

FLORENDA KEYS AQUEDUCT AUTHORITY

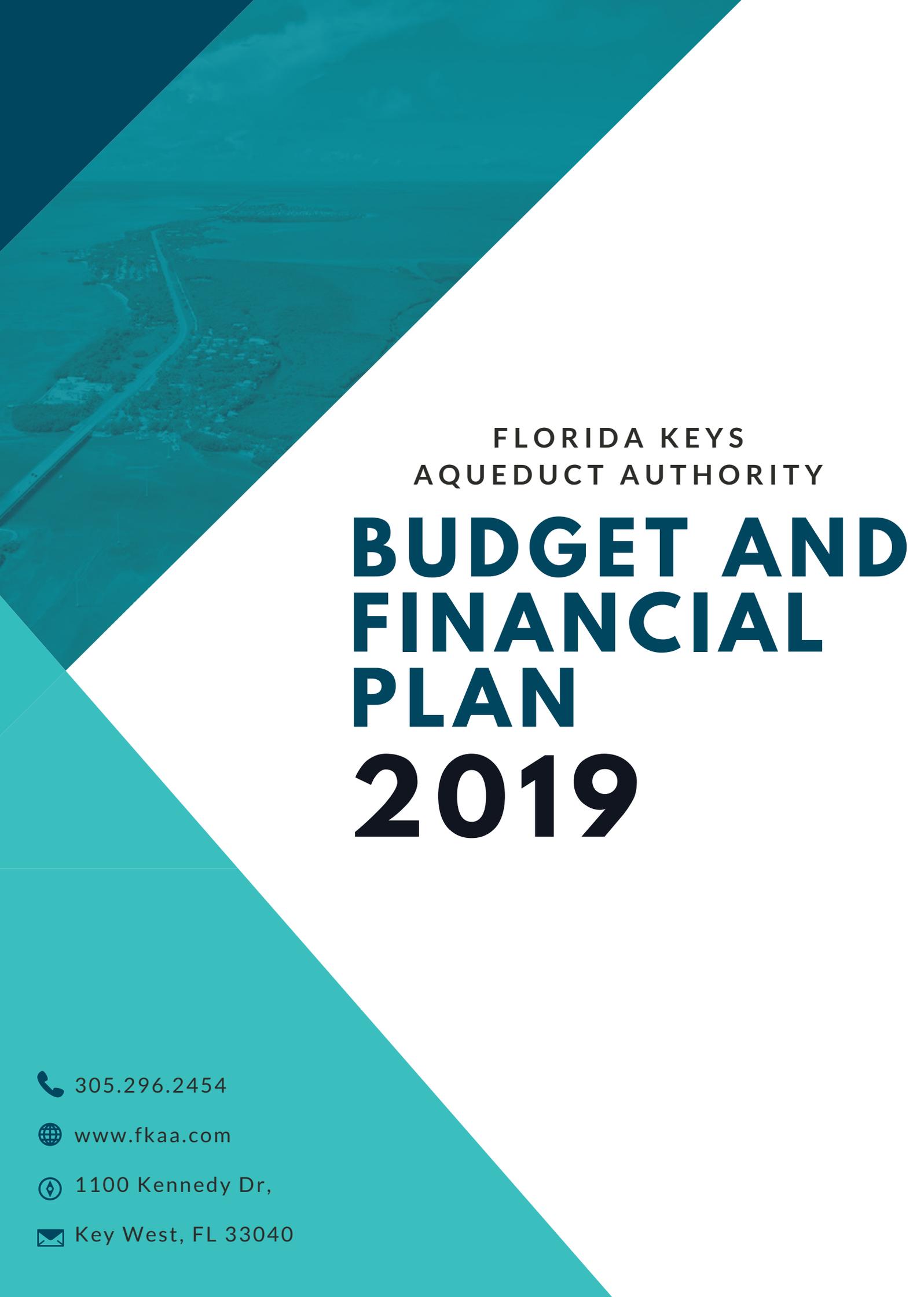
2019 BUDGET & FINANCIAL PLAN



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2019

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FLORIDA KEYS
AQUEDUCT AUTHORITY

BUDGET AND FINANCIAL PLAN 2019

 305.296.2454

 www.fkaa.com

 1100 Kennedy Dr,

 Key West, FL 33040

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FLORIDA KEYS AQUEDUCT AUTHORITY

2019 BOARD OF DIRECTORS

J. ROBERT DEAN CHAIRMAN

District 3- Current term expires December 31, 2020
Owner and Director, Dean-Lopez Funeral Home

RICHARD J. TOPPINO VICE CHAIRMAN

District 2- Current term expires December 31, 2018
Treasurer, Charley Toppino & Sons, Inc.
Vice President, Monroe Concrete Products, Inc.

DAVID C. RITZ SECRETARY/ TREASURER

District 5- Current term expires December 31, 2020
President, Ocean Reef Community Association

ANTOINETTE M. APPELL BOARD MEMBER

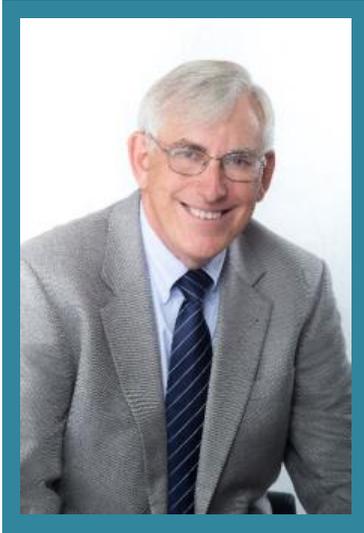
District 4- Current term expires December 31, 2020
Highly Qualified Paraprofessional with the
Monroe County School District

CARA HIGGINS BOARD MEMBER

District 1- Current term expires December 31, 2018
Partner, Horan & Higgins LLP

Message from the Executive Director

KIRK ZUELCH



On behalf of the Board of Directors and staff of the Florida Keys Aqueduct Authority, we are pleased to present our annual budget for the fiscal year ending September 30, 2019, as adopted by the Board of Directors on August 14, 2018, and the related five-year financial plan and capital financing plan.

The document is organized into five main sections. First is an introductory overview of the organization followed by a summary of our financial structure, policies and budget process. The next three sections provide financial summaries, the capital budget and debt and a detailed discussion of the operating budgets for each of our departments. This budget will remain in effect through September 30, 2019 and may only be amended through specific action of the Board. In accordance with our enabling legislation, actual expenditures for the fiscal year may not exceed the final budgeted expenditures as amended.

Hurricane Irma had a significant impact on the Florida Keys and the Authority's infrastructure in 2018 and efforts to harden the system and recover damage costs are continuing into the upcoming budget year. Operating revenue is budgeted to increase over the current year due to a proposed 3% rate increase and a 3% inflation index effective October 1, 2018. Sales volumes are projected to remain flat with the current year levels. Operating expenses are budgeted slightly higher than the current year due mainly to additional personnel costs, increases in insurance costs and replacement of aging equipment and vehicles. Capital projects are focused on projects that are critical to sustaining continued reliable operations. These projects will be funded through rates and reserves in 2019 but will require additional debt in future years to complete.

Specific budget priorities and economic factors affecting the budget can be found in the introduction and overview section. Further information about the Authority can be found at our website, www.fkaa.com, or may be obtained by calling our contact center at (305) 296-2454.

We take pride in providing reliable water and wastewater services to the residents of and visitors to the Florida Keys in the most cost-effective manner while providing quality workmanship and customer service. This budget was developed to support that mission.

Respectfully submitted,

A handwritten signature in black ink that reads "Kirk C. Zuelch". The signature is written in a cursive, professional style.

Kirk Zuelch
Executive Director

August 29, 2018

VISION, MISSION, VALUES AND GUIDING PRINCIPLES

For the fiscal year 2019



VISION

The Florida Keys Aqueduct Authority will be recognized nationally as a leader in the provision of safe, reliable water and wastewater services by seamlessly integrating advanced technology to enhance the customer experience and maximize efficiencies while leading as well in environmental awareness and resource protection.

MISSION

The Florida Keys Aqueduct Authority is a nationally renowned and community oriented publicly owned utility that provides reliable, safe and efficient water and wastewater services in a fiscally and environmentally responsible manner with a highly trained, professional, and dedicated team of employees.

VALUES

To achieve our mission, the Authority is committed to the following values:

- Customer satisfaction
- Excellent water quality
- Community involvement
- Strong working relationships with municipal, county, state and federal government agencies
- Employee development, communication and career growth
- Well maintained, reliable and secure systems
- Cost effective services
- Protection of environmental resources
- Financial stability

VISION, MISSION, VALUES AND GUIDING PRINCIPLES

For the fiscal year 2019

GUIDING PRINCIPLES

In providing the highest quality water services to our customers, we embrace the following ten attributes of effectively managed water sector utilities as our guiding principles.

FINANCIAL VIABILITY

We understand the full life-cycle costs of the utility and maintain an effective balance between long-term debt, asset values, operations and maintenance expenditures, and operating revenues. We establish predictable rates that are equitable and consistent with community expectations and acceptability, adequate to recover costs, provide for reserves, maintain support from bond rating agencies, and plan and invest for future needs.

- Cost effective services
- Protection of environmental resources
- Financial stability

OPERATIONAL RESILIENCY

We ensure our leadership and staff work together to anticipate and avoid problems. We proactively identify, assess, establish tolerance levels for, and effectively manage a full range of business risks including legal, regulatory, financial, environmental, safety, security, and natural disaster related.

PRODUCT QUALITY

We produce safe, high quality potable water and treated wastewater effluent in full compliance with regulatory and reliability requirements and consistent with customer, public health, and ecological needs.

INFRASTRUCTURE STABILITY

We maintain and enhance the condition of all assets over the long-term at the lowest possible life-cycle cost and acceptable risk consistent with customer, community, and regulator-supported service levels, and consistent with anticipated growth and system reliability goals.

WATER SUPPLY AVAILABILITY

We ensure water availability through long-term water supply and demand analysis, conservation, agency interaction, and public education.

CUSTOMER SATISFACTION

We provide reliable, responsive, and affordable services in line with our customer expectations. We value their opinions and suggestions.

OPERATIONAL OPTIMIZATION

We ensure ongoing, timely, cost-effective, reliable, and sustainable performance improvements in all facets of our operation.

EMPLOYEE AND LEADERSHIP DEVELOPMENT

We recruit and retain a workforce team that is skilled, motivated, adaptive, and safe-working. We encourage a participatory, collaborative organization culture dedicated to continual learning and improvement. We emphasize opportunities for professional and leadership development and strive to maintain an integrated and well-coordinated senior leadership team.

COMMUNITY SUSTAINABILITY

Manage operations, infrastructure, and investments to protect, restore, and enhance the natural environment. We efficiently use water and energy resources; promote economic vitality; and engender overall community involvement and improvement.

STAKEHOLDER UNDERSTANDING AND SUPPORT

We actively involve stakeholders in the decisions that will affect them. We garner understanding and support from community interests for service levels, rate structures, operating budgets, capital improvement programs and risk management decisions.

VISION, MISSION, VALUES AND GUIDING PRINCIPLES

For the fiscal year 2019

STRATEGIC GOALS, INITIATIVES AND IMPLEMENTATION STRATEGIES

Our strategic goals define what we seek to accomplish to fulfill FCAA's vision. They reflect the unique challenges that FCAA faces as provider of water services for the Florida Keys. These goals simultaneously address infrastructure needs, opportunities to enhance customer services, and responsibilities for stewardship of our environmental resources:

1. Develop a sustainable utility and related infrastructure
2. Proactive public outreach and superior customer service
3. Enhance employee communication and development
4. Financial optimization
5. Maximize energy efficiency
6. Optimize utility operations and treatment

Our approach to accomplishing these goals is framed by the institutional and legal position as a Special District of the State of Florida.

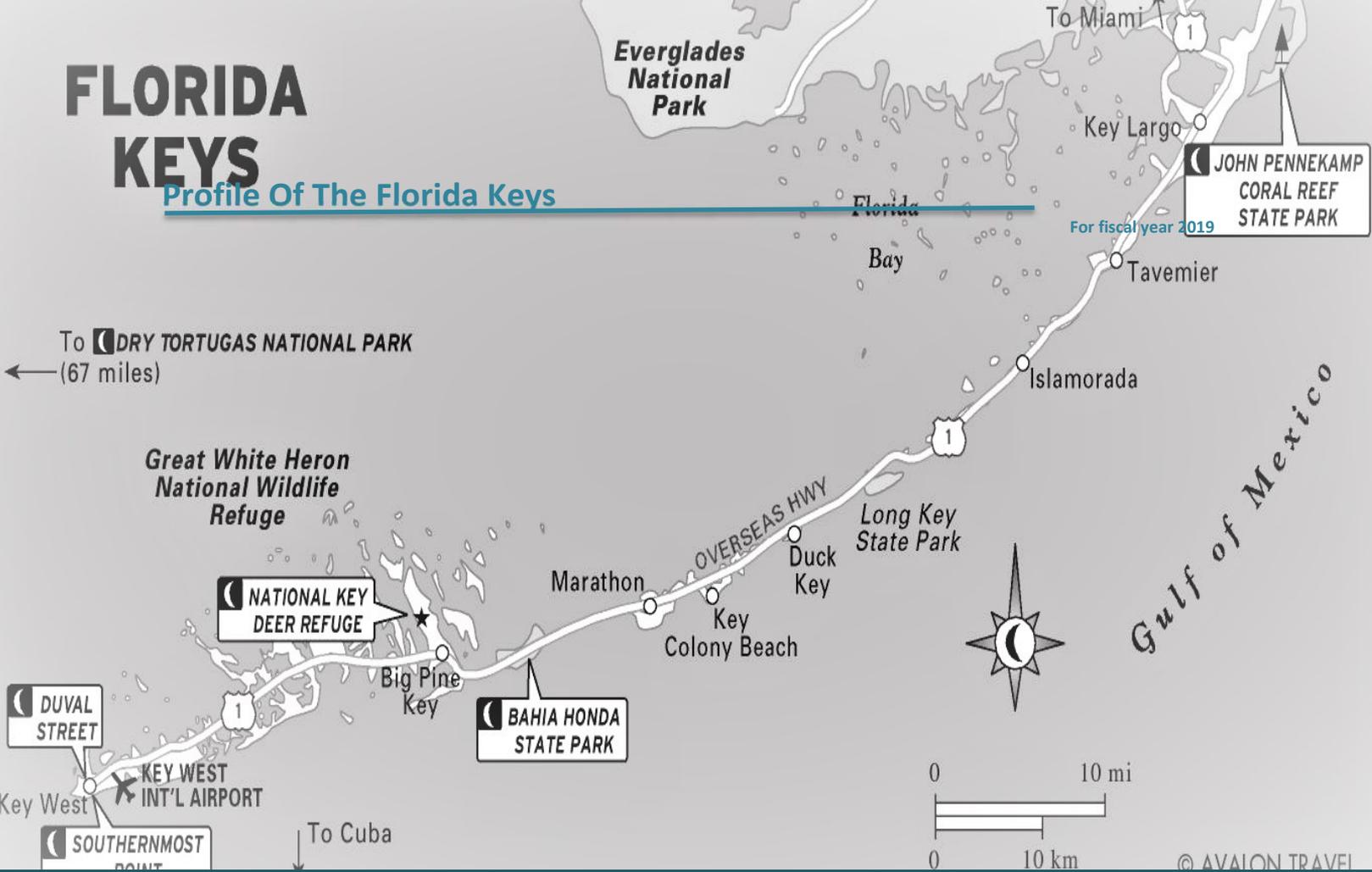
Other Planning Processes And Their Impact On The Budget

For fiscal year 2019

	TYPE OF PLANNING PROCESS	DESCRIPTION OF PROCESS	BUDGET IMPACTS
STRATEGIC PLANNING	Long range (3 to 10 years) with objectives established for budget year	Strategic goals, initiatives and implementation strategies are reviewed with the Board as part of the budget process and updated accordingly	Provides direction for allocation of resources to meet predetermined strategic goals and objectives
FINANCIAL FORECASTING	Five-year operating plan to facilitate financial planning	Finance staff works with all departments to determine key forecast assumptions to project major revenue sources and expenditures	Provides for budget stability, planning and direction for future resource allocation decision making
CAPITAL IMPROVEMENT MASTER PLAN	We are proposing a 15-year CIP and master plan	Staff evaluates capital needs on an annual basis and programs the plan through a systematic prioritization process	Provides for predictable funding level from year to year to allow adequate planning for debt service requirements and operating costs of new facilities and infrastructure improvements
INFORMATION TECHNOLOGY MASTER PLAN	Multi-year plan to replace certain software applications and computer equipment	Initiatives and technology gaps identified in the plan have been prioritized by year, based on needs assessment with adjustments made as necessary	Allows for the funding of software and equipment replacements, maintenance, helpdesk support and network infrastructure replacement annually at established levels. Replacement decisions are determined considering changing software technology, economic issues, maintenance costs and downtime

FLORIDA KEYS

Profile Of The Florida Keys

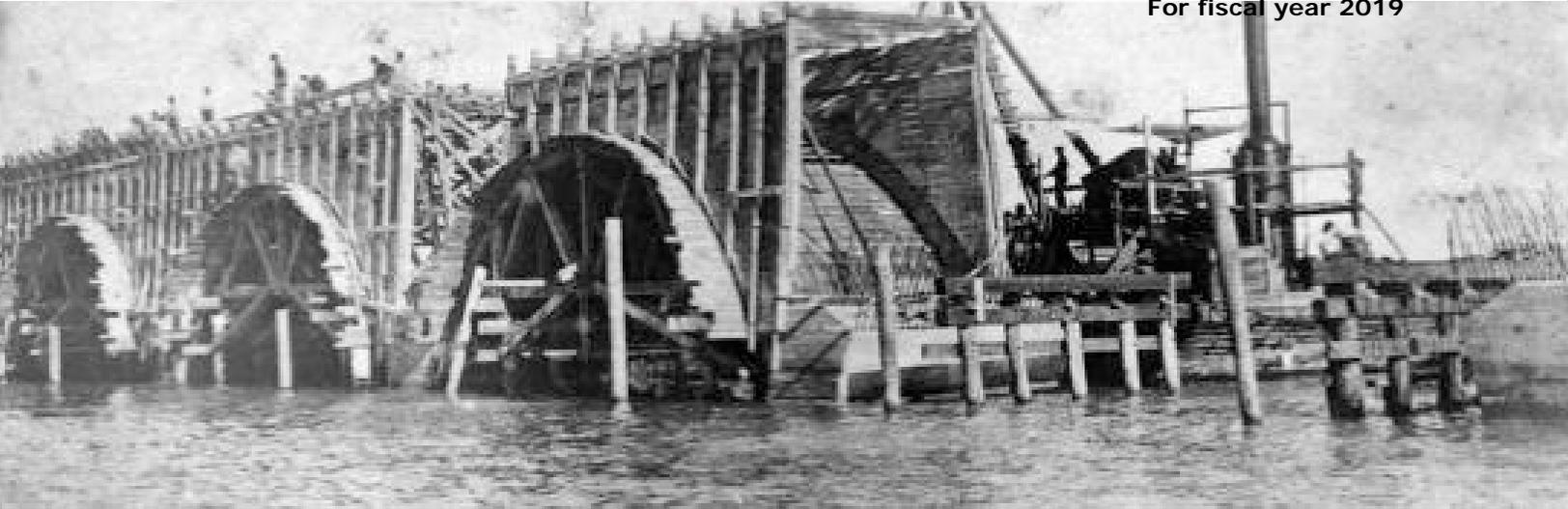


The Florida Keys

The Florida Keys are a chain-like cluster of about 1,700 islands in the southeast United States. They begin at the southeastern tip of the Florida peninsula, about 15 miles south of Miami, and extend in a gentle arc south to southwest to Key West, the southernmost city in the contiguous United States. The islands lie along the Florida Straits, dividing the Atlantic Ocean to the east from the Gulf of Mexico to the west, and defining one edge of Florida Bay. At the nearest point, the southern tip of Key West is just 89 miles from Cuba. The total land area is approximately 137 square miles and the county-wide population is about 79,000. Much of the population is concentrated in a few areas of much higher density, such as the city of Key West, which has 32% of the entire population of the Keys.

Early History

The Keys were originally inhabited by the Tequesta Native Americans and were later found and charted by Juan Ponce de Leon. “Key” is corrupted from the Spanish cayo, meaning small island. For many years, Key West was the largest town in Florida, and it grew prosperous from sponging, cigar making and salvaging ships that wrecked on the nearby reef. The isolated outpost was well located for trade with Cuba and the Bahamas, and was on the main trade route from New Orleans. Improved navigation led to new trade routes and fewer shipwrecks, and spongers and cigar-makers moved to other parts of Florida, leaving Key West in decline by the Great Depression. The economy rebounded with an expanded Navy presence and increased tourism in the years that followed.



Overseas Railway

The Keys were once accessible only by water. This changed with the completion of Henry Flagler's Overseas Railway in the early 1900s. Flagler, a major developer of Florida's Atlantic coast, extended his Florida East Coast Railway down to Key West with an ambitious series of over-sea railroad trestles. The Labor Day hurricane of 1935 ended the 23-year run of the Overseas Railway. The damaged tracks were never rebuilt, and the Overseas Highway replaced the railroad as the main transportation route from Miami to Key West.

Seven Mile Bridge

One of the longest bridges in the country when it was built, the Seven Mile Bridge connects Knight's Key (part of the city of Marathon in the Middle Keys) to Little Duck Key in the Lower Keys. The water transmission line is housed inside this bridge and crosses 42 other bridges before ending in Key West.

Natural Environment and Geology

The Keys are in the subtropics between 24 and 25 degrees' north latitude. The climate and environment are closer to that of the Caribbean than the rest of Florida, though unlike the Caribbean's volcanic islands, the Keys were built by plants and animals.

The Upper Keys islands are remnants of large coral reefs, which became fossilized and exposed as sea levels declined. The Lower Keys are composed of sandy-type accumulations of limestone grains produced by plants and marine organisms.

The natural habitats of the Keys are upland forests, inland wetlands and shoreline zones. Soil ranges from sand to marl to rich, decomposed leaf litter. In some places, "cap-rock" (the eroded surface of coral formations) covers the ground. Rain falling through leaf debris becomes acidic and dissolves holes in the limestone, where soil accumulates and trees root.

The climate is classified as tropical, and the Keys are the only frost-free place in Florida. There are two main seasons, hot, wet, and humid from about June through October, and somewhat drier and

Profile Of The Florida Keys (continued)

For fiscal year 2019

cooler weather from November through May. Many plants grow slowly or go dormant in the dry season. Some native trees are deciduous, and drop their leaves in the winter or with spring winds.

The Keys have distinctive plant and animal species, some found nowhere else in America, as the Keys define the northern extent of their ranges. The native flora of the Keys is diverse, including both temperate families, such as maple, pine and oak, growing at the southern end of their ranges, and tropical families, including mahogany, gumbo limbo, stoppers, Jamaican dogwood, and many others which grow only as far north as 25 or 26 degrees north latitude.

The Keys are also home to unique animal species, including the Key deer, protected by the National Key Deer Refuge, and the American crocodile. The waters surrounding the Keys are part of a protected area known as the Florida Keys National Marine Sanctuary.

Local Economy and Demand Trends

The primary industries in the Authority's service area are related to tourism. Other industries include military operations and commercial fishing. Many residents are in the service area for only part of the year. The permanent year-round population of Monroe County is approximately 79,000 residents. The average functional population, defined as the sum of the permanent population and the peak seasonal population estimated by the Monroe County Growth Management Division to be approximately 160,000. Due to this difference in population, the Authority experiences monthly fluctuations in water consumption and wastewater flows depending on seasonal demands.



Demographic and Economic Information

For fiscal year 2019

FLORIDA KEYS

ESTIMATED POPULATION

RESIDENT POPULATION

1960	47,921
1970	52,586
1980	63,188
1990	79,300
2000	79,589
2010	73,090
2011	73,090
2012	72,670
2013	73,560
2014	74,044
2015	74,205
2016	76,047
2017	79,077

PERCENTAGE OF POPULATION BY AGE

UNDER 18 YEARS OF AGE

17%

AGES 25 TO 64

62%

65 YEARS OF AGE AND OVER

14%

DEMOGRAPHICS

AVERAGE HOUSEHOLD SIZE	2.53
MEDIAN HOUSEHOLD INCOME	\$ 60,303
PER CAPITA INCOME	\$ 36,771
% BELOW THE POVERTY LEVEL	11.50
TOTAL HOUSING UNITS	53,122
MEDIAN SINGLE FAMILY HOME VALUE	\$ 400,800
MEDIAN TRAVEL TIME TO WORK (MINUTES)	18.40

REFERENCE:
[HTTPS://DATAUSA.IO/PROFILE/GEO/MON
 ROE-COUNTY-FL](https://datausa.io/profile/geo/monroe-county-fl)

Demographic and Economic Information (continued)

For fiscal year 2019

FUN FACTS ABOUT THE FLORIDA KEYS

160
THE FLORIDA REEF IS ONE OF THE WORLD'S LARGEST REEFS AND IT IS 160 MILES LONG

90
CUBA IS 90 MILES FROM KEY WEST (MIAMI IS 164 MILES AWAY!)

5
AFTER 5 ATTEMPTS, DIANA NYAD, AGE 64 SET A WORLD RECORD AFTER SWIMMING FROM HAVANA TO KEY WEST. SHE WAS THE FIRST PERSON TO DO IT WITHOUT A SHARK CAGE

KEY WEST'S EARLIER SPANISH NAME WAS CAYO HUESO



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Demographic and Economic Information (continued)

For fiscal year 2019

	2017 Average- Key West International Airport	2017 Actual Rainfall-Key West International Airport
October	4.93	2.12
November	2.30	0.11
December	2.22	1.74
January	2.04	1.00
February	1.49	2.05
March	2.05	0.93
April	2.05	3.88
May	3.00	1.19
June	4.11	5.71
July	3.55	3.25
August	5.38	2.23
September	6.71	9.28
Totals	39.83	33.49

Average Monthly Temperatures Key West

	Average high	Average Low
October	85	76
November	80	75
December	76	67
January	74	64
February	76	66
March	78	68
April	81	72
May	85	76
June	88	79
July	89	80
August	89	80
September	88	78

Annual Rainfall for the last 10 fiscal years

Year	Key West International Airport	Miami International Airport
2017	33.49	78.33
2016	40.80	75.11
2015	37.88	47.22
2014	33.94	73.65
2013	44.43	60.58
2012	60.58	97.87
2011	35.05	50.56
2010	41.47	68.56
2009	36.84	51.25
2008	36.52	63.59

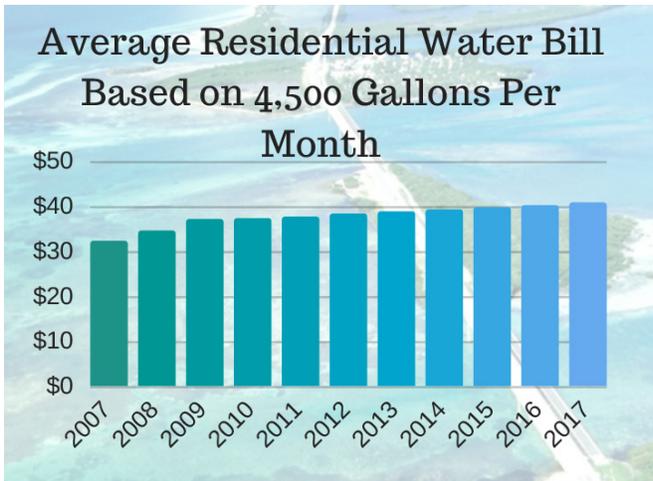
Demographic and Economic Information (continued)

For fiscal year 2019

Water Availability and Sales

The Authority is permitted by the South Florida Water Management District (SFWMD) to withdraw its supply of water from the Biscayne Aquifer at the Authority's wellfield in Florida City. The Authority's water use permit was approved for a twenty-year term in 2008, allowing the Authority to withdraw an annual daily average of 17.79 million gallons per day (mgd) from the Biscayne Aquifer. The permit also allows for the Authority to withdraw up to 8 mgd from the brackish Floridan Aquifer for treatment through reverse osmosis. This withdrawal should support an additional 6 mgd of treated water supply.

Due to severe drought conditions that occur in South Florida from time to time, mandatory water use restrictions are now being imposed by the SFWMD. With permanent restrictions in place, reduced consumption level has remained consistent and is considered the "new normal" for budgeting purposes. As the economy improved in



recent years, water use trended upward slightly but has once again leveled off with little or no volume growth.

The U.S. Navy remains the Authority's largest water customer. The Navy's presence in the lower keys and Key West remains strong due in part to the large amount of unrestricted air space available for pilot training. Hotels, resorts and government make up most of the Authority's other top ten customers. Economic conditions have worsened, tourism and tourism-related development are slowing and hotels and resorts are using less water.

Workforce Issues

The Authority's linear geography requires sufficient staff in all areas to respond to operational and customer needs. This makes staff levels and staffing costs higher than in a centrally located system. Service personnel and customer service offices are maintained in three areas of the Keys in addition to the Authority's administrative headquarters in Key West (southern end of the system) and its water treatment plant in Florida City (northern end of the system).

Demographic and Economic Information (continued)

For fiscal year 2019

Workforce Issues (continued)

The cost of living in Monroe County is highest in the state of Florida, mainly due to the cost of housing. This makes recruiting and retaining staff a challenge. Economic conditions have forced some employees to relocate. Therefore, overall compensation must be carefully considered each year in order to assure a sufficient workforce.

10 largest customers-year ended September 30, 2017

	2017	Total Gallons Consumed (000)	Total Water Revenues	% of Water Revenue
1	United States Navy	274,784	\$ 1,104,324	3.3%
2	Monroe County Detention Center	41,483	628,138	1.9%
3	Cheeca Lodge and Spa	36,108	403,862	1.2%
4	City of Key West	35,169	392,050	1.2%
5	Ocean Reef Club Inc	34,153	355,397	1.1%
6	Monroe County School Board	31,864	337,407	1.0%
7	Keys Hotel Operator Inc	29,662	336,678	1.0%
8	Resort Hotels of Key West	21,304	243,568	0.7%
9	RLJ DBT Key West Lessee LLC	19,049	231,829	0.7%
10	Stock Island Apartments	18,823	199,833	0.6%

10 largest customers-year ended September 30, 2008

	2008	Total Gallons Consumed (000)	Total Water Revenues	% of Water Revenue
1	United States Navy	291,322	\$ 938,142	2.4%
2	Monroe County	77,316	670,891	1.7%
3	Ocean Reef Club Inc	49,621	431,711	1.1%
4	Cheeca Holdings LLC	41,634	393,464	1.0%
5	Heartland Hotel Corporation	24,833	222,651	0.6%
6	Hawks Cay Property Holdings	22,997	197,346	0.5%
7	Angler's Club	22,420	207,427	0.5%
8	Key West Beach Suited Ltd.	20,706	192,470	0.5%
9	Venture Out of Cudjoe	20,622	174,331	0.4%
10	NHC FL13 LP	19,706	188,260	0.5%

SYSTEM OVERVIEW

24 MGD LIME SOFTENING WATER TREATMENT PLANT

10 BISCAYNE AQUIFER SUPPLY WELLS

5 FLORIDAN AQUIFER SUPPLY WELLS

6 MGD BRACKISH WATER REVERSE OSMOSIS PLANT

2 SEAWATER REVERSE OSMOSIS PLANTS (3MGD TOTAL CAPACITY)

187 MILES OF STEEL AND DUCTILE IRON TRANSMISSION MAIN (18"-36") AT UP TO 250 PSI

6 TRANSMISSION BOOSTER AND BACK PUMP STATIONS

43 BRIDGE CROSSINGS

49 MG CAPACITY IN 33 STORAGE TANKS

690 MILES OF POTABLE WATER DISTRIBUTION MAIN AT UP TO 55 PSI

26 PUMPING STATIONS

7 WASTEWATER TREATMENT PLANTS

195 MILES OF WASTEWATER COLLECTION AND FORCE MAIN LINES

14 APPROXIMATE MILES OF RECLAIMED DISTRIBUTION WATER LINES



Profile of the Authority

For fiscal year 2019

History and Purpose

In 1937, the legislature of the state of Florida created the Florida Keys Aqueduct Commission, the predecessor to the Florida Keys Aqueduct Authority (Authority). The Commission was charged with the responsibility of obtaining, supplying and distributing potable water to the Florida Keys. In 1970, the Authority was established by the state legislature to succeed the Commission. The Authority currently operates under Special Legislation 76-441, Laws of Florida, as amended, (Enabling Legislation).

The Authority is the sole provider of potable water for all the residents of the Florida Keys. The Authority also provides wastewater collection and treatment in certain areas of the Florida Keys. The Authority provides service to over 50,000 customers throughout the Florida Keys, which are a part of Monroe County. The reporting entity consists of the operations of the water and wastewater utility.

The Authority is governed by a five-member board of directors appointed by the Governor of the State of Florida from districts identical to the county commission districts in Monroe County. Members serve four-year terms. The Board employs an executive director who is the chief executive officer of the Authority.

The Authority's Facilities

The Authority has made significant improvements to the infrastructure of the water system over the years to accommodate increased demand. The initial phase of the transmission pipeline replacement was completed in the early 1980s. The Authority then established a long-range capital improvement master plan to address anticipated future water demands. This master plan is being updated in 2019 based on a prioritization methodology designed to identify the criticality of all currently identified projects.

An overview of the Authority's facilities follows.

Wellfields

The Authority draws its primary raw water supply from the Biscayne Aquifer through ten wells with screened depths of 20 to 60 feet. The wellfield is adjacent to the outskirts of the Everglades National Park and is within an environmentally protected pine rockland. The location of the wellfield, along with restrictions enforced by state and local regulatory agencies, contribute to the unusually high quality of the raw water, which meets all federal and state finished drinking water standards prior to any treatment.

Water production and treatment facilities

The Authority's primary water production facilities are a lime softening plant that treats water withdrawn from the Biscayne Aquifer and a reverse osmosis plant that treats brackish water from the deeper Floridian Aquifer. Water treated at these facilities is then blended and disinfected before entering the transmission line. The lime softening plant has a design capacity of 24 mgd. The water treatment process consists primarily of lime softening, filtration, disinfection and fluoridation. The reverse osmosis plant treats brackish groundwater and has a design capacity of 6 mgd.

Profile of the Authority (continued)

For fiscal year 2019

Water production and treatment facilities, continued

The Authority also maintains seawater reverse osmosis facilities in Stock Island and Marathon capable of producing 2 mgd and 1 mgd, respectively. These facilities were constructed primarily for emergency operations in the event of a major transmission main break.

Water transmission and distribution systems

The Authority maintains approximately 187 miles of transmission main and approximately 690 miles of distribution lines. The transmission main ranges in size from 36 inches leaving the water treatment plant in Florida City to 18 inches at the end of the line in Key West and in areas with redundant lines. The Authority operates transmission pump stations at the water treatment plant in Florida City, Key Largo, Long Key, Marathon, Ramrod Key and Stock Island. These pump stations boost the water pressure to meet water demands throughout the service area and can also back pump in the event of a line break. The stations have pumps with electric variable speed drives as well as diesel engine drives for emergencies. The Authority also operates nineteen distribution pump stations located throughout the service area to maintain water pressure in the distribution system.

Wastewater treatment facilities

The Authority owns and operates a .054 mgd wastewater treatment facility in Bay Point, a .27 mgd facility in Duck Key, a .066 mgd facility in Layton and a .20 mgd facility in Key Haven, Florida. Additionally, the Authority operates a .96 mgd facility in Cudjoe Key and a .33 mgd facility in Big Coppitt that are owned by Monroe County. The Authority and Monroe County are parties to a 99-year lease agreement that grants the Authority the right to operate and maintain county-owned wastewater systems, including setting rates sufficient to fund those operations.

Wastewater transmission and collection systems

The Authority's wastewater collection systems are comprised of gravity, low-pressure and vacuum systems. There are also transmission force mains that carry the effluent from the collection systems to the wastewater treatment facilities.

Reclaimed water distribution systems

The Authority provides reclaimed water in certain areas that supplies non-potable irrigation water to residents and resort facilities. This reclaimed water is priced at a reduced rate to encourage customers to use it for non-potable uses rather than using potable water.

Profile of the Authority (continued)

For fiscal year 2019

The Authority's Operations

The Authority serves over 50,000 water customers in a service area that includes all the Florida Keys. Due to the geography of the Florida Keys, operations crews and facilities must be located throughout the service area. In addition to operating the water system, these crews respond to line breaks and other service interruptions, perform scheduled preventive maintenance and leak surveys, and maintain facilities and structures.

The Authority's service area for wastewater services includes all areas in unincorporated Monroe County except Ocean Reef, the Key Largo Wastewater Treatment District (Tavernier, Key Largo and Cross Key), and the area of Stock Island served by Key West Resort Utilities. The Authority also serves the City of Layton. The Authority currently serves approximately 10,500 wastewater customers.

Water quality assurance

The water quality staff is responsible for water quality assurance for the Authority. In 1996, the Safe Drinking Water Act was approved in response to improvements to the regulatory process for the protection of public health based on sound science. This law regulates the drinking water quality standard setting process, operator certification, monitoring requirements, consumer confidence reports and source water protection. The Authority strives to ensure that the Florida Keys water supply meets the highest quality standards possible for safety, aesthetics and taste. The Authority employs staff that is certified in the treatment, testing, monitoring and distribution of the water supply. Water is tested regularly, both prior to and after treatment, to ensure that it complies with or surpasses all federal and state water quality requirements. An annual consumer confidence report is provided to Authority customers in July of each year.

Protection of the groundwater source from potential pollution is a very important water quality issue. The Authority has an ongoing agreement with the Dade County Department of Environmental Resource Management (DERM) to regulate and manage issues relating to the protection of the Authority's wellfield. DERM monitors ground and surface water to establish water quality trends, enforces laws against illegal discharges, protects important aquifer recharge areas, and regulates underground storage tanks, liquid waste haulers and other hazardous waste.

The Authority monitors a network of wells and structures for saltwater intrusion monthly. This network includes seven Authority wells, six United States Geological Survey wells, and four SFWMD canal sites in the Florida Everglades. These seventeen sites provide valuable information on the location, movement and velocity of the saline/fresh water interface.

The Authority uses chloramines as its primary disinfecting agent. Chloramines, though not as strong as free chlorine, remain more stable and do not produce potentially harmful by-products. The Authority performs bacteriological testing on samples taken from approximately 90 sample sites throughout the system to ensure that appropriate disinfection is taking place.

In the state of Florida, water utilities are required to establish an ongoing cross-connection control program to detect and prevent cross-connections that may create a potential health hazard. A cross-connection is any physical connection between the water supply and any private piping arrangement that contains a foreign liquid or substance. To prevent potential backflow from such an arrangement, the Authority must either discontinue water service until the cross-connection is eliminated or require installation of an approved backflow prevention device.

Profile of the Authority (continued)

For fiscal year 2019

Awards



Distinguished Budget Presentation Award

The Government Finance Officers Association of the United States and Canada (GFOA) awarded the Distinguished Budget Presentation Award for Excellence in Budget Presentation for the Authority's 2017 budget year. This was the 11th consecutive year that the Authority has achieved this prestigious award. The award represents a significant achievement by The Authority. It reflects the commitment of The Authority's staff to meet the highest principles of governmental budgeting. To receive the award The Authority had to satisfy nationally recognized guidelines for effective budget presentation. A Distinguished Budget Presentation Award is valid for a period of one year only. We believe that our current budget and financial plan for the fiscal year ending September 2016 continues to meet the Distinguished Budget Presentation Award's requirements and we have submitted it to the GFOA to determine its eligibility for another award.

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 Authority for its Comprehensive Annual Financial Report for the fiscal year ended September 30, 2016. This was the 26th consecutive year that the Authority has achieved this prestigious award. To be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized comprehensive annual financial report. This 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. We believe that our current comprehensive annual financial report continues to meet the Certificate of Achievement Program's requirements and it has been submitted to the GFOA to determine its eligibility for another certificate.



Profile of the Authority (continued)

For fiscal year 2019

Acknowledgements

The preparation of the budget and financial plan for the year ending September 30, 2019 was made possible by the dedicated service of the entire staff of the Florida Keys Aqueduct Authority. Each participant has our sincere appreciation for the contributions made in support of this effort.

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Profile of the Authority (continued)

For fiscal year 2019

Milestones

1937

State of Florida creates the Florida Keys Aqueduct Commission, the only water utility in Florida at the time that reported directly to the governor's office.

1941

First water supply system is completed by the U.S. Navy and the Commission. Shortly thereafter, a water treatment plant is built at Florida City having an original capacity of 2.4 mgd.

Mid

Water transmission and distribution systems are upgraded to meet rising demand, the Florida City WTP is expanded, booster pumping stations are strategically built along the Keys to boost water pressures, and storage tanks are built. By 1962, water system capacity is 6.5 mgd.

1966

A flash desalination facility is constructed to supplement water supply and pressure in Key West due to increased water demands that exceeded the pipeline capacity.

1974

State of Florida amends enabling legislation changing Florida Keys Aqueduct Commission to Florida Keys Aqueduct Authority.

1976

U.S. Navy sells the water system to the Authority for \$2.1 million. The Authority board becomes elected rather than appointed by the governor.

1979

A 3 mgd reverse osmosis plant is built on Stock Island replacing the flash desalination facility to supplement water supply and pressure in Key West until the new, larger-diameter pipeline from Florida City becomes operational.

1982

New larger-diameter pipeline from Florida City to Key West is completed, financed through a loan from the Farmers Home Administration.

1989

J. Robert Dean Water Treatment Facility replaces original Navy plant in Florida City, having a design capacity of 22 mgd.

1992

In August, Hurricane Andrew, one of the worst storms of the century, slams into the J. Robert Dean Water Treatment facility causing a considerable amount of damage. The rebuilding of the facility begins immediately after the hurricane passes. Despite the damage, the plant continues to provide disinfected potable water to the Florida Keys by operating on emergency back-up generation for 21 days.

1997

Reverse osmosis facility on Stock Island is renovated. The plant's capacity is split between Stock Island (2 mgd) and Marathon (1 mgd) to provide potable water during emergencies.

2001

The lime-softening water plant is upgraded and expanded to provide more treatment and storage capacity.

2005

The Keys are impacted by four named hurricanes, culminating in October with Hurricane Wilma which caused extensive flooding throughout the Keys. The damages to the Authority from Wilma were substantial, yet water service was not interrupted.

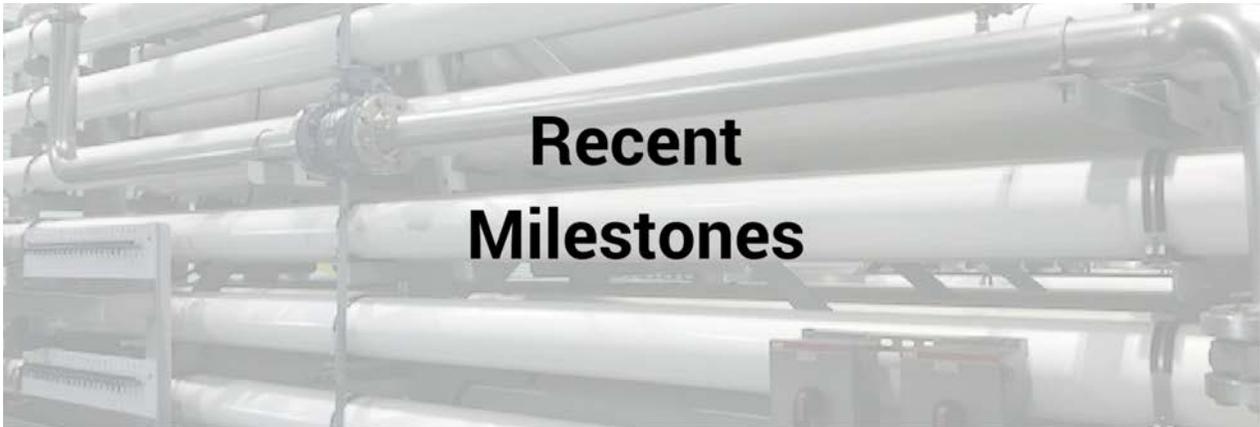
2008

The David C. Ritz Booster Pumping Station at Key Largo is placed into service to assure adequate water pressures are maintained in the transmission pipeline for the delivery of water to the Florida Keys.

Profile of the Authority (continued)

For fiscal year 2019

Milestones (continued)



2009

The Authority completed construction of a 6 mgd reverse osmosis plant adjacent to its lime softening plant in Florida City. This facility helps the Authority meet dry season permit limitations and reduces the strain placed on the Biscayne Aquifer. The Authority also placed in service the Big Coppitt Regional Wastewater system serving approximately 1,100 customers in the lower keys.

2011

South Florida experienced severe drought conditions, with one of the driest periods in 80 years. Water conservation efforts, along with the effects of an extended financial recession, resulted in a ten-year low in water demand.

2019

The Authority is nearing completion of a \$200 million wastewater system to service the lower Keys. This system is the last major wastewater system necessary to complete advanced wastewater treatment throughout the Keys.

Budget Highlights, Issues and Priorities

For fiscal year 2019

Key Highlights

The 2019 budget reflects the impacts of several important initiatives and internal factors as well as certain external factors. Some of the important initiatives and internal factors include:

- Final completion of the Cudjoe Regional Wastewater System
- Comprehensive capital improvement plan
- Contractual salary increases

Other budget impacts that are driven by external factors include the following:

- Continued repairs from Hurricane Irma damage
- Potential impacts of future hurricanes
- Impacts of high cost-of-living on recruitment and workforce retention
- Uncertainty of employee health care costs for self-retained risk
- Increasing costs of property insurance due to the recent spike of natural disasters

These impacts, as well as other budget drivers, are discussed in more detail below.

Operating Revenue

Utility operating revenue

After several years of reduced consumption, water sales began to show signs of recovery in recent years but have leveled off in 2017 and 2018. Water volume sales are budgeted to remain consistent with the current budget. The budget includes a proposed 3% increase in water rates and a projected 3% rate adjustment for inflation effective October 1, 2018 for all fees and charges.

Other revenue and capital contributions

System development fees remain relatively insignificant, comprising only about 2% of overall revenue. Interest income is also minor, less than 1% of total revenue.

Operating Expenses and Operating Capital Outlay

The total overall budgeted operating expenditures, including capital outlay for ongoing operations, are about 6.1% higher than those budgeted in the current year. Some of the significant budgeted expenditures are discussed below.

Personnel costs

Salaries and benefits are budgeted at \$27,762,200, or about 4.3% higher than the current budget. A cost of living salary adjustment of 3% is budgeted to go into effect for all employees on October 1, 2018 along with an average estimated merit increase of about 1.1%. This amount will vary based on actual performance results. Nine new positions were added in the 2019 budget. Five are wastewater personnel along with two additional water distribution operators, an electrician and a customer service field representative position.

Budget Highlights, Issues and Priorities (continued)

For fiscal year 2019

Other operating expenses

Operating costs, such as materials and maintenance are budgeted to increase, mainly due to the new wastewater system on Cudjoe Key. The increase in insurance costs is due to recent increased claims across the country due to natural disasters such as flooding, hurricanes and wild fires. Engineering costs are increasing due to initiation of an updated master plan. The increase in other utilities and technical services is due to the continued movement towards a cloud-based database. Other consulting and support services increased due to the continued implementation of a new asset management system.

Capital outlay

Capital outlay is budgeted at \$4,165,500, an increase of \$433,200 over the current year. These costs are for replacement of aging vehicles and heavy equipment and for upgrading master taps.

Capital Improvement Projects

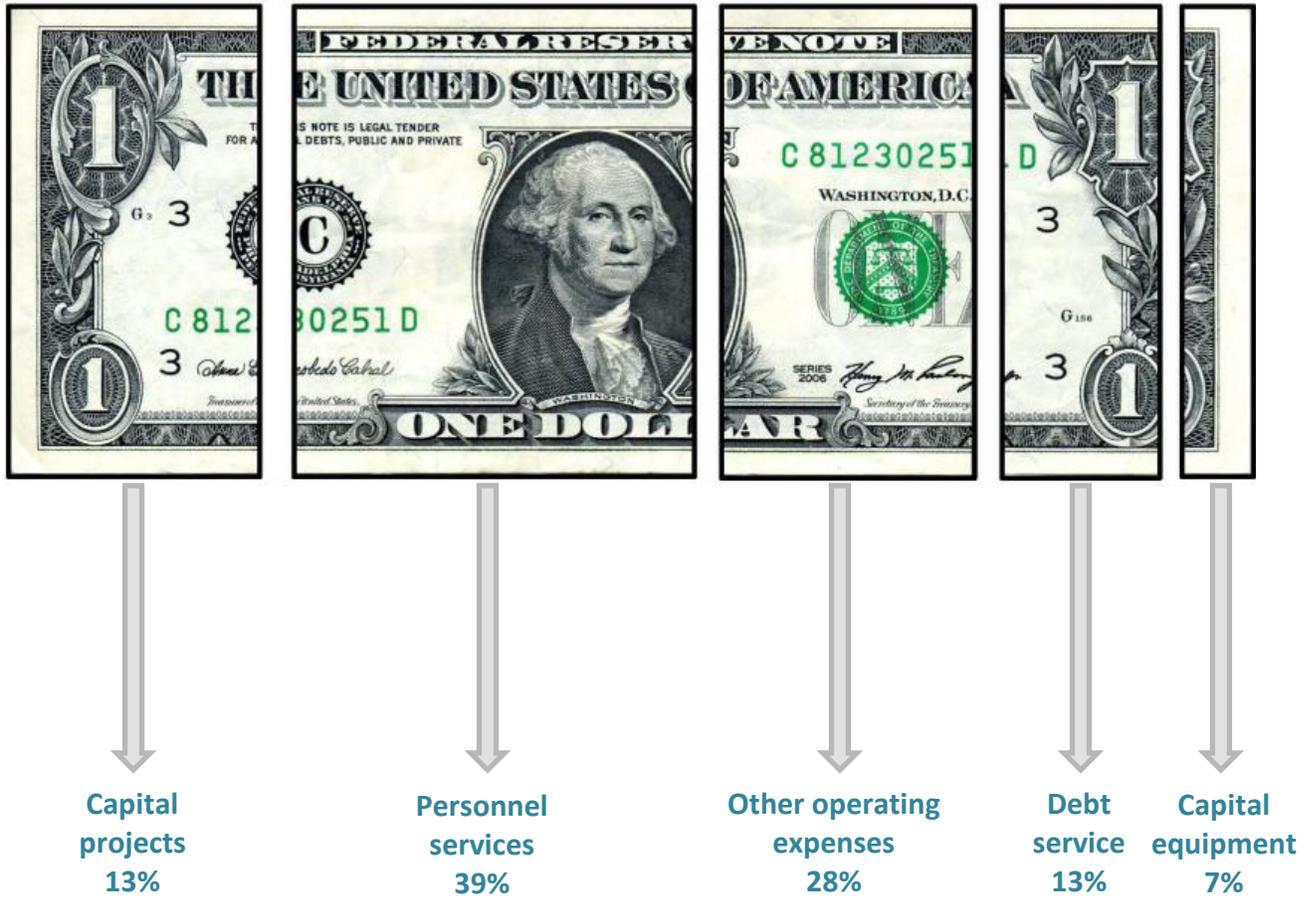
The 2019 capital improvement plan is centered around projects that are critical to sustaining continued reliable operations. The 2019 portion of the plan calls for \$9,563,500 in capital expenditures and includes costs for distribution and transmission line replacements in areas identified as vulnerable to breaks. Also included are projects to redirect wastewater flows on the US Navy base to the newer centralized treatment plant on Cudjoe Key that meets current treatment standards as well as the final design, preparation of construction documents and permitting for the new administration building in Key West. See a detailed discussion of capital projects under the section entitled Capital and Debt.

Capital Financing and Debt Service

The Authority may issue debt for constructing and maintaining the system's infrastructure or for refunding previously issued debt by pledging the revenue of the individual systems. No legal debt limit exists. However, revenue must be sufficient to fund operations, service the debt payments and provide a coverage factor as defined in the bond covenants.

No new bond issues are included in the 2019 budget. Debt service is budgeted at approximately \$8.9 million, an increase of about 1%. The finance team continually evaluates the cash requirements of the capital improvement plan and proposes financing alternatives to the Board for consideration throughout the budget year.

HOW EACH DOLLAR OF THE BUDGET WILL BE SPENT



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FINANCIAL STRUCTURE, POLICIES AND PROCESS

Organization Chart

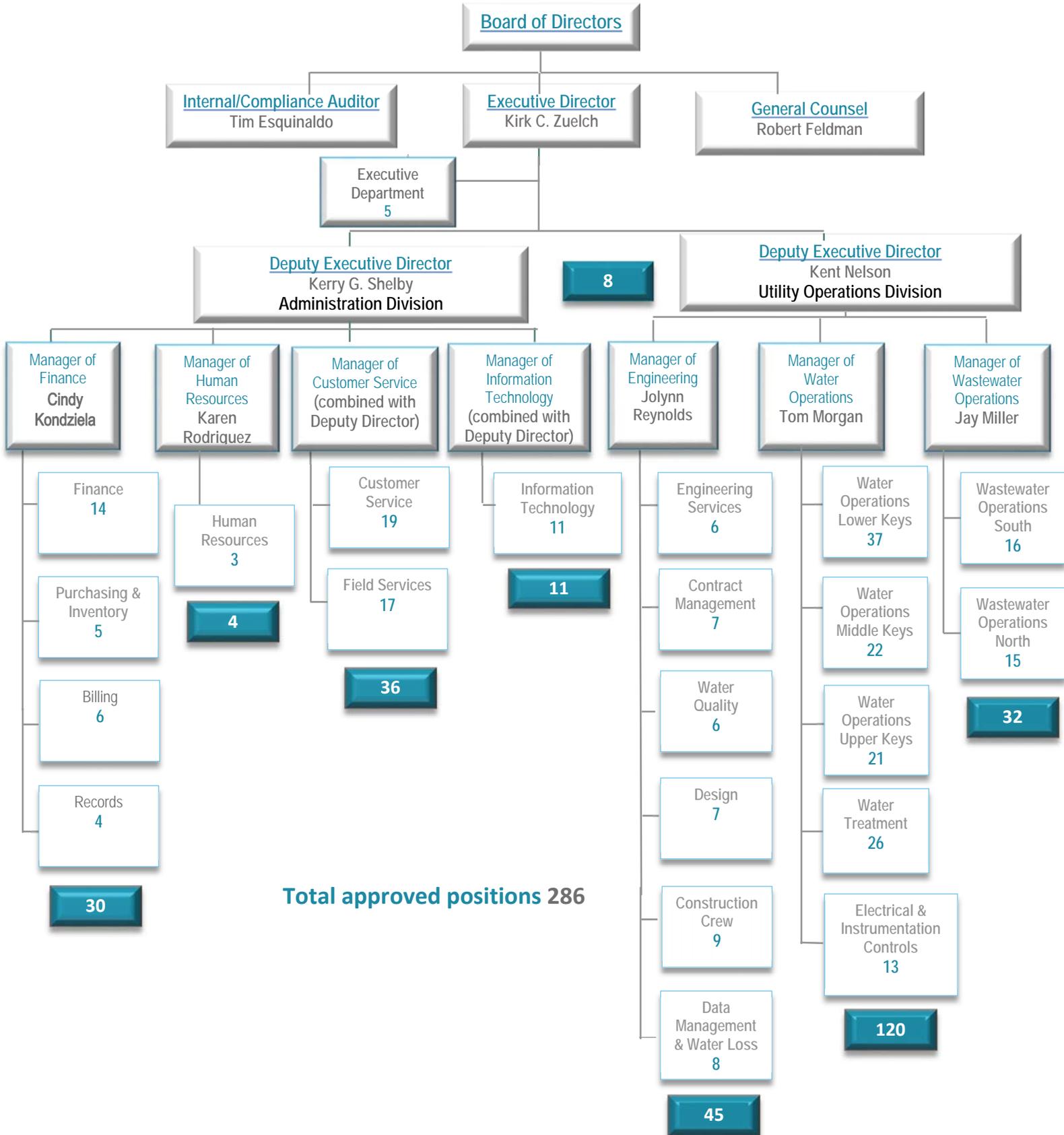
Financial Policies that Impact the Budget

Budget Process

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ORGANIZATION CHART

FOR FISCAL YEAR 2019



CONTACT INFORMATION

FOR FISCAL YEAR 2018

Executive Division

Kirk C. Zuelch, Executive Director

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Tim Esquinaldo, Internal Auditor

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Administration Division

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Utility Operations Division

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Tom Morgan, Manager of Water Operations

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Jay Miller, Manager of Wastewater Operations

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Jolynn Reynolds, Manager of Engineering

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Financial Policies That Impact The Budget

For fiscal year 2019

Performance Measurement Policies

The Authority will update its strategic plan that identifies the strategic initiatives each year as part of the budget process.

Annually, each department will develop departmental performance measures that support successful results in achieving its strategic initiatives. Goals should be related to core services of the department and should reflect customer needs. The measures should be a mix of different types, including effectiveness, efficiency, demand and workload.

Performance measures will be used as a basis for preparing the Authority's budget. All budgeted amounts should be directly or indirectly linked to accomplishing the department's and the Authority's strategic initiatives.

Planning

The Authority will prepare and maintain an ongoing five-year financial plan. The plan will include projections of existing revenue and expenses as well as operating costs and revenue of future capital improvements included in the capital budget.

Interim Financial Reporting

The Authority will prepare and distribute interim budget reports comparing actual versus budgeted revenue and expense activity. The Authority will establish and maintain accounting practices that can relate budget amounts to actual results.

Capital Improvement Policies

The Authority will develop and maintain a multi-year plan for capital improvements. The Authority will enact an annual capital budget based on the multi-year capital improvement plan.

The Authority will develop the capital improvement budget along with the operating budget. Future operating costs associated with new capital improvements will be projected and included in operating budget forecasts.

The Authority will maintain all its assets at a level adequate to protect the Authority's capital investment and to minimize future maintenance and replacement costs.

The Authority will identify the estimated costs and potential funding sources for each capital project proposal before it is submitted to the Authority board for approval.

The Authority will determine the most favorable financing method for all new projects.

Debt Management Policies

The Authority will continually review its outstanding debt to evaluate whether the financial marketplace will afford the Authority the opportunity to lessen its debt service costs.

The Authority will confine long-term borrowing to capital improvements or projects that cannot be financed from current revenues.

Financial Policies That Impact The Budget (continued)

For fiscal year 2019

When the Authority finances capital projects by issuing bonds, it will pay back the bonds within a period not to exceed the estimated useful life of the project. The Authority will strive to have the final maturity of revenue bonds at or below thirty years.

The Authority will not use long-term debt proceeds for current operations.

The Authority will maintain good communications with bond rating agencies regarding its financial condition.

The Authority will follow a policy of full disclosure on every financial report and borrowing prospectus.

Revenue Policies

The Authority will maintain a diversified and stable revenue system to shelter it from unforeseeable short-run fluctuations in any revenue source.

The Authority will estimate its annual revenue by an objective, analytical process, wherever practical. Each existing and potential revenue source will be re-examined annually.

Each year the Authority will evaluate the full costs of activities supported by user fees for rate recovery sufficiency.

The Authority will automatically revise user fees annually to adjust for the effects of inflation.

Investment Policies

The Authority will adhere to the investment policies adopted by its Board of Directors. These policies apply to the investment of short-term operating funds of the Authority available after meeting current expenditures. These policies do not apply to longer-term funds and proceeds from bond issues. Topics included in the investment policies include information on:

- Investment objectives
- Safety
- Liquidity
- Yield
- Prudence and ethical standards
- Authorized investments
- Risk and diversification
- Authorized investment institutions and dealers
- Internal controls
- Reporting

Working Capital

The Authority will strive to maintain operating reserves in an amount greater than or equal to three months of basic operating expenses.

The Authority will strive to maintain a reserve of at least \$11,000,000 for working capital in the event of a natural disaster or operating emergency.

Financial Policies That Impact The Budget (continued)

For fiscal year 2019

Surplus Policies

It is the intent of the Authority to use all surpluses generated to accomplish these goals:

- Meeting reserve policies
- Avoidance of future debt
- Capital replacement
- Retirement or refinancing of existing debt
- Cash payments for capital improvement program project

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Budget Process

For fiscal year 2019

Budget Preparation

The Authority begins the budgeting process in February of each year by updating its strategic initiatives and identifying specific goals to be accomplished during the upcoming budget year. Based on those initiatives, each department prepares a preliminary summary of significant budget items and changes from the previous year, including staffing changes, major capital purchases, technology needs, capital projects and changes in debt service requirements. These summaries are reviewed with the board's budget committee in a public workshop or board meeting to get preliminary feedback from the Board on the final development of the budget.

Acting on the input from the Board, staff prepares a detailed draft budget for each cost center within the Authority. This draft budget is reviewed by the budget committee or the entire board in three public hearings, each of which will provide an opportunity for input from the public. The budget committee may schedule additional meetings during this process as necessary. A draft budget must be advertised in newspapers of general circulation in the Florida Keys no later than August 1st to comply with the Authority's enabling legislation. At a public board meeting prior to September 1st, after all comments have been received from members of the public, the board must adopt a final budget.

Budget Monitoring

Compliance with the budget is monitored on a continuing basis. Monthly budget reports are prepared and distributed to the members of the board, the Authority's staff and others to ensure ongoing analysis. The total budget may not be changed during the fiscal year without specific action by the board to do so. Any line item transfers may be approved by the staff.

The Authority's budget is designed to fund operations, capital expenditures and debt service. A balanced budget is one that provides current year sources that, along with past years' reserves, are sufficient to fund the current year's expenditures.

Budget Presentation

The Authority's operations are accounted for in an enterprise fund. The fund is budgeted on the accrual basis of accounting. Rates for water and wastewater service are established by the Board. The revenue generated by these rates is used to fund the Authority's operations.

The budget summary is presented as budgeted sources and uses so that the reader can see all aspects of the budget in one place. Although the budget is prepared on the accrual basis, sources and uses are approximations of cash flows. The budget summary shows the budgeted excess or shortfall of sources over uses and the estimated ending reserve position. This reserve position differs from ending net position (which is presented in the five-year financial plan). Ending net position is essentially the Authority's net equity (assets less liabilities).

Budgeted expenditures are characterized as operating expenses, capital expenditures or debt service. Capital expenditures are those expenditures for assets costing over \$5,000 and having a useful life of at least three years. Routine capital expenditures are assets purchased as a part of ongoing operations. Non-routine capital expenditures are referred to as capital improvement projects and are defined in the 20-year capital improvement master plan. Debt service includes the payment of principal and interest on outstanding debt issues which, in the Authority's case, take the form of revenue bonds.

Budget Process

For fiscal year 2019

Budget Preparation Timeline

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Strategic Planning												
Board and customer input (informal)	█	█	█	█	█	█	█	█	█	█	█	█
Staff input (informal)	█	█	█	█	█	█	█	█	█	█	█	█
Update vision, mission and strategic goals		█										
Update policies, demographics and economics		█	█									
Develop goals and objectives		█	█									
Capital Improvement and Financing Plan												
Review projects and priorities		█	█									
Estimate five-year operational impact		█	█									
Review plan with budget team			█									
Develop proposed financing strategy			█									
Review draft with Executive Director			█									
Operating Budget												
Update budget formats		█										
Update revenue assumptions and proposed rate changes		█										
Estimate impacts of salary increases, retirements, etc.		█										
Develop detailed cost center expenditure budgets		█	█									
Prepare roll-forward of staff and fleet		█	█									
Review budgets with budget team			█									
Review draft with Executive Director			█									
Five-Year Financial Plan												
Review and update sales and expenditure projections			█	█								
Project necessary borrowings for next five years			█	█								
Prepare schedule of necessary rates for five years			█	█								
Project debt service coverage based on projections			█	█								
Board and Public Input												
Budget committee workshops				█	█							
Public hearings						█	█	█				
Budget advertised								█				
Budget adopton								█				

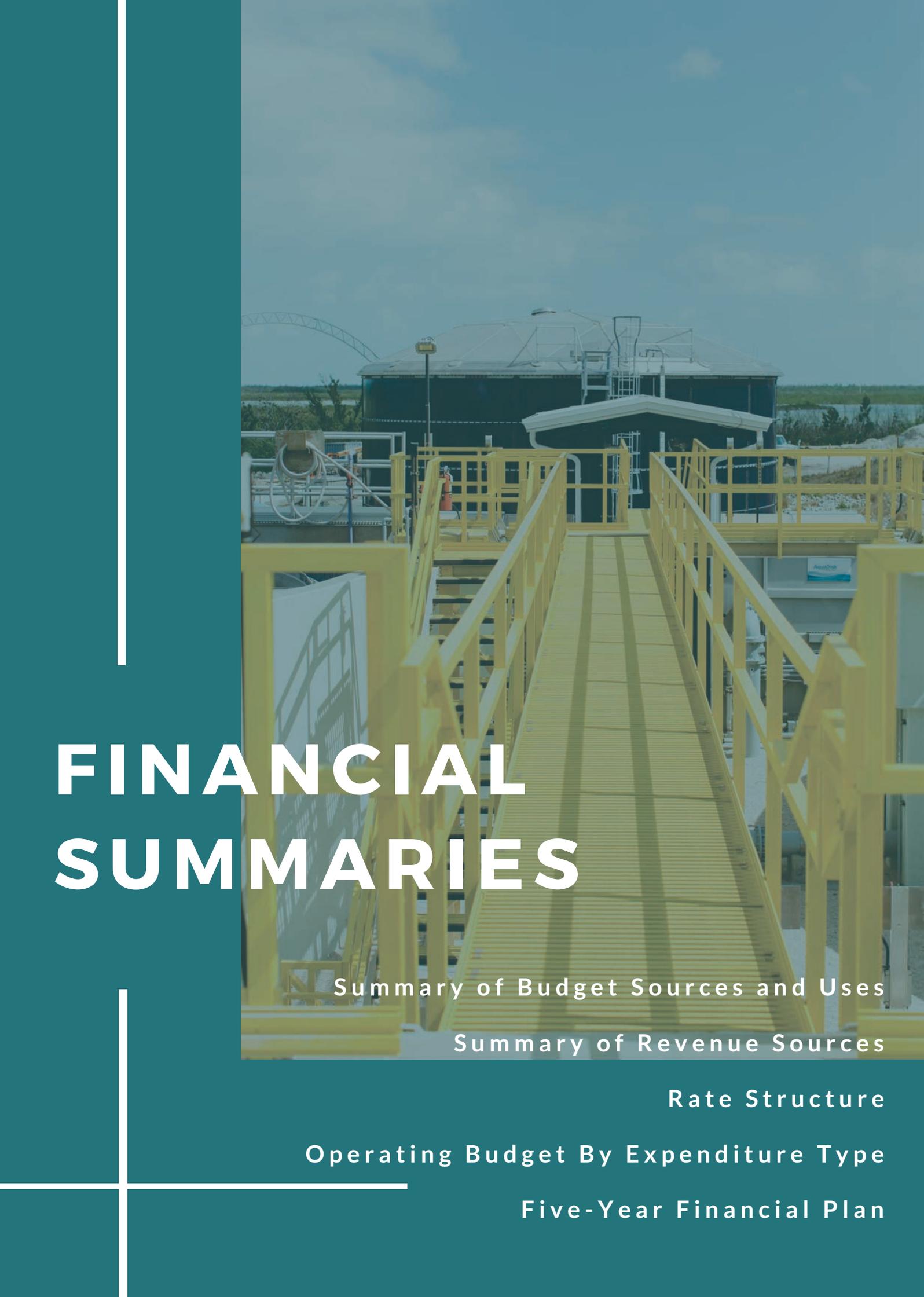
Budget Process

For fiscal year 2019

Budget Calendar

Dates for Preparation of the 2018 Budget

January 2018							May 2018								
S	M	T	W	T	F	S	S	M	T	W	T	F	S		
	1	2	3	4	5	6				1	2	3	4	5	
7	8	9	10	11	12	13	6	7	8	9	10	11	12		
14	15	16	17	18	19	20	13	14	15	16	17	18	19		
21	22	23	24	25	26	27	20	21	22	23	24	25	26		
28	29	30	31				27	28	29	30	31				
<p>Informal input from our Board of Directors, staff and customer's year around. Prepare budget sheets for distribution to Departments.</p>							<p>May 22th budget workshop</p>								
February 2018							June 2018								
S	M	T	W	T	F	S	S	M	T	W	T	F	S		
					1	2	3							1	2
4	5	6	7	8	9	10	3	4	5	6	7	8	9		
11	12	13	14	15	16	17	10	11	12	13	14	15	16		
18	19	20	21	22	23	24	17	18	19	20	21	22	23		
25	26	27	28				24	25	26	27	28	29	30		
<p>In February, Departments are working on their budgets.</p>							<p>June 27th, 1st budget public hearing Key West</p>								
March 2018							July 2018								
S	M	T	W	T	F	S	S	M	T	W	T	F	S		
					1	2	3	1	2	3	4	5	6	7	
4	5	6	7	8	9	10	8	9	10	11	12	13	14		
11	12	13	14	15	16	17	15	16	17	18	19	20	21		
18	19	20	21	22	23	24	22	23	24	25	26	27	28		
25	26	27	28	29	30	31	29	30	31						
<p>Week 3 budget meetings with Deputy Executive Director</p>							<p>July 25th, 2nd budget public hearing Marathon</p>								
<p>Week 4 budget meetings with Executive Director</p>							<p>August 29th, 3rd and final budget public hearing Tavernier. Budget adoption planned for regular board meeting agenda.</p>								
April 2018							August 2018								
S	M	T	W	T	F	S	S	M	T	W	T	F	S		
1	2	3	4	5	6						1	2	3	4	
8	9	10	11	12	13	14	5	6	7	8	9	10	11		
15	16	17	18	19	20	21	12	13	14	15	16	17	18		
22	23	24	25	26	27	28	19	20	21	22	23	24	25		
29	30						26	27	28	29	30	31			
<p>April 18th CIP workshop</p>															
<p>April 25th first budget workshop</p>															



FINANCIAL SUMMARIES

Summary of Budget Sources and Uses

Summary of Revenue Sources

Rate Structure

Operating Budget By Expenditure Type

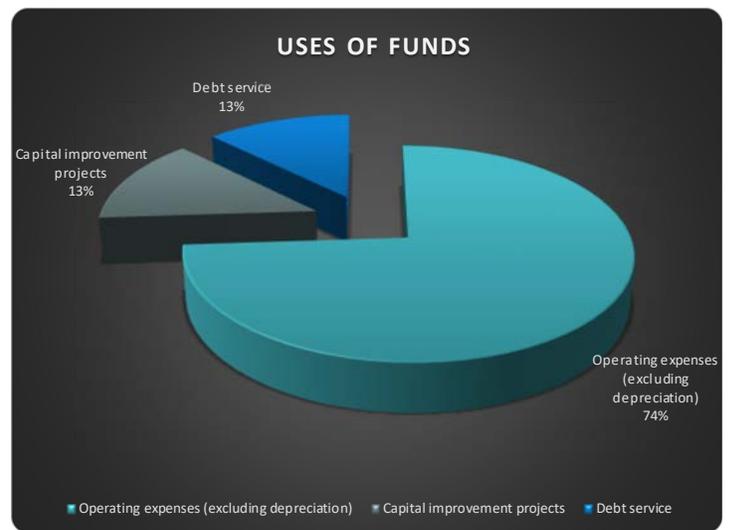
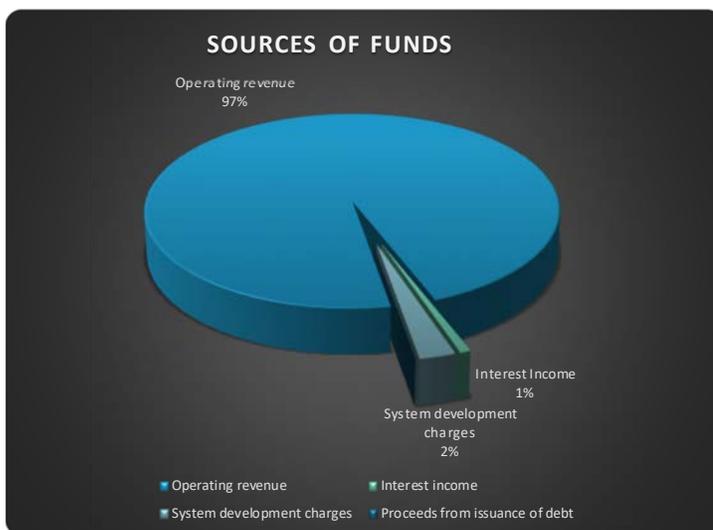
Five-Year Financial Plan

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Summary of Budgeted Sources and Uses

For fiscal year 2019

	2017	2018 Budget			2019 budget			% Change
	Actual	Water	Wastewater	Total	Water	Wastewater	Total	
Total budgeted sources of funds								
Utility operating revenue	\$ 61,273,116	\$ 51,540,000	\$ 9,177,000	\$ 60,717,000	\$ 55,024,000	\$ 9,562,000	\$ 64,586,000	6.4%
Interest income	447,002	300,000	-	300,000	500,000	-	500,000	66.7%
System development fees and other income	2,799,213	1,510,000	138,000	1,648,000	1,526,000	138,000	1,664,000	1.0%
Special assessments and appropriations	-	-	-	-	-	-	-	-
Proceeds from issuance of debt, net of issue costs	9,699,369	-	-	-	-	-	-	-
Total budgeted sources of funds	74,218,700	53,350,000	9,315,000	62,665,000	57,050,000	9,700,000	66,750,000	6.5%
Total budgeted uses of funds								
Operating expenditures (excluding depreciation)	44,762,359	40,747,600	8,372,100	49,119,700	43,942,500	8,417,800	52,360,300	6.6%
Capital improvement projects	17,858,581	10,400,000	5,850,000	16,250,000	8,830,000	733,500	9,563,500	-41.2%
Debt service	9,291,091	8,003,000	861,000	8,864,000	8,016,000	858,000	8,874,000	0.1%
Total budgeted uses of funds	71,912,031	59,150,600	15,083,100	74,233,700	60,788,500	10,009,300	70,797,800	-4.6%
Excess (deficit) sources over uses	2,306,669	(5,800,600)	(5,768,100)	(11,568,700)	(3,738,500)	(309,300)	(4,047,800)	
Adjustments to cash basis from accrual	3,733,438	-	-	-	-	-	-	
Change in cash and investments	6,040,107	(5,800,600)	(5,768,100)	(11,568,700)	(3,738,500)	(309,300)	(4,047,800)	
Beginning cash and investments	44,594,638	43,726,600	6,908,100	50,634,700	37,926,000	1,140,000	39,066,000	-22.9%
Ending cash and investments	50,634,745	37,926,000	1,140,000	39,066,000	34,187,500	830,700	35,018,200	-10.4%
Reserves and restricted cash and investments	(41,607,000)	(33,890,000)	(98,000)	(33,988,000)	(27,932,000)	(71,000)	(28,003,000)	-17.6%
Estimated ending unrestricted cash and investment	\$ 9,027,745	\$ 4,036,000	\$ 1,042,000	\$ 5,078,000	\$ 6,255,500	\$ 759,700	\$ 7,015,200	38.2%



Summary of Revenue Sources

For fiscal year 2019

	2017			2018 Budget			2019 budget			Increase / Decrease	% change from prior budget
	Actual	Water	Wastewater	Total	Water	Wastewater	Total	Water	Wastewater		
Number of locations											
Estimated locations billed	51,135	50,600	10,500				50,600	10,500			
Volume											
Estimated gallons (000s) billed at retail rates	4,722,612	4,899,000					4,948,000				
Estimated gallons (000s) billed to US Navy	274,729	251,000					254,000				
Total estimated gallons(000s) sold	4,997,341	5,150,000					5,202,000				
Operating revenue											
Fees for service											
Retail water rate revenue	\$ 47,574,035	\$ 46,465,000		\$ 46,465,000	\$ 49,869,000		\$ 49,869,000	\$ 3,404,000		7.3%	
US Navy water rate revenue	1,455,590	1,031,000		1,031,000	1,107,000		1,107,000	76,000		7.4%	
US Navy distribution system charge	2,456,208	2,487,000		2,487,000	2,487,000		2,487,000	-		0.0%	
Retail reclaimed water rate revenue	118,515	57,000		57,000	61,000		61,000	4,000		7.0%	
Retail wastewater rate revenue	6,734,720		7,713,000	7,713,000		\$ 8,037,000	8,037,000	324,000		4.2%	
US Navy wastewater revenue	1,464,000		1,464,000	1,464,000		1,525,000	1,525,000	61,000		4.2%	
Total fees for service	59,803,068	50,040,000	9,177,000	59,217,000	53,524,000	9,562,000	63,086,000	3,869,000		6.5%	
Other operating revenue	1,822,824	1,500,000	-	1,500,000	1,500,000	-	1,500,000	-		0.0%	
Total operating revenue	61,625,892	51,540,000	9,177,000	60,717,000	55,024,000	9,562,000	64,586,000	3,869,000		6.4%	
Non-operating revenue											
Interest income	447,002	300,000	-	300,000	500,000	-	500,000	200,000		66.7%	
Grant proceeds	-	-	-	-	-	-	-	-		-	
Charges to other utilities for billing services	348,632	390,000	-	390,000	406,000	-	406,000	16,000		4.1%	
Other income	256,560	120,000	-	120,000	120,000	-	120,000	-		0.0%	
Total non-operating revenue	1,052,194	810,000	-	810,000	1,026,000	-	1,026,000	216,000		26.7%	
Total budgeted revenue	62,678,086	52,350,000	9,177,000	61,527,000	56,050,000	9,562,000	65,612,000	4,085,000		6.6%	
System development fees (including assessments)	2,194,021	1,000,000	138,000	1,138,000	1,000,000	138,000	1,138,000	-		0.0%	
State appropriation (Key Haven project)	-	-	-	-	-	-	-	-		0.0%	
Total revenue and system development fees	\$ 64,872,107	\$ 53,350,000	\$ 9,315,000	\$ 62,665,000	\$ 57,050,000	\$ 9,700,000	\$ 66,750,000	\$ 4,085,000		6.5%	

Budget assumptions:

Water volume sales increase	0.0%	0.0%
Rate inflation index	4.2%	4.2%
Additional water rate increase (decrease)	3.0%	
Additional wastewater rate increase (decrease)		0.0%
Average interest rate (applied to average cash balance)	1.5%	
System development fee growth factor	0.0%	0.0%

Rate Structure

For fiscal year 2019

The Authority's current water rate structure is an inverted block structure intended to encourage conservation. The rates for monthly water service includes a monthly base facility charge that varies by meter size bill and a consumption charge based on metered water usage.

The wastewater rate structure is similar to the one used for water, with monthly base facility charges and flow charges based on water flow. Single family residential customers are capped at 10,000 gallons of water flow for wastewater billing purposes.

User charges are indexed annually on October 1 of each year to adjust for inflationary impacts on the cost of operations based on the Consumer Price Index for Miami-Ft. Lauderdale published by the US Bureau of Labor Statistics.

SUMMARY OF WATER, RECLAIMED AND WASTEWATER RATES

The following table summarizes the Authority's existing rates for water and wastewater service and projected rates after annual indexing for inflation.

	Rates in effect on October 1, 2017		After October 1, 2018 index and 3% rate increase	
Potable Water Rates				
Base facilities charge				
5/8-inch or 3/4-inch	\$	14.40	\$	15.45
1-inch		36.01		38.65
1½-inch		72.00		77.27
2-inch		115.20		123.64
3-inch		215.99		231.81
4-inch		357.38		383.56
6-inch		721.33		774.17
8-inch		1,151.89		1,236.28
Consumption charge ^[1]				
Block 1	\$	6.05	\$	6.49
Block 2		8.83		9.48
Block 3		9.90		10.63
Block 4		11.05		11.86
Block 5		12.13		13.02
Reclaimed Water Rates				
Consumption charge ^[1]				
Block 1	\$	3.03	\$	3.25
Block 2		4.42		4.74
Block 3		4.95		5.31
Block 4		5.53		5.93
Block 5		6.07		6.51

Rate Structure (continued)

For fiscal year 2019

	Rates in effect on October 1, 2017	After October 1, 2018 index
<u>Wastewater Rates</u>		
Base facilities charge		
5/8-inch or 3/4-inch	\$ 24.66	\$ 25.70
1-inch	92.51	96.40
1½-inch	185.03	192.80
2-inch	296.06	308.49
3-inch	555.09	578.40
4-inch	925.14	964.00
6-inch	1,851.19	1,928.94
8-inch	2,536.63	2,643.17
Flow collection charge		
Residential (up to 10,000 gallons)	\$ 9.33	\$ 9.72
Non-residential (all consumption)	9.33	9.72

Note: Block 1 for 5/8" meter customers, which includes the majority of FCAA customers, is 6,000 gallons. Consumption blocks for customers with larger meters increase based on meter equivalents.

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Operating Expenditure Budget By Expenditure Type

For fiscal year 2019

SCHEDULE OF BUDGETED EXPENDITURES FOR THE YEAR ENDING SEPTEMBER 30, 2019 Total Company

	BUDGETED 2019							Increase /Decrease	% change from prior budget
	2017 Budget	2017 Actual	2018 Budget	Water	Wastewater	Total			
Operating capital expenditures									
Additions to utility plant	3,262,400	\$ 3,529,713	\$ 3,732,300	\$ 3,842,300	\$ 323,200	\$ 4,165,500	\$ 433,200	12%	
Capitalized salaries	1,061,300	601,024	1,033,800	1,033,600	-	1,033,600	(200)	0%	
Capitalized overtime	-	49,144	-	-	-	-	-	-	
Total operating capital expenditures	4,323,700	4,179,881	4,766,100	4,875,900	323,200	5,199,100	433,000	9.1%	
Operating expenses									
Personnel services									
Salaries	18,265,100	17,968,482	18,932,100	17,954,100	1,900,500	19,854,600	922,500	5%	
Overtime	507,300	1,276,143	483,600	430,800	150,000	580,800	97,200	20%	
Retirement	1,668,100	1,786,269	1,797,400	1,891,100	173,200	2,064,300	266,900	15%	
Payroll taxes	1,517,000	1,482,522	1,564,500	1,485,500	156,900	1,642,400	77,900	5%	
Employee health insurance	3,600,000	3,520,539	3,600,000	3,600,000	-	3,600,000	-	0%	
Other benefits	192,400	183,443	229,000	230,300	14,400	244,700	15,700	7%	
Total personnel services	25,749,900	26,217,398	26,606,600	25,591,800	2,395,000	27,986,800	1,380,200	5.2%	
Other operating expenses									
Electricity	3,214,500	2,932,851	3,181,500	2,740,000	424,000	3,164,000	(17,500)	-1%	
Fuel for power production	88,700	60,745	94,200	86,300	11,700	98,000	3,800	4%	
Chemicals	2,112,000	1,837,412	2,158,000	1,571,100	617,000	2,188,100	30,100	1%	
Maintenance and materials	3,716,900	3,760,942	3,953,500	4,078,200	550,100	4,628,300	674,800	17%	
Engineering services	140,000	175,530	312,400	708,000	-	708,000	395,600	127%	
Accounting and auditing services	82,000	80,511	89,500	93,000	-	93,000	3,500	4%	
Legal services	30,000	17,553	30,000	30,000	-	30,000	-	0%	
Outsourced operations	1,045,700	711,810	1,681,300	1,329,600	137,500	1,467,100	(214,200)	-13%	
Other consulting and support services	1,523,500	1,099,117	1,579,700	1,772,700	-	1,772,700	193,000	12%	
Sludge removal	249,400	165,990	294,000	60,000	180,800	240,800	(53,200)	-18%	
Rental of building - real property	16,000	10,644	14,000	19,500	6,000	25,500	11,500	82%	
Rent expense - equipment	78,800	18,989	63,000	47,800	6,400	54,200	(8,800)	-14%	
Transportation expense	525,000	492,735	495,600	527,200	1,000	528,200	32,600	7%	
Insurance - vehicles	110,000	100,739	110,000	110,000	-	110,000	-	0%	
Insurance - general liabilities	125,000	113,026	137,000	140,000	-	140,000	3,000	2%	
Insurance - workers' compensation	254,000	296,477	270,000	300,000	-	300,000	30,000	11%	
Insurance - property and flood	993,300	874,512	993,300	1,162,000	-	1,162,000	168,700	17%	
Advertising	75,000	63,154	69,000	66,700	-	66,700	(2,300)	-3%	
Bad debt expense	81,000	28,555	81,000	81,000	-	81,000	-	0%	
Office supplies	142,400	88,109	144,000	140,600	6,600	147,200	3,200	2%	
Other utilities and technical services	676,300	514,031	819,900	945,000	-	945,000	125,100	15%	
Postage	57,100	24,993	38,300	44,000	1,000	45,000	6,700	17%	
Travel	145,300	45,335	162,400	155,600	8,900	164,500	2,100	1%	
Training	148,500	35,365	153,400	175,800	14,600	190,400	37,000	24%	
Miscellaneous	161,200	175,646	163,000	159,500	3,200	162,700	(300)	0%	
Bank charges	455,000	533,235	520,000	550,000	-	550,000	30,000	6%	
Public information and outreach	145,800	56,928	129,000	102,000	-	102,000	(27,000)	-21%	
Freight charges	12,300	7,825	10,000	10,000	-	10,000	-	0%	
Total other operating expenses	16,404,700	14,322,759	17,747,000	17,205,600	1,968,800	19,174,400	1,427,400	8.0%	
Total operating budget	\$ 42,154,600	\$ 40,540,157	\$ 44,353,600	\$ 42,797,400	\$ 4,363,800	\$ 47,161,200	\$ 2,807,600	6.3%	
Allocation of administrative expenses				\$ (3,730,800)	\$ 3,730,800	\$ -			
Total operating expenses after allocation	42,154,600	40,540,157	44,353,600	39,066,600	8,094,600	47,161,200	2,807,600	6.3%	
Total operating budget	\$ 46,478,300	\$ 44,720,038	\$ 49,119,700	\$ 43,942,500	\$ 8,417,800	\$ 52,360,300	\$ 3,240,600	6.6%	
Net comparative 2018 budget after adjustments for new and discontinued operations						\$ 52,360,300	\$ 3,240,600	6.6%	

Five Year Financial Plan

For fiscal year 2019

PROJECTED CHANGES IN NET POSITION

FOR FISCAL YEARS 2019 - 2023

	2019	2020	2021	2022	2023
Projected operating results					
Operating revenue	\$ 63,888,000	\$ 66,391,000	\$ 71,208,000	\$ 72,240,000	\$ 73,287,000
Operating expenses (before depreciation)	(46,936,600)	(47,406,000)	(47,880,000)	(48,359,000)	(48,843,000)
Net operating income (before depreciation)	16,951,400	18,985,000	23,328,000	23,881,000	24,444,000
Interest income	500,000	300,000	300,000	300,000	300,000
Other income	522,000	528,000	534,000	540,000	546,000
Interest expense	(4,424,000)	(6,612,000)	(6,513,000)	(8,739,000)	(8,728,000)
Projected net income before depreciation	13,549,400	13,201,000	17,649,000	15,982,000	16,562,000
System development fees (including assessments)	1,138,000	1,138,000	1,138,000	1,138,000	1,138,000
State appropriations (Key Haven and East Long Key)	-	-	-	-	-
Projected increase (decrease) in net position before depreciation	14,687,400	14,339,000	18,787,000	17,120,000	17,700,000
Projected beginning net position	146,500,000	145,687,400	144,526,400	147,813,400	149,433,400
Projected net position before depreciation	161,187,400	160,026,400	163,313,400	164,933,400	167,133,400
Estimated depreciation	(15,500,000)	(15,500,000)	(15,500,000)	(15,500,000)	(15,500,000)
Projected ending net position after depreciation	\$ 145,687,400	\$ 144,526,400	\$ 147,813,400	\$ 149,433,400	\$ 151,633,400

PROJECTED SOURCES AND USES OF FUNDS

FOR FISCAL YEARS 2018 - 2022

	2019	2020	2021	2022	2023
Total projected sources of funds					
Utility operating revenue	\$ 63,888,000	\$ 66,391,000	\$ 71,208,000	\$ 72,240,000	\$ 73,287,000
Interest income	500,000	300,000	300,000	300,000	300,000
System development fees and other income	1,660,000	1,666,000	1,672,000	1,678,000	1,684,000
Special assessments and appropriations	-	-	-	-	-
Proceeds from issuance of debt, net of issue costs	-	48,000,000	-	48,000,000	-
Total projected sources of funds	66,048,000	116,357,000	73,180,000	122,218,000	75,271,000
Total projected uses of funds					
Operating expenditures (excluding depreciation)	52,124,700	47,406,000	47,880,000	48,359,000	48,843,000
Capital improvement projects	9,563,500	28,443,500	36,446,500	28,570,000	21,255,500
Debt service	8,874,000	11,162,000	11,103,000	14,399,000	14,403,000
Total projected uses of funds	70,562,200	87,011,500	95,429,500	91,328,000	84,501,500
Additions to (uses of) cash	\$ (4,514,200)	\$ 29,345,500	\$ (22,249,500)	\$ 30,890,000	\$ (9,230,500)

Five Year Financial Plan (continued)

For fiscal years 2019-2023

PROJECTED REVENUE AND CONTRIBUTIONS

	FOR FISCAL YEARS 2019 - 2023				
	2019	2020	2021	2022	2023
Estimated gallons (000s) sold to customers at retail rates	4,948,000	4,948,000	4,948,000	4,948,000	4,948,000
Estimated gallons (000s) sold to US Navy	254,000	254,000	254,000	254,000	254,000
Total estimated sales gallons (000s)	5,202,000	5,202,000	5,202,000	5,202,000	5,202,000
Operating revenue					
Fees for service					
Retail water rate revenue	\$ 49,295,000	\$ 51,535,000	\$ 55,970,000	\$ 56,810,000	\$ 57,662,000
US Navy water rate revenue	1,094,000	1,144,000	1,242,000	1,261,000	1,280,000
US Navy distribution system charge	2,487,000	2,487,000	2,487,000	2,487,000	2,487,000
Retail reclaimed water rate revenue	60,000	63,000	68,000	69,000	70,000
Retail wastewater rate revenue	7,944,000	8,063,000	8,184,000	8,307,000	8,432,000
US Navy wastewater revenue	1,508,000	1,531,000	1,554,000	1,577,000	1,601,000
Total fees for service	62,388,000	64,823,000	69,505,000	70,511,000	71,532,000
Other operating revenue	1,500,000	1,568,000	1,703,000	1,729,000	1,755,000
Total operating revenue	63,888,000	66,391,000	71,208,000	72,240,000	73,287,000
Non-operating revenue					
Interest income	500,000	300,000	300,000	300,000	300,000
Grant proceeds	-	-	-	-	-
Charges to other utilities for billing services	402,000	408,000	414,000	420,000	426,000
Other income	120,000	120,000	120,000	120,000	120,000
Total non-operating revenue	1,022,000	828,000	834,000	840,000	846,000
Total budgeted revenue	64,910,000	67,219,000	72,042,000	73,080,000	74,133,000
System development fees (including assessments)	1,138,000	1,138,000	1,138,000	1,138,000	1,138,000
State appropriations	-	-	-	-	-
Total revenue and contributions	\$ 66,048,000	\$ 68,357,000	\$ 73,180,000	\$ 74,218,000	\$ 75,271,000

Budget assumptions					
Water volume growth sales increase	0.0%	0.0%	0.0%	0.0%	0.0%
Rate inflation index	4.2%	1.5%	1.5%	1.5%	1.5%
Additional water rate increase (decrease)	3.0%	3.0%	7.0%	0.0%	0.0%
Additional wastewater rate increase (decrease)	0.0%	0.0%	0.0%	0.0%	0.0%
Average interest rate (applied to average cash balance)	1.5%	1.5%	1.5%	1.5%	1.5%
System development fee growth factor	0.0%	0.0%	0.0%	0.0%	0.0%

Five Year Financial Plan (continued)

For fiscal years 2019-2023

FIVE YEAR CAPITAL IMPROVEMENT AND CAPITAL FINANCING PLAN

Description	2019	2020	2021	2022	2023	Estimated five-year expenditures
Water Projects						
Key West administrative building	\$ 2,066,000	\$ 11,866,000	\$ 9,800,000			\$ 23,732,000
Sombrero Beach Road distribution line replacement (Marathon)	800,000					800,000
Stock Island RO facility		5,220,000	17,400,000	17,400,000		40,020,000
Sewer improvements at Florida City		\$368,000				368,000
Grassy Key transmission line replacement	1,464,000	4,880,000	4,880,000			11,224,000
Chemical system improvements at Florida City		793,500				793,500
Transmission Terminus rehabilitation			471,000	1,570,000	1,570,000	3,611,000
Simonton, Front and Whitehead					1,702,000	1,702,000
C905 replacement (transmission, phase 2)	4,500,000					4,500,000
Islamorada transmission line replacement				3,015,000	10,050,000	13,065,000
Ocean Reef distribution and storage improvements					796,500	796,500
New distribution system at No Name Key		288,000	1,920,000			2,208,000
New distribution system at Coral Shores Estates			742,500	2,475,000	2,475,000	5,692,500
Total water projects	8,830,000	23,415,500	35,213,500	24,460,000	16,593,500	108,512,500
Wastewater projects						
Navy PS rehabilitation	733,500	4,890,000				5,623,500
Duck Key collection system rehabilitation		138,000				138,000
Navy MH repairs					552,000	552,000
Big Coppitt treatment plant expansion			1,233,000	4,110,000	4,110,000	9,453,000
Total wastewater projects	733,500	5,028,000	1,233,000	4,110,000	4,662,000	15,766,500
Total capital improvement projects	\$ 9,563,500	\$ 28,443,500	\$ 36,446,500	\$ 28,570,000	\$ 21,255,500	\$ 124,279,000
Funding sources						
Funds from retail rates and cash on hand	\$ 8,830,000	\$ 6,000,000	\$ 6,000,000	\$ 6,000,000	\$ 6,000,000	\$ 32,830,000
Navy water rates	733,500	4,890,000	-	-	552,000	6,175,500
Federal and state appropriations	-	-	-	-	-	-
Bond proceeds	-	17,553,500	30,446,500	22,570,000	14,703,500	85,273,500
Total	\$ 9,563,500	\$ 28,443,500	\$ 36,446,500	\$ 28,570,000	\$ 21,255,500	\$ 124,279,000

Five Year Financial Plan (continued)

For fiscal years 2019-2023

PROJECTED NEW DEBT ISSUES AND DEBT SERVICE

FOR FISCAL YEARS 2019 - 2023

	2019	2020	2021	2022	2023
Bond issuance assumptions:					
Projected principal amount of new bonds issued	\$ -	\$ 50,000,000	\$ -	\$ 50,000,000	\$ -
Available for construction fund	\$ -	\$ 48,000,000	\$ -	\$ 48,000,000	\$ -
Estimated issue costs					
Projected interest rate					
Amortization period (years)					
Projected Debt Service					
Principal					
Series 2008 water refunding and revenue bonds	-	-	-	2,745,000	2,745,000
Series 2012 wastewater revenue bonds	355,000	355,000	360,000	365,000	365,000
Series 2013A water refunding bonds	2,565,000	2,615,000	2,640,000	-	-
Series 2013B water revenue bonds	325,000	335,000	350,000	360,000	375,000
Series 2014A water revenue bonds	115,000	120,000	120,000	125,000	125,000
Series 2015A water refunding bonds	-	245,000	240,000	1,690,000	1,690,000
Series 2015B water refunding bonds	855,000	640,000	630,000	115,000	115,000
Series 2016 wastewater bonds	235,000	240,000	250,000	260,000	260,000
Series 2019 water revenue bonds	-	-	-	-	-
Series 2021 water revenue bonds	-	-	-	-	-
Total principal	4,450,000	4,550,000	4,590,000	5,660,000	5,675,000
Interest					
Series 2008 water refunding and revenue bonds ^[1]	1,997,000	1,992,000	1,997,000	2,036,000	2,036,000
Series 2012 wastewater revenue bonds	102,000	91,000	81,000	71,000	60,000
Series 2013A water refunding bonds	128,000	86,000	43,000	-	-
Series 2013B water revenue bonds	221,000	209,000	197,000	186,000	186,000
Series 2014A water revenue bonds	77,000	73,000	69,000	65,000	65,000
Series 2015A water refunding bonds	1,340,000	1,340,000	1,327,000	1,314,000	1,314,000
Series 2015B water refunding bonds	393,000	372,000	355,000	340,000	340,000
Series 2016 wastewater bonds	166,000	162,000	157,000	153,000	153,000
Series 2019 water revenue bonds	-	2,287,000	2,287,000	2,287,000	2,287,000
Series 2021 water revenue bonds	-	-	-	2,287,000	2,287,000
Total interest	4,424,000	6,612,000	6,513,000	8,739,000	8,728,000
Total projected debt service	\$ 8,874,000	\$ 11,162,000	\$ 11,103,000	\$ 14,399,000	\$ 14,403,000

^[1] Includes ancillary costs of remarketing and letter of credit fees

Five Year Financial Plan (continued)

For fiscal years 2019-2023

PROJECTED DEBT SERVICE COVERAGE

	Water Operations				
	2019	2020	2021	2022	2023
Funds available for debt service					
Operating revenue	\$ 54,436,000	\$ 56,797,000	\$ 61,470,000	\$ 62,356,000	\$ 63,254,000
Interest income	500,000	300,000	300,000	300,000	300,000
Other income	522,000	528,000	534,000	540,000	546,000
Less operating expenses	(38,880,200)	(39,228,800)	(39,580,100)	(39,934,600)	(40,292,200)
Net funds available for debt coverage	\$ 16,577,800	\$ 18,396,200	\$ 22,723,900	\$ 23,261,400	\$ 23,807,800
Debt service requirements	\$ 8,016,000	\$ 10,314,000	\$ 10,255,000	\$ 13,550,000	\$ 13,565,000
Coverage factor (minimum of 1.10 required)	2.07	1.78	2.22	1.72	1.76
System development charges	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000
Coverage factor with system development charges (minimum of 1.20)	2.19	1.88	2.31	1.79	1.83

	Wastewater Operations				
	2019	2020	2021	2022	2023
Funds available for debt service					
Operating revenue	\$ 9,452,000	\$ 9,594,000	\$ 9,738,000	\$ 9,884,000	\$ 10,033,000
Interest income	-	-	-	-	-
Other income	-	-	-	-	-
Less operating expenses	(8,056,400)	(8,177,200)	(8,299,900)	(8,424,400)	(8,550,800)
Net funds available for debt coverage	\$ 1,395,600	\$ 1,416,800	\$ 1,438,100	\$ 1,459,600	\$ 1,482,200
Debt service requirements	\$ 858,000	\$ 848,000	\$ 848,000	\$ 849,000	\$ 838,000
System development charges	\$ 138,000	\$ 138,000	\$ 138,000	\$ 138,000	\$ 138,000
Coverage factor with system development charges (minimum of 1.20)	1.79	1.83	1.86	1.88	1.93

Note: Wastewater bonds have no requirement to meet both 1.10 and 1.20 tests. Therefore, only the 1.20 result is shown.

Five Year Financial Plan (continued)

For fiscal years 2019-2023

ESTIMATED RATE ADJUSTMENTS AND AVERAGE MONTHLY BILL

Potable water

	Estimated percentage increase	Average monthly bill (for 4,500 gallons)
Current bill		\$ 41.63
2019	7.2%	\$ 44.62
2020	4.5%	\$ 46.63
2021	8.5%	\$ 50.59
2022	1.5%	\$ 51.35
2023	1.5%	\$ 52.12

Reclaimed water

	Estimated percentage increase	Average monthly bill (for 1,100 gallons)
Current bill		\$ 3.26
2019	7.2%	\$ 3.50
2020	4.5%	\$ 3.65
2021	8.5%	\$ 3.96
2022	1.5%	\$ 4.02
2023	1.5%	\$ 4.08

Wastewater

	Estimated percentage increase	Average monthly bill (for 4,500 gallons)
Current bill		\$ 66.65
2019	4.2%	\$ 69.44
2020	1.5%	\$ 70.49
2021	1.5%	\$ 71.54
2022	1.5%	\$ 72.62
2023	1.5%	\$ 73.71

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CAPITAL AND DEBT

Capital Improvement Budget

Project Summaries

Capital Outlay Budget Detail

Capital Financing Plan Summary

Debt Service Requirements

Debt Service Coverage Analysis

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Capital Improvement Budget

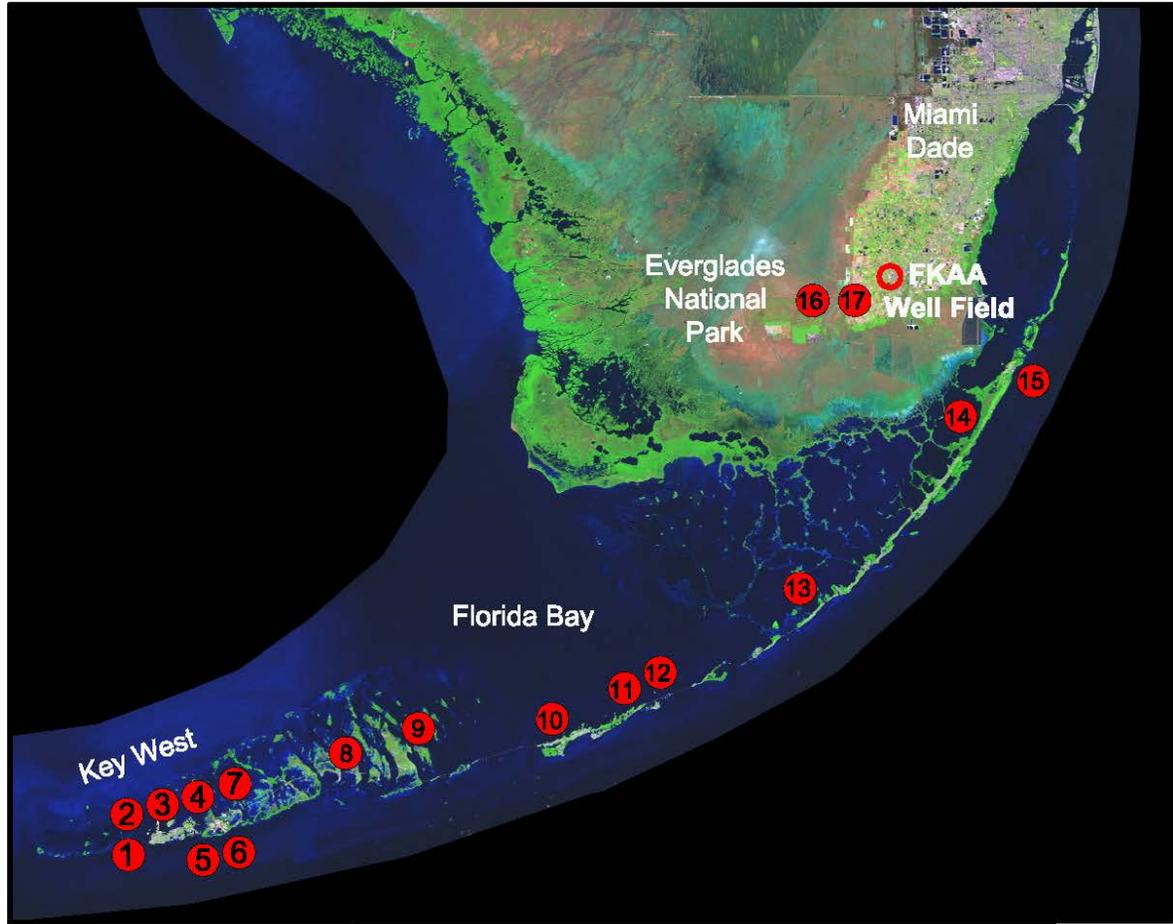
For fiscal years 2019-2023

Description	2019	2020	2021	2022	2023	Estimated five-year expenditures
Water Projects						
Key West administrative building	\$ 2,066,000	\$ 11,866,000	\$ 9,800,000			\$ 23,732,000
Sombrero Beach Road distribution line replacement (Marathon)	800,000					800,000
Stock Island RO facility		5,220,000	17,400,000	17,400,000		40,020,000
Sewer improvements at Florida City		\$368,000				368,000
Grassy Key transmission line replacement	1,464,000	4,880,000	4,880,000			11,224,000
Chemical system improvements at Florida City		793,500				793,500
Transmission Terminus rehabilitation			471,000	1,570,000	1,570,000	3,611,000
Simonton, Front and Whitehead					1,702,000	1,702,000
C905 replacement (transmission, phase 2)	4,500,000					4,500,000
Islamorada transmission line replacement				3,015,000	10,050,000	13,065,000
Ocean Reef distribution and storage improvements					796,500	796,500
New distribution system at No Name Key		288,000	1,920,000			2,208,000
New distribution system at Coral Shores Estates			742,500	2,475,000	2,475,000	5,692,500
Total water projects	8,830,000	23,415,500	35,213,500	24,460,000	16,593,500	108,512,500
Wastewater projects						
Navy PS rehabilitation	733,500	4,890,000				5,623,500
Duck Key collection system rehabilitation		138,000				138,000
Navy MH repairs					552,000	552,000
Big Coppitt treatment plant expansion			1,233,000	4,110,000	4,110,000	9,453,000
Total wastewater projects	733,500	5,028,000	1,233,000	4,110,000	4,662,000	15,766,500
Total capital improvement projects	\$ 9,563,500	\$ 28,443,500	\$ 36,446,500	\$ 28,570,000	\$ 21,255,500	\$ 124,279,000
Funding sources						
Funds from retail rates and cash on hand	\$ 8,830,000	\$ 6,000,000	\$ 6,000,000	\$ 6,000,000	\$ 6,000,000	\$ 32,830,000
Navy water rates	733,500	4,890,000	-	-	552,000	6,175,500
Federal and state appropriations	-	-	-	-	-	-
Bond proceeds	-	17,553,500	30,446,500	22,570,000	14,703,500	85,273,500
Total	\$ 9,563,500	\$ 28,443,500	\$ 36,446,500	\$ 28,570,000	\$ 21,255,500	\$ 124,279,000

Project Summaries

For fiscal years 2019-2023

Florida Keys Aqueduct Authority Projects



Project Legend

1 Administration Building Replacement-Key West	10 Sombrero Beach Road-Distribution Line Replacement
2 Transmission System Terminus Replacement Key West	11 Grassy Key Transmission line Replacement
3 Simonton, Front, & Whitehead Streets Distribution Line Replacement-Key West	12 Duck Key Collection System Rehabilitation
4 RO Facility-Stock Island	13 Islamorada Transmission Line Replacement
5 Navy Manhole Repairs	14 C-905 Transmission Line Replacement-Phase 2
6 Navy Pump Station Rehabilitation	15 Ocean Reef Distribution System and Storage Improvements
7 Big Coppitt Treatment Plant Expansion Stock Island	16 Florida City Treatment Plant Sewer Improvements
8 Middle Torch New Distribution System	17 Chemical System Improvements at Florida City
9 No Name Key New Distribution System	

KEY WEST ADMINISTRATION BUILDING REPLACEMENT

Administration Division

Project Information

Location	1100 Kennedy Drive, Key West
Project Type	Administration
Category	Replacement
Project Number	7054-18
Design Engineer	Thomas E. Pope, PA
Project Manager	Kent Nelson, P.E.
Contractor	To be determined
Start Date	2019
Completion Date	2021
Bond Funded	Yes
Facilities Master Plan Project	Yes



Description/Justification:

Following Hurricane Irma, an evaluation of the building by an independent engineering firm concluded the building does not appear to be in satisfactory structural condition. There is a considerable amount of evidence indicating that the building has experienced damage associated with the storm. The building has deflected in an inelastic manner and structural cracks have opened up and have not closed. This signifies that the steel and/or concrete have exhibited non-recoverable movement which results in a reduced structural capacity. It was estimated that the building repairs required to bring the building to a condition consistent with the original design conditions, or improved to meet current applicable building codes, would not be practical and, if possible, would be cost prohibitive.

Status/Recent Developments:

Architect, Thomas E. Pope, PA, has been contracted to perform a special-needs evaluation and conceptual building replacement model. FCAA staff is pursuing federal grant-funding, under the Stafford Disaster Relief and Emergency Assistance Act, Sandy Recovery Improvement Act, and other federal sources.

Financial Information:

Capital Funding:

	Five Year Plan					Total Cost
	2019	2020	2021	2022	2023	
Capital Engineering & Construction Costs	\$2,066,000	\$11,866,000	\$9,800,000	\$ -	\$ -	\$23,732,000
Total Costs	\$2,066,000	\$11,866,000	\$9,800,000	\$ -	\$ -	\$23,732,000

Operating Impact:

	Annual Operating Cost (Savings)					Total
	2019	2020	2021	2022	2023	
New Personnel (FTEs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Personal Services Costs	-	-	-	-	-	-
Other Operating Costs	-	-	-	-	-	-
Total Operating Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

DISTRIBUTION REPLACEMENT-Sombrero Beach Road/Sombrero Blvd.

Distribution System

Project Information

Location	Marathon
Project Type	Distribution System
Category	Replacement
Project Number	2340-17
Design Engineer	In-house Design Team
Project Manager	Jolynn Reynolds
Contractor	To Be Determined
Start Date	2018
Completion Date	2019
Bond Funded	No
Facilities Master Plan Project	Yes



Description/Justification:

This project includes the replacement of of the distribution water mains including Master Meter Tap #181 on Sombrero Beach Road and Sombrero Blvd. The watermain has reached the end of its useful life and is now prone to unpredictable failure. Since 2011, we have had approximately 8-10, 12" leaks on this line and out of the total 4 have occurred in 2018.

Status/Recent Developments:

This distribution upgrade is currently being designed and constructed for execution following careful evaluation of the cost benefit analysis and prioritization of projects.

Financial Information:

Capital Funding:

	Five Year Plan					Total Cost
	2019	2020	2021	2022	2023	
Capital Engineering & Construction Costs	\$ 800,000		\$ -	\$ -	\$ -	\$ 800,000
	-	-	-	-	-	-
Total Costs	\$ 800,000	\$ -	\$ -	\$ -	\$ -	\$ 800,000

Operating Impact:

	Annual Operating Costs (Savings)					Total Cost
	2019	2020	2021	2022	2023	
New Personnel (FTEs)						
Personal Services Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Operating Costs	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)	(250,000)
Total Operating Costs	\$ (50,000)	\$ (50,000)	\$ (50,000)	\$ (50,000)	\$ (50,000)	\$ (250,000)

UPGRADED SEAWATER TREATMENT - STOCK ISLAND

Water Supply and Treatment

Project Information

Location	Stock Island
Project Type	Water Supply and Treatment
Category	Resiliency
Project Number	1150-17/7050-18
Design Engineer	To be determined
Project Manager	Jolynn Reynolds
Contractor	To be determined
Start Date	2020
Completion Date	2022
Bond Funded	Yes
Facilities Master Plan Project	Yes



Description/Justification:

The existing 2 Million Gallon per Day (MGD) Stock Island Reverse Osmosis (SIRO) is maintenance intensive, lacks reliability, and fails to meet production goals. To promote public health and safety, the goal of this project is develop a water production facility on Stock Island that will provide sufficient capacity during emergency conditions, provide system reliability, new equipment, and membrane technology.

Status/Recent Developments:

FCAA staff is pursuing federal grant-funding, under the Stafford Disaster Relief and Emergency Assistance Act and other federal sources.

Financial Information:

Capital Funding:

	Five Year Plan					Total Cost
	2019	2020	2021	2022	2023	
Capital Engineering & Construction Costs	-	\$ 5,220,000	\$ 17,400,000	\$ 17,400,000	\$ -	\$ 40,020,000
Total Costs	\$ -	\$ 5,220,000	\$ 17,400,000	\$ 17,400,000	\$ -	\$ 40,020,000

Operating Impact:

	Annual Operating Cost (Savings)					Total
	2019	2020	2021	2022	2023	
New Personnel (FTEs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Personal Services Costs	-	-	-	-	-	-
Other Operating Costs	-	-	-	-	-	-
Total Operating Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

FLORIDA CITY TREATMENT PLANT SEWER IMPROVEMENTS

Project Information

Location	J. Robert Dean Water Treatment Plant
Project Type	Sewer
Category	Renewal and Replacement
Project Number	4076-18
Design Engineer	To be determined
Project Manager	Stephanie Bruno
Contractor	To be determined
Start Date	2019
Completion Date	2020
Bond Funded	No
Facilities Master Plan Project	No



Description/Justification:

This project includes the installation of a new main sewer connection to Miami-Dade sewer from Water Treatment Plant (WTP). Main sewer connection replacement would be 1,800 LF in unpaved area with minimal conflicts. Some drain lines in the plant campus route stormwater into existing sanitary. Part of this would be to separate these conveyances into a stormwater runoff area, no estimate on how many connections or how many LF.

Status/Recent Developments:

In-house review of existing system and piping configurations will begin in 2019.

Financial Information:

Capital Funding:

	Five Year Plan					Total Cost
	2019	2020	2021	2022	2023	
Capital Engineering & Construction Costs		\$ 368,000	\$ -	\$ -	\$ -	\$ 368,000
Total Costs	\$ -	\$ 368,000	\$ -	\$ -	\$ -	\$ 368,000

Operating Impact:

	Annual Operating Cost (Savings)					Total
	2019	2020	2021	2022	2023	
New Personnel (FTEs)						
Personal Services Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Operating Costs	10,000	(10,000)	(10,000)	(10,000)	(10,000)	(30,000)
Total Operating Costs	\$ 10,000	\$ (10,000)	\$ (10,000)	\$ (10,000)	\$ (10,000)	\$ (30,000)

GRASSY KEY TRANSMISSION MAIN REPLACEMENT

Renewal and Replacement

Project Information

Location	Grassy Key
Project Type	Transmission System
Category	Renewal and Replacement
Project Number	1154-17
Design Engineer	Carollo Engineering
Project Manager	Justin Dacey
Contractor	To be determined
Start Date	2017
Completion Date	2018
Bond Funded	No
Facilities Master Plan Project	Yes



Description/Justification:

There have been several leaks on the transmission system in Grassy Key. A condition assessment has been performed and an area of approximately 1 to 2-miles has been identified for replacement (MM58-60).

Status/Recent Developments:

Pipeline condition assessment has been performed to determine the extent of replacement in Grassy Key. A material selection and corridor study is currently being performed to determine replacement options.

Financial Information:

Capital Funding:

	Five Year Plan					Total Cost
	2019	2020	2021	2022	2023	
Capital Engineering & Construction Costs	\$ 1,464,000	\$ 4,880,000	\$ 4,880,000	\$ -	\$ -	\$11,224,000
Total Costs	\$ 1,464,000	\$ 4,880,000	\$ 4,880,000	\$ -	\$ -	\$11,224,000

Operating Impact:

	Annual Operating Cost (Savings)					Total Cost
	2019	2020	2021	2022	2023	
New Personnel (FTEs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Personal Services Costs	80,000	(80,000)	(80,000)	(80,000)	(80,000)	(240,000)
Total Operating Costs	\$ 80,000	\$ (80,000)	\$ (80,000)	\$ (80,000)	\$ (80,000)	\$ (240,000)

CHEMICAL SYSTEM IMPROVEMENTS AT FLORIDA CITY

Renewal and Replacement

Project Information

Location	J.R. Dean WTF, Florida City
Project Type	Water
Category	Renewal and Replacement
Project Number	1164-18
Design Engineer	To be determined
Project Manager	Justin Dacey
Contractor	To be determined
Start Date	2020
Completion Date	2020
Bond Funded	No
Facilities Master Plan Proj	Yes



Description/Justification:

Project includes adding control for auto-pacing of the chemical feeds supporting the water treatment process. This includes new dosing pumps, piping, valving, and remote SCADA control of equipment. This will help provide for a more stable treatment process and allow for more efficient use of treatment chemicals.

Status/Recent Developments:

Financial Information:

Capital Funding:

	Five Year Plan					Total Cost
	2019	2020	2021	2022	2023	
Capital Engineering & Construction Costs	\$ -	\$ 793,500	\$ -	\$ -	\$ -	\$ 793,500
Total Costs	\$ -	\$ 793,500	\$ -	\$ -	\$ -	\$ 793,500

Operating Impact:

	Annual Operating Cost (Savings)					Total
	2019	2020	2021	2022	2023	
New Personnel (FTEs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Personal Services Costs	10,000	(10,000)	(10,000)	(10,000)	(10,000)	(30,000)
Total Operating Costs	\$ 10,000	\$ (10,000)	\$ (10,000)	\$ (10,000)	\$ (10,000)	\$ (30,000)

TRANSMISSION MAIN TERMINUS REPLACEMENT-Key West

Transmission

Project Information

Location	Key West
Project Type	Transmission System
Category	Renewal and Replacement
Project Number	1153-17
Design Engineer	In-house
Project Manager	Justin Dacey
Contractor	To Be Determined
Start Date	2021
Completion Date	2023
Bond Funded	No
Facilities Master Plan Project	Yes



Description/Justification:

This project includes the final section of transmission in Key West that needs to be replaced. This section is the remaining original 18" pipeline that was installed in the 1940's which has pressure limitations and poses a high risk of failure.

Status/Recent Developments:

Several leaks on this section of transmission have occurred over the last two years.

Financial Information:

Capital Funding:

	Five Year Plan					Total Cost
	2019	2020	2021	2022	2023	
Capital Engineering & Construction Costs	\$ -	\$ -	\$ 471,000	\$ 1,570,000	\$ 1,570,000	\$ 3,611,000
Total Costs	\$ -	\$ -	\$ 471,000	\$ 1,570,000	\$ 1,570,000	\$ 3,611,000

Operating Impact:

	Annual Operating Cost (Savings)					Total Cost
	2019	2020	2021	2022	2023	
New Personnel (FTEs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Personal Services Costs	50,000	50,000	50,000	(50,000)	(50,000)	
Other Operating Costs						
Total Operating Costs	\$ 50,000	\$ 50,000	\$ 50,000	\$ (50,000)	\$ (50,000)	\$ 50,000

KEY WEST DISTRIBUTION LINE REPLACEMENT

Distribution System

Project Information

Location	Key West - Area 1
Project Type	Water Distribution Replacement
Category	Renewal and Replacement
Project Number	2349-18
Design Engineer	In-House Design Team
Project Manager	Justin Dacey
Contractor	To Be Determined
Start Date	2023
Completion Date	2024
Bond Funded	No
Facilities Master Plan Project	Yes



Description/Justification:

This project includes the assessment of existing 5,468 feet of 12" distribution pipe, located in Downtown Key West, for replacement. The area of pipe is located from Simonton St to Front St and Whitehead St in a very congested area.

Status/Recent Developments:

Suspected pipe throughput this area is the focus of replacement due to multiple leaks within this area.

Financial Information:

Capital Funding:

	Five Year Plan					Total Cost
	2019	2020	2021	2022	2023	
Capital Engineering & Construction Costs	\$ -	\$ -	\$ -	\$ -	\$ 1,702,000	\$ 1,702,000
Total Costs	\$ -	\$ -	\$ -	\$ -	\$ 1,702,000	\$ 1,702,000

Operating Impact:

	Annual Operating Cost (Savings)					Total
	2019	2020	2021	2022	2023	
New Personnel (FTEs)						
Personal Services Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Operating Costs	30,000	30,000	30,000	30,000	(30,000)	90,000
Total Operating Costs	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ (30,000)	\$ 90,000

TRANSMISSION MAIN IMPROVEMENTS-C-905 KEY LARGO - PHASE II

Transmission

Project Information

Location	N. Key Largo
Project Type	Transmission System
Category	Renewal and Replacement
Project Number	1152-17
Design Engineer	In-house
Project Manager	Jolynn Reynolds
Contractor	To be determined
Start Date	2018
Completion Date	2019
Bond Funded	No
Facilities Master Plan Project	Yes



Description/Justification:

The transmission pipeline along C905 provides water to Ocean Reef and homes in the vicinity. Several breaks have occurred in multiple sections of the pipeline. Also, the hydraulics of existing 12" watermain are restrictive, and watermain needs to be upsized for improved demand delivery.

This project includes the replacement and upgrade of approximately 11 miles of transmission pipeline. This will be completed in two phases.

Status/Recent Developments:

Phase one construction is complete. Phases IIA and IIB are beginning in June 2018.

Financial Information:

Capital Funding:

	Five Year Plan					Total Cost
	2019	2020	2021	2022	2023	
Capital Engineering & Construction Costs	\$ 4,500,000		\$ -	\$ -	\$ -	\$ 4,500,000
Total Costs	\$ 4,500,000	\$ -	\$ -	\$ -	\$ -	\$ 4,500,000

Operating Impact:

	Annual Operating Cost (Savings)					Total Cost
	2019	2020	2021	2022	2023	
New Personnel (FTEs)						
Personal Services Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Operating Costs	(12,000)	(12,000)	(12,000)	(12,000)	(12,000)	
Total Operating Costs	\$ (12,000)	\$ (12,000)	\$ (12,000)	\$ (12,000)	\$ (12,000)	\$ (60,000)

TRANSMISSION MAIN REPLACEMENT-Islamorada

Transmission

Project Information

Location	Islamorada
Project Type	Transmission System
Category	Renewal and Replacement
Project Number	1163-18
Design Engineer	In-house
Project Manager	To Be Determined
Contractor	To Be Determined
Start Date	2022
Completion Date	2024
Bond Funded	No
Facilities Master Plan Project	Yes



Description/Justification:

As transmission pipe condition assessments are performed, sections of transmission main that pose the highest risk of failure are identified for future replacement. A portion of transmission main in Islamorada has been determined as one of these high risk areas.

Status/Recent Developments:

This upgrade is currently being evaluated for execution following careful evaluation of the cost benefit analysis and prioritization of projects.

Financial Information:

Capital Funding:

Five Year Plan

	2019	2020	2021	2022	2023	Total Cost
Capital Engineering & Construction Costs	-	-		\$ 3,015,000	\$ 10,050,000	\$13,065,000
Total Costs	\$ -	\$ -	-	\$ 3,015,000	\$ 10,050,000	\$13,065,000

Operating Impact:

Annual Operating Cost (Savings)

	2019	2020	2021	2022	2023	Total Cost
New Personnel (FTEs)						
Personal Services Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Operating Costs	30,000	30,000	30,000	30,000	(30,000)	
Total Operating Costs	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ (30,000)	\$ 90,000

OCEAN REEF DISTRIBUTION SYSTEM AND STORAGE IMPROVEMENTS

Renewal & Replacement

Project Information

Location	Ocean Reef Distribution Station
Project Type	Water
Category	Renewal and Replacement
Project Number	2352-18
Design Engineer	To be determined
Project Manager	Justin Dacey
Contractor	To be determined
Start Date	2023
Completion Date	2024
Bond Funded	No
Facilities Master Plan Project	Yes



Description/Justification:

The distribution pumps serving Ocean Reef Club are approaching their end-of-life. The goals of this project are to determine the future needs of the Ocean Reef Club and add the storage and pumping capacity to meet those needs.

Status/Recent Developments:

Financial Information:

Capital Funding:

	Five Year Plan					Total Cost
	2019	2020	2021	2022	2023	
Capital Engineering & Construction Costs	\$ -	\$ -	\$ -	\$ -	\$ 796,500	\$ 796,500
Total Costs	\$ -	\$ -	\$ -	\$ -	\$ 796,500	\$ 796,500

Operating Impact:

	Annual Operating Cost (Savings)					Total
	2019	2020	2021	2022	2023	
New Personnel (FTEs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Personal Services Costs	-	-	-	-	-	-
Other Operating Costs	-	-	-	-	-	-
Total Operating Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

NO NAME KEY DISTRIBUTION INSTALLATION

Distribution System

Project Information

Location	No Name Key
Project Type	Distribution System
Category	Water Main Extension
Project Number	2332-17
Design Engineer	In-house Design Team
Project Manager	Jolynn Reynolds
Contractor	To be determined
Start Date	2020
Completion Date	2021
Bond Funded	No
Facilities Master Plan Project	Yes



Description/Justification:

Residents of No Name Key are not currently served by FCAA with potable water. Residents in these areas are reliant upon cisterns and non-potable water deliveries for water and have expressed interest in connecting to the FCAA distribution system to improve their water quality. This purpose of this project is to install the approximately 11,000 linear feet of distribution mains to serve No Name Key and connect to the existing distribution system serving Big Pine Key.

Status/Recent Developments:

FCAA's in-house design team has been tasked with drafting plans for the project.

Financial Information:

Capital Funding:

	Five Year Plan					Total Cost
	2019	2020	2021	2022	2023	
Capital Engineering & Construction Costs	\$ -	\$ 288,000	\$1,920,000	\$ -	\$ -	\$ 2,208,000
Total Costs	\$ -	\$ 288,000	\$1,920,000	\$ -	\$ -	\$ 2,208,000

Operating Impact:

	Annual Operating Costs (Savings)					Total Cost
	2019	2020	2021	2022	2023	
New Personnel (FTEs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Personal Services Costs	-	-	5,000	5,000	5,000	15,000
Total Operating Costs	\$ -	\$ -	\$ 5,000	\$ 5,000	\$ 5,000	\$ 15,000

MIDDLE TORCH KEY DISTRIBUTION INSTALLATION

Distribution System

Project Information

Location	Middle and Big Torch Keys
Project Type	Distribution System
Category	
Project Number	2331-17
Design Engineer	In-house Design Team
Project Manager	Jolynn Reynolds
Contractor	To be determined
Start Date	2021
Completion Date	2023
Bond Funded	No
Facilities Master Plan Project	Yes



Description/Justification:

Residents of Middle Torch and Big Torch Keys are not currently served by FCAA with potable water. Residents in these areas are reliant upon cisterns and non-potable water deliveries for water and have expressed interest in connecting to the FCAA distribution system to improve their water quality. This purpose of this project is to install the approximately 37,000 linear feet of distribution mains to serve Middle Torch and Big Torch Keys and connect the system to the FCAA Transmission Main.

Status/Recent Developments:

FCAA's in-house design team has been tasked with drafting plans for the project.

Financial Information:

Capital Funding:

	Five Year Plan					Total Cost
	2019	2020	2021	2022	2023	
Capital Engineering & Construction Costs	\$ -	\$ -	\$ 742,500	\$ 2,475,000	\$ 2,475,000	\$ 5,692,500
Total Costs	\$ -	\$ -	\$ 742,500	\$ 2,475,000	\$ 2,475,000	\$ 5,692,500

Operating Impact:

	Annual Operating Costs (Savings)					Total Cost
	2019	2020	2021	2022	2023	
New Personnel (FTEs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Personal Services Costs	-	-	-	-	-	-
Other Operating Costs	-	-	-	-	-	-
Total Operating Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

NAVY PUMP STATION REHABILITATION

Renewal & Replacement

Project Information

Location	Multiple U.S. Navy Properties
Project Type	Wastewater
Category	Renewal and Replacement
Project Number	4072-17
Design Engineer	To be determined
Project Manager	Bubba Osterhoudt
Contractor	To be determined
Start Date	2019
Completion Date	2020
Bond Funded	No
Facilities Master Plan Project	Yes



Description/Justification:

This project includes a number of sewer lift stations serving the U.S. Navy that are in need of rehabilitation due to age and corrosion from sewer gases. This project will replace the corroded metal piping with plastic piping well suited to corrosive environments. The project also involves re-lining the wet wells of select stations to reduce infiltration of groundwater and protect the station's structure.

Status/Recent Developments:

Project is going through the bid process in summer 2018.

Financial Information:

Capital Funding:

	Five Year Plan					Total Cost
	2019	2020	2021	2022	2023	
Capital Engineering & Construction Costs	\$ 733,500	\$ 4,890,000	\$ -	\$ -	\$ -	\$ 5,623,500
Total Costs	\$ 733,500	\$ 4,890,000	\$ -	\$ -	\$ -	\$ 5,623,500

Operating Impact:

	Annual Operating Cost (Savings)					Total
	2019	2020	2021	2022	2023	
New Personnel (FTEs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Personal Services Costs	(20,000)	(20,000)	(20,000)	(20,000)	(20,000)	(100,000)
Total Operating Costs	\$ (20,000)	\$ (20,000)	\$ (20,000)	\$ (20,000)	\$ (20,000)	\$ (100,000)

DUCK KEY COLLECTION SYSTEM REHABILITATION

Project Information

Location	Duck Key
Project Type	Sewer
Category	Renewal and Replacement
Project Number	4077-18
Design Engineer	In-House
Project Manager	Stephanie Bruno
Contractor	TBD
Start Date	2019
Completion Date	2019
Bond Funded	No
Facilities Master Plan Project	No



Description/Justification:

This project includes the Hawk's Cay manhole rehabilitation/repair (20 in total) plus station rehabilitation; replacement of 300' of 8" clay pipe. Duck Key manholes need to have leaks repaired around inverts, rings etc. and be relocated. The station is 8' x 8' with 7.5 HP pumps.

Status/Recent Developments:

In house analysis of existing system and necessary project scope to begin late 2019.

Financial Information:

Capital Funding:

	Five Year Plan					Total Cost
	2019	2020	2021	2022	2023	
Capital Engineering & Construction Costs	-	\$ 138,000	\$ -	\$ -	\$ -	\$ 138,000
Total Costs	\$ -	\$ 138,000	\$ -	\$ -	\$ -	\$ 138,000

Operating Impact:

	Annual Operating Cost (Savings)					Total
	2019	2020	2021	2022	2023	
New Personnel (FTEs)						
Personal Services Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Operating Costs	5,000	(5,000)	(5,000)	(5,000)	(5,000)	(15,000)
Total Operating Costs	\$ 5,000	\$ (5,000)	\$ (5,000)	\$ (5,000)	\$ (5,000)	\$ (15,000)

NAVY MANHOLE REPAIRS

Renewal and Replacement

Project Information

Location	Multiple U.S. Navy Properties
Project Type	Wastewater
Category	Renewal and Replacement
Project Number	4078-18
Design Engineer	To be determined
Project Manager	Bubba Osterhoudt
Contractor	To be determined
Start Date	2023
Completion Date	2023
Bond Funded	No
Facilities Master Plan Project	Yes



Description/Justification:

FKAA has over 150 sewer manholes on U.S. Navy properties in various conditions. This project involves performing a condition assessment of these manholes for rehabilitation in order to address those manholes with the greatest need.

Status/Recent Developments:

Financial Information:

Capital Funding:

	Five Year Plan					Total Cost
	2019	2020	2021	2022	2023	
Capital Engineering & Construction Costs	\$ -	\$ -	\$ -		\$ 552,000	\$ 552,000
Total Costs	\$ -	\$ -	\$ -	\$ -	\$ 552,000	\$ 552,000

Operating Impact:

	Annual Operating Cost (Savings)					Total
	2019	2020	2021	2022	2023	
New Personnel (FTEs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Personal Services Costs						
Other Operating Costs	5,000	5,000	5,000	5,000	(5,000)	15,000
Total Operating Costs	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ (5,000)	\$ 15,000

BIG COPPITT WASTEWATER RECLAMATION FACILITY EXPANSION

Treatment and Reclaimed Water

Project Information

Location	Big Coppitt WWTP
Project Type	Wastewater System
Category	WWTP Expansion
Project Number	4069-17
Design Engineer	Brown & Caldwell
Project Manager	Justin Dacey
Contractor	To be determined
Start Date	2021
Completion Date	2023
Bond Funded	No
Facilities Master Plan Project	Yes



Description/Justification:

The Big Coppitt Wastewater Reclamation Facility is being expanded to accommodate the wastewater flows from Boca Chica Wastewater Treatment Plant. This will allow the Boca Chica Wastewater Treatment Plant to be decommissioned and re-purposed as a equalization tank to receive wastewater flows from Key Haven collection/transmission system.

Status/Recent Developments:

Preliminary design was completed in 2017.

Financial Information:

Capital Funding:

	Five Year Plan					Total Cost
	2019	2020	2021	2022	2023	
Capital Engineering & Construction Costs	\$ -	\$ -	\$ 1,233,000	\$ 4,110,000	\$ 4,110,000	\$ 9,453,000
Total Costs	\$ -	\$ -	\$ 1,233,000	\$ 4,110,000	\$ 4,110,000	\$ 9,453,000

Operating Impact:

	Annual Operating Cost (Savings)					Total Cost
	2018	2019	2020	2021	2022	
New Personnel (FTEs)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Personal Services Costs	-	-	-	-	-	-
Other Operating Costs	-	-	-	-	-	-
Total Operating Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

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Capital Outlay Budget Detail

For fiscal years 2019

			Amount	Water cost centers	Wastewater cost centers	Total
Executive Division						
<u>Executive</u>						
1011	Executive Office	None	\$ -	\$ -		
1012	Public Information	Water truck	160,000	160,000		\$ 160,000
<hr/>						
Administration Division						
<u>Customer Service</u>						
3030	Customer Service Administration	None	-	-		
3031	Central Payment Processing	None	-	-		
3032	Customer Service-Key West	None	-	-		
3034	Customer Service-Marathon	None	-	-		
3035	Customer Service-Tavernier	None	-	-		
3037	Field Services-Key West	None	-	-		
3038	Field Services-Marathon	None	-	-		
3039	Field Services-Tavernier	None	-	-		
<u>Finance</u>						
6010	Finance	None	-	-		
6020	Billing	None	-	-		
6030	Purchasing and Inventory	None	-	-		
6040	Records	None	-	-		
<u>Human Resources</u>						
7010	Human Resources	None	-	-		
<u>Information Technology</u>						
8010	Information Technology	Network switches (10) Printers (3)	50,000 21,000		71,000	
						71,000
<hr/>						
Utility Operations Division						
<u>Engineering</u>						
2021	General Engineering	None	-	-		
2022	Contract Management	GPS Trimble	13,000	13,000		
2023	Water Quality	None	-	-		
2024	Design	None	-	-		
2025	Construction Crew	Muller Tapping Machine	47,000			
		AU Cargo Trailer	5,000			
		Replacement of dump truck beds (2)	40,000			
		Pipe Racks (2) Trucks	6,000			
		Valve Replacement	100,000	198,000		
2027	Water Data Management and Loss Division	New meter installations	180,000			
		New leak detection equipment (upper keys)	30,000			
		Small meter replacement	35,000			
		Large meter replacement	50,000			
		AMI collectors	150,000			
		Tank flow control	75,000			
		Sand Blast Cabinet	20,000			
		Backflow meter change out program	80,000	620,000		
						831,000

Capital Outlay Budget Detail (continued)

For fiscal years 2019

Water Operations				
4001	Operations Office Key West	None	-	-
4101	Operations Office Stock Island/lower keys	Desal car wash roof	11,000	11,000
4102	Distribution/Maintenance-Area I	Cat skid steer (new)	56,200	
		Vermeer Tractor (new)	96,700	
		Skid steer trailer	12,000	164,900
4103	Distribution/Maintenance-Area II	Tap upgrades (see below)	210,000	
		Vermeer Vactron Vacuum Excavator (new)	68,000	
		Big Coppitt A/C replacement	7,500	
		Big Pine A/C replacement	7,500	
		Aurora Horiz split case pump	12,000	305,000
4104	Distribution Pump Station-Key West	None	-	-
4105	Distribution Pump Station-Stock Island	Riding Mower (replacement)	6,000	6,000
4108	Fleet Maintenance-lower keys	Vehicles (see below)	398,500	
		Snap on scanner	6,500	405,000
4110	Stock Island Reverse Osmosis Plant	Sodium hydroxide feed system	15,000	15,000
4201	Operations Marathon/Middle keys	Fence replacement	8,500	8,500
4202	Distribution/Maintenance-Area III	Mini hydraulic excavator (new)	48,000	48,000
4203	Transmission Maintenance-Area III	Sloan dewatering pump (replacement)	36,000	
		24" valve replacement (North Park Channel)	29,000	
		30" valve replacement (Tom's Harbor Cut)	41,000	
		Welding shop roof (carport)	8,000	
		Tig welding box (replacement)	6,000	
		Hydraulic power units (2)	10,400	
		Stick welder	13,000	143,400
4204	Transmission Pump Station-Marathon	None	-	-
4205	Transmission Pump Station-Ramrod	None	-	-
4208	Fleet Maintenance-middle keys	Vehicles (see below)	816,600	
		Tilt back tire changer	10,000	
		Wheel balancer	8,700	835,300
4210	Reverse Osmosis Plant-Marathon	None	-	-
4301	Operations Key Largo and upper keys	Drive-thru blinds	6,000	6,000
4302	Distribution Maintenance Area IV	Pump house A/C	5,100	
		Vermeer Vactron Vacuum Excavator (new)	64,500	
		Mini Hydraulic Excavator (new)	48,000	
		Tilt trailer	8,200	125,800
4303	Distribution Maintenance Area V	Vermeer Vactron Vacuum Excavator (new)	64,500	
		Dump trailer (new)	9,500	
		ICS 20" hydraulic saw	6,000	80,000
4304	Transmission Maintenance Areas IV and V	Backhoe trailer (replacement)	23,500	
		Cargo trailer (replacement)	7,900	
		Fence repairs (Key Largo yard)	10,200	
		Electric gate opener (Cross Key)	5,800	
		Iron milling machine	13,000	
		Storage shed (2)	5,500	
		Skidsteer Chipper	12,100	
		Welder/compressor (replace equipment # 543)	11,000	
		Backhoe (replace equipment # 259)	83,000	
		Welder truck crane	5,300	
		3" air release replacements (15)	21,000	
		Quonset Hut (new)	50,000	248,300
4308	Fleet Maintenance-upper keys	Vehicles (see below)	131,100	
		4-wheel drive mules (2)	24,000	155,100
5010	Water Treatment Plant-Florida City	Blowdown pump (2)	44,000	
		Influent valve	22,000	
		Lime slurry pump (2)	16,400	82,400
5020	Transmission Pump Station-Florida City	Diesel pump (replacement)	104,000	
		Fuel polisher	11,000	115,000
5030	Transmission Pump Station-Long Key	None	-	-
5040	Transmission Pump Station-Key Largo	None	-	-
5050	Florida City RO Plant	None	-	-
5060	Electrical and Instrumentation Controls	GE calibration flow meter	16,000	
		Hart communicators (2)	9,600	25,600
				2,780,300

Capital Outlay Budget Detail (continued)

For fiscal years 2019

Wastewater Operations				
4112	Bay Point Wastewater Treatment Plant	None	-	-
4113	Bay Point Collection	None	-	-
4114	Big Coppitt Wastewater Treatment	Blower enclosures (new) (2)	15,800	
		Verderflex peristaltic hydroxide pump (2)	9,000	
		Filter feed pump (replacement) (1)	8,200	33,000
4115	Big Coppitt Collection	None	-	-
4116	Key Haven Wastewater Treatment	None	-	-
4117	Key Haven Collection	None	-	-
4118	Cudjoe Regional Wastewater Treatment	None	-	-
4119	Cudjoe Regional Collection	Transmission station roofing for rain events (6)	35,000	35,000
4120	Navy Wastewater System	E-One pump (replacement) (3)	7,300	
		Large grinder pump (replacement 2%) (3)	12,600	
		Large grinder pump (spare) (2)	7,200	27,100
4213	Wastewater Treatment Plant-Duck Key	None	9,000	9,000
4214	Wastewater Operations and Maintenance	Liquid tight drying box (new) (2)	36,000	
		Dump trailer (new)	7,700	
		4" hydraulic dewatering pump (new)	6,500	
		Heavy duty trailer tug (new)	29,900	
		Trailered jetter	10,000	
		Mini Hydraulic Excavator (new)	48,000	138,100
4216	Duck Key Collection	Hawk's Cay lift station and main manhole repair	33,500	
		Resort manhole repair (4)	24,000	
		Grinder pump replacement (2)	8,200	65,700
4312	Wastewater Treatment Plant-Layton	Jet motive pump (spare)	9,500	9,500
4313	Layton Collection	State park grinder pump (replacement) (2)	5,800	5,800
				323,200

Total Capital Outlay \$ 4,165,500

Fleet details

4108	Fleet Maintenance-lower keys	1/2 ton (replace vehicle #172)	25,200	
		1/2 ton (replace vehicle #173)	25,200	
		1/2 ton (replace vehicle #311)	25,200	
		1/2 ton (replace vehicle # 312)	25,200	
		1/2 ton (replace vehicle #401)	25,200	
		1/2 ton (replace vehicle #536)	25,200	
		1 ton (replace vehicle #155)	39,900	
		1 ton (replace vehicle #167)	39,900	
		Wastewater utility trucks (2)	140,000	
			Inspector (new)	27,500
4208	Fleet Maintenance-middle keys	1/2 ton (replace vehicle #454)	25,200	398,500
		Midsize SUV (replace vehicle #174)	26,000	
		Midsize SUV (replace vehicle #121)	26,000	
		17,500 GVWR w/out crane (replace vehicle # 339)	75,000	
		E-350 Utilimaster Van (replace vehicle #320)	55,000	
		F550 Cattle truck (replace vehicle # 310)	60,900	
		Electrician van	30,000	
		Truck for new DSO position	40,000	
		Bridge truck (new)	478,500	816,600
			1/2 ton (replace vehicle #537)	25,200
4308	Fleet Maintenance-upper keys	1 ton (replace vehicle #540)	39,900	
		Midsize SUV (replace vehicle #100)	26,000	
		Trucks for new DSO position	40,000	131,100

Total fleet capital 1,346,200

Capital Outlay Budget Detail (continued)

For fiscal years 2019

Tap replacements			
4103	Distribution/Maintenance-Area II	Tap 125 2" pipe and valve upgrade	35,000
		Tap 138 2" pipe and valve upgrade	35,000
		Tap 142 2" pipe and valve upgrade	35,000
		Tap 145 2" pipe and valve upgrade	35,000
		Tap 158 2" pipe and valve upgrade	35,000
		Tap 187 2" pipe and valve upgrade	35,000
Total tap replacements			210,000

Capital Financing Plan Summary

For fiscal years 2019

Background

The Authority has developed a long-range capital financing plan that is intended to identify when bonds must be issued to fund capital projects. Since Monroe County will be funding all future capital costs relating to wastewater, this plan centers around the water system capital improvement plan.

The Authority's ratings for water bonds are Aa3, A+, and AA- from Moody's Investor Services, Standard and Poor's, and Fitch Ratings, respectively. The Authority has no legal debt limits.

Summary of Debt

Anticipated Budget Year Bond Issues

No water bond issues are anticipated for the 2019 budget year. Water capital projects will be funded using available cash reserves, revenue from a dedicated source such as assessments, state appropriations or, in the case of U.S. Navy projects, specific charges to that customer.

Wastewater projects will be funded by a combination of rate revenue, existing cash reserves and any remaining proceeds from the Series 2016 bond issue.

Total projected outstanding debt at the end of budget year 2019 is estimated to be approximately \$137 million and debt service is approximately \$8.9 million.

Existing Outstanding Bond Issues

Water Revenue and Revenue Refunding Bonds

In October 2007, the Authority issued \$53,975,000 in water revenue bonds with an average interest rate of 5.04%. Interest is payable on March 1 and September 1 of each year and principal is payable annually on September 1. The interest rates on the outstanding bonds range from 4.0% to 5.25%. The proceeds from these bonds were used to fund the Authority's continuing capital improvement plan. In April, these bonds were advanced refunded by Series 2015A and 2015B bonds, with the proceeds escrowed to fund debt service on the Series 2007 bonds beginning in 2018.

In June 2008 the Authority issued \$52,625,000 in water revenue refunding bonds. The 2008 bonds bear interest at a variable rate that is set each week when the bonds are remarketed (.07% at June 10, 2015). The proceeds from these bonds were used to refund Series 2006 bonds, which were insured by a failed bond insurer. The refunding was necessary to replace the bond insurer with a letter of credit. The interest rate swap executed at the issuance of the Series 2006 bonds in place with the notional amount now tied to the Series 2008 bonds.

In July 2013, the Authority issued \$19,900,000 in Series 2013A refunding revenue bonds to a bank. The proceeds from this issue were used to refund Series 2003 water revenue bonds. Interest is payable on March 1 and September 1 of each year and principal is payable annually on September 1. The bonds bear interest at a fixed rate of 1.64%. This issue resulted in an economic benefit to the Authority of about \$2.6 million in savings.

In November 2013, the Authority issued \$7,700,000 in Series 2013B revenue bonds to a bank to partially fund water distribution line replacements that are being accelerated by wastewater line construction. In January 2014, the Authority issued \$2,670,000 in Series 2014B bonds to the same bank to fully fund the project. Interest is

Capital Financing Plan Summary (continued)

For fiscal years 2019

payable on March 1 and September 1 of each year and principal is payable annually on September 1. Both series bear interest at a fixed rate of 3.52%.

In April 2015, the Authority issued \$34,560,000 in Series 2015A bonds and \$16,435,000 in Series 2015B bonds to advance-refund outstanding Series 2007 bonds maturing after 2018. The 2015A bonds have an effective interest rate of approximately 3.75% and the Series 2015B bonds bear interest at a rate of 2.52%.

Water revenue and revenue refunding bonds are issued under the Authority's Resolution No. 03-12. The payment of the principal and interest on these bonds is collateralized by a pledge of and lien upon the net revenues derived from the operation of the Authority's water utility and other monies including investments held in certain accounts established by the bond resolution. Under the bond resolution, the Authority will fix, establish, maintain and collect the water rates and revise the same from time to time, whenever necessary, that will always provide in each fiscal year, (a) net revenues adequate at all times to pay in each fiscal year at least one hundred ten percent (110%) of the annual debt service requirement becoming due in such fiscal year on each series of outstanding bonds and at least one hundred percent (100%) of any amounts required by the terms of the bond resolution to be deposited in the reserve account or reserve account insurance policy in such fiscal year, and (b) net revenues, together with impact fees deposited in the current account in the impact fees fund, adequate to pay at least one hundred twenty percent (120%) of the current annual debt service requirement becoming due in such fiscal year on the outstanding bonds. The rates will not be reduced to a level that would be insufficient to provide net revenues fully adequate for the purposes provided by the bond resolution.

Wastewater Revenue Bonds

In September 2012, the Authority issued Series 2012 wastewater refunding revenue bonds to a bank in an amount of \$5,635,000. The proceeds were used to refund Series 2001, 2004 and 2009 wastewater revenue bonds and bear interest at a fixed rate of 2.86%. Principal payments are due annually on September 1 until 2029 at which time all outstanding principal is payable in full. Interest is payable on March 1 and September 1 of each year through 2029.

In November 2016, the Authority issued Series 2016 wastewater revenue bonds to a bank in an amount of \$10,000,000. The proceeds are being used to fund wastewater capital improvements in the lower keys. The bonds bear interest at a fixed rate of 1.72%. Principal payments are due annually on September 1 until 2036 at which time all outstanding principal is payable in full. Interest is payable on March 1 and September 1 of each year through 2036.

Wastewater revenue and revenue refunding bonds were issued under the Authority's Resolution No. 00-20 adopted October 18, 2000 and Resolution No. 01-25 adopted September 19, 2001. The payment of the principal and interest on these bonds is collateralized by a pledge of and lien upon the net revenues derived from the operation of the Authority's wastewater utility and other monies including investments held in certain accounts established by the bond resolution. Under the bond resolution, the Authority will fix, establish, maintain and collect the wastewater rates and revise the same from time to time, whenever necessary, that will always provide in each fiscal year, (a) net revenues adequate at all times to pay in each fiscal year at least one hundred ten percent (110%) of the annual debt service requirement becoming due in such fiscal year on each series of outstanding bonds or (b) net revenues, together with impact fees collected, adequate to pay at least one hundred twenty percent (120%) of the current annual debt service requirement becoming due in such fiscal year on the outstanding bonds. The rates will not be reduced to a level that would be insufficient to provide net revenues fully adequate for the purposes provided by the bond resolution.

Debt Service Requirements

For fiscal years 2019

SUMMARY OF OUTSTANDING PRINCIPAL OF LONG TERM DEBT

	Projected outstanding principal, 10/1/18	proceeds from issuance of debt	2019 budgeted principal payments	Projected outstanding principal, 9/30/19
Series 2007 water revenue bonds	\$ 2,060,000	\$ -	\$ -	\$ 2,060,000
Series 2008 water refunding and revenue bonds ^[1]	52,625,000	-	-	52,625,000
Series 2012 wastewater revenue bonds	4,605,000	-	355,000	4,250,000
Series 2013A water refunding bonds	12,700,000	-	2,565,000	10,135,000
Series 2013B water revenue bonds	6,880,000	-	325,000	6,555,000
Series 2014A water revenue bonds	2,400,000	-	115,000	2,285,000
Series 2015A water refunding bonds	34,560,000	-	-	34,560,000
Series 2015B water refunding bonds	15,600,000	-	855,000	14,745,000
Series 2016 wastewater revenue bonds	10,000,000	-	235,000	9,765,000
Total bonds	\$ 141,430,000	\$ -	\$ 4,450,000	\$ 136,980,000

SUMMARY OF DEBT SERVICE

	Fixed / Variable	Budgeted 2018 debt service			Budgeted 2019 debt service		
		Principal	Interest	Total	Principal	Interest	Total
Series 2007 water revenue bonds	Fixed	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Series 2008 water refunding and revenue bonds ^[1]	Variable	-	1,997,000	1,997,000	-	1,997,000	1,997,000
Series 2012 wastewater revenue bonds	Fixed	355,000	117,000	472,000	355,000	102,000	457,000
Series 2013A water refunding bonds	Fixed	2,510,000	169,000	2,679,000	2,565,000	128,000	2,693,000
Series 2013B water revenue bonds	Fixed	315,000	232,000	547,000	325,000	221,000	546,000
Series 2014A water revenue bonds	Fixed	110,000	81,000	191,000	115,000	77,000	192,000
Series 2015A water refunding bonds	Fixed	-	1,340,000	1,340,000	-	1,340,000	1,340,000
Series 2015B water revenue bonds	Fixed	835,000	414,000	1,249,000	855,000	393,000	1,248,000
Series 2016 wastewater revenue bonds	Fixed	220,000	169,000	389,000	235,000	166,000	401,000
Total bonds		\$ 4,345,000	\$ 4,519,000	\$ 8,864,000	\$ 4,450,000	\$ 4,424,000	\$ 8,874,000

^[1] Includes ancillary costs of remarketing and letter of credit fees

^[2] Assumes delivery date of October 1, 2018

Debt Service Coverage Analysis

For fiscal years 2019

PROJECTED DEBT SERVICE COVERAGE

	Budgeted 2018		Budgeted 2019	
	Water	Wastewater	Water	Wastewater
Revenue available for debt service				
Total operating revenue	\$ 51,540,000	\$ 9,177,000	\$ 55,024,000	\$ 9,562,000
Interest income-revenue funds	300,000	-	500,000	-
Other revenue available for debt service	510,000	-	526,000	-
Less operating expenses before depreciation	(36,817,400)	(7,536,200)	(39,066,600)	(8,094,600)
Net funds available for debt coverage	15,532,600	1,640,800	16,983,400	1,467,400
Debt service requirements	\$ 8,003,000	861,000	\$ 8,016,000	858,000
Coverage factor (minimum of 1.10 for water only)	1.94		2.12	
System development fees	\$ 1,000,000	\$ 138,000	\$ 1,000,000	\$ 138,000
Coverage factor with system development fees (minimum of 1.20)	2.07	2.07	2.24	1.87



Executive Division Summary

Administrative Division Summary

Customer Service Department Summary

Finance Department Summary

Human Resources Department Summary

Information Technology Department Summary

DEPARTMENTAL INFORMATION

Utility Operations Division Summary

Engineering Department Summary

Water Operations Department Summary

Wastewater Operations Department Summary

Position and Fleet Summary

Operating Expenditure Budget By Functional Unit

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Executive Division



EXECUTIVE DIVISION

Kirk Zuelch, Executive Director

Responsibilities and Budget Issues

The Executive division represents the executive branch of the organization, including the executive director, general counsel, internal auditor and support staff. The budget supports all external legal services, governmental liaison management audit costs and public information. Since the department employs several specialized, professional and senior level management positions, salaries are a substantial part of its budget.

DEPARTMENTS

Executive

Public Information

Executive Division Summary

For fiscal year 2019

Executive Division

KEY DEPARTMENT INDICATORS

	Actual 2017	Budgeted 2018	Budgeted 2019
Key department indicators			
Number of full time department employees budgeted	7	8	8
Positions budgeted last year that are eliminated	-	-	-
Positions transferred in (out)	-	1	-
Number of regular and special board meeting	14	14	14
Number of board workshop meetings	3	3	3
Number of board committee meetings	4	4	4
Number of public hearings	6	6	6

DEPARTMENTAL GOALS, OBJECTIVES, AND PERFORMANCE MEASURES

Provide leadership and support to all departments and divisions to ensure that the Authority provides safe, efficient, resilient and sustainable water and wastewater services in a fiscally responsible manner.

Evaluate the integration of Information technology processes system-wide to ensure optimization of water quality parameters, operations and maintenance activities, security measures, and customer service processes.

Initiate an evaluation and retooling of the FCAA’s Strategic Plan.

Enhance customer awareness and education programs with an emphasis on the value of water.

Strengthen partnerships and collaborations with agencies regulating wellfield protection activities.

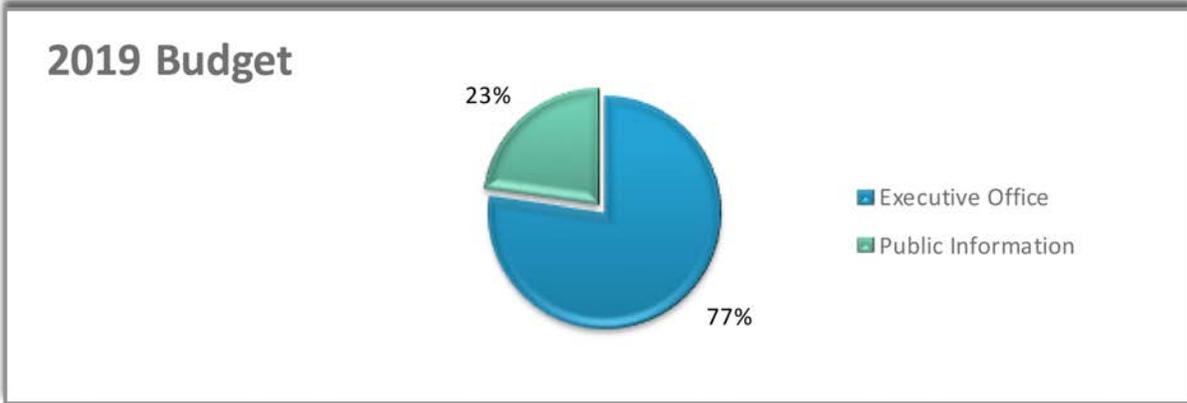
Develop an internal communications strategy.



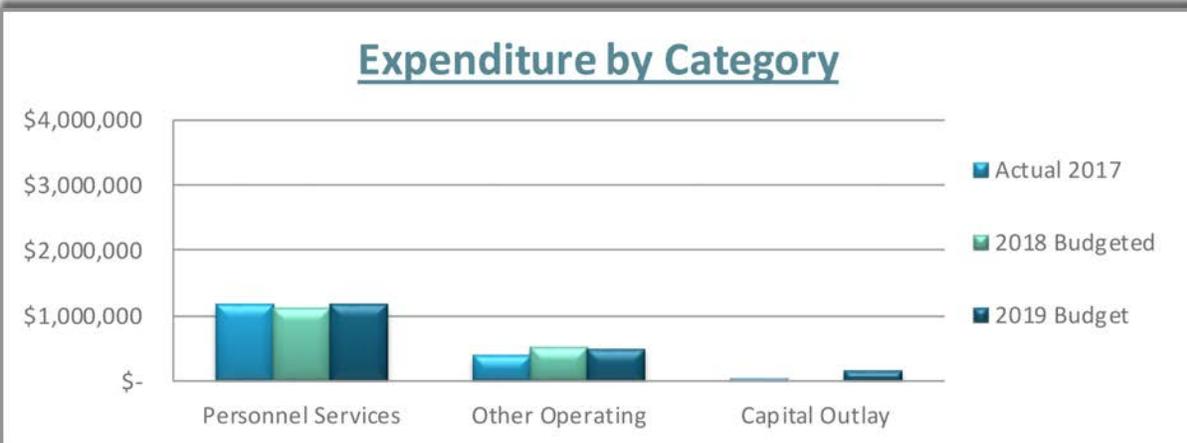
Executive Division Summary (continued)

For fiscal years 2019

Executive



Division	2019 Budget
Executive Office	\$ 1,413,700
Public Information	416,400
Total	\$ 1,830,100



Expenditure	Actual 2017	2018 Budgeted	2019 Budget
Personnel Services	\$ 1,161,949	\$ 1,119,200	\$ 1,182,400
Other Operating	387,126	513,800	487,700
Capital Outlay	8,216	-	160,000
Total	\$ 1,557,291	\$ 1,633,000	\$ 1,830,100

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Administration Division



ADMINISTRATION DIVISION

Kerry G. Shelby, Deputy Executive Director

Responsibilities and Budget Issues

The Administration Division is responsible for the business-type activities of the organization, including finance, human resources, customer service and technical services. The managers of these departments report directly to the Deputy Executive Director in charge of administration. The budgets, goals and indicators for these departments are discussed on the following pages.

DEPARTMENTS

Finance

Human Resources

Information Technology

Customer Service

Customer Service Department



ADMINISTRATION DIVISION

Responsibilities and Budget Issues

The Customer Service department establishes new accounts, receives and processes payments, researches customer inquiries, administers the contact center, collects meter readings for billing purposes, researches unusual consumption situations and handles service calls. The budget's largest component is salaries and benefits for adequate staff at three strategically located area offices.

DEPARTMENTAL TEAMS

Customer Service Key West and the Lower Keys

Customer Service Marathon and the Middle Keys

Customer Service Tavernier and the Upper Keys

Field Services Key West and the Lower Keys

Field Services Marathon and the Middle Keys

Field Services Tavernier and the Upper Keys

Customer Service Department Summary

For fiscal year 2019

Customer Service Department

KEY DEPARTMENT INDICATORS

	Actual 2017	Budgeted 2018	Budget 2019
Key department indicators			
Number of full time department employees budgeted	36	35	36
New positions not in prior year's budget	-	-	1
Positions budgeted last year that are eliminated	(4)	(4)	-
Positions transferred in (out)	-	-	-
Number of calls received from call center	87,000	85,000	86,000
Number of meters in service	52,000	52,000	53,000
Number of automated read meters	52,000	52,000	53,000
Number of data collection units	33	31	33
Number of delinquent service orders	2,600	3,900	2,500
Number of high consumption investigations	4,700	7,000	4,700
New meter installations (not including replacements)	400	500	500
Total field service orders	31,000	38,000	38,000
Number of zero read investigations	1,300	3,000	3,000
Number of MIU's changes	4,900	4,200	4,800

DEPARTMENTAL GOALS, OBJECTIVES, AND PERFORMANCE MEASURES

Pursue new processes, technologies and solutions to improve how we operate and better serve our customers and community.

Identify and foster the next generation of leaders through mentoring, professional development and educational opportunities.

Enhance customer service skills by providing employee training and certifications. i.e. Notary services, computer training, GPS training, etc.

Improve customer satisfaction through friendly, reliable, timely services and improve our customers understanding and confidence in our resources.

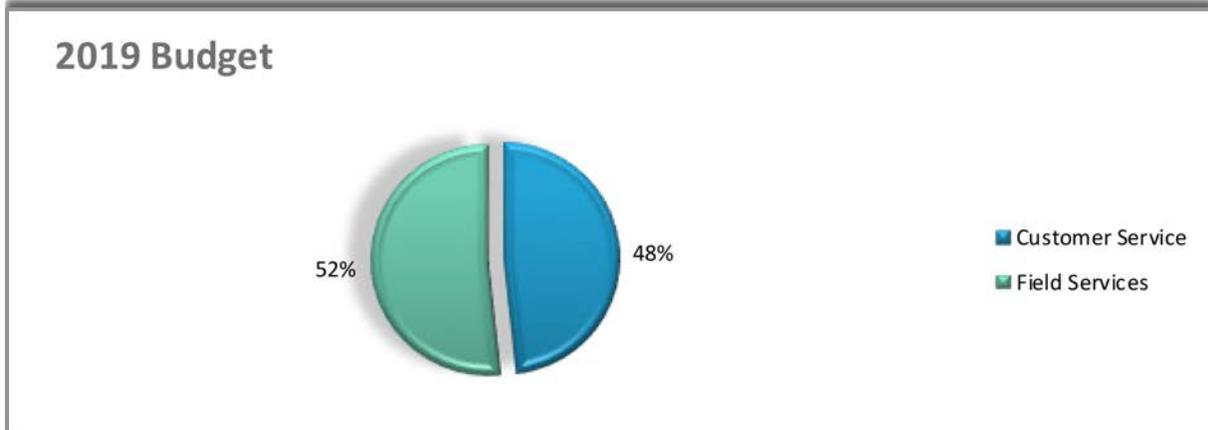
Actively mentor employees; promote and support training, continuing education, cross training (Backflow) and career development that aligns with our strategic needs.



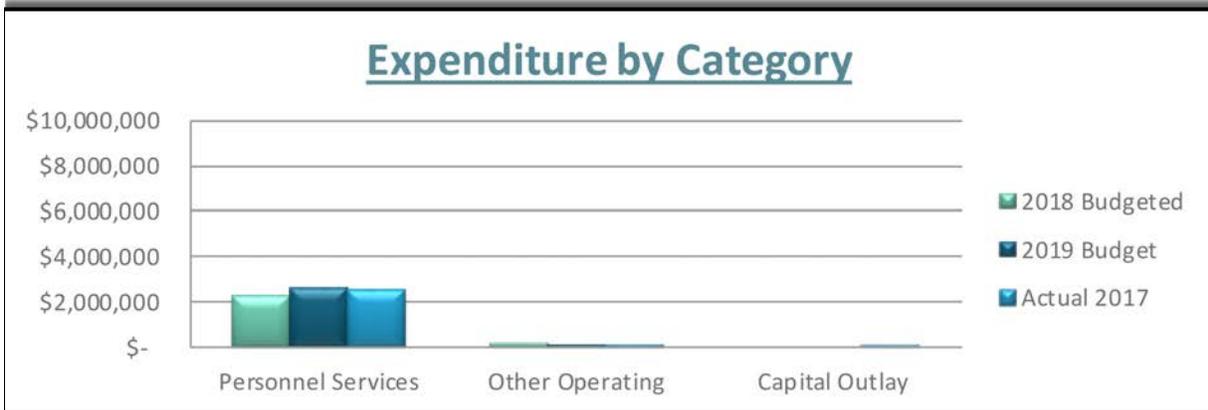
Customer Service Department Summary (continued)

For fiscal years 2019

Customer Service



Division	2019 Budget
Customer Service	1,318,900
Field Services	1,413,000
Total	\$ 2,731,900



Expenditure	Actual 2017	2018 Budgeted	2019 Budget
Personnel Services	\$ 2,581,441	\$ 2,315,700	\$ 2,602,100
Other Operating	136,094	171,500	129,800
Capital Outlay	30,500	-	-
Total	\$ 2,748,035	\$ 2,487,200	\$ 2,731,900

Finance Department



ADMINISTRATION DIVISION

Cindy Kondziela, Manager of Finance

Responsibilities and Budget Issues

The Finance department consists of finance, accounts receivable, purchasing and inventory, billing and records retention department. The department's budget supports contractual services for banking, investment services, financial and rate consultant fees and billing.

DEPARTMENTAL TEAMS

Finance

Billing

Records

Purchasing and Inventory

Finance Department Summary

For fiscal year 2019

Finance Department

KEY DEPARTMENT INDICATORS

	Actual 2017	Budgeted 2018	Budget 2019
Key department indicators			
Number of full time department employees budgeted	29	30	30
New positions not in prior year's budget	-	-	-
Positions transferred in (out)	-	1	-
Total bills/payments processed	609,270	600,000	610,000
Vendor payments	2,738	2,700	3,200
Customer deposit refunds	8,754	12,000	9,500
Number of purchase orders	1,648	1,670	1,680
Number of bids and RFps/RFQ's issued	20	20	25
Number of warehouses	5	5	5
Number of stock items	2,186	2,200	2,210

DEPARTMENTAL GOALS, OBJECTIVES, AND PERFORMANCE MEASURES

Expand electronic interaction capabilities to enhance customer experience and improve operational efficiencies, including interactive voice recognition, e-bill, payment kiosk and auto-pay.

Increase public awareness of excellent quality and value of tap water.

Continue to monitor debt structure to identify possible opportunities for cost savings.

Continue to monitor water and wastewater rates for sufficiency.

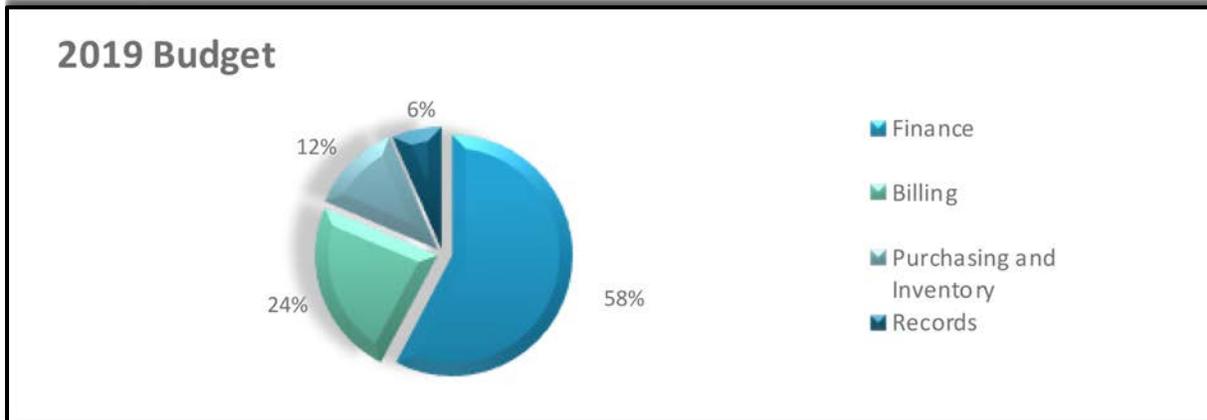
Continue to monitor internal processes to capitalize on staffing and monetary efficiencies.



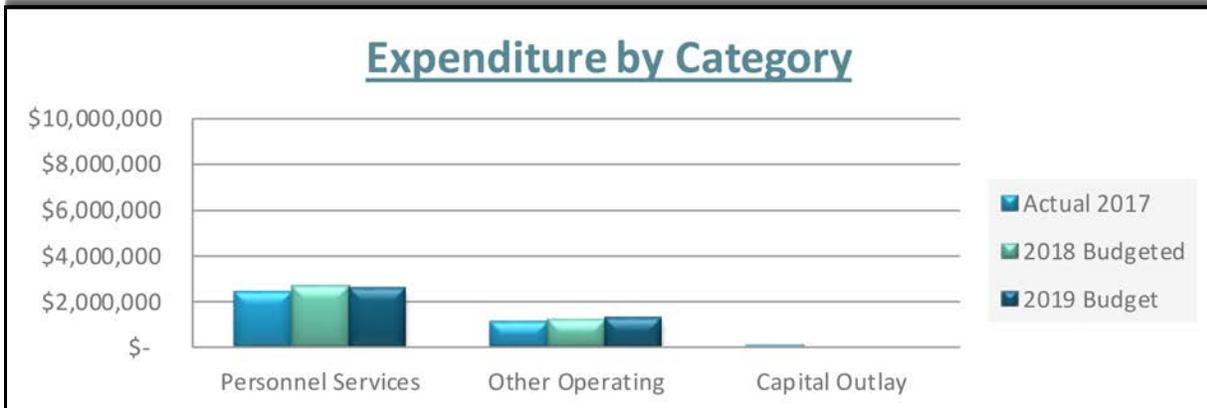
Finance Department Summary (continued)

For fiscal years 2019

Finance



Division	2019 Budget
Finance	2,213,200
Billing	910,500
Purchasing and Inventory	463,400
Records	248,800
Total	\$ 3,835,900



Expenditure	Actual 2017	2018 Budgeted	2019 Budget
Personnel Services	\$ 2,456,833	\$ 2,679,900	\$ 2,567,500
Other Operating	1,103,176	1,203,500	1,268,400
Capital Outlay	1,314	-	-
Total	\$ 3,561,323	\$ 3,883,400	\$ 3,835,900

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Human Resources Department



ADMINISTRATION DIVISION

Karen Rodriguez, Manager of Human Resources

Responsibilities and Budget Issues

The Human Resources department consists of human resources and risk management. The budget supports all personnel related programs as well as all types of insurance. The budget supports costs of recruitment, selection, orientation and retention of employees, employee health insurance (including estimated claims), workers' compensation insurance and property and liability insurance.

DEPARTMENTAL TEAMS

Human Resources

Risk Management

Human Resources Department Summary

For fiscal year 2019

Human Resources Department KEY DEPARTMENT INDICATORS

Key department indicators			
	Actual 2017	Budgeted 2018	Budget 2019
Number of full time department employees	4	4	4
Positions budgeted last year that are eliminated	-	-	-
Positions transferred in (out)	-	-	-
Number of student positions for the agency	1	3	3
Job postings for the organization	55	40	60
Number of applications received	577	500	1,000
Number of new hires	16	-	20
Number of resignations, retirements or terminations	16	-	20
Number of grievances filed	2	3	3
Number of arbitrations filed	-	2	2
Number of insurance claims (including workman's compensation and hurricane damage)	69	40	59
		-	-

DEPARTMENTAL GOALS, OBJECTIVES, AND PERFORMANCE MEASURES

Enhance employee communication and development by giving employees the tools they need to stay on top of their personal growth and development.

Financial optimization by continually analyzing insurance costs and documenting potential losses.

Train supervisors and employees throughout the system on how to use the many tools available to them within the ADP Workforce Now HR Program.

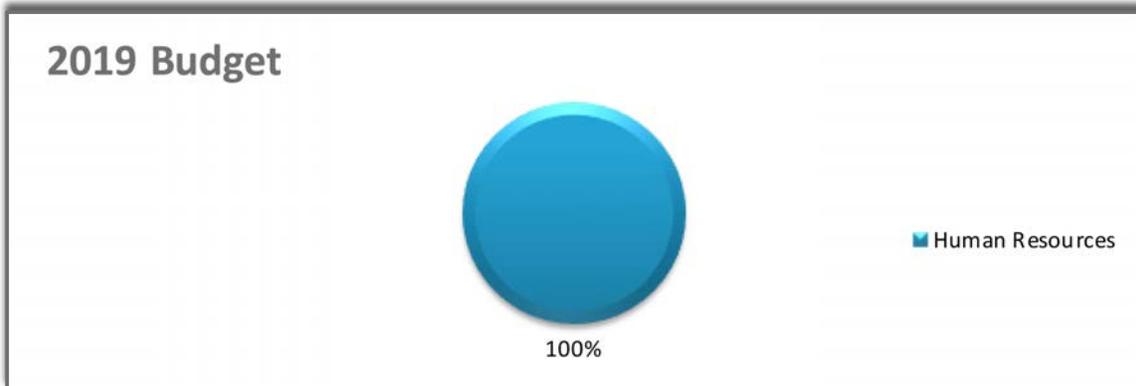
Fine tune the company property program in ADP to better track FCAA property issued to each employee and returned.



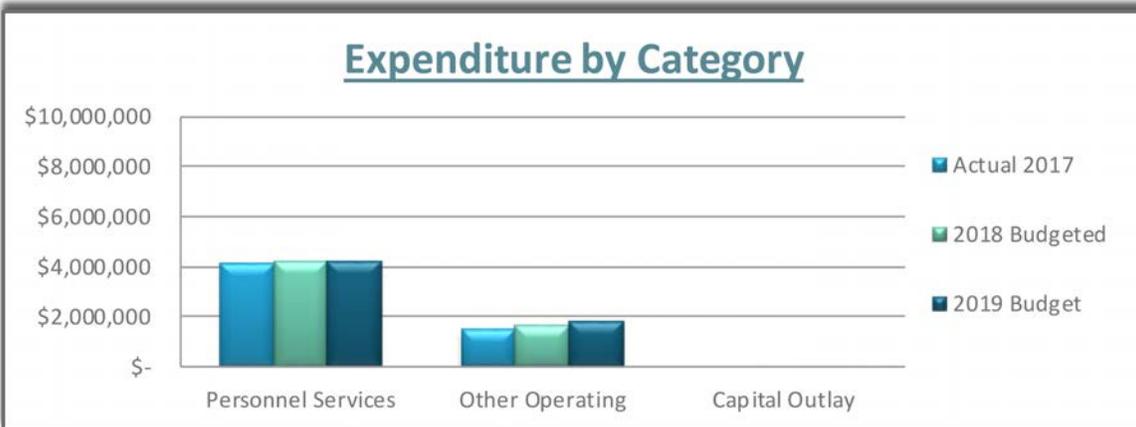
Human Resources Department Summary (continued)

For fiscal year 2019

Human Resources



Division	2019 Budget
Human Resources	\$ 6,047,900
Total	\$ 6,047,900



Expenditure	Actual 2017	2018 Budgeted	2019 Budget
Personnel Services	\$ 4,104,368	\$ 4,226,900	\$ 4,229,800
Other Operating	1,468,241	1,619,300	1,818,100
Capital Outlay	-	-	-
Total	\$ 5,572,609	\$ 5,846,200	\$ 6,047,900

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Information Technology Department



Responsibilities and Budget Issues

Information Technology is responsible for planning, designing, acquiring, building, operating and maintaining technical infrastructure and for developing jointly with management, technology policies, strategies, standards, guidelines, and architectural direction. The technical architecture includes data, applications, hardware, software, networks, security and control systems. The budget supports salaries for several specialized positions as well as software licensing and maintenance costs.

DEPARTMENTAL TEAM

Information Technology

Information Technology Department Summary

For fiscal year 2019

Information Technology Department

KEY DEPARTMENT INDICATORS

	Actual 2017	Budgeted 2018	Budget 2019
Key department indicators			
Number of full time department employees	-	11	11
New positions not in prior year's budget	-		
Positions budgeted last year that are eliminated	-	-	-
Positions transferred in (out)	-	(15)	-
Help desk requests	3,362	3,000	4,000
Number of work stations maintained	350	350	350
Number of servers maintained	115	115	115
Routers/switches maintained	100	100	100
PBX switches maintained	2	2	(2)
Telephones maintained (includes fax & cell)	400	175	175
Radios maintained	-	-	-
PLCs maintained	-	-	-
Printers	155	155	155

DEPARTMENTAL GOALS, OBJECTIVES, AND PERFORMANCE MEASURES

Keep everyone educated on the long- term cost of implementation of all systems.

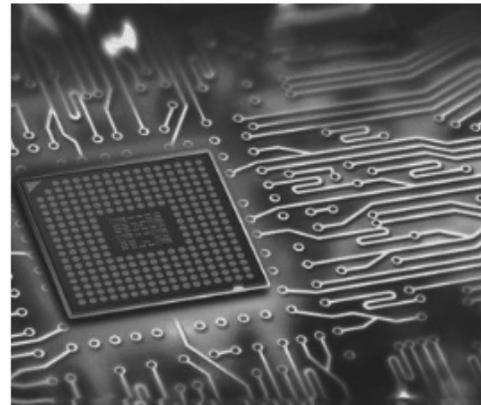
Continue mobility initiative to improve efficiencies.

Add redundancy to positions through formal and on-the-job training.

Continue to improve technologies.

Enhance network security to ensure utility safe operations.

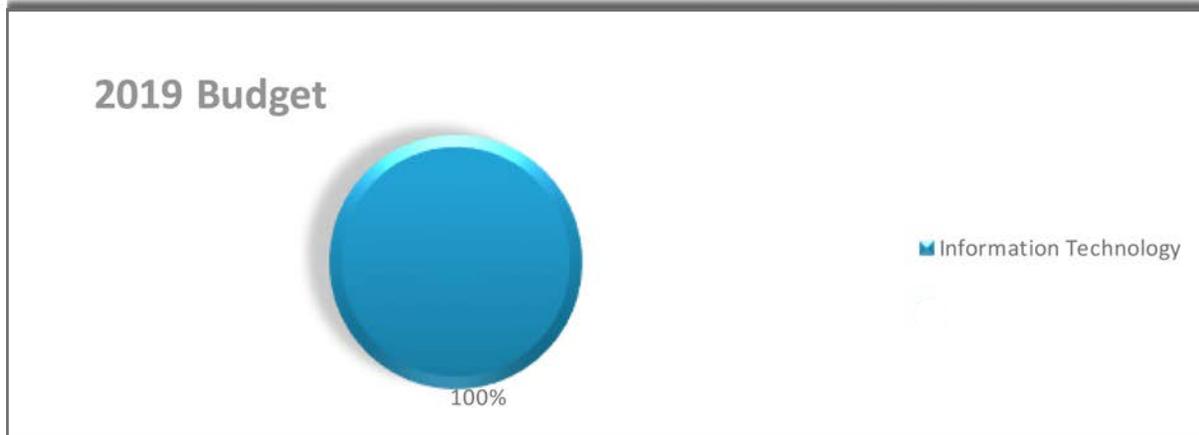
Develop a defensible utility and related infrastructure.



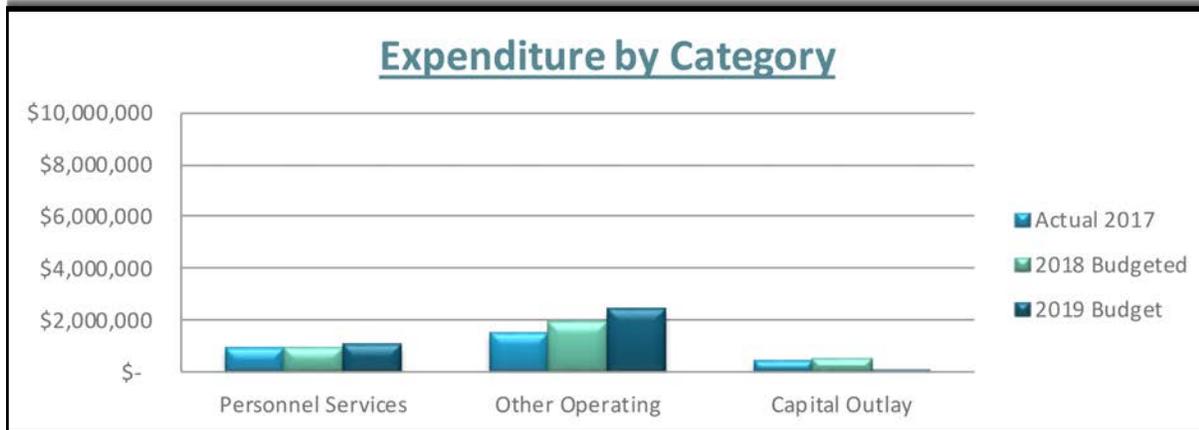
Information Technology Department Summary (continued)

For fiscal years 2019

Information Technology



Division	2019 Budget
Information Technology	\$ 3,556,700
Total	\$ 3,556,700



Expenditure	Actual 2017	2018 Budgeted	2019 Budget
Personnel Services	\$ 915,196	\$ 973,600	\$ 1,050,800
Other Operating	1,493,872	1,941,100	2,434,900
Capital Outlay	449,205	541,000	71,000
Total	\$ 2,858,273	\$ 3,455,700	\$ 3,556,700

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Utility Operations Division



Responsibilities and Budget Issues

The Utility Operations division is responsible for the operational activities of the organization, including engineering, plant operations and system maintenance. The managers of these departments report directly to the Deputy Executive Director in charge of utility operations. The budgets, goals and indicators for these departments discussed on the following pages.

DEPARTMENTS

Engineering

Water Operations

Wastewater Operations

Engineering Department



UTILITY OPERATIONS DIVISION

Jolynn Reynolds, Manager of Engineering

Responsibilities and Budget Issues

The Engineering Department consists of general engineering, contract management, water quality, design, and construction crew. The department's budget supports the development of capital project plans, project inspection, distribution project design and finished water testing, reporting and compliance, and wastewater project design and management. The department is responsible for designing, coordination and implementing the Authority's capital improvement budget, (see the Capital and Debt section) and developing future initiatives to maintain and improve system operations and sustainability. Future efforts will be concentrated on system renewal and replacement of aging assets and greenhouse footprint reduction.

DEPARTMENTAL TEAMS

General Engineering

Contract Management

Water Quality

Design

Water Data Management &
Loss Division

Construction Crew

Engineering Department Summary

For fiscal year 2019

Engineering Department

KEY DEPARTMENT INDICATORS

	Actual 2017	Budgeted 2018	Budget 2019
Key department indicators			
Number of full time department employees budgeted	41	44	45
New positions not in prior year's budget	1	2	-
Positions budgeted last year that are eliminated	-	1	-
Positions transferred in (out)	1	2	1
Number of construction design projects underway	12	12	14
Number of construction projects underway	10	12	14
Number of general engineering task orders	11	10	12
Number of fixture reviews	444	220	250
Number of plan reviews	61	80	90
Feet of designed distribution	55,890	53,115	42,080
Number of Fire line/hydrant	37	60	60
Number of backflow inspections completed	273	120	225
Number of backflow prevention tests	3,779	6,510	3,000
Number of water quality samples	15,234	15,600	16,800
Feet of distribution pipe installed by in-house crew	27,474	25,000	27,000
Number of meter change outs	1,395	3,125	2,000
Number of meter tests	1,530	3,125	2,000

DEPARTMENTAL GOALS, OBJECTIVES, AND PERFORMANCE MEASURES

Complete wastewater system projects in Monroe County.

Recover lost revenue and reduce lost water to meet industry goals.

Strengthen wellfield protection program by enforcing existing cooperative agreement with Miami-Dade.

Work with South Florida Water Management District on plans to prevent or mitigate saltwater intrusion.

Engage experts to assist with condition assessment and evaluation of the integrity of the utility system.

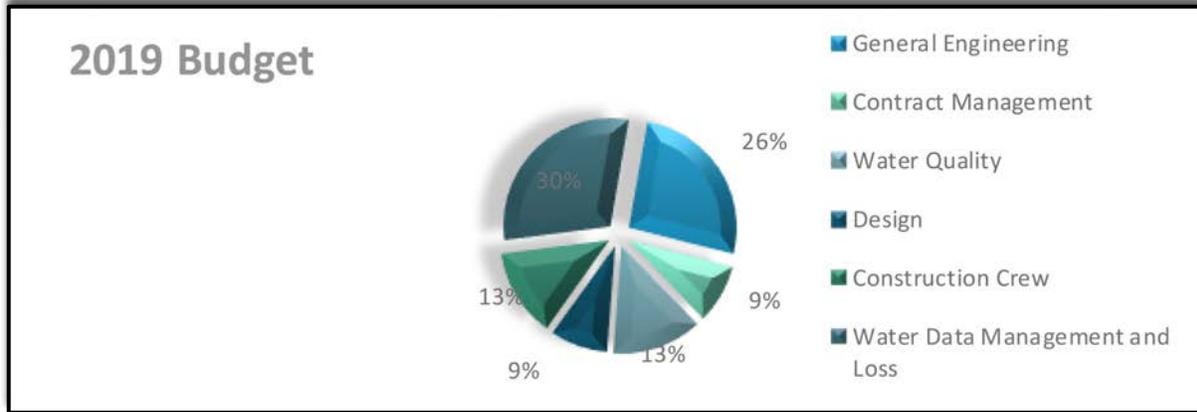
Develop and integrated and dynamic master plan to insure financial stability.



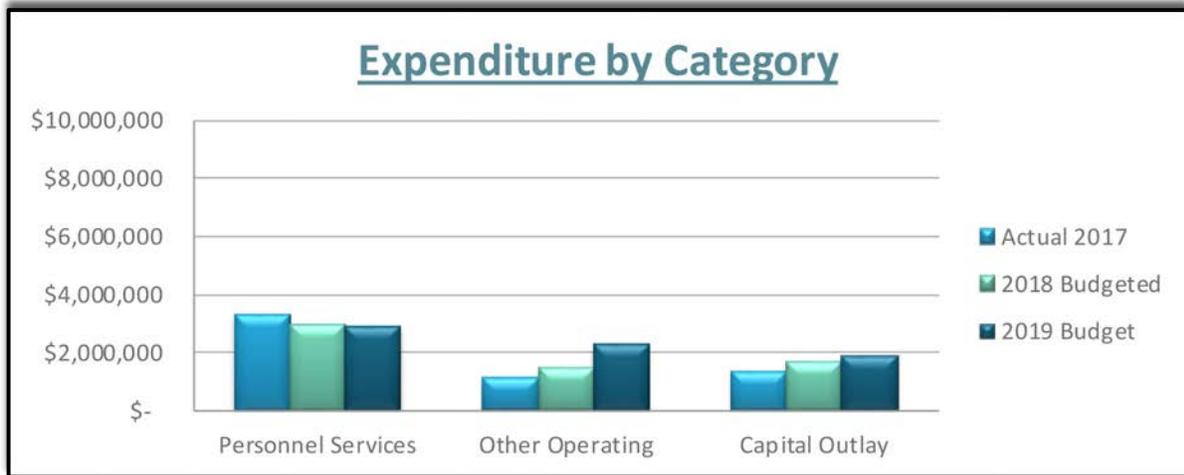
Engineering Department Summary (continued)

For fiscal years 2019

Engineering



Division	2019 Budget
General Engineering	\$ 1,856,000
Contract Management	632,800
Water Quality	940,900
Design	607,000
Construction Crew	938,300
Water Data Management and Loss	2,110,200
Total	\$ 7,085,200



Expenditure	Actual 2017	2018 Budgeted	2019 Budget
Personnel Services	\$ 3,336,120	\$ 2,949,200	\$ 2,932,400
Other Operating	1,133,304	1,475,700	2,288,200
Capital Outlay	1,342,601	1,679,600	1,864,600
Total	\$ 5,812,025	\$ 6,104,500	\$ 7,085,200

Water Operations Department



UTILITY OPERATIONS DIVISION

Tom Morgan, Water Operations Manager

Responsibilities and Budget Issues

The Operations department is charged with the operations and maintenance of the Authority's transmission, distribution, water treatment and source of supply facilities throughout the system as well as collection and treatment of wastewater. The department's budget provides funding to maintain crews in all parts of the Authority's 130-mile service area. The department is also responsible for the operation and maintenance of two seawater reverse osmosis plants, four wastewater treatment plants, fleet vehicles and heavy equipment. Salaries and benefits are the major driver of the department's budget, along with electricity, chemicals and non-routine maintenance projects.

DEPARTMENTAL TEAMS

Area 1 Distribution System Operations (Key West)
 Area 2 Distribution System Operations (Lower Keys)
 Area 3 Distribution System Operations (Marathon)
 Areas 1, 2 and 3 Transmission System Operations (Marathon)
 J. Robert Dean Water Treatment Facility (Florida City)

Area 4 Distribution System Operations (Key Largo/Islamorada)
 Area 5 Distribution System Operations (Ocean Reef)
 Areas 4 and 5 Transmission System Operations (Key Largo)
 Fleet Maintenance

Transmission System Control (Florida City)
 Middle Keys Emergency Water Supply Treatment Facility (Marathon)
 Lower Keys Emergency Water Supply Treatment Facility (Stock Island)
 Electrical and Instrumentation Technical Support

Water Operations Department Summary

For fiscal year 2019

Water Operations Department

KEY DEPARTMENT INDICATORS

	Actual 2017	Budgeted 2018	Budget 2019
Key department indicators			
Number of full time department employees	118	118	120
Positions budgeted last year that are eliminated	-	-	-
Positions transferred in (out)	(27)	(27)	-
Number of vehicles in the department	127	127	110
Water treated (billions of gallons)	6,454	6,454	6,454
Transmission line maintained (in feet)	987,360	987,360	987,360
Distribution lines maintained (in feet)	3,643,200	3,643,200	3,643,200
Reclaimed water lines maintained (feet)	19,000	19,000	19,000
Internal support service orders performed	100	100	100
Line locations performed	10,000	10,000	10,000
Water quality tests performed	82,050	82,050	82,050
Total fleet maintained	213	194	201

DEPARTMENTAL GOALS, OBJECTIVES, AND PERFORMANCE MEASURES

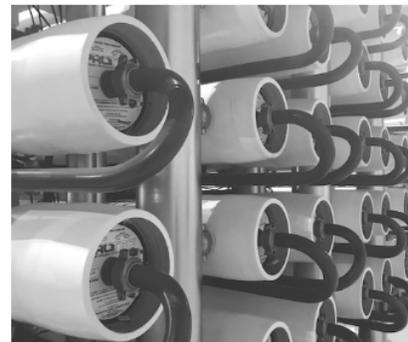
Continue to engage experts to assist with assessment of the integrity of the transmission system.

Continue the implementation of the Authority's new asset management system Cityworks.

Maximize effectiveness of existing RO plant on Stock Island.

Evaluate impact on operations from proposed Capital Improvement Plan (CIP) projects.

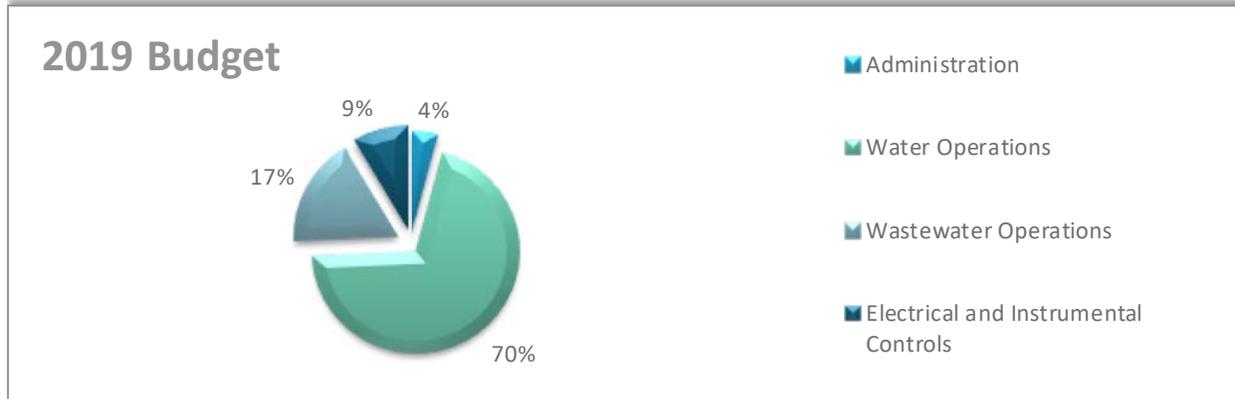
Meet and exceed all SDWA regulatory requirements.



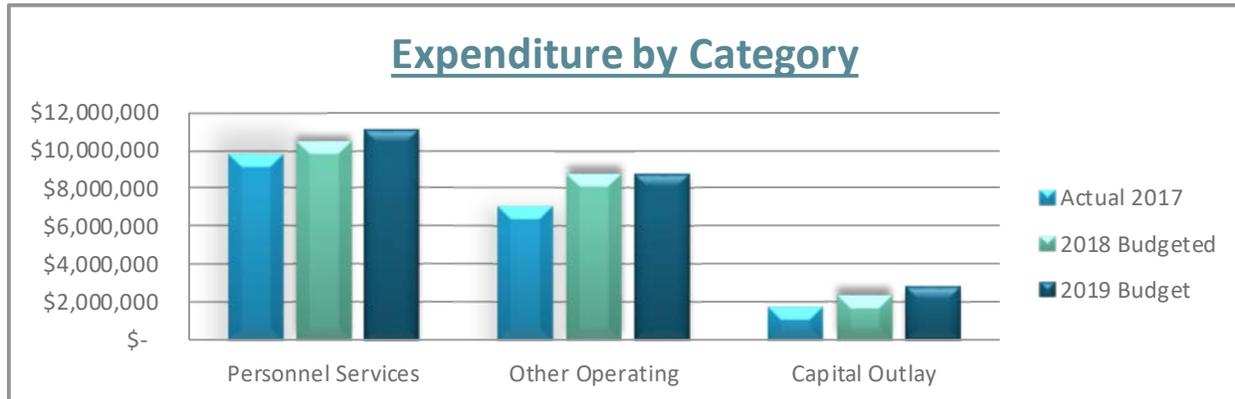
Water Operations Department Summary (continued)

For fiscal years 2019

Water Operations



Division	2019 Budget
Administration	\$ 1,126,700
Water Operations	19,135,000
Wastewater Operations	4,687,000
Electrical and Instrumental Controls	2,323,900
Total	\$ 27,272,600



Expenditure	Actual 2017	2018 Budgeted	2019 Budget
Personnel Services	\$ 9,797,824	\$ 10,443,400	\$ 11,026,800
Other Operating	7,002,607	8,758,400	8,778,500
Capital Outlay	1,764,426	2,335,200	2,780,300
Total	\$ 18,564,857	\$ 21,537,000	\$ 22,585,600

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Wastewater Operations Department



UTILITY OPERATIONS DIVISION

Jay Miller, Wastewater Operations Manager

Responsibilities and Budget Issues

The Wastewater Operations department's primary objective is to provide safe and effective treatment and conveyance of wastewater, thus enabling The Aqueduct to convert it into an effluent that can be safely redistributed or returned to the water cycle with minimal impact on the environment. The budget supports the operation and maintenance of wastewater treatment facilities and collection systems along with training, licensing and salaries for staff.

DEPARTMENTAL TEAMS

Wastewater Treatment Plant - Bay Point
Bay Point Collection
Big Coppitt Wastewater Treatment
Big Coppitt Collection
Key Haven Wastewater Treatment
Key Haven Collection

Cudjoe Regional Wastewater Treatment
Cudjoe Regional Collection
Navy Wastewater Systems (Collection and Treatment)
Wastewater Treatment Plant - Duck Key

Wastewater Operations and Maintenance
Duck Key Collection
Wastewater Treatment Plant - Layton
Layton Collection

Wastewater Operations Department Summary

For fiscal year 2019

Wastewater Operations Department

KEY DEPARTMENT INDICATORS

	Actual 2017	Budgeted 2018	Budget 2019
Key department indicators			
Number of full time department employees	23	26	32
Positions budgeted last year that are eliminated	-	-	-
Positions transferred in (out)	-	-	5
Number of vehicles in the department	21	21	24
Wastewater treatment plants operated	7	7	7
Reclaimed water pump stations operated	2	2	2

DEPARTMENTAL GOALS, OBJECTIVES, AND PERFORMANCE MEASURES

Continue to allocate staff resources to implement Monroe County wastewater systems.

Continue to progress with the contractually proposed wastewater repairs and upgrades for all Navy facilities.

Continue to grow the Wastewater Department in a measured and responsible fashion that meets the needs of our customers while also benefitting the organization.

Maintain numbers below FDEP mandated parameters at all wastewater facilities.

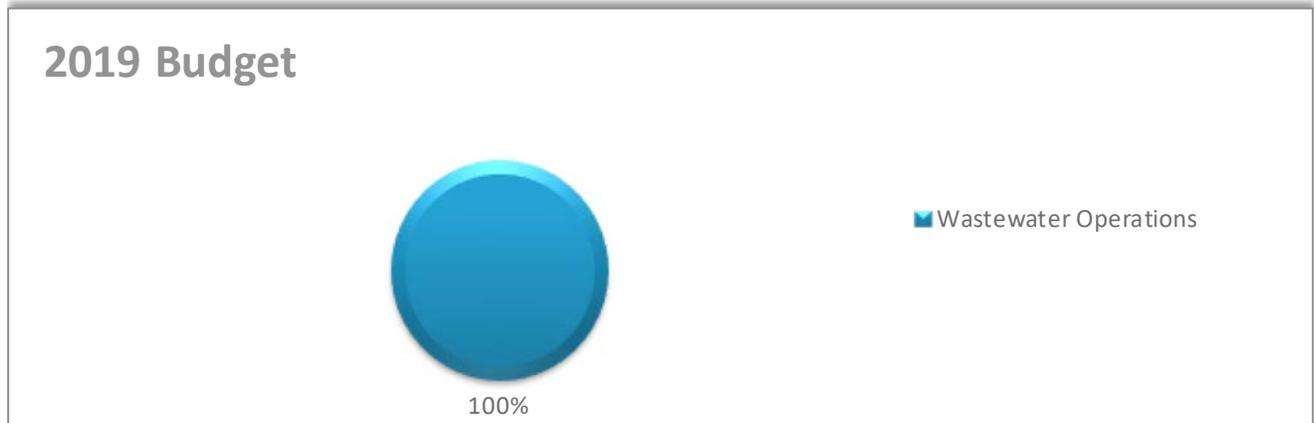
Complete the transition to ezDMR reporting for all wastewater facilities.



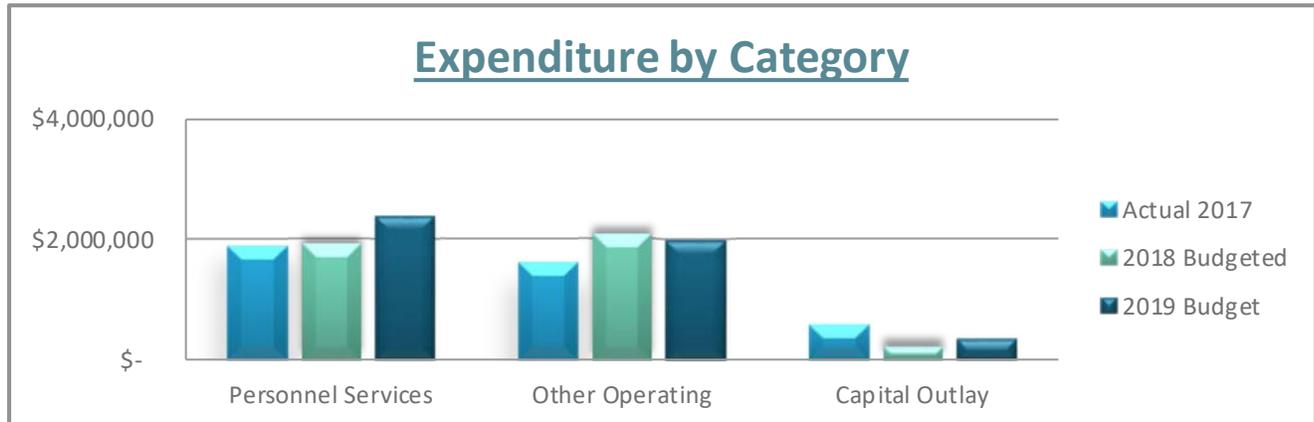
Wastewater Operations Department Summary (continued)

For fiscal years 2019

Wastewater Operations



Division	2019 Budget
Wastewater Operations	4,687,000
Total	\$ 4,687,000



Expenditure	Actual 2017	2018 Budgeted	2019 Budget
Personnel Services	\$ 1,863,667	\$ 1,898,700	\$ 2,395,000
Other Operating	1,598,339	2,063,700	1,968,800
Capital Outlay	583,619	210,300	323,200
Total	\$ 4,045,625	\$ 4,172,700	\$ 4,687,000

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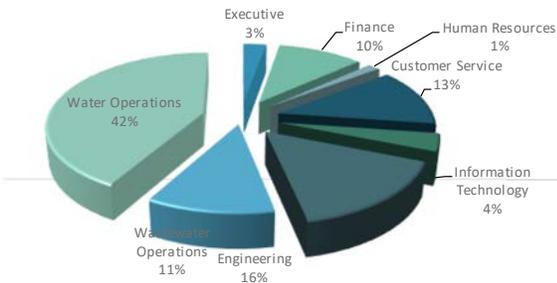
Position and Fleet

For fiscal years 2019

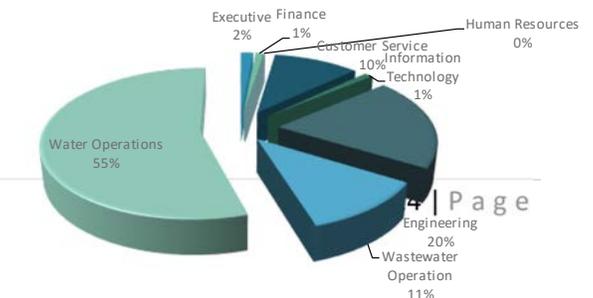
Positions	Executive	Finance	Human Resources	Customer Service	Information Technology	Engineering	Wastewater Operations	Water Operations	Total
Budgeted positions in 2017	8	29	4	39	26	41	26	101	274
New positions									
Engineer						1			1
WW Maintenance Mechanic C								3	3
Leak Control Tech B						1			1
Application Support Specialist					1				1
Meter Technician & Billing Analyst		1							1
Asset management system manager								1	1
Transferred positions									
Advanced Metering Specialist					(1)				(1)
GIS Tech Support Specialist					(1)	1			
Technical Services Group					(14)	1		14	1
Eliminated positions									
Assistant Manager of Engineering									
Manager of Customer Service				(1)		(1)			(2)
Customer Service Representative				(1)					(1)
Field Representatives				(2)					(2)
Budgeted positions in 2018	8	30	4	35	11	44	26	119	277
New positions									
Field Representative				1					1
Distribution System Operator								2	2
Wastewater Maintenance Mechanic							5		5
Field Office Clerical Assistant							1		1
Contract Field Representative						1			1
Journeyman Electrician								1	1
Transferred positions									
GIS Coordinator						1		(1)	
Eliminated positions									
Advanced Metering Specialist						(1)			(1)
Water Treatment Plant Manager								(1)	(1)
Budgeted positions in 2019	8	30	4	36	11	45	32	120	286

Fleet	Executive	Finance	Human Resources	Customer Service	Information Technology	Engineering	Wastewater Operation	Water Operations	Total
Budgeted vehicles in 2017	3	2	-	21	18	38		110	192
Added vehicles									
Bucket Truck								1	1
Dump truck								1	1
Eliminated vehicles									
None									
Transferred vehicles									
GIS Tech Support Specialist					(1)	1			
Electrical vehicles					(15)			15	
Budgeted vehicles in 2018	3	2	-	21	2	39	-	127	194
Added vehicles									
Truck with crane							2	2	4
Bridge truck								1	1
Electrical van								1	1
Inspector SUV						1			1
Eliminated vehicles									
None									
Transferred vehicles									
Wastewater							21	(21)	
Budgeted vehicles in 2019	3	2	-	21	2	40	23	110	201

BUDGETED POSITIONS BY DEPARTMENT



BUDGETED VEHICLES BY DEPARTMENT



Operating Expenditure By Functional Unit

For fiscal years 2019

	Cost center budgets	Total department budget	Capitalized salaries and outlay	Total operating budget	Change from previous year budget
<u>Executive Division</u>					
Executive Office	\$ 1,413,700		\$ -		
Public Information	416,400		(160,000)		
Totals		1,830,100	(160,000)	1,670,100	2.3%
<u>Finance Department</u>					
Finance	2,213,200		-		
Billing	910,500		-		
Purchasing and Inventory	463,400		-		
Records	248,800				
Totals		3,835,900	-	3,835,900	-1.2%
<u>Human Resources Department</u>					
Human Resources	6,047,900		-		
Totals		6,047,900	-	6,047,900	3.5%
<u>Customer Service Department</u>					
Customer Service	1,318,900		-		
Field Services	1,413,000		-		
Totals		2,731,900	-	2,731,900	9.8%
<u>Information Technology Department</u>					
Information Technology	3,556,700		(71,000)		
Totals		3,556,700	(71,000)	3,485,700	19.6%
<u>Engineering Department</u>					
General Engineering	1,856,000		(209,400)		
Contract Management	632,800		(387,400)		
Water Quality	940,900		-		
Design	607,000		(138,300)		
Construction Crew	938,300		(509,500)		
Water Data Management and Loss	2,110,200		(620,000)		
Totals		7,085,200	(1,864,600)	5,220,600	18.0%
<u>Operations Department</u>					
Operations Administration	1,126,700		-		
Water Operations	19,135,000		(2,780,300)		
Wastewater Operations	4,687,000		(323,200)		
Electrical and Instrumental Controls	2,323,900		(25,600)		
Totals		27,272,600	(3,129,100)	24,143,500	13.3%
Grand Totals		\$ 52,360,300	\$ (5,224,700)	47,135,600	6.33%



GLOSSARY

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Glossary of Terms and Acronyms

For fiscal years 2019

Accrual Basis of Accounting - The recording of expenses or charges incurred but not paid and revenue earned but not received within the same period. This method is intended to match revenue and expenses independent of the dates on which settlements of such items are made.

Amortization - The spreading of costs over time, usually the life of an intangible asset or the term of a debt.

Annual Water Rate Index - The formula by which the Authority annually adjusts the base facility charge and the consumption charge to reflect inflationary increases in the cost of providing services.

Assessment – A charge or special assessment (sometimes characterized as a non-ad valorem assessment) imposed by the Authority to fund the capital cost of utility improvements or the operating cost of related services.

Authority – Represents the Florida Keys Aqueduct Authority, unless a different intent clearly appears from the context.

AWWA - The American Water Works Association, an international water association of which the Authority is a member.

Balanced Budget – A budget with revenues equal to expenditures.

Biscayne Aquifer – An underground aquifer that serves as the Authority’s primary water source.

Bond - An interest-bearing certificate of debt; a written contract by the issuer to pay to the lender a fixed principal amount on a stated future date, and a series of interest payments (usually semiannually) during its life.

Capital Asset – An asset having a useful life of more than one year, and costing \$1,500 or more which includes additions, improvements, or replacements to buildings, facilities, land, and structures.

Capital Budget - The portion of the Budget devoted to the construction of new utility plant (additions, improvements, and replacements) and expenditures for the purchase or acquisition of existing utility plant facilities and capital assets.

Consumptive Use Permit – A permit issued by the South Florida Water Management District that regulates the amount of water that can be withdrawn from its water source.

Collection System – A system of pipes, manholes, pumps, etc. that collects wastewater and delivers it to a treatment plant.

Debt Service – The amounts necessary to pay principal, interest and other financing fees.

Depreciation - The specific allocation of the cost of a fixed asset due to usage or the passage of time. Depreciation is a non-cash expense and is not a budgeted expenditure. However, it must be considered in rate development to assure that the rates are sufficient to recover the cost of the asset.

DERM – Miami-Dade County Department of Environmental Resource Management, an agency that contracts with the Authority to monitor its wellfield for contaminants.

Glossary of Terms and Acronyms (continued)

For fiscal years 2019

Enterprise Fund – A fund used to account for the business activities of a government. The Authority’s utility activities are accounted for in a single enterprise fund.

Expense – A use of financial resources to acquire goods or services consumed in a single year’s current operation.

Fiscal Year – A 12-month period that determines the time frame for the financial budget. At the end of the fiscal year, the financial position and results of operations are determined. The Authority’s fiscal year runs from October 1 through September 30.

FKAA or the Authority – Florida Keys Aqueduct Authority

Fleet – Any vehicle that requires a license for operation on a public highway, such as automobiles, trucks, vans, tractors, etc. Fleet does not refer to heavy equipment.

FSAWWA – The Florida section of the American Water Works Association, a state water association of which the Authority is a member

GAAP – Generally Accepted Accounting Principles

GFOA – Government Finance Officers Association

GIS – Geographic information system

MGD or mgd – Million gallons per day. Term usually used to define capacity of water and wastewater systems and their production.

Operating Expenses – Labor, materials and other expenses incurred for production, transmission and distribution of water, customer service, administrative overhead and other general expenses.

Potable Water – Water that meets all requirements and regulations for human consumption.

PSI – Pounds per square inch.

Reclaimed Water – Wastewater that has been treated and is available to reuse for irrigation or other non-potable purposes.

Revenue Bond – A bond that is payable from the revenue generated from the operation of the Utility. Any other revenue the Board of Directors decides to pledge can also secure a revenue bond.

Reverse Osmosis – A process through which chlorides are removed from ground water or sea water.

Service Area – The area within which water and wastewater service is provided. The Authority’s service area includes that section of Monroe County, Florida located in the Florida Keys.

SDWA – Federal Safe Drinking Water Act

FWMD – The South Florida Water Management District, a water use regulator that issues the Authority’s consumptive use permit.

Glossary fo Terms and Acronyms (continued)

For fiscal years 2019

Strategic Planning – The process used to determine the Authority’s mission, vision, values, goals, objectives, roles and responsibilities, etc.

Transmission Force Mains – Pipes through with water is forcibly pumped under pressure to deliver it to distribution systems. The transmission line is usually under much higher pressure than a distribution line.