593	2,731	2,811	1,013	363	363	13,305	27,730
TOTAL EXPENDITURES:	56,885	32,415	34,130	35,134	12,660	4,536	4,536	166,312	346,608

PUMP STATION GENERATORS AND MISCELLANEOUS UPGRADES

PROJECT #: 9652002

DESCRIPTION: Install emergency generators and construct miscellaneous upgrades at wastewater pump stations

LOCATION: Systemwide
Various Sites

District Located:
District(s) Served:

Systemwide
Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	1,754	3,675	7,194	16,024	13,806	49,735	11,880	351	104,419
WASD Revenue Bonds Sold	649	0	0	0	0	0	0	0	649
TOTAL REVENUES:	2,403	3,675	7,194	16,024	13,806	49,735	11,880	351	105,068
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	1,969	3,014	5,899	13,139	11,321	40,783	9,742	288	86,155
Major Machinery and Equipment	73	110	216	481	414	1,492	356	10	3,152
Planning and Design	361	551	1,079	2,404	2,071	7,460	1,782	53	15,761
TOTAL EXPENDITURES:	2,403	3,675	7,194	16,024	13,806	49,735	11,880	351	105,068

WASTEWATER TREATMENT PLANTS MISCELLANEOUS UPGRADES

PROJECT #: 9652061

DESCRIPTION: Upgrade wastewater treatment plants to meet regulatory requirements

LOCATION: Wastewater Treatment Plants
Various Sites

District Located:
District(s) Served:

Systemwide
Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	0	619	689	289	3,793	160	907	0	6,457
WASD Future Funding	0	0	0	0	0	0	0	6,593	6,593
WASD Revenue Bonds Sold	1,250	0	0	0	0	0	0	0	1,250
TOTAL REVENUES:	1,250	619	689	289	3,793	160	907	6,593	14,300
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	1,175	582	648	272	3,566	150	852	6,198	13,443
Planning and Design	75	37	41	17	227	10	55	395	857
TOTAL EXPENDITURES:	1,250	619	689	289	3,793	160	907	6,593	14,300

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NORTH MIAMI-DADE WASTEWATER TRANSMISSION MAINS AND PUMP STATIONS IMPROVEMENTS

PROJECT #: 9652101

DESCRIPTION: Improve pump stations to increase system flexibility

LOCATION: Wastewater System - North District Area
Various Sites

District Located:
District(s) Served:

Systemwide
Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	2,948	6,843	20,257	21,429	22,363	33,306	45,823	357,640	510,609
WASD Future Funding	0	0	0	0	0	0	0	599,197	599,197
WASD Revenue Bonds Sold	447	0	0	0	0	0	0	0	447
Wastewater Connection Charges	727	1,080	1,068	2,781	4,696	0	0	0	10,352
TOTAL REVENUES:	4,122	7,923	21,325	24,210	27,059	33,306	45,823	956,837	1,120,605
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	3,421	6,576	17,699	20,094	22,459	27,644	38,033	794,175	930,101
Planning and Design	701	1,347	3,626	4,116	4,600	5,662	7,790	162,662	190,504
TOTAL EXPENDITURES:	4,122	7,923	21,325	24,210	27,059	33,306	45,823	956,837	1,120,605

Estimated Annual Operating Impact will begin in FY 2017-18 in the amount of \$2,330,000

WASTEWATER TELEMETERING SYSTEM

PROJECT #: 9652481

DESCRIPTION: Install a computer system to monitor and control wastewater flows and pressures at various pump stations

LOCATION: Systemwide
Various Sites

District Located:
District(s) Served:

Systemwide
Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	700	579	0	0	0	0	0	0	1,279
WASD Revenue Bonds Sold	1,376	0	0	0	0	0	0	0	1,376
Wastewater Renewal Fund	2,432	0	500	500	500	500	500	500	5,432
TOTAL REVENUES:	4,508	579	500	500	500	500	500	500	8,087
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	3,227	1,860	500	500	500	500	500	500	8,087
TOTAL EXPENDITURES:	3,227	1,860	500	500	500	500	500	500	8,087

Estimated Annual Operating Impact will begin in FY 2017-18 in the amount of \$10,000

SOUTH MIAMI HEIGHTS WATER TREATMENT PLANT AND WELLFIELD

PROJECT #: 9652821

DESCRIPTION: Construct water treatment plant, wellfields, and various water transmission mains in south Miami-Dade County

LOCATION: 11800 SW 208 St
Unincorporated Miami-Dade County

District Located:
District(s) Served:

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Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	16,546	1,500	18,726	13,533	11,211	21,371	54,543	124,156	261,586
WASD Revenue Bonds Sold	17,457	0	0	0	0	0	0	0	17,457
TOTAL REVENUES:	34,003	1,500	18,726	13,533	11,211	21,371	54,543	124,156	279,043
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	14,036	18,627	17,228	12,450	10,314	19,661	50,179	114,223	256,718
Planning and Design	1,220	1,620	1,498	1,083	897	1,710	4,364	9,933	22,325
TOTAL EXPENDITURES:	15,256	20,247	18,726	13,533	11,211	21,371	54,543	124,156	279,043

Estimated Annual Operating Impact will begin in FY 2018-19 in the amount of \$20,000,000

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WASTEWATER GENERAL MAINTENANCE AND OFFICE FACILITIES

PROJECT #: 9653201

DESCRIPTION: Construct and/or renovate regional general maintenance centers, office facilities, and storage warehouses
 LOCATION: Systemwide District Located: Systemwide
 Various Sites District(s) Served: Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	139	2,927	7,451	12,265	13,208	12,654	8,184	31,000	87,828
WASD Future Funding	0	0	0	0	0	0	0	72,031	72,031
WASD Revenue Bonds Sold	1,320	0	0	0	0	0	0	0	1,320
TOTAL REVENUES:	1,459	2,927	7,451	12,265	13,208	12,654	8,184	103,031	161,179
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	1,328	2,663	6,780	11,161	12,019	11,515	7,448	93,758	146,672
Land Acquisition/Improvements	44	88	224	368	396	380	245	3,091	4,836
Planning and Design	87	176	447	736	793	759	491	6,182	9,671
TOTAL EXPENDITURES:	1,459	2,927	7,451	12,265	13,208	12,654	8,184	103,031	161,179

WASTEWATER TREATMENT PLANTS REPLACEMENT AND RENOVATION

PROJECT #: 9653261

DESCRIPTION: Renovate and replace wastewater treatment plant facilities and structures within plant sites
 LOCATION: Systemwide District Located: Systemwide
 Various Sites District(s) Served: Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	608	608	608	3,526	0	0	0	0	5,350
WASD Future Funding	0	0	0	0	0	0	0	51,650	51,650
WASD Revenue Bonds Sold	774	0	0	0	0	0	0	0	774
Wastewater Renewal Fund	37,985	11,704	7,000	7,000	7,000	7,000	7,000	7,000	91,689
TOTAL REVENUES:	39,367	12,312	7,608	10,526	7,000	7,000	7,000	58,650	149,463
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	36,191	12,904	7,228	10,000	6,650	6,650	6,650	55,718	141,991
Planning and Design	1,905	679	380	526	350	350	350	2,932	7,472
TOTAL EXPENDITURES:	38,096	13,583	7,608	10,526	7,000	7,000	7,000	58,650	149,463

SANITARY SEWER SYSTEM EXTENSION

PROJECT #: 9653281

DESCRIPTION: Extend sewer system lines to include the existing sanitary sewer needs assessment
 LOCATION: Systemwide District Located: Systemwide
 Various Sites District(s) Served: Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	2,113	2,660	2,113	4,113	3,038	0	0	0	14,037
WASD Future Funding	0	0	0	0	0	0	0	190,133	190,133
WASD Revenue Bonds Sold	11,991	0	0	0	0	0	0	0	11,991
Wastewater Renewal Fund	10,735	7,704	1,500	1,500	1,500	1,500	1,500	1,500	27,439
TOTAL REVENUES:	24,839	10,364	3,613	5,613	4,538	1,500	1,500	191,633	243,600
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	23,899	10,248	3,505	5,445	4,402	1,455	1,455	185,884	236,293
Planning and Design	739	317	108	168	136	45	45	5,749	7,307
TOTAL EXPENDITURES:	24,638	10,565	3,613	5,613	4,538	1,500	1,500	191,633	243,600

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WATER DISTRIBUTION SYSTEM EXTENSION ENHANCEMENTS

PROJECT #: 9653311

DESCRIPTION: Install various water mains throughout the distribution system

LOCATION: Systemwide
Various Sites

District Located:
District(s) Served:

Systemwide
Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	16,943	11,830	57,909	22,867	9,466	10,000	12,500	32,080	173,595
WASD Revenue Bonds Sold	25,094	0	0	0	0	0	0	0	25,094
Water Connection Charges	22,606	5,521	3,590	0	0	0	0	0	31,717
Water Renewal and Replacement Fund	32,566	0	3,500	3,500	3,500	3,500	3,500	3,500	53,566
TOTAL REVENUES:	97,209	17,351	64,999	26,367	12,966	13,500	16,000	35,580	283,972
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	58,120	45,554	66,909	25,048	12,318	12,825	15,200	33,801	269,775
Planning and Design	3,059	2,397	3,521	1,318	648	675	800	1,779	14,197
TOTAL EXPENDITURES:	61,179	47,951	70,430	26,366	12,966	13,500	16,000	35,580	283,972

PEAK FLOW MANAGEMENT FACILITIES

PROJECT #: 9653371

DESCRIPTION: Evaluate and construct alternatives for peak flow management facilities and associated infrastructure

LOCATION: Systemwide
Various Sites

District Located:
District(s) Served:

Systemwide
Systemwide



REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	24,805	18,537	14,104	9,208	29,274	16,014	10,220	432,468	554,630
Wastewater Connection Charges	37,542	0	0	0	0	0	0	0	37,542
TOTAL REVENUES:	62,347	18,537	14,104	9,208	29,274	16,014	10,220	432,468	592,172
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	53,986	18,001	12,552	8,195	26,054	14,252	9,095	384,897	527,032
Planning and Design	6,672	2,225	1,552	1,013	3,220	1,762	1,125	47,571	65,140
TOTAL EXPENDITURES:	60,658	20,226	14,104	9,208	29,274	16,014	10,220	432,468	592,172

CORROSION CONTROL FACILITIES IMPROVEMENTS

PROJECT #: 9653381

DESCRIPTION: Construct corrosion control facilities and force mains; renovate structures at wastewater treatment plants and pump stations; and restore sewer mains

LOCATION: Systemwide
Various Sites

District Located:
District(s) Served:

Systemwide
Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	0	100	90	865	352	4,882	116	0	6,405
WASD Revenue Bonds Sold	1,083	0	0	0	0	0	0	0	1,083
TOTAL REVENUES:	1,083	100	90	865	352	4,882	116	0	7,488
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	921	85	76	735	299	4,150	99	0	6,365
Planning and Design	162	15	14	130	53	732	17	0	1,123
TOTAL EXPENDITURES:	1,083	100	90	865	352	4,882	116	0	7,488

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SOUTH DISTRICT UPGRADES - WASTEWATER TREATMENT PLANT

PROJECT #: 9653401



DESCRIPTION: Construct plant process improvements including injection and monitoring wells, installation of emergency generators, acquiring a land buffer, construction of a landfill gas pipeline, installation of co-gen units, and construction of sludge handling facilities

LOCATION: 8950 SW 232 St
Unincorporated Miami-Dade County

District Located: 8
District(s) Served: Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	5,000	0	2,000	4,000	3,000	1,000	0	0	15,000
WASD Future Funding	0	0	0	0	0	0	0	182,500	182,500
WASD Revenue Bonds Sold	28,000	0	0	0	0	0	0	0	28,000
TOTAL REVENUES:	33,000	0	2,000	4,000	3,000	1,000	0	182,500	225,500
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	32,000	1,000	2,000	4,000	3,000	1,000	0	182,500	225,500
TOTAL EXPENDITURES:	32,000	1,000	2,000	4,000	3,000	1,000	0	182,500	225,500

NORTH DISTRICT UPGRADES - WASTEWATER TREATMENT PLANT

PROJECT #: 9653411

DESCRIPTION: Construct a chlorine improvement process, replace sluice gates in the pre-treatment bar screen room, and provide for various upgrades and rehabilitation of the plant

LOCATION: 2575 NE 151 St
North Miami

District Located: 4
District(s) Served: Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	1,262	3,465	8,868	6,053	4,200	4,078	3,180	32,820	63,926
WASD Future Funding	0	0	0	0	0	0	0	100,225	100,225
WASD Revenue Bonds Sold	338	0	0	0	0	0	0	0	338
TOTAL REVENUES:	1,600	3,465	8,868	6,053	4,200	4,078	3,180	133,045	164,489
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	1,424	3,084	7,892	5,387	3,738	3,630	2,830	118,410	146,395
Planning and Design	176	381	976	666	462	448	350	14,635	18,094
TOTAL EXPENDITURES:	1,600	3,465	8,868	6,053	4,200	4,078	3,180	133,045	164,489

CENTRAL DISTRICT UPGRADES - WASTEWATER TREATMENT PLANT

PROJECT #: 9653421



DESCRIPTION: Construct digester improvements, digested sludge holding tanks, miscellaneous electrical improvements, outfall rehabilitation, a new gas pipeline, a new flushing water line, and a sludge handling facility; various upgrades and rehabilitation of plant including pump stations 1 and 2

LOCATION: Virginia Key
City of Miami

District Located: 7
District(s) Served: Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	2,093	5,347	8,522	5,713	3,617	1,900	108	0	27,300
WASD Future Funding	0	0	0	0	0	0	0	8,500	8,500
WASD Revenue Bonds Sold	2,533	0	0	0	0	0	0	0	2,533
TOTAL REVENUES:	4,626	5,347	8,522	5,713	3,617	1,900	108	8,500	38,333
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	4,348	5,026	8,011	5,370	3,400	1,786	102	7,990	36,033
Planning and Design	278	321	511	343	217	114	6	510	2,300
TOTAL EXPENDITURES:	4,626	5,347	8,522	5,713	3,617	1,900	108	8,500	38,333

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WATER SYSTEM FIRE HYDRANT INSTALLATION

PROJECT #: 9653461

DESCRIPTION: Install fire hydrants and construct related system improvements

LOCATION: Systemwide
Various Sites

District Located:
District(s) Served:

Systemwide
Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Fire Hydrant Fund	36,978	3,500	3,500	3,500	3,500	3,500	3,500	3,500	61,478
TOTAL REVENUES:	36,978	3,500	3,500	3,500	3,500	3,500	3,500	3,500	61,478
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	35,529	3,430	3,430	3,430	3,430	3,430	3,430	4,140	60,249
Planning and Design	725	70	70	70	70	70	70	84	1,229
TOTAL EXPENDITURES:	36,254	3,500	3,500	3,500	3,500	3,500	3,500	4,224	61,478

NORTH MIAMI-DADE WATER TRANSMISSION MAIN IMPROVEMENTS

PROJECT #: 9654031

DESCRIPTION: Install 36-inch water main along NW 87 Ave to improve transmission capabilities in the north - central area of the county; and a 48-inch water main connection to the Carol City tank

LOCATION: North Miami-Dade County Area
Miami Gardens

District Located:
District(s) Served:

Systemwide
Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	2,202	1,724	1,707	9,840	48	0	0	0	15,521
WASD Revenue Bonds Sold	626	0	0	0	0	0	0	0	626
TOTAL REVENUES:	2,828	1,724	1,707	9,840	48	0	0	0	16,147
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	2,659	1,621	1,605	9,251	45	0	0	0	15,181
Planning and Design	169	103	102	589	3	0	0	0	966
TOTAL EXPENDITURES:	2,828	1,724	1,707	9,840	48	0	0	0	16,147

CENTRAL MIAMI-DADE WATER TRANSMISSION MAINS IMPROVEMENTS

PROJECT #: 9654041

DESCRIPTION: Replace various low pressure water mains; install a 20-inch water main at railroad crossings via microtunneling method

LOCATION: Central Miami-Dade County Area
City of Miami

District Located:
District(s) Served:

Systemwide
Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	0	698	3,186	2,736	20,356	19,686	5,582	14,515	66,759
TOTAL REVENUES:	0	698	3,186	2,736	20,356	19,686	5,582	14,515	66,759
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	0	607	2,772	2,380	17,710	17,127	4,857	12,628	58,081
Planning and Design	0	91	414	356	2,646	2,559	725	1,887	8,678
TOTAL EXPENDITURES:	0	698	3,186	2,736	20,356	19,686	5,582	14,515	66,759

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SAFE DRINKING WATER ACT MODIFICATIONS-SWT RULE AND D-DBP

PROJECT #: 9654061



DESCRIPTION: Modify water treatment to comply with Surface Water Treatment (SWT) and Disinfectant/Disinfection By Product (D-DBP)

Regulations

LOCATION: Systemwide
Various Sites

District Located:

District(s) Served:

Systemwide

Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	0	610	2,692	17,364	33,066	76,454	61,271	303,018	494,475
Rock Mining Mitigation Fees	20,979	0	0	0	0	0	0	0	20,979
Water Renewal and Replacement Fund	1,076	0	0	0	0	0	0	0	1,076
TOTAL REVENUES:	22,055	610	2,692	17,364	33,066	76,454	61,271	303,018	516,530
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	12,279	2,709	6,820	14,933	28,437	65,750	52,693	260,595	444,216
Planning and Design	1,999	440	1,110	2,431	4,629	10,704	8,578	42,423	72,314
TOTAL EXPENDITURES:	14,278	3,149	7,930	17,364	33,066	76,454	61,271	303,018	516,530

Estimated Annual Operating Impact will begin in FY 2018-19 in the amount of \$10,000,000

SOUTH DISTRICT WASTEWATER TREATMENT PLANT EXPANSION - PHASE III

PROJECT #: 9655481

DESCRIPTION: Expand the South District Wastewater Plant and injection wells and install emergency generators

LOCATION: 8950 SW 232 St

Unincorporated Miami-Dade County

District Located:

District(s) Served:

8

Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	1,745	7,053	7,724	15,623	15,167	11,393	11,500	73,000	143,205
TOTAL REVENUES:	1,745	7,053	7,724	15,623	15,167	11,393	11,500	73,000	143,205
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	1,448	5,854	6,411	12,967	12,589	9,456	9,545	60,590	118,860
Planning and Design	297	1,199	1,313	2,656	2,578	1,937	1,955	12,410	24,345
TOTAL EXPENDITURES:	1,745	7,053	7,724	15,623	15,167	11,393	11,500	73,000	143,205

WATER TELEMETERING SYSTEM ENHANCEMENTS

PROJECT #: 9656780

DESCRIPTION: Acquire and install a centralized computer system at water treatment plants and wellfields

LOCATION: Systemwide

Various Sites

District Located:

District(s) Served:

Systemwide

Systemwide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Water Renewal and Replacement Fund	1,424	0	300	300	300	300	300	300	3,224
TOTAL REVENUES:	1,424	0	300	300	300	300	300	300	3,224
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	342	313	138	138	138	138	138	138	1,483
Major Machinery and Equipment	401	368	162	162	162	162	162	162	1,741
TOTAL EXPENDITURES:	743	681	300	300	300	300	300	300	3,224

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SMALL DIAMETER WATER MAINS REPLACEMENT PROGRAM

PROJECT #: 2000000072

DESCRIPTION: Design, construct, and replace undersized water mains to improve fire flows, pressure to homes and quality of water
 LOCATION: Systemwide District Located: Countywide
 Throughout Miami-Dade County District(s) Served: Countywide

REVENUE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Future WASD Revenue Bonds	6,209	3,378	22,616	29,095	19,891	11,570	12,000	27,732	132,491
State Revolving Loan Water Program	4,452	4,426	7,309	3,000	2,500	1,159	0	0	22,846
WASD Future Funding	0	0	0	0	0	0	0	293,927	293,927
WASD Revenue Bonds Sold	10,194	0	0	0	0	0	0	0	10,194
Water Renewal and Replacement Fund	602	0	0	0	0	0	0	0	602
TOTAL REVENUES:	21,457	7,804	29,925	32,095	22,391	12,729	12,000	321,659	460,060
EXPENDITURE SCHEDULE:	PRIOR	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	FUTURE	TOTAL
Construction	14,180	13,032	27,830	29,848	20,824	11,838	11,160	299,143	427,855
Planning and Design	1,068	981	2,095	2,247	1,567	891	840	22,516	32,205
TOTAL EXPENDITURES:	15,248	14,013	29,925	32,095	22,391	12,729	12,000	321,659	460,060

UNFUNDED CAPITAL PROJECTS

PROJECT NAME	LOCATION	(dollars in thousands) ESTIMATED PROJECT COST
WASTEWATER NEEDS ASSESSMENT FOR NEW GRAVITY SEWER PHASE 2	N/A	199,867
RENEWAL AND REPLACEMENT NEEDS	N/A	162,500
REUSE PROJECTS TO BE ADDRESSED	N/A	98,000
72INCH RECLAIMED WATER PIPELINE TO TURKEY POINT	N/A	95,000
WATER COMMERCIAL CORRIDOR ECONOMIC DEVELOPMENT- PHASE 2	N/A	279,204
UNFUNDED TOTAL		834,571