

FLORIDA KEYS AQUEDUCT AUTHORITY

BOARD OF DIRECTORS' MEETING

Open to the Public

Keys Energy Services
1001 James Street
Key West, Florida 33040

Wednesday, June 27, 2018
10:00 a.m.

PUBLIC HEARING

Presentation on Proposed Budget for Fiscal Year 2019 and Proposed Water Rate Increase

REGULAR MEETING AGENDA

INVOCATION

PLEDGE OF ALLEGIANCE

APPROVAL OF MINUTES

May 22, 2018 Budget Workshop
May 23, 2018 Regular Board Meeting

ADDITIONS/DELETIONS TO AGENDA

ACCEPTANCE OF AGENDA

CONSENT AGENDA ITEMS

OFFICE OF COUNSEL

1. [OOC – 01](#). Consideration to approve payment to Allen, Norton & Blue, PA for May 2018 (\$662.80)

DIVISION OF UTILITY OPERATIONS

2. [DUO – 01](#). Consideration to approve to extend Bid # FKAA-IFB-0010-17, Anhydrous

Note: The Board of Directors does allow time for comments from the public, who have completed sign-in cards, on any Agenda Item or any specific areas of concern. Individuals will be allotted 3 minutes to make presentation. Representatives from established groups will be allotted 5 minutes to make presentation.

- Ammonia from Airgas Specialty Products, for one additional year for use at the J. Robert Dean Water Treatment Plant (\$71,040.00 estimated)
3. **DUO – 02.** Consideration to approve the sole source purchase of seven water storage tank vents from ARC3 Corporation (\$54,346.00 estimated)
 4. **DUO – 03.** Consideration to approve Award Bid #: FKAA-IFB-0010-18, Two-Year Contract for the removal of lime sludge from the J. Robert Dean Water Treatment Plant (\$93,000.00)

REGULAR AGENDA ITEMS

EXECUTIVE DEPARTMENT

- EO – 01.** Executive Director’s Report
- Florida Power and Light Update
 - Key West Administration Building Update
 - Hurricane Preparedness
 - Consumer Confidence Report

DIVISION OF ADMINISTRATION

- DOA – 01.** Summary of Financial Information for October 2017 through May 2018
- DOA – 02.** Summary of Contractual Commitments through May 31, 2018
- DOA – 03.** Consideration to declare surplus equipment with a total book value (\$183,881.32)
- DOA – 04.** Consideration to approve the purchase of three Fly-Away Emergency Satellite Systems (\$91,934.80)

DIVISION OF UTILITY OPERATIONS

- DUO – 01.** Consideration to approve a design wind load and conceptual exterior design style for the new Key West Administration Building
- DUO – 02.** Status Report on Cudjoe Regional Wastewater Project
- DUO – 03.** Consideration to approve contract with Carollo Engineers, Inc. to provide design engineering services and bidding assistance for Project # 1152-17 Phase 111-Key Largo to Ocean Reef Transmission Watermain Replacement (\$69,001.00)
- DUO – 04.** Consideration to approve amendment to Water Science Associates agreement for professional hydrogeology services related to groundwater impacts associated with FPL’s cooling canal system (\$125,000.00)
- DUO – 05.** Consideration to approve contract with Black & Veatch Corporation to conduct a facility planning assessment for Project # 1150-17 Stock Island Reverse Osmosis upgrades (\$174,879.00)
- DUO – 06.** Consideration to approve payment of FY 2017 annual fee for Miami-Dade County Department of Environmental Resource Management (DERM) Wellfield Protection Program (\$174,477.00)
- DUO – 07.** Consideration to approve addendum 1 of contract with Carollo Engineers, Inc. to provide design engineering services and bidding assistance for Project # 1154-17-

- Grassy Key Transmission Main Replacement (\$206,050.00)
- DUO – 08.** Consideration to approve change order #2 for Project # 4067-16 with Key Honey LLC for the reconciliation of Schedule A contract items for Middle/Big Torch Key LPSS and quantity and price adjustments for miscellaneous items on Schedule B, LPS Continuing Services (\$354,947.00)

BOARD OF DIRECTORS

- BOD – 01.** Internal Compliance Audit update as of June 27, 2018
- BOD – 02.** Board of Directors Discussion

BOARD OF DIRECTORS, FLORIDA KEYS AQUEDUCT AUTHORITY

AGENDA ITEM SUMMARY

AGENDA ITEM: DOA- TAB: _____ CONSENT: REGULAR:

MEETING DATE: June 27, 2018 DIVISION: Administration

AGENDA TITLE:

Public hearing #1 for proposed 2019 budget.

ITEM BACKGROUND:

Three public hearings are required prior to budget adoption in August of 2018.

PREVIOUS RELEVANT ACTION BY FCAA BOARD OF DIRECTORS:

STAFF RECOMMENDATION (MOTION):

SUPPLEMENTAL INFORMATION:

Proposed 2019 budget document attached.

DOCUMENTATION: Included: To-Follow: Not Required:

Cost to FCAA: \$ _____ BUDGETED: Yes No
Cost to Others: \$ _____
Total Cost: \$ _____

DEPARTMENT: _____ **DEPARTMENT MANAGER APPROVAL:** _____

Kerry Shelby
Digitally signed by Kerry Shelby
Date: 2018.06.15 10:51:18 -04'00'

DIVISION DEPUTY EXECUTIVE DIRECTOR APPROVAL: _____

Reviewed by: Internal Auditor: [Signature] General Counsel: [Signature] Executive Director: [Signature]

BOARD ACTION:

Approved: Tabled: Disapproved: Recommendation Revised:

Comments: _____

Date: _____ Recording Clerk: _____

FLORIDA KEYS AQUEDUCT AUTHORITY

2019 BUDGET & FINANCIAL PLAN



WWW.FKAA.COM

Florida Keys Aqueduct Authority's Budget and Financial Plan 2019

This page is intentionally left blank




FLORIDA KEYS
AQUEDUCT AUTHORITY

BUDGET AND FINANCIAL PLAN 2019

 305.296.2454

 www.fkaa.com

 1100 Kennedy Dr,

 Key West, FL 33040

This page is intentionally left blank



Table of Contents
Board of Directors
Message from Executive Director
Vision, Mission, Values and Guiding Principles
Strategic Goals, Initiatives and Implementation Strategies
Other Planning Processes and Their Impact on the Budget
Profile of the Florida Keys

INTRODUCTION AND OVERVIEW

Demographic and Economic Information
System Overview
Profile of the Authority
Budget Highlights, Issues and Priorities
How Each Dollar of the Budget Will Be Spent

This page is intentionally left blank

Table of Contents

Introductory and Overview

- 9 Table of Contents
- 11 Board of Directors
- 12 Message from the Executive Director
- 13 Vision, Mission, Values and Guiding Principles
- 15 Strategic Goals, Initiatives and Implementation Strategies
- 16 Other Planning Processes and their Impact on the Budget
- 17 Profile of the Florida Keys
- 20 Demographic and Economic Information
- 25 System Overview
- 26 Profile of the Authority
- 33 Budget Highlights, Issues and Priorities
- 35 How Each Dollar of the Budget Will Be Spent

Financial Structure, Policies and Process

- 38 Organization Chart
- 39 Contact Information
- 40 Financial Policies that Impact the Budget
- 43 Budget Process

Financial Summaries

- 48 Summary of Budgeted Sources and Uses
- 49 Summary of Revenue Sources
- 50 Rate Structure
- 52 Operating Expenditure Budget by Expenditure Type
- Five -year Financial Plan
 - 53 Projected Changes in Net Position
 - 53 Projected Sources and Uses of Funds
 - 54 Projected Revenue and Contributions
 - 55 Five Year Capital Improvement and Capital Financing Plan
 - 56 Projected New Debt Issues and Debt Service
 - 57 Projected Debt Service Coverage
 - 58 Estimated Rate Adjustments and Average Monthly Bill

Capital and Debt

- 61 Capital Improvement Budget
- 62 Project Summaries
- 64 Capital Outlay Budget Detail
- 68 Capital Financing Plan Summary
- 70 Debt Service Requirements
- 70 Summary of Outstanding Principal of Long Term Debt
- 70 Summary of Debt Service
- 71 Debt Service Coverage Analysis

Departmental Information

- 74 Executive Division Summary
- 77 Administration Division Summary
- 78 Customer Service Department Summary
- 81 Finance Department Summary
- 85 Human Resources Department Summary
- 88 Information Technology Department Summary
- 92 Utilities Operations Division Summary
- 93 Engineering Department Summary
- 96 Water Operations Department Summary
- 100 Wastewater Operations Department Summary
- 103 Position and Fleet Summary
- 104 Operating Expenditure Budget by Functional Unit

Glossary

- 107 Glossary of Terms and Acronyms

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 1, 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 S. Zuelch".

Kirk Zuelch
Executive Director

August 1, 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.



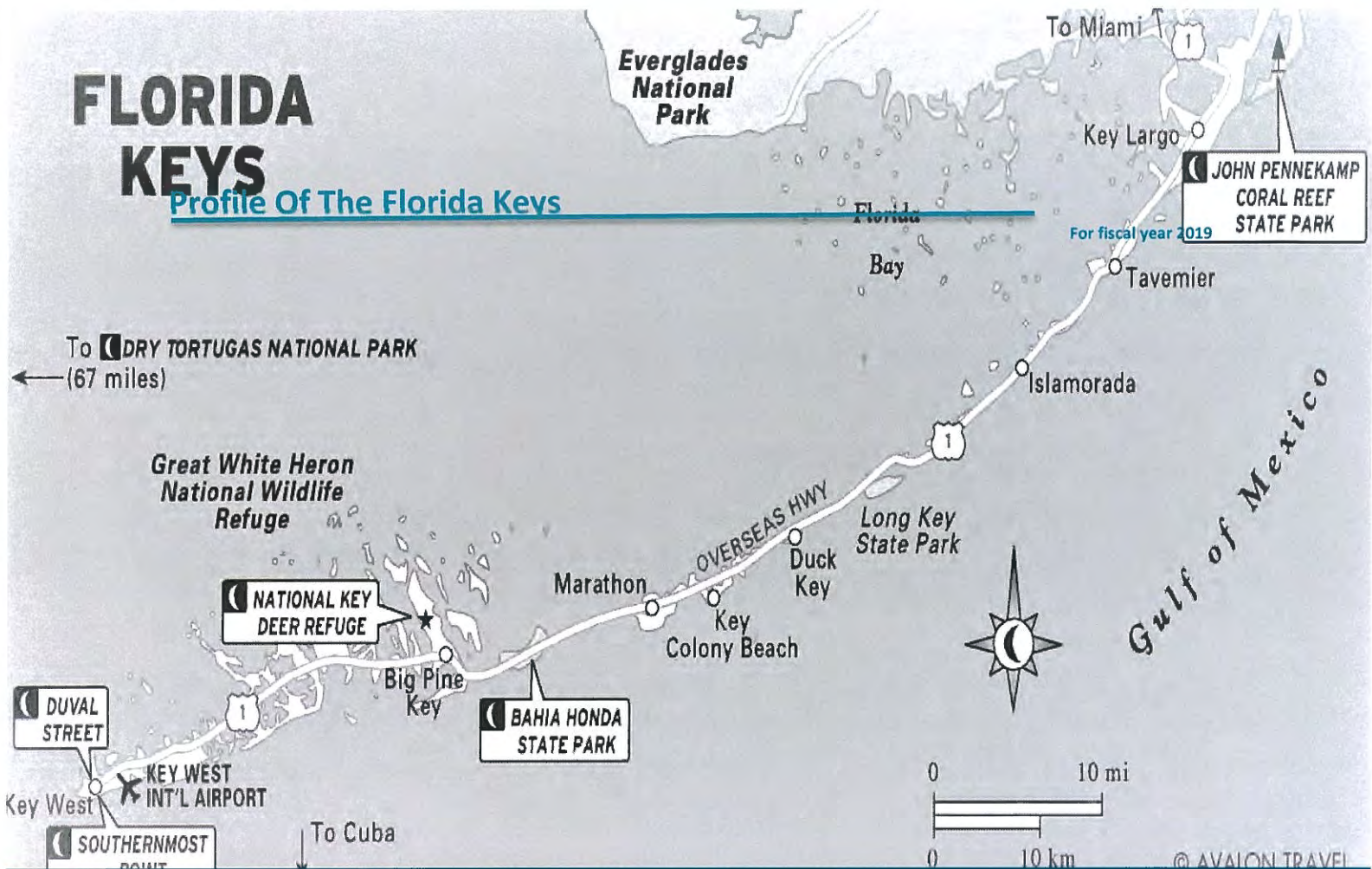
Other Planning Processes And Their Impact On The Budget

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.

Profile of The Florida Keys (continued)

For fiscal year 2019



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

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

160

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

90

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

5

KEY WEST'S EARLIER SPANISH NAME WAS CAYO HUESO



FKAA

FKAA.COM

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

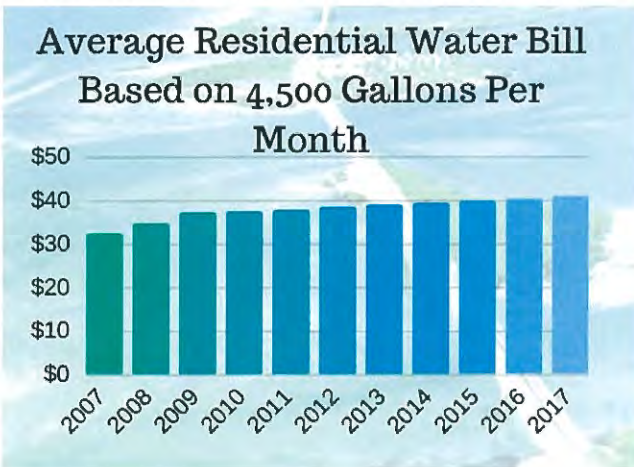
Demographic and Economic Information (continued)

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

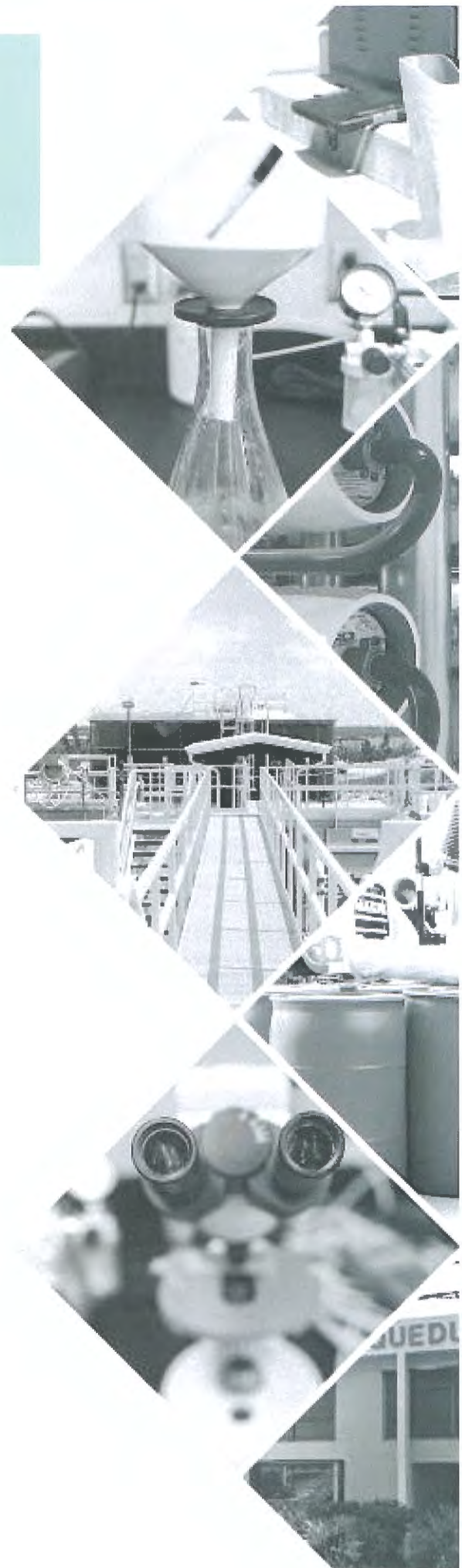
690 MILES OF POTABLE WATER
DISTRIBUTION MAIN AT UP TO 55 PSI

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.



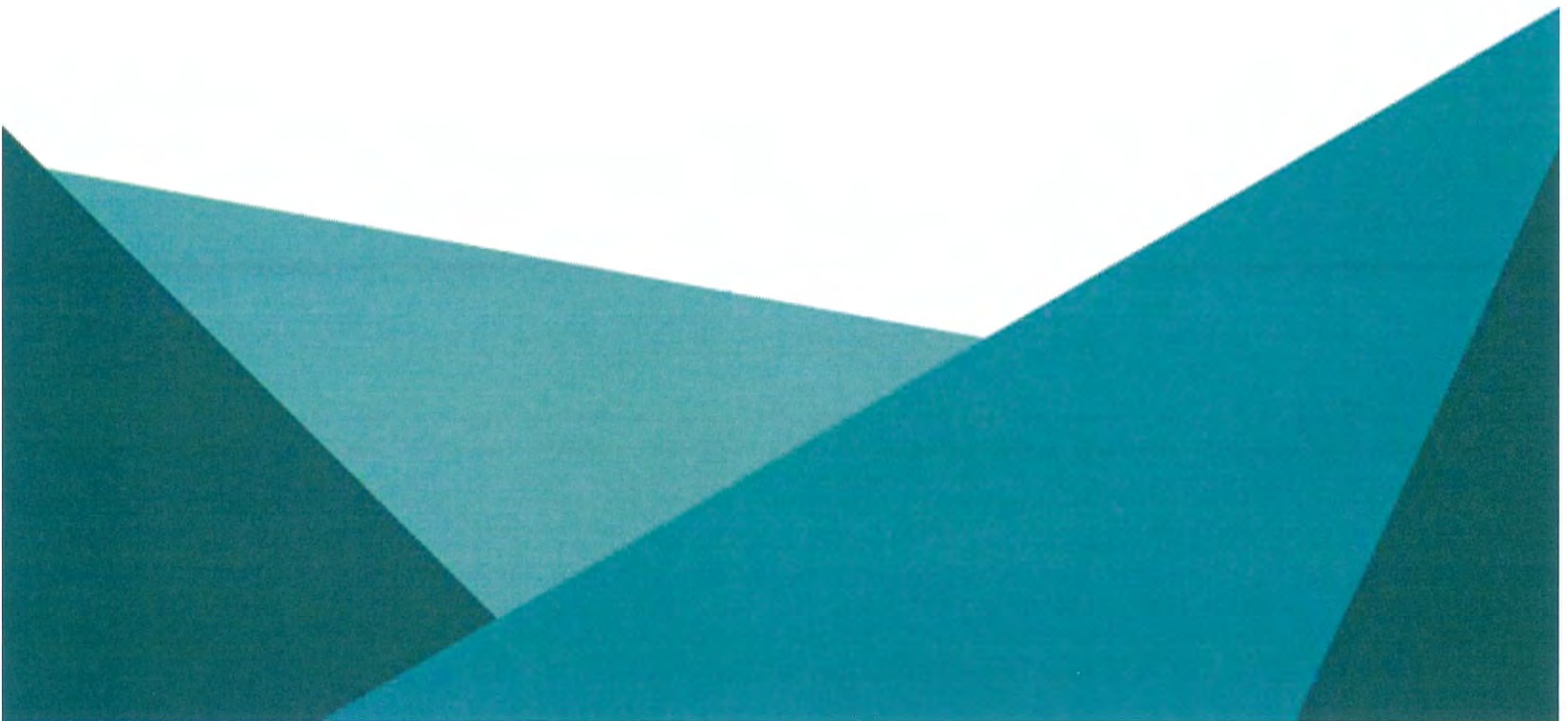
Profile of the Authority (continued)

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.

The remainder of this page is intentionally left blank



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 1940s

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

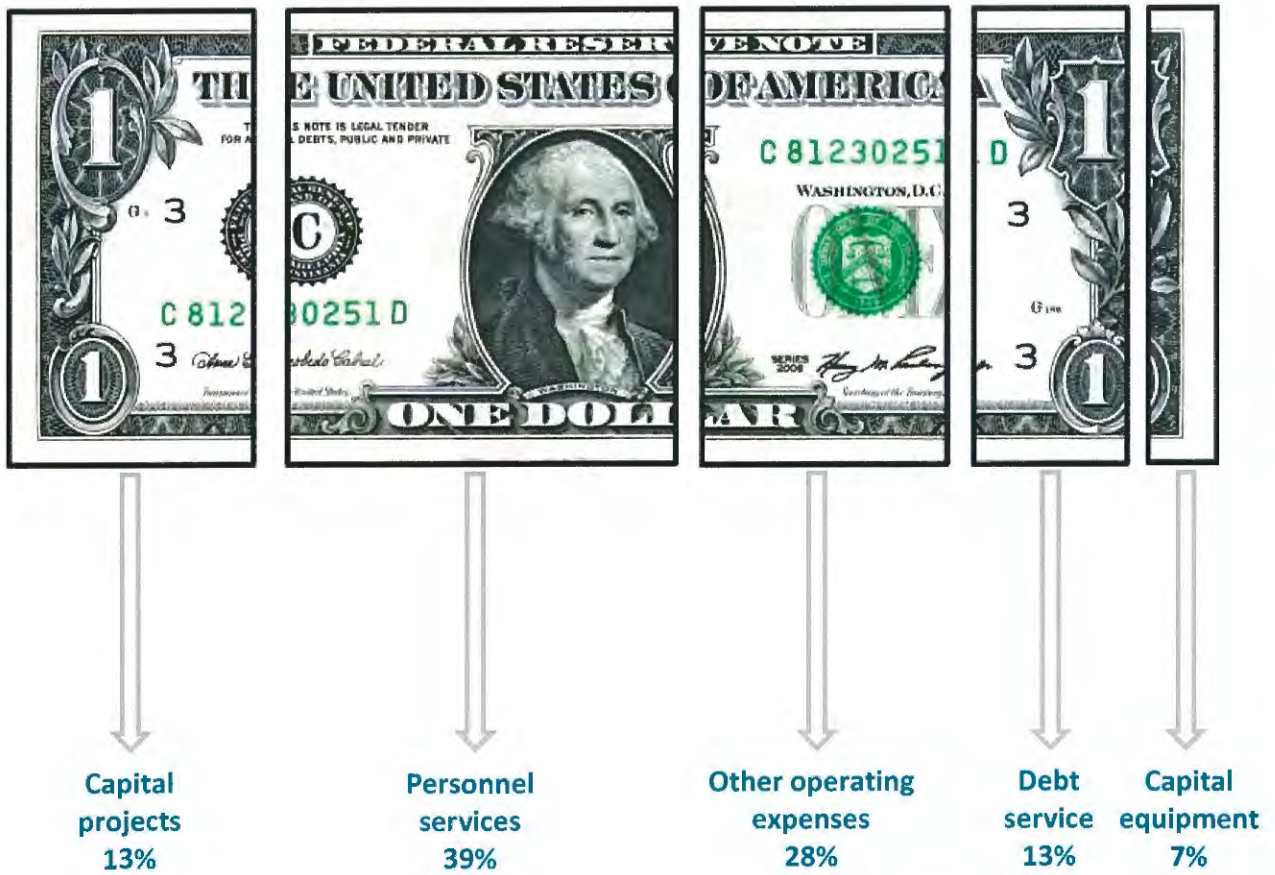
The 2019 capital improvement plan is centered around projects that are critical to sustaining continued reliable operations. The 2019 portion of the plan calls for \$9,563,500 in capital expenditures and includes costs for distribution and transmission line replacements in areas identified as vulnerable 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



This page is intentionally left blank



FINANCIAL STRUCTURE, POLICIES AND PROCESS

Organization Chart

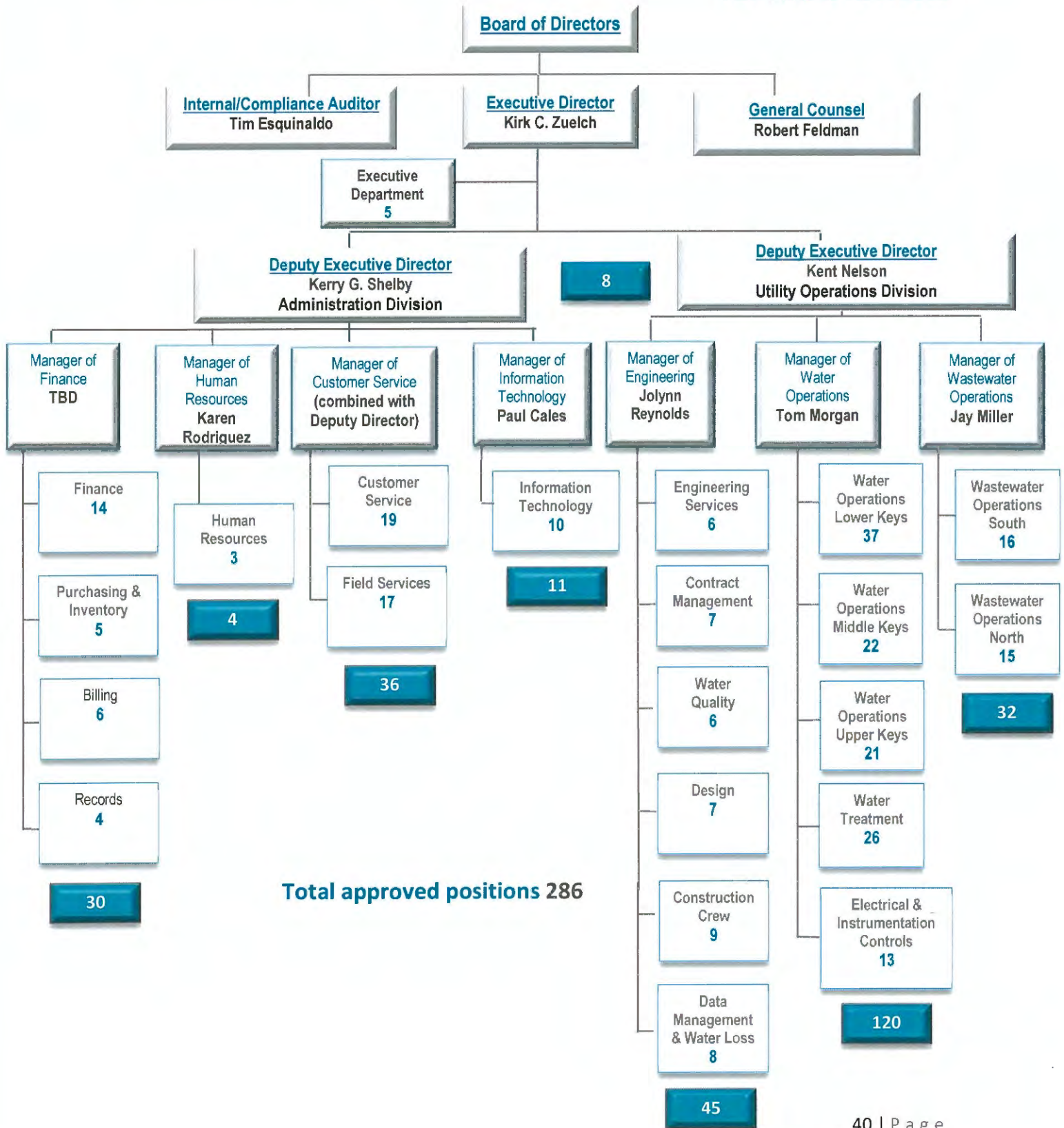
Financial Policies that Impact the Budget

Budget Process

This page is intentionally left blank

ORGANIZATION CHART

FOR FISCAL YEAR 2019



CONTACT INFORMATION

FOR FISCAL YEAR 2018

Executive Division

Kirk C. Zuelch, Executive Director

kzuelch@fkaa.com . 305-295-2204 .

Robert Feldman, General Counsel

rfeldman@fkaa.com . 305-295-2201 .

Tim Esquinaldo, Internal Auditor

tesquinaldo@fkaa.com . 305-295-2206 .

Administration Division

Kerry G. Shelby, Deputy Executive Director of Administration

kshelby@fkaa.com . 305-295-2230 .

Manager of Finance, TBD

TBD@fkaa.com . 305-- .

Karen Rodriguez, Manager of Human Resources

krodriguez@fkaa.com . 305-295-2210 .

Paul Cales, Manager of Information Technology

pcales@fkaa.com . 305-295-2121 .

Utility Operations Division

Kent Nelson, Deputy Executive Director of Utility Operations

knelson@fkaa.com . 305-295-2140 .

Tom Morgan, Manager of Water Operations

tmorgan@fkaa.com . 305-295-6357 .

Jay Miller, Manager of Wastewater Operations

jmiller@fkaa.com . 305-809-2623 .

Jolynn Reynolds, Manager of Engineering

jreynolds@fkaa.com . 305-295-2141 .

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

Remainder of this page intentionally left blank

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 adopted												

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			
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	
March 2018							July 2017							
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					
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		

Informal input from our Board of Directors, staff and customer's year around. Prepare budget sheets for distribution to Departments.

May 22th budget workshop

In February, Departments are working on their budgets.

June 27th, 1st budget public hearing Key West

Week 3 budget meetings with Deputy Executive Director

July 25th, 2nd budget public hearing Marathon

Week 4 budget meetings with Executive Director

April 18th CIP workshop

August 22nd, 3rd and final budget public hearing Tavernier. Budget adoption planned for regular board meeting agenda.

April 25th first budget workshop



FINANCIAL SUMMARIES

Summary of Budget Sources and Uses

Summary of Revenue Sources

Rate Structure

Operating Budget By Expenditure Type

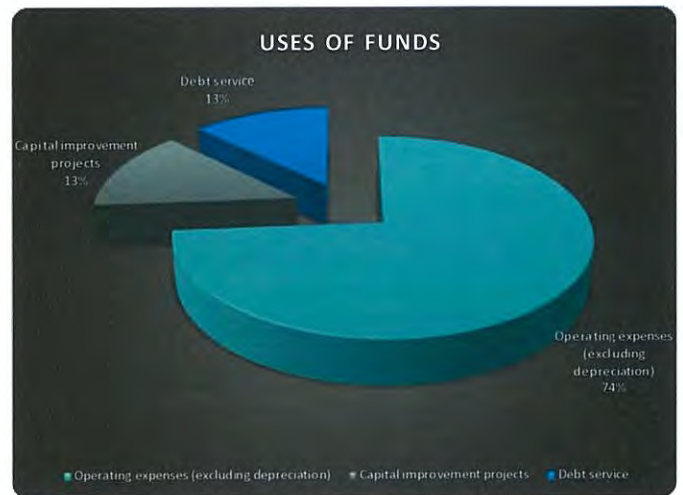
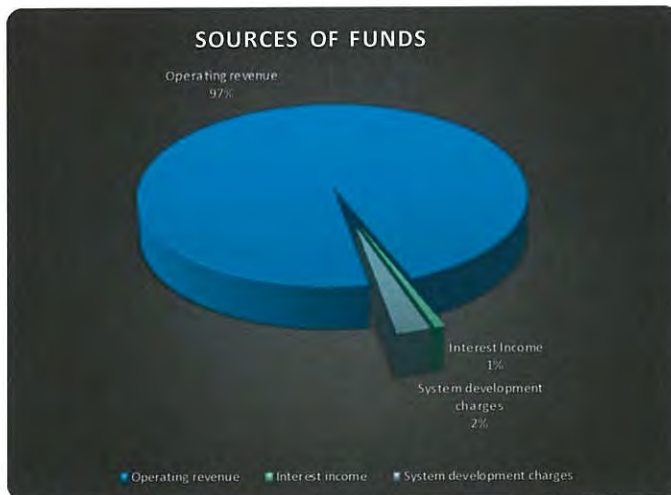
Five-Year Financial Plan

This page is intentionally left blank

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	\$ 54,436,000	\$ 9,452,000	\$ 63,888,000	5.2%
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	1,522,000	138,000	1,660,000	0.7%
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	56,458,000	9,590,000	66,048,000	5.4%
Total budgeted uses of funds								
Operating expenditures (excluding depreciation)	44,762,359	40,747,600	8,372,100	49,119,700	43,745,100	8,379,600	52,124,700	6.1%
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	60,591,100	9,971,100	70,562,200	-5.0%
Excess (deficit) sources over uses	2,306,669	(5,800,600)	(5,768,100)	(11,568,700)	(4,133,100)	(381,100)	(4,514,200)	
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)	(4,133,100)	(381,100)	(4,514,200)	
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	33,792,900	758,900	34,551,800	-11.6%
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	\$ 5,860,900	\$ 687,900	\$ 6,548,800	29.0%



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	\$ 49,295,000		\$ 49,295,000		\$ 2,830,000		6.1%
US Navy water rate revenue	1,455,590	1,031,000		1,031,000	1,094,000		1,094,000		63,000		6.1%
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	60,000		60,000		3,000		5.3%
Retail wastewater rate revenue	6,734,720		7,713,000	7,713,000		\$ 7,944,000	7,944,000		231,000		3.0%
US Navy wastewater revenue	1,464,000		1,464,000	1,464,000		1,508,000	1,508,000		44,000		3.0%
Total fees for service	59,803,068	50,040,000	9,177,000	59,217,000	52,936,000	9,452,000	62,388,000		3,171,000		5.4%
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	54,436,000	9,452,000	63,888,000		3,171,000		5.2%
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	402,000	-	402,000		12,000		3.1%
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	1,022,000	-	1,022,000		212,000		26.2%
Total budgeted revenue	62,678,086	52,350,000	9,177,000	61,527,000	55,458,000	9,452,000	64,910,000		3,383,000		5.5%
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	\$ 56,458,000	\$ 9,590,000	\$ 66,048,000		\$ 3,383,000		5.4%

Budget assumptions:

Water volume sales Increase	0.0%	0.0%
Rate inflation index	3.0%	3.0%
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		
¾-inch or ¾-inch	\$ 14.40	\$ 15.28
1-inch	36.01	38.20
1½-inch	72.00	76.38
2-inch	115.20	122.22
3-inch	215.99	229.14
4-inch	357.38	379.14
6-inch	721.33	765.26
8-inch	1,151.89	1,222.04
Consumption charge ^[1]		
Block 1	\$ 6.05	\$ 6.42
Block 2	8.83	9.37
Block 3	9.90	10.50
Block 4	11.05	11.72
Block 5	12.13	12.87
Reclaimed Water Rates		
Consumption charge ^[1]		
Block 1	\$ 3.03	\$ 3.21
Block 2	4.42	4.68
Block 3	4.95	5.25
Block 4	5.53	5.86
Block 5	6.07	6.43

Rate Structure (continued)

For fiscal year 2019

	Rates in effect on October 1, 2017	After October 1, 2018 index
Wastewater Rates		
Base facilities charge		
5/8-inch or 3/4-inch	\$ 24.66	\$ 25.40
1-inch	92.51	95.29
1½-inch	185.03	190.58
2-inch	296.06	304.94
3-inch	555.09	571.74
4-inch	925.14	952.89
6-inch	1,851.19	1,906.73
8-inch	2,536.63	2,612.73
Flow collection charge		
Residential (up to 10,000 gallons)	\$ 9.33	\$ 9.61
Non-residential (all consumption)	9.33	9.61

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.

The remainder of this page is intentionally left blank

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	1,022,600	-	1,022,600	(11,200)	-1%
Capitalized overtime	-	49,144	-	-	-	-	-	-
Total operating capital expenditures	4,323,700	4,179,881	4,766,100	4,864,900	323,200	5,188,100	422,000	8.9%
Operating expenses								
Personnel services								
Salaries	18,265,100	17,968,482	18,932,100	17,782,400	1,881,700	19,664,100	732,000	4%
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	1,874,000	171,800	2,045,800	248,400	14%
Payroll taxes	1,517,000	1,482,522	1,564,500	1,471,400	155,400	1,626,800	62,300	4%
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	25,388,900	2,373,300	27,762,200	1,155,600	4.3%
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	\$ 42,594,500	\$ 4,342,100	\$ 46,936,600	\$ 2,583,000	5.8%
Allocation of administrative expenses				\$ (3,714,300)	\$ 3,714,300			
Total operating expenses after allocation	42,154,600	40,540,157	44,353,600	38,880,200	8,056,400	46,936,600	2,583,000	5.8%
Total operating budget	\$ 46,478,300	\$ 44,720,038	\$ 49,119,700	\$ 43,745,100	\$ 8,379,600	\$ 52,124,700	\$ 3,005,000	6.1%

Net comparative 2018 budget after adjustments for new and discontinued operations

\$ 52,124,700 \$ 3,005,000 6.1%

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	\$ 67,030,000	\$ 72,590,000	\$ 74,354,000	\$ 76,162,000
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	19,624,000	24,710,000	25,995,000	27,319,000
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)	(6,512,000)	(6,513,000)	(8,739,000)	(8,728,000)
Projected net income before depreciation	13,549,400	13,840,000	19,031,000	18,096,000	19,437,000
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	14,978,000	20,169,000	19,234,000	20,575,000
Projected beginning net position	146,500,000	145,587,400	145,165,400	149,834,400	153,568,400
Projected net position before depreciation	161,187,400	160,665,400	165,334,400	169,068,400	174,143,400
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	\$ 145,165,400	\$ 149,834,400	\$ 153,568,400	\$ 158,643,400

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	\$ 67,030,000	\$ 72,590,000	\$ 74,354,000	\$ 76,162,000
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	116,996,000	74,562,000	124,332,000	78,146,000
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)	\$ 29,984,500	\$ (20,867,500)	\$ 33,004,000	\$ (6,355,500)

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	4,997,000	5,047,000	5,097,000	5,148,000
Estimated gallons (000s) sold to US Navy	254,000	257,000	260,000	263,000	266,000
Total estimated sales gallons (000s)	5,202,000	5,254,000	5,307,000	5,360,000	5,414,000
Operating revenue					
Fees for service					
Retail water rate revenue	\$ 49,295,000	\$ 52,051,000	\$ 57,095,000	\$ 58,531,000	\$ 60,003,000
US Navy water rate revenue	1,094,000	1,155,000	1,267,000	1,299,000	1,332,000
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	69,000	71,000	73,000
Retail wastewater rate revenue	7,944,000	8,144,000	8,349,000	8,559,000	8,774,000
US Navy wastewater revenue	1,508,000	1,546,000	1,585,000	1,625,000	1,666,000
Total fees for service	62,388,000	65,446,000	70,852,000	72,572,000	74,335,000
Other operating revenue	1,500,000	1,584,000	1,738,000	1,782,000	1,827,000
Total operating revenue	63,888,000	67,030,000	72,590,000	74,354,000	76,162,000
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	67,858,000	73,424,000	75,194,000	77,008,000
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	\$ 68,996,000	\$ 74,562,000	\$ 76,332,000	\$ 78,146,000

Budget assumptions					
Water volume growth sales increase	0.0%	1.0%	1.0%	1.0%	1.0%
Rate inflation index	3.0%	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 (transmissio, 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	\$ 23,553,500	\$ 36,446,500	\$ 28,570,000	\$ 20,703,500	\$ 118,103,500
Navy water rates	733,500	4,890,000	-	-	552,000	6,175,500
Federal and state appropriations						
Bond proceeds						
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

	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	\$ 57,340,000	\$ 62,656,000	\$ 64,170,000	\$ 65,722,000
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	\$ 18,939,200	\$ 23,909,900	\$ 25,075,400	\$ 26,275,800
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	1.84	2.33	1.85	1.94
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	1.93	2.43	1.92	2.01
	Wastewater Operations				
	2019	2020	2021	2022	2023
Funds available for debt service					
Operating revenue	\$ 9,452,000	\$ 9,690,000	\$ 9,934,000	\$ 10,184,000	\$ 10,440,000
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	\$ 1,512,800	\$ 1,634,100	\$ 1,759,600	\$ 1,889,200
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	1.95	2.09	2.24	2.42

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	6.0%	\$	44.12
2020	4.5%	\$	46.11
2021	8.5%	\$	50.03
2022	1.5%	\$	50.78
2023	1.5%	\$	51.54

Reclaimed water			
	Estimated percentage increase	Average monthly bill (for 1,100 gallons)	
Current bill		\$	3.26
2019	6.0%	\$	3.46
2020	4.5%	\$	3.61
2021	8.5%	\$	3.92
2022	1.5%	\$	3.98
2023	1.5%	\$	4.04

Wastewater			
	Estimated percentage increase	Average monthly bill (for 4,500 gallons)	
Current bill		\$	66.65
2019	3.0%	\$	68.64
2020	1.5%	\$	69.67
2021	1.5%	\$	70.72
2022	1.5%	\$	71.78
2023	1.5%	\$	72.86

This page is intentionally left blank



CAPITAL AND DEBT

Capital Improvement Budget

Project Summaries

Capital Outlay Budget Detail

Capital Financing Plan Summary

Debt Service Requirements

Debt Service Coverage Analysis

This page intentionally left blank

Capital Improvement Budget

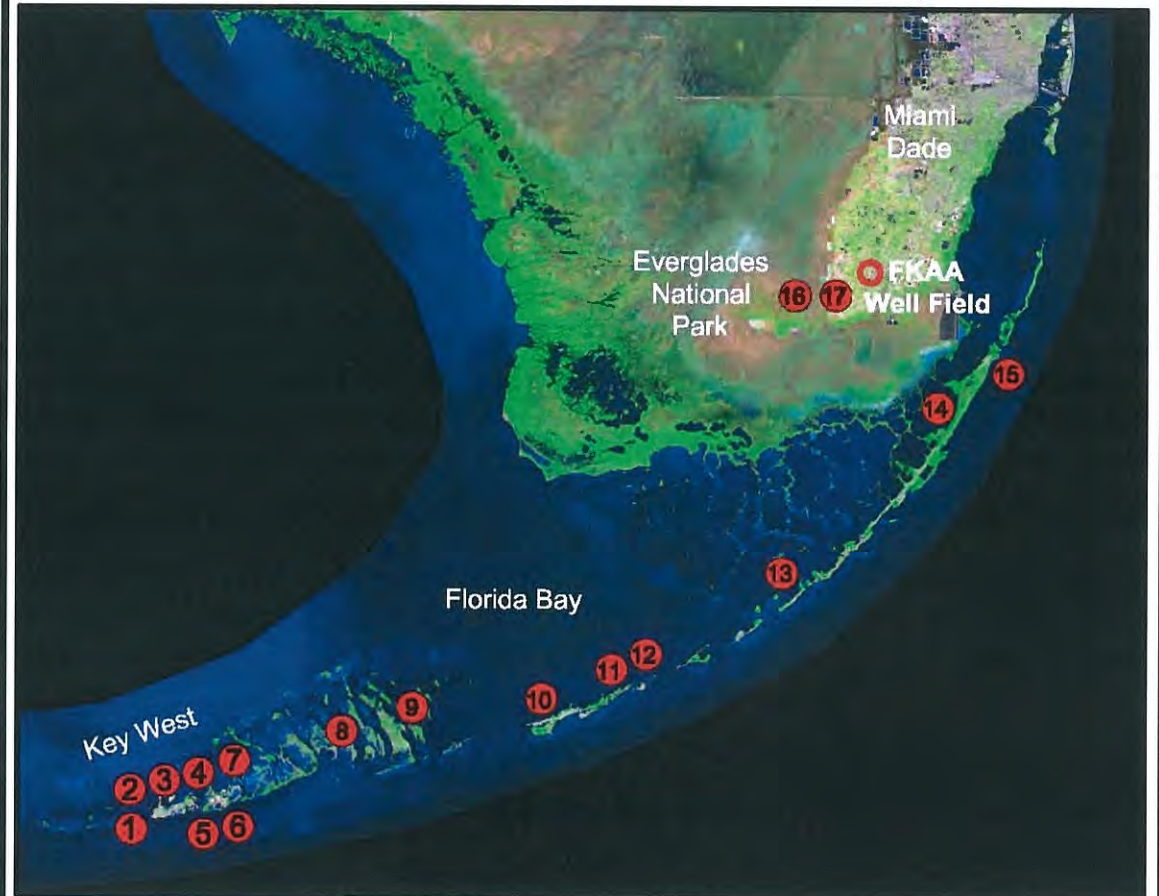
For fiscal years 2019-2023

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 (transmissio, 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	\$ 23,553,500	\$ 36,446,500	\$ 28,570,000	\$ 20,703,500	\$ 118,103,500
Navy water rates	733,500	4,890,000	-	-	552,000	6,175,500
Federal and state appropriations						
Bond proceeds						
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	\$0	\$ -	\$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	2021	2022	
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:

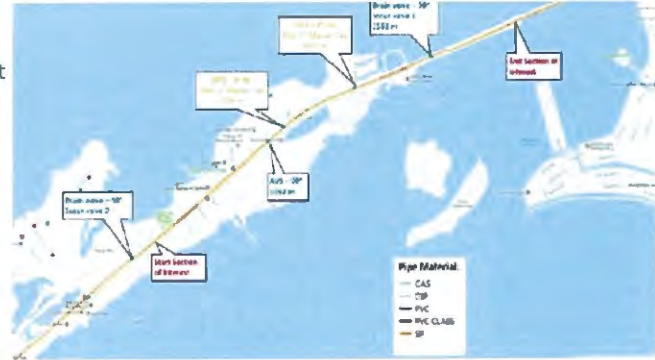
	Annual Operating Cost (Savings)					Total
	2019	2020	2021	2022	2023	
New Personnel (FTEs)						
Personal Services Costs	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Other Operating Costs	10,000	(10,000)	(10,000)	(10,000)	(10,000)	(30,000)
Total Operating Costs	\$ 10,000	\$ (10,000)	\$ (10,000)	\$ (10,000)	\$ (10,000)	\$ (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 (MM 58-60).

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					Total Cost
	2019	2020	2021	2022	2023	
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)					Total Cost
	2019	2020	2021	2022	2023	
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. The 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	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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

This page intentionally left blank

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)	50,000			
		Printers (3)	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

<u>Water Operations</u>				
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	
4308	Fleet Maintenance-upper keys	1/2 ton (replace vehicle #537)	25,200	
		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	2019 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	\$ 54,436,000	\$ 9,452,000
Interest income-revenue funds	300,000	-	500,000	-
Other revenue available for debt service	510,000	-	522,000	-
Less operating expenses before depreciation	(36,817,400)	(7,536,200)	(38,880,200)	(8,056,400)
Net funds available for debt coverage	15,532,600	1,640,800	16,577,800	1,395,600
Debt service requirements	\$ 8,003,000	861,000	\$ 8,016,000	858,000
Coverage factor (minimum of 1.10 for water only)	1.94		2.07	
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	2.19	1.79



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

This page is intentionally left blank

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.

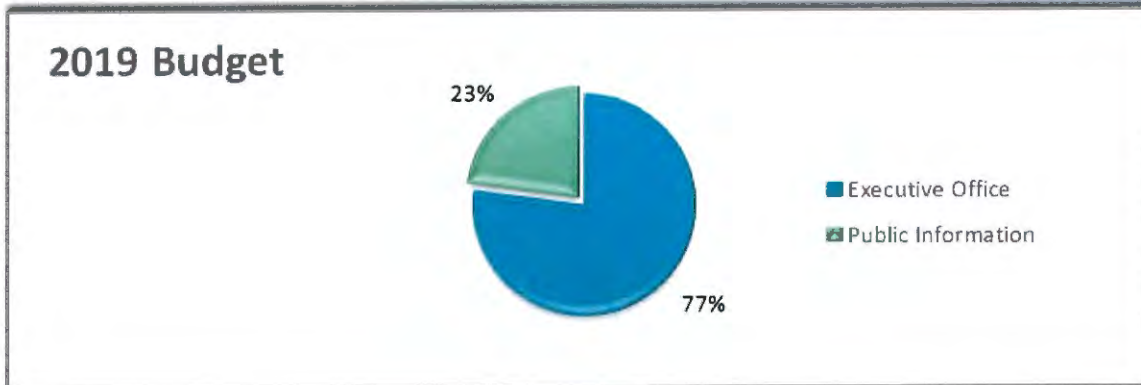
Develop an internal communications strategy.



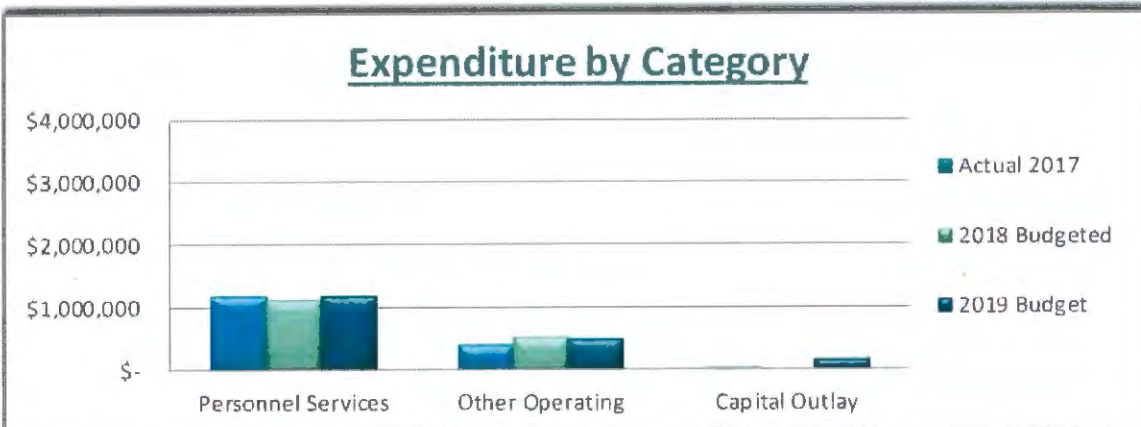
Executive Division Summary (continued)

For fiscal years 2019

Executive



Division	2019 Budget
Executive Office	\$ 1,403,700
Public Information	415,200
Total	\$ 1,818,900



Expenditure	Actual 2017	2018 Budgeted	2019 Budget
Personnel Services	\$ 1,161,949	\$ 1,119,200	\$ 1,171,200
Other Operating	387,126	513,800	487,700
Capital Outlay	8,216	-	160,000
Total	\$ 1,557,291	\$ 1,633,000	\$ 1,818,900

This page is intentionally left blank

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.

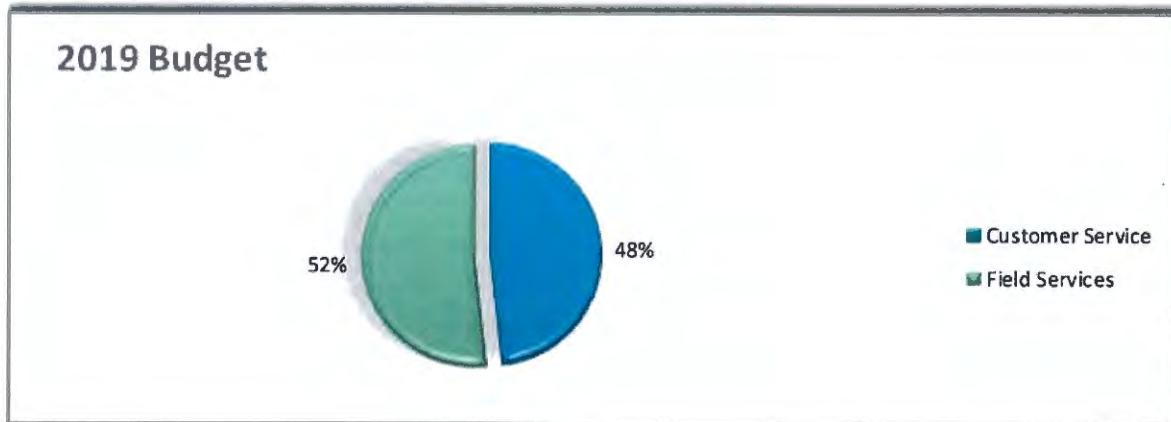
Actively mentor employees; promote and support training, continuing education, cross training (Backflow) and career development that aligns with our strategic needs.



Customer Service Department Summary (continued)

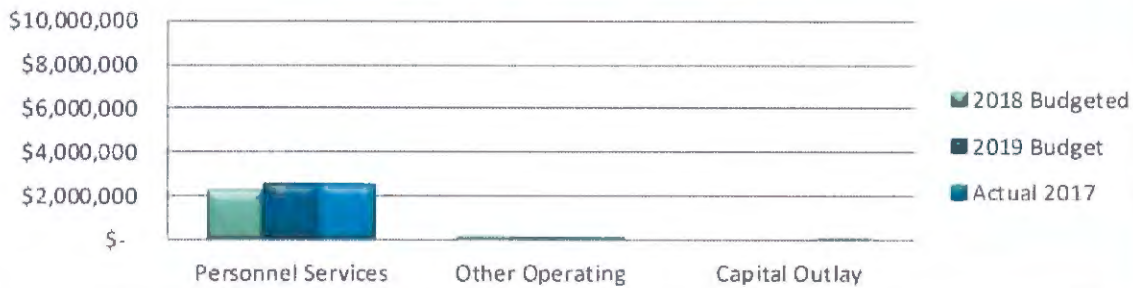
For fiscal years 2019

Customer Service



Division	2019 Budget
Customer Service	1,306,300
Field Services	1,399,800
Total	\$ 2,706,100

Expenditure by Category



Expenditure	Actual 2017	2018 Budgeted	2019 Budget
Personnel Services	\$ 2,581,441	\$ 2,315,700	\$ 2,576,300
Other Operating	136,094	171,500	129,800
Capital Outlay	30,500	-	-
Total	\$ 2,748,035	\$ 2,487,200	\$ 2,706,100

Finance Department



ADMINISTRATION DIVISION

---, 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.

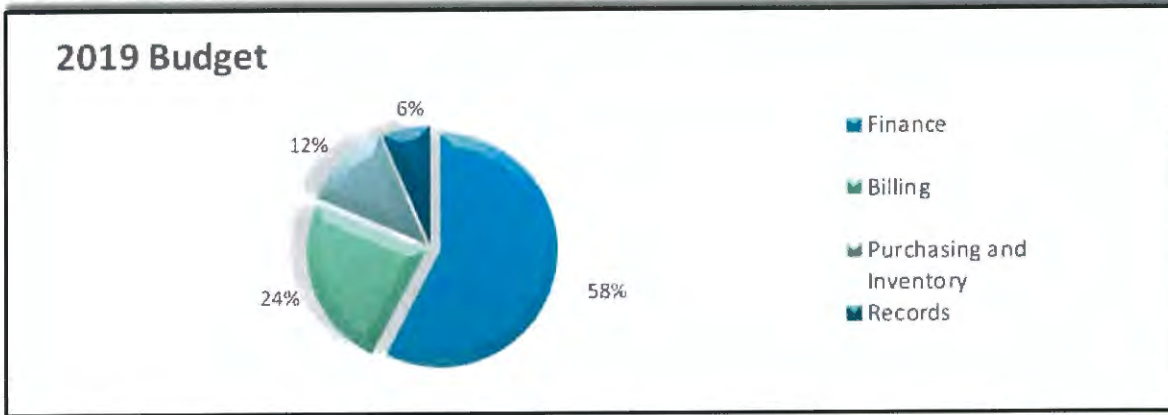
Continue to monitor internal processes to capitalize on staffing and monetary efficiencies.



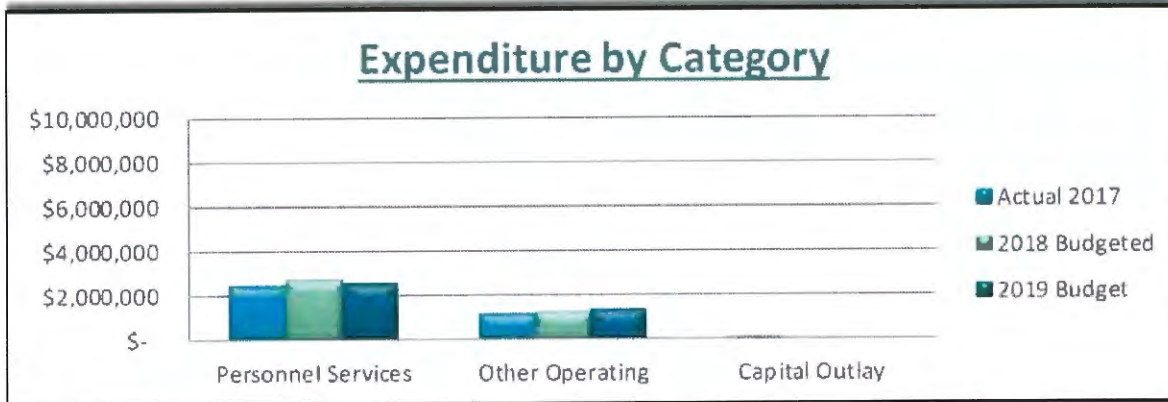
Finance Department Summary (continued)

For fiscal years 2019

Finance



Division	2019 Budget
Finance	2,199,400
Billing	906,200
Purchasing and Inventory	459,200
Records	246,300
Total	\$ 3,811,100



Expenditure	Actual 2017	2018 Budgeted	2019 Budget
Personnel Services	\$ 2,456,833	\$ 2,679,900	\$ 2,542,700
Other Operating	1,103,176	1,203,500	1,268,400
Capital Outlay	1,314	-	-
Total	\$ 3,561,323	\$ 3,883,400	\$ 3,811,100

This page is intentionally left blank

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.

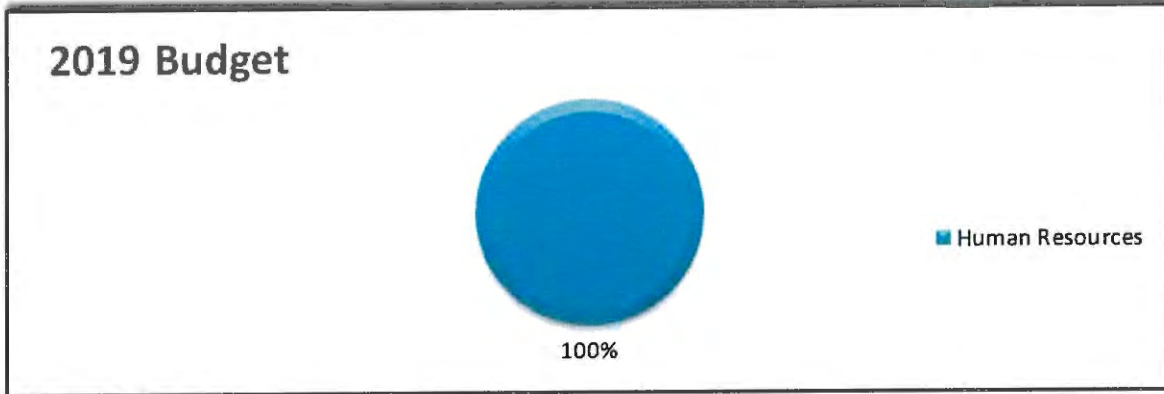
Fine tune the company property program in ADP to better track FCAA property issued to each employee and returned.



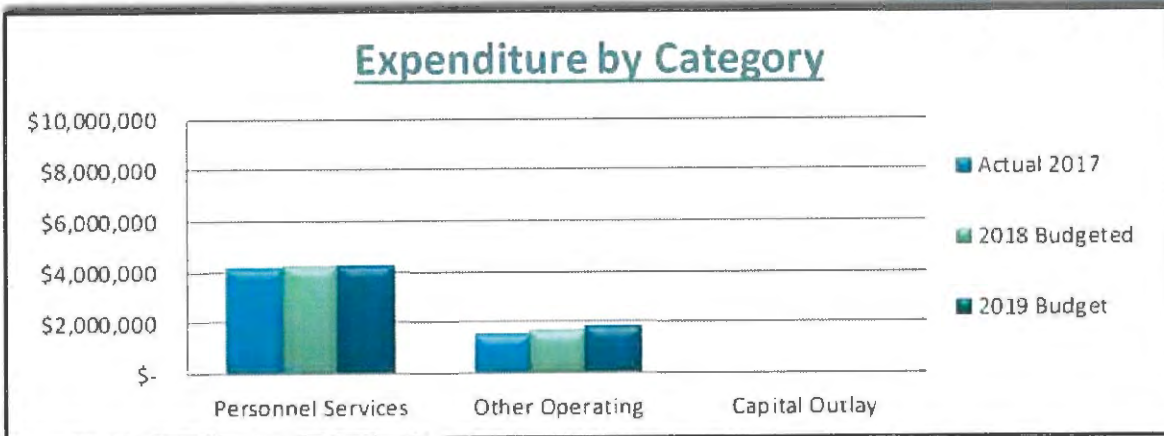
Human Resources Department Summary (continued)

For fiscal year 2019

Human Resources



Division	2019 Budget
Human Resources	\$ 6,043,300
Total	\$ 6,043,300



Expenditure	Actual 2017	2018 Budgeted	2019 Budget
Personnel Services	\$ 4,104,368	\$ 4,226,900	\$ 4,225,200
Other Operating	1,468,241	1,619,300	1,818,100
Capital Outlay	-	-	-
Total	\$ 5,572,609	\$ 5,846,200	\$ 6,043,300

This page is intentionally left blank.

Information Technology Department



ADMINISTRATION DIVISION

Paul Cales, Manager of Information Technology

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

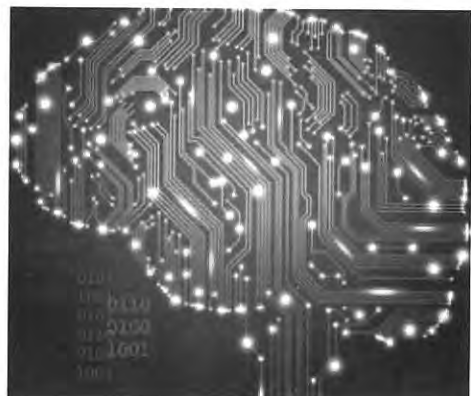
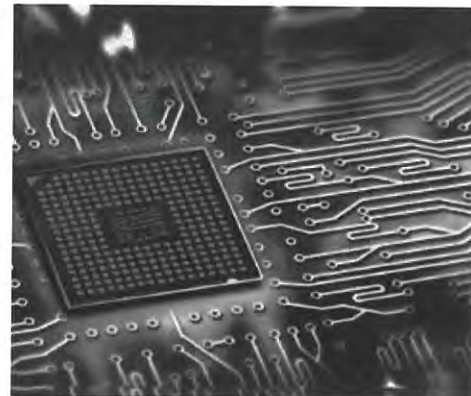
Information Technology Department

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

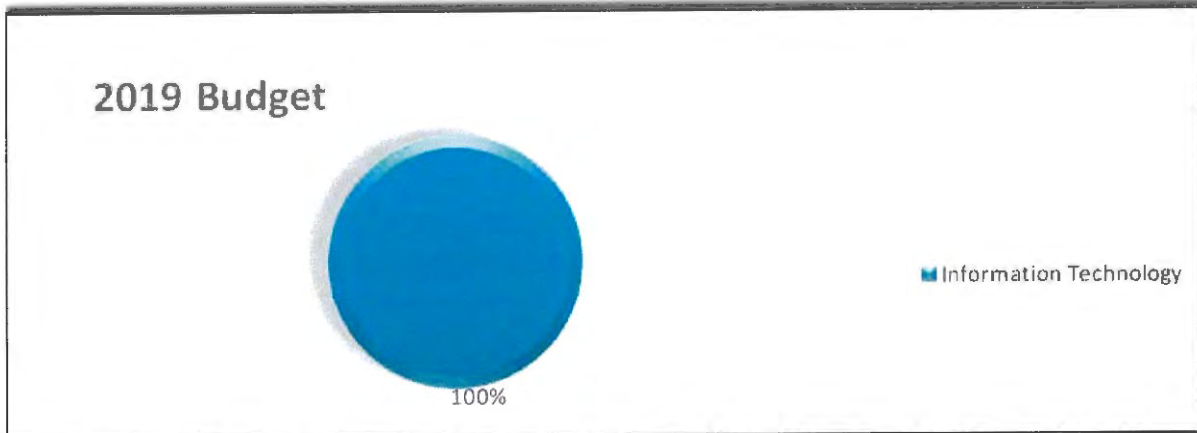
- Keep everyone educated on the long- term cost of implementation of all systems.
- Continue mobility initiative to improve efficiencies.
- Add redundancy to positions through formal and on-the-job training.
- Continue to improve technologies.
- Enhance network security to ensure utility safe operations.
- Develop a defensible utility and related infrastructure.



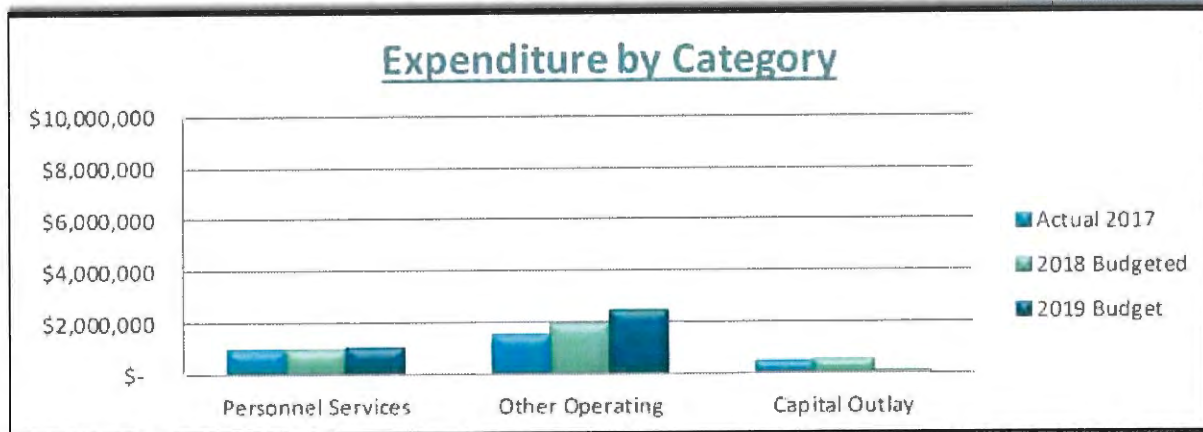
Information Technology Department Summary (continued)

For fiscal years 2019

Information Technology



Division	2019 Budget
Information Technology	\$ 3,546,900
Total	\$ 3,546,900



Expenditure	Actual 2017	2018 Budgeted	2019 Budget
Personnel Services	\$ 915,196	\$ 973,600	\$ 1,041,000
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	\$ 3,546,900

This page is intentionally left blank

Utility Operations Division



Kent Nelson, Deputy Executive Director

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.

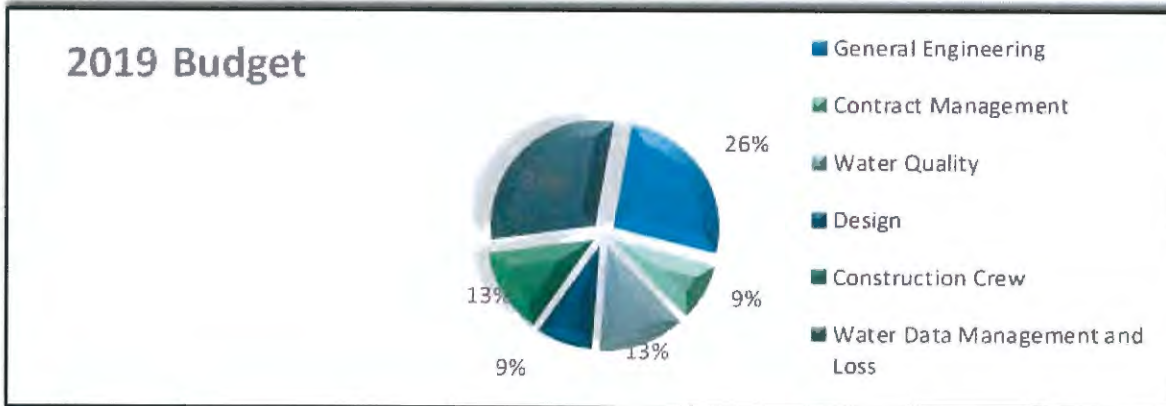
Develop and integrated and dynamic master plan to insure financial stability.



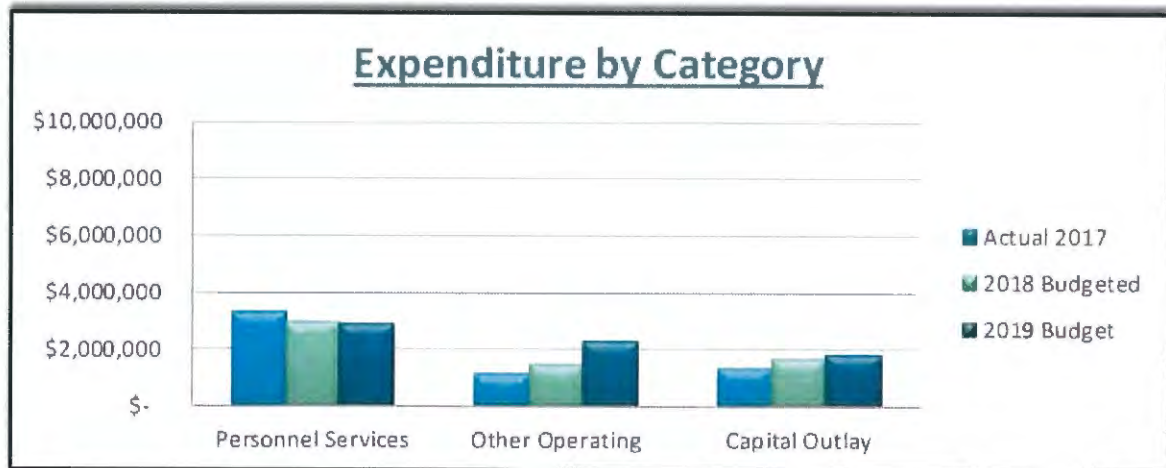
Engineering Department Summary (continued)

For fiscal years 2019

Engineering



Division	2019 Budget
General Engineering	\$ 1,845,700
Contract Management	625,400
Water Quality	935,800
Design	601,900
Construction Crew	932,000
Water Data Management and Loss	2,104,300
Total	\$ 7,045,100



Expenditure	Actual 2017	2018 Budgeted	2019 Budget
Personnel Services	\$ 3,336,120	\$ 2,949,200	\$ 2,903,300
Other Operating	1,133,304	1,475,700	2,288,200
Capital Outlay	1,342,601	1,679,600	1,853,600
Total	\$ 5,812,025	\$ 6,104,500	\$ 7,045,100

Water Operations Department



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.

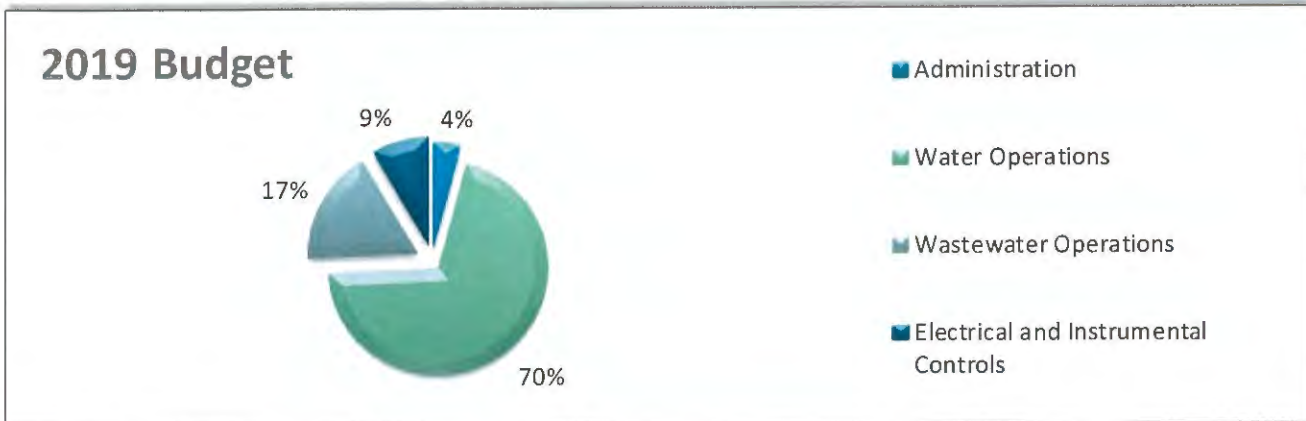
Meet and exceed all SDWA regulatory requirements.



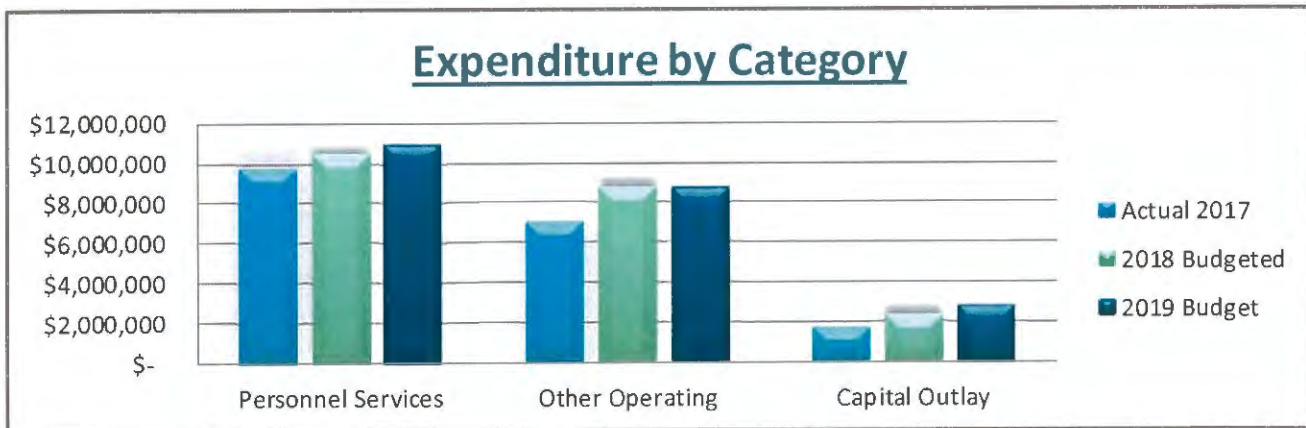
Water Operations Department Summary (continued)

For fiscal years 2019

Water Operations



Division	2019 Budget
Administration	\$ 1,121,900
Water Operations	19,054,500
Wastewater Operations	4,665,300
Electrical and Instrumental Controls	2,311,600
Total	\$ 27,153,300



Expenditure	Actual 2017	2018 Budgeted	2019 Budget
Personnel Services	\$ 9,797,824	\$ 10,443,400	\$ 10,929,200
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	\$ 22,488,000

This page is intentionally left blank.

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

2019 Budget

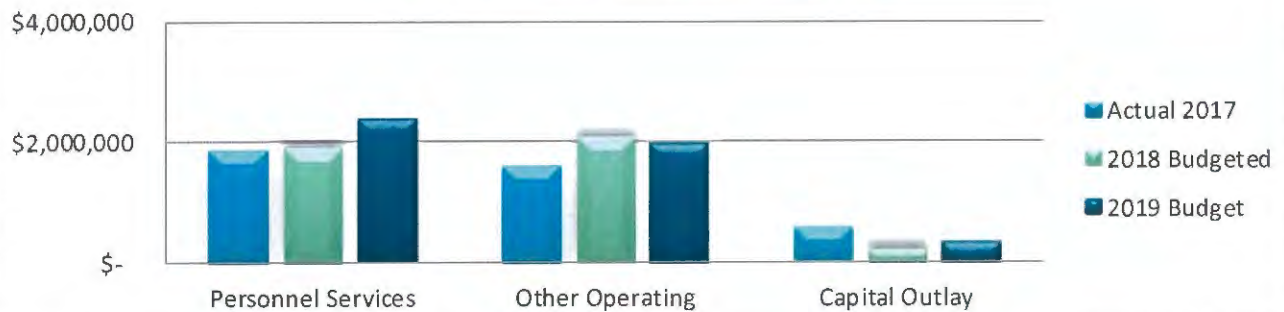


■ Wastewater Operations

100%

Division	2019 Budget
Wastewater Operations	4,665,300
Total	\$ 4,665,300

Expenditure by Category



Expenditure	Actual 2017	2018 Budgeted	2019 Budget
Personnel Services	\$ 1,863,667	\$ 1,898,700	\$ 2,373,300
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	\$ 4,665,300

This page is intentionally left blank

Florida Keys Aqueduct Authority's Budget and Financial Plan 2019 Departmental Information

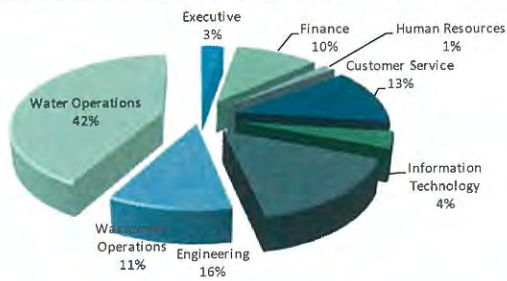
Position and Fleet

For fiscal years 2019

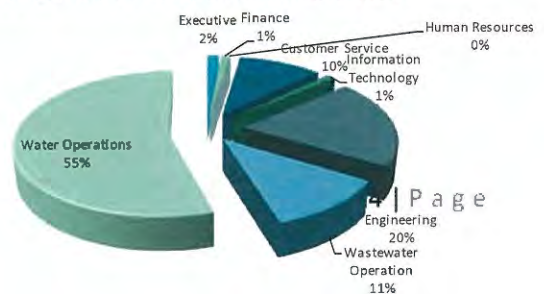
Positions	Executive	Finance	Human Resources	Customer Service	Information Technology	Engineering	Wastewater Operations	Water Operations	Total
Budgeted positions in 2017	8	29	4	39	26	41	26	101	274
New positions									
Engineer						1			1
WW Maintenance Mechanic C								3	3
Leak Control Tech B						1			1
Application Support Specialist					1				1
Meter Technician & Billing Analyst		1							1
Asset management system manager								1	1
Transferred positions									
Advanced Metering Specialist					(1)				
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	\$ 1,403,700		\$ -		
Public Information	415,200		(160,000)		
Totals		1,818,900	(160,000)	1,658,900	1.6%
<u>Finance Department</u>					
Finance	2,199,400		-		
Billing	906,200		-		
Purchasing and Inventory	459,200		-		
Records	246,300		-		
Totals		3,811,100	-	3,811,100	-1.9%
<u>Human Resources Department</u>					
Human Resources	6,043,300		-		
Totals		6,043,300	-	6,043,300	3.4%
<u>Customer Service Department</u>					
Customer Service	1,306,300		-		
Field Services	1,399,800		-		
Totals		2,706,100	-	2,706,100	8.8%
<u>Information Technology Department</u>					
Information Technology	3,546,900		(71,000)		
Totals		3,546,900	(71,000)	3,475,900	19.3%
<u>Engineering Department</u>					
General Engineering	1,845,700		(207,300)		
Contract Management	625,400		(382,800)		
Water Quality	935,800		-		
Design	601,900		(137,000)		
Construction Crew	932,000		(506,500)		
Water Data Management and Loss	2,104,300		(620,000)		
Totals		7,045,100	(1,853,600)	5,191,500	17.3%
<u>Operations Department</u>					
Operations Administration	1,121,900		-		
Water Operations	19,054,500		(2,780,300)		
Wastewater Operations	4,665,300		(323,200)		
Electrical and Instrumental Controls	2,311,600		(25,600)		
Totals		27,153,300	(3,129,100)	24,024,200	12.2%
Grand Totals		\$ 52,124,700	\$ (5,213,700)	46,911,000	5.82%



GLOSSARY

This page is intentionally left blank

Glossary fo 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 fo 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

SFWMD – 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.

BOARD OF DIRECTORS, FLORIDA KEYS AQUEDUCT AUTHORITY

AGENDA ITEM SUMMARY

AGENDA ITEM: _____ TAB: _____ CONSENT: REGULAR:

DIVISION: EXECUTIVE

MEETING DATE: JUNE 27, 2018

AGENDA TITLE: Public Hearing for proposed revisions to FCAA Rules and Regulations, Chapter 48-208.004, Monthly Fees and Charges.

ITEM BACKGROUND: Staff is proposing a revision to FCAA Rules and Regulations with a 3% water rate increase in fiscal year 2019 for the purpose of funding future capital projects.

- 48-208.004 Monthly Fees and Charges

See Summary Document attached.

PREVIOUS RELEVANT ACTION BY FCAA BOARD OF DIRECTORS: Board adopted revised FCAA Rules and Regulations to provide 5% increases to the Base Facility Charge and the Consumption Charge for water, effective 10/01/07 and 10/01/08.

STAFF RECOMMENDATION (MOTION): N/A

SUPPLEMENTAL INFORMATION: Summary Document Attached

DOCUMENTATION: Included: To-Follow: Not Required:
Cost to FCAA: \$ _____ BUDGETED: Yes No
Cost to Others: \$ _____
Total Cost: \$ _____

DEPARTMENT: _____ **DEPARTMENT DIRECTOR APPROVAL:** _____

DIVISION DIRECTOR APPROVAL: *K. J. [Signature]*

Reviewed by: Internal Auditor: *[Signature]* General Counsel: *RTF* Executive Director: *[Signature]*

BOARD ACTION:

Approved: Tabled: Disapproved: Recommendation Revised:

Comments: _____

Date: _____ Recording Clerk: _____

FKAA SUMMARY DOCUMENT

PROPOSED REVISIONS TO FKAA RULES & REGULATIONS FOR WATER RATES

Proposed Revision Objective and Effect:

Chapter 48-208.004 Monthly Fees and Charges

Proposed revision provides for a 3% increase to Water Fees and Fire Service Fees in Fiscal Year 2019 for the purpose of funding the upgrades of the Reverse Osmosis facility on Stock Island as well as the design and construction of the new administration building in Key West.

Proposed language is in red and deleted language is shown with ~~strike-through~~. Sections which address proposed revisions are shown as follows:

WATER RULES, FEES AND CHARGES CHAPTER 48-208

48-208.004 MONTHLY FEES AND CHARGES

(1) **Base Facility Charge** (not billed to qualified Senior Citizens/100% Disabled American Veterans)

<u>Meter Size</u>	<u>Monthly Charge</u>	<u>After 10/1/2018</u>
5/8" or 3/4"	\$ 14.40	\$ 15.28
1"	36.01	38.20
1 1/2"	72.00	76.38
2"	115.20	122.22
3"	215.99	229.14
4"	357.38	379.14
6"	721.33	765.26
8"	1,151.89	1,222.04

(c) Consumption Charges.

1. The Consumption Charge for potable purposes or other purposes, except actual firefighting activities, as supplemental consumption to their premise service meter. When consumption on the Fire Protection Service System meter is due to actual firefighting activities, the Customer will be billed based on Block One (1) Consumption Charges.

2. When consumption measured by a dual meter is not related to actual firefighting activities, the customer will be billed a Base Facility Charge and a Consumption Charge based on the Meter size that would have been required to serve the property if it had been served by a single meter as determined by the Authority

(4) **Consumption Charge**

The monthly per thousand gallons charge for metered water consumption, billed in 100 gallon increments:

<u>Meter Size</u>		<u>Consumption Block</u>	<u>Current Charge</u>	<u>After 10/1/2018</u>
5/8" or 3/4"	1	0 - 6,000 gallons	\$6.05	\$6.42
	2	6,001 - 12,000 gallons	8.83	9.37
	3	12,001 - 30,000 gallons	9.90	10.50
	4	30,001 - 50,000 gallons	11.05	11.72
	5	over 50,000 gallons	12.13	12.87
1"	1	0 - 15,000 gallons	6.05	6.42
	2	15,001 - 30,000 gallons	8.83	9.37
	3	30,001 - 75,000 gallons	9.90	10.50
	4	75,001 - 125,000 gallons	11.05	11.72
	5	over 125,000 gallons	12.13	12.87
1 1/2"	1	0 - 30,000 gallons	6.05	6.42
	2	30,001 - 60,000 gallons	8.83	9.37
	3	60,001 - 150,000 gallons	9.90	10.50
	4	150,001 - 250,000 gallons	11.05	11.72
	5	over 250,000 gallons	12.13	12.87
2"	1	0 - 48,000 gallons	6.05	6.42
	2	48,001 - 96,000 gallons	8.83	9.37
	3	96,001 - 240,000 gallons	9.90	10.50
	4	240,001 - 400,000 gallons	11.05	11.72
	5	over 400,000 gallons	12.13	12.87
3"	1	0 - 90,000 gallons	6.05	6.42
	2	90,001 - 180,000 gallons	8.83	9.37
	3	180,001 - 450,000 gallons	9.90	10.50
	4	450,001 - 750,000 gallons	11.05	11.72
	5	over 750,000 gallons	12.13	12.87

4"	1	0 - 150,000 gallons	6.05	6.42
	2	150,001 - 300,000 gallons	8.83	9.37
	3	300,001 - 750,000 gallons	9.90	10.50
	4	750,001 - 1,250,000 gallons	11.05	11.72
	5	over 1,250,000 gallons	12.13	12.87
6"	1	0 - 300,000 gallons	6.05	6.42
	2	300,001 - 600,000 gallons	8.83	9.37
	3	600,001 - 1,500,000 gallons	9.90	10.50
	4	1,500,001 - 2,500,000 gallons	11.05	11.72
	5	over 2,500,000 gallons	12.13	12.87
8"	1	0 - 480,000 gallons	6.05	6.42
	2	480,001 - 960,000 gallons	8.83	9.37
	3	960,001 - 2,400,000 gallons	9.90	10.50
	4	2,400,001 - 4,000,000 gallons	11.05	11.72
	5	over 4,000,000 gallons	12.13	12.87

**MINUTES OF A WORKSHOP
OF THE
BOARD OF DIRECTORS
FLORIDA KEYS AQUEDUCT AUTHORITY**

HELD ON

May 22, 2018

**CITY OF KEY COLONY BEACH
KEY COLONY BEACH CITY HALL
600 WEST OCEAN DRIVE
MARATHON, FLORIDA 33051**

10:00 A.M.

The following MEMBERS were present:

J. Robert Dean. Chairman
Richard J. Toppino. Vice Chairman
David C. Ritz. Secretary/Treasurer
Antoinette M. Appell. Member
Cara Higgins. Member

Kirk C. Zuelch. Executive Director
Kerry G. Shelby. Deputy Executive Director
Kent Nelson. Deputy Executive Director
Robert T. Feldman General Counsel

A LIST OF ATTENDANCE IS RETAINED WITH THE PERMANENT RECORD OF THIS MEETING.

BUDGET WORKSHOP

Chairman Dean called the Meeting to order at 10:00 a.m.

Mr. Zuelch opened the Workshop by thanking Key Colony Beach for allowing us to use their City Hall. Mr. Zuelch added that the Workshop has been scheduled to discuss the 2019/2020 Budget and five-year Capital Improvement Plan and advised that three (3) Public Hearings are required prior to Budget approval.

Mr. Shelby presented an outline of the proposed 2019 Budget which highlighted operating revenue and expenditures, sources and uses of funds, and the five-year Capital Improvement Plan.

Chairman Dean inquired if shoring of the Key West Administration Building had been considered. Mr. Nelson advised yes, adding that we will have the cost and design for the temporary shoring soon.

Mr. Toppino inquired if a plan is in place for staff to return to work if the Key West Administration Building was threatened by a Hurricane. Mr. Nelson advised that the Authority's Emergency Response Plan was recently updated and a copy will be given to the Board at the next meeting. Mr. Zuelch advised that employees staffed at the Key West Administration Building will be relocated to the Stock Island R.O. facility or the Key West Pump Station until the main office has been inspected by Engineers and given an all clear.

Mr. Shelby updated the Board on the process of migrating several of the Authority's applications to Cloud Based Solutions explaining this will give staff easy access from anywhere. Mrs. Higgins inquired if internet access was required. Mr. Shelby said that is correct, and with our system spread out over many miles that should not be a problem.

Mr. Zuelch explained that with no rate increase is scheduled for 2019 but there will need to be an increase in the future with several large projects ahead of us. Chairman Dean inquired if rate increases can be spread out over the years. Mr. Zuelch said that's correct. Chairman Dean asked when the last rate increase occurred. Mr. Zuelch advised approximately 10 years ago. Mrs. Higgins asked if would be possible to raise rates starting this year. Mr. Ritz inquired as to when the CPI goes into effect. Mr. Zuelch advised October 1. Mr. Zuelch added that prior to raising rates, we must have three (3) public hearings where the public can give their input.

Chairman Dean commented that the Transmission Line, R.O. Plant and The Key West Administration Building are the top three areas of concern. Mr. Nelson advised that staff is looking at acquiring some outside funding including four (4) grant programs that could assist on funding these larger projects.

Mr. Zuelch in conclusion stated, that the Authority has service infrastructure issues that must be addressed in order to continue to provide quality water to our customers. The Board concurred with staff to present a proposal for a rate increase at the next meeting.

ADJOURNMENT

A copy of the Budget Workshop Presentation may be found with the permanent record.

With there being no further discussion, the meeting was adjourned at 11:17 p.m.

FLORIDA KEYS AQUEDUCT AUTHORITY

By: _____
J. Robert Dean, Chairman

Attest:

David C. Ritz, Secretary/Treasurer

ATTENDANCE

BOARD MEMBERS

J. Robert Dean
Richard J. Toppino
David C. Ritz
Antoinette M. Appell
Cara Higgins

FKAA STAFF

Kirk C. Zuelch
Kerry G. Shelby
Kent Nelson
Robert T. Feldman
Julie Cheon

Maghan Barber
Pam Albury
Jerry Jarrett

MINUTES OF REGULAR MEETING

OF THE

BOARD OF DIRECTORS

FLORIDA KEYS AQUEDUCT AUTHORITY

HELD ON

MAY 23, 2018

FLORIDA KEYS ELECTRIC COOPERATIVE, INC.

BOARD ROOM

91630 OVERSEAS HIGHWAY

TAVERNIER, FLORIDA 33070

10:30 A.M.

The following MEMBERS were present:

J. Robert Dean. Chairman
Richard J. Toppino. Vice-Chairman
David C. Ritz. Secretary/Treasurer
Antoinette M. Appell. Member
Cara Higgins. Member

Kirk C. Zuelch Executive Director
Kerry G. Shelby. Deputy Executive Director
Kent Nelson. Deputy Executive Director
Robert T. Feldman. General Counsel

A LIST OF ATTENDANCE IS RETAINED WITH THE PERMANENT RECORD OF THIS MEETING.

REGULAR MEETING

Chairman Dean called the Regular Meeting to order at 10:31 a.m.

Pam Albury presented the invocation and Chairman Dean led the Pledge of Allegiance.

EMPLOYEE AWARDS

Employee of the Quarter

Ryan Arnette – Distribution System Operator A, Operations Division, Upper Keys, 12 Years of Service

APPROVAL OF MINUTES

On motion of Mrs. Appell, seconded by Mrs. Higgins, the Board unanimously approved the Minutes of an CIP Workshop held on April 18, 2018 and the Minutes of a Board Meeting held on April 25, 2018 as presented.

APPROVAL OF AGENDA

On motion of Mrs. Higgins, seconded by Mr. Toppino, the Board unanimously approved the Agenda as presented.

CONSENT AGENDA WATER/WASTEWATER

On motion of Mr. Ritz, seconded by Mrs. Appell, the Board unanimously approved the following items by Consent:

1. OOC – 01 Approval of payment to Allen, Norton & Blue, P.A. for April 2018 (\$85.50)
2. DUO – 01 Approval to purchase four blower enclosures for the Big Coppitt Wastewater Treatment Plant (\$45,300.00)
3. DUO – 02 Approval of a three-year contract renewal for Flowers Chemical Laboratories (\$137,500.00)

REGULAR AGENDA ITEMS

EXECUTIVE DEPARTMENT

EO-01. EXECUTIVE DIRECTOR'S REPORT

The Board accepted the Executive Director's Report with additional comments as presented.

Drop Saver Poster Contest Winners

Mr. Zuelch introduced the Division 4 and 5 winners of the Drop Savers Poster Contest.

Monroe County Division Winners in attendance are as follows:

Angelina Bello:	Division 4- 3 rd Place (7th Grade) Teacher: Kirsten Burns, Key Largo School
Makayla Dudley:	Division 4- Runner Up (7th Grade) Teacher: Kirsten Burns, Key Largo School
Mackenzie Emrich:	Division 5- County & State Winner (11th Grade) Teacher: Carmen Kelley, Coral Shores High School

Florida Power and Light (FPL) Turkey Point Update

Mr. Zuelch introduced Mr. Lee Hefty from the Division of Environmental Resources Management (DERM) who updated the Board on the Consent Agreement and Florida Power and Light's (FPL) request for an extension.

Mr. Hefty explained that the cooling canals have been in operation for nearly 40 years and have not worked. Mr. Hefty advised that just this month FPL has completed installation of the extraction well system located along the western boundary of the cooling canal system. Mr. Hefty added that approximately 2 weeks ago FPL had converted completely to this extraction well system. This system is planned to retract and contain the hypersaline plume that is emanating from the cooling canal system.

Mr. Ritz inquired how long it would be before we know if the new well system is working. Mr. Hefty advised by the end of the first year we should know more.

Mr. Hefty explained that the county is working hard to motivate the South Florida Water Management District to implement the S20 OPS and suggested that it would be a good message if the Florida Keys Aqueduct Authority (FKAA) Board would let the District know that FKAA would be interested in implementing as well. Mr. Ritz asked Mr. Zuelch if this could be done. Mr. Zuelch stated staff would prepare a letter in support.

Mr. Ritz expressed his concern on the extension that FPL is requesting, due to the absence of evidence that any of the efforts in place are actually working. Mr. Hefty explained

that by enforcing FPL to comply with the existing Code and the Consent Orders keeps the pressure on them.

Mr. Zuelch advised the Board that staff would attend and give a presentation at the Nuclear Regulatory Commission Public Hearing in Homestead, Florida on May 31, 2018. Mr. Zuelch added that staff has been in contact with Kirk Martin to discuss ACI Modeling and will ask the Board to consider funding at the next meeting.

OFFICE OF COUNSEL

OOC-01. APPROVAL OF RESOLUTION #18-05, OF THE FLORIDA KEYS AQUEDUCT AUTHORITY, ESTABLISHING ITS INTENT TO REIMBURSE CERTAIN COSTS INCURRED RELATING TO WATER PROJECTS FROM PROCEEDS OF A FUTURE TAX-EXEMPT FINANCING; AUTHORIZING THE DEPUTY EXECUTIVE DIRECTOR AS THE AUTHORITY'S COMPLIANCE OFFICER FOR PURPOSES OF PREPARING POLICIES AND PROCEDURES FOR POST ISSUANCE COMPLIANCE WITH THE INTERNAL REVENUE CODE, AS AMENDED; PROVIDING CERTAIN OTHER MATTERS IN CONNECTION THEREWITH; AND PROVIDING AN EFFECTIVE DATE

On recommendation of Mr. Feldman and motion of Mrs. Appell, seconded by Mr. Toppino, the Board approved Resolution #18-05 of the Florida Keys Aqueduct Authority, establishing its intent to reimburse certain costs incurred relating to water projects from proceeds of a future tax-exempt financing; authorizing the Deputy Executive Director as the Authority's Compliance Officer for purposes of preparing policies and procedures for post issuance compliance with the internal revenue code, as amended; providing certain other matters in connection therewith; and providing an effective date.

DIVISION OF ADMINISTRATION

DOA-01. SUMMARY OF FINANCIAL INFORMATION OCTOBER 2017 THROUGH APRIL 2018

Mr. Shelby reported on financials through April 30, 2018, stating that we are at the half-way mark of our fiscal year and capital expenditures to date are just over \$5 million. Mr. Shelby added that the unencumbered cash position remains stable with approximately \$8.8 million available.

DOA-02. SUMMARY OF CONTRACTUAL COMMITMENTS THROUGH APRIL 30, 2018

Mr. Shelby reported that contractual commitments total approximately \$13,000,000.00 of which the Authority is responsible for approximately \$6,800,000.00.

DOA-03. APPROVAL OF A BUDGET AMENDMENT FOR DIRECT EMERGENCY REPAIR EXPENSES OF DAMAGE SUSTAINED DURING HURRICANE IRMA AND THE REPLACEMENT OF A 40-TON AC CHILLER FOR THE J. ROBERT DEAN TREATMENT FACILITY (\$2,700,000.00)

On recommendation of Mr. Shelby and motion of Mrs. Higgins, seconded by Mr. Toppino, the Board approved a Budget Amendment for direct emergency repair expenses of damage sustained during Hurricane Irma and the replacement of a 40-ton AC Chiller for the J. Robert Dean Treatment Facility in the amount of \$2,700,000.00.

DIVISION OF UTILITY OPERATIONS

DUO-01. REVIEW OF THE STRUCTURAL STATUS OF THE EXISTING KEY WEST ADMINISTRATION BUILDING, AND APPROVAL OF A SITE SELECTION FOR THE NEW KEY WEST ADMINISTRATION BUILDING

Mr. Nelson advised the Board that the first item for consideration is a review of the structural status of the existing Key West Administration Building and consideration to approve a site selection for the Key West Administration Building. Mr. Nelson introduced Thomas E. Pope, PA and his team who gave a presentation. A copy of the presentation is attached and made part of the record.

Presentation highlights included:

1. Results of the second structural engineering assessment of the existing Key West Administration building, finding that the facility is damaged and needs to be replaced.
2. Three options developed by our architect, Thomas E. Pope PA, with respect to the most viable sites for a new Key West Administration Building. The advantages, disadvantages and approximate project costs are listed for each option.

The Board unanimously voted and approved option two as the site selection.

DUO-02. STATUS REPORT WASTEWATER PROJECTS

Mr. Nelson presented an update on wastewater projects as follows:

- Key Haven: 75% project completion
- Big Coppitt / Bay Point / Duck Key: 100% completion with ongoing connection installation
- Layton / Long Key: 98% project completion with ongoing connection installation
- Cudjoe Regional: 95% project completion with continued ongoing connections and grinder station installation

DUO-03. APPROVAL OF CONTRACT WITH BLACK & VEATCH CORPORATION TO PREPARE A PLANNING LEVEL COST ESTIMATE FOR THREE (3)

**ALTERNATIVES FOR PROJECT #1150-17 STOCK ISLAND REVERSE OSMOSIS
UPGRADES (\$45,726.00)**

Board requested review of existing facility and for staff to bring back revised estimate to next meeting.

**DUO-04. APPROVAL OF THE AWARD OF IFB-0007-18 TO FERGUSON
WATERWORKS FOR THE PURCHASE OF PIPE FOR WATER CONSTRUCTION
ACTIVITIES RELATED TO THE COLLEGE ROAD, STOCK ISLAND PROJECT
#2328-17 BY THE FLORIDA KEYS AQUEDUCT AUTHORITY CONSTRUCTION
CREW (NOT TO EXCEED \$174,000.00)**

On recommendation of Mr. Nelson and motion of Mr. Ritz, seconded by Mrs. Appell, the Board approved to award IFB-0007-18 to Ferguson Waterworks for the purchase of pipe for water construction activities related to the College Road, Stock Island Project #2328-17 by the Florida Keys Aqueduct Authority Construction Crew not to exceed \$174,000.00.

**DUO-05. APPROVAL TO AWARD IFB-0008-18 TO TRUE HAUL, LLC FOR THE
PURCHASE OF DOT CRUSHED ROCK AND PEAROCK #89 (NOT TO EXCEED
\$266,000.00) AND MONROE CONCRETE FOR THE PURCHASE OF FLOWABLE
FILL (NOT TO EXCEED \$187,000.00) FOR WATER CONSTRUCTION ACTIVITIES
RELATED TO THE COLLEGE ROAD, STOCK ISLAND-PROJECT #2328-17**

On recommendation of Mr. Nelson and motion of Mrs. Higgins, seconded by Mr. Ritz, the Board approved to award IFB-0008-18 to True Haul, LLC for the purchase of DOT Crushed Rock and Pearock #89 not to exceed \$266,000.00 and Monroe Concrete for the purchase of Flowable Fill not to exceed \$187,000.00 for water construction activities related to the College Road, Stock Island- Project #2328-17.

Mr. Toppino declared a conflict of interest and abstained from the vote on Item DUO-05.

**DUO-06. APPROVAL TO AWARD THE TRUMBO POINT TANK AND PUMP
STATION REPLACEMENT, PROJECT #8034-17, TO CHARLEY TOPPINO AND
SONS, INC. (\$2,186,500.00)**

On recommendation of Mr. Nelson and motion of Mrs. Appell, seconded by Mrs. Higgins, the Board approved to award the Trumbo Point Tank and Pump Station Replacement, Project #8034-17, to Charley Toppino and Sons, Inc. \$2,186,500.00.

Mr. Toppino declared a conflict of interest and abstained from the vote on Item DUO-06.

**DUO-07. APPROVAL FOR SERVICES FROM JONES EDMUNDS & ASSOCIATES TO
DIGITIZE AS-BUILTS AND PERFORM COGSDALE GIS INTERGRATION
(\$122,200.00)**

On recommendation of Mr. Nelson and motion of Mrs. Appell, seconded by Mrs. Higgins, the Board approved services from Jones Edmunds & Associates to digitize as-builts and perform Cogsdale GIS integration in the amount of \$122,200.00.

BOARD OF DIRECTORS

BOD-01. BOARD OF DIRECTORS DISCUSSION

Chairman Dean allowed time for a member of the public to address the Board.

Mr. Donald Sarley introduced himself to the Board adding that he has a Power of Attorney for the owner of the Wastewater facility located at the Manatee Bay Club on Cross Key and is hopeful to work with the Authority in the future as plans proceed to provide Wastewater services to Cross Key.

ADJOURNMENT

With there being no further business, the meeting was adjourned at 1:00 p.m.

FLORIDA KEYS AQUEDUCT AUTHORITY

By: _____
J. Robert Dean, Chairman

Attest:

David C. Ritz, Secretary/Treasurer

ATTENDANCE

BOARD MEMBERS

J. Robert Dean
Richard J. Toppino
David C. Ritz
Antoinette M. Appell
Cara Higgins

FKAA STAFF

Kirk C. Zuelch
Kerry G. Shelby
Kent Nelson
Robert T. Feldman
Jim Lewanski
Ryan Arnette

Julie Cheon
Pam Albury
Jerry Jarrett
Maghan Barber

BOARD OF DIRECTORS, FLORIDA KEYS AQUEDUCT AUTHORITY
AGENDA ITEM SUMMARY

AGENDA ITEM: OOC-01 TAB: 1 CONSENT: REGULAR:

MEETING DATE: June 27, 2018 DIVISION: OFFICE OF COUNSEL

AGENDA TITLE: Consideration to Approve Payment to Allen, Norton & Blue, P.A. for May 2018 in the amount of \$662.80.

ITEM BACKGROUND: Allen, Norton & Blue, P.A. handles all outside legal matters relative to personnel and Union Contract issues.

PREVIOUS RELEVANT ACTION BY FCAA BOARD OF DIRECTORS:

STAFF RECOMMENDATION (MOTION): Board approve payment to Allen, Norton & Blue, P.A., Florida Keys Aqueduct Authority Labor Attorney, for services rendered in May 2018 in the amount of \$662.80.

SUPPLEMENTAL INFORMATION:

DOCUMENTATION: Included: To-Follow: Not Required:
Cost to FCAA: \$ 662.80 BUDGETED: Yes No
Cost to Others: \$ _____
Total Cost: \$ 662.80

DEPARTMENT: _____ **DEPARTMENT DIRECTOR APPROVAL:** _____

DIVISION DIRECTOR APPROVAL: *Robert T. Jordan*

Reviewed by: Internal Auditor: *[Signature]* General Counsel: *RIF* Executive Director: *[Signature]*

BOARD ACTION:

Approved: Tabled: Disapproved: Recommendation Revised:

Comments: _____

Date: _____ Recording Clerk: _____

ALLEN, NORTON & BLUE, P.A.

121 Majorca Avenue
Coral Gables, FL 33134-4599
(305) 445-7801 Fax (305) 442-1578
Tax I.D. #59-1287650

June 18, 2018

Florida Keys Aqueduct Authority
Attn: Deanna Esquinaldo
Executive Department
email: DESquinaldo@FKAA.com
Key West, FL 33040

Bill Number 132826
Billed through 05/31/2018

General Matters

0307 00000 WLH

Balance forward as of bill dated	05/03/2018	\$90.00
Payments received since last bill	06/04/2018	\$90.00 CR

Net balance forward		\$0.00

FOR PROFESSIONAL SERVICES RENDERED

05/07/18	WLH	Receive and review various CWA grievances; review CBA; conference with Zuelch et al re: same	1.30 hrs	390.00
05/08/18	WLH	Receive and review correspondence re: CWA grievance matters	0.30 hrs	90.00
05/09/18	WLH	Phone conference with Zuelch re: employee matter	0.30 hrs	90.00
05/24/18	WLH	Phone conference with Zuelch et al re: employee matter	0.30 hrs	90.00

TOTAL HOURS:	2.20	TOTAL FEES:	\$660.00
---------------------	-------------	--------------------	-----------------

Shareholder, Wayne L. Helsby	2.20	300.00	\$660.00
------------------------------	------	--------	----------

EXPENSES

05/31/18	Photocopies	\$2.80
Total expenses for this matter		=====
		\$2.80

MATTER BILLING SUMMARY

TOTAL FEES	\$660.00
TOTAL EXPENSES	\$2.80
=====	
TOTAL CHARGES FOR THIS BILL	\$662.80
PLUS BALANCE FORWARD	\$0.00
=====	
TOTAL BALANCE NOW DUE	\$662.80

BOARD OF DIRECTORS, FLORIDA KEYS AQUEDUCT AUTHORITY

AGENDA ITEM SUMMARY

AGENDA ITEM: DUO-01 TAB: 2 CONSENT: REGULAR:

MEETING DATE: June 27, 2018

DIVISION: UTILITY OPERATIONS

AGENDA TITLE: Consideration of approval to extend Bid # FKAA-IFB-0010-17, Anhydrous Ammonia from Airgas Specialty Products, for one additional year for use at the J. Robert Dean Water Treatment Plant in the estimated amount of \$71,040.00.

ITEM BACKGROUND: On 7/26/17, the Board of Directors approved a 1-year contract for the purchase of Anhydrous Ammonia on Bid #FKAA-IFB-0010-17. In accordance with the specifications outlined in this bid, the Authority and the current vendor, Airgas Specialty Products, have the option to renew the contract for one additional year, at the same cost and conditions, rather than going out for new bids. Therefore, both parties agree to extend the contract for an additional year to be effective 8/01/18 through 7/30/19.

PREVIOUS RELEVANT ACTION BY FCAA BOARD OF DIRECTORS: Board approval 7/26/17 for Bid # FKAA-IFB-0010-17, Anhydrous Ammonia, one-year contract.

STAFF RECOMMENDATION (MOTION): Board of Directors approve to extend Bid # FKAA-IFB-0010-17, Anhydrous Ammonia from Airgas Specialty Products, for one additional year for use at the J. Robert Dean Water Treatment Plant in the estimated amount of \$71,040.00.

SUPPLEMENTAL INFORMATION: Letters from FCAA WTP Supervisor and Airgas Specialty Products, in approval of this extension. Copy of Bid #FKAA-IFB-0010-17.

DOCUMENTATION: Included: To-Follow: Not Required:

Cost to FCAA: \$ 71,040 (est.) BUDGETED: Yes No
Cost to Others: \$ _____
Total Cost: \$ 71,040 (est.)

DEPARTMENT: Ops DEPARTMENT DIRECTOR APPROVAL: 

DIVISION DIRECTOR APPROVAL: 

Reviewed by: Internal Auditor:  General Counsel:  Executive Director: 

BOARD ACTION:

Approved: Tabled: Disapproved: Recommendation Revised:

Comments: _____

Date: _____ Recording Clerk: _____

MEMORANDUM

Date 5/17/18

To: David Jackson, Purchasing Manager
From: William Bastian, WTP Supervisor/Lab Tech. Director
Subject: Renew One-Year Ammonia Contract

**William
Bastian**

Digitally signed by William Bastian
DN: cn=William Bastian, o=Florida
Keys Aqueduct Authority, ou,
email=wbastian@fkaa.com, c=US
Date: 2018.05.17 10:33:35 -04'00'

I am happy to renew for another year with Airgas for the supply of ammonia at the WTP.

May 17, 2018

Florida Keys Aqueduct Authority
Mary Anne Clothier
35400 SW 192 Ave.
Florida City, FL 33034

RE: Renewal of Bid #IFB-FKAA-0010-17

To Whom It May Concern:

Airgas Specialty Products agrees to renew our contract for another year at the current price of \$0.74/lb.

We look forward to continuing our working relationship.

Thanks,



Cynthia Thomas
Manager of Contracts & Pricing
Airgas Specialty Products, Inc.
2530 Sever Road, Suite 300
Lawrenceville, GA 30043
678.985.7332
eFax: 877.342.3998
cynthia.thomas@airgas.com
cynthia.thomas@airgas.com

BOARD OF DIRECTORS, FLORIDA KEYS AQUEDUCT AUTHORITY
AGENDA ITEM SUMMARY

AGENDA ITEM: DUO-05

CONSENT:

REGULAR:

MEETING DATE: July 26, 2017

DIVISION: UTILITY OPERATIONS

AGENDA TITLE: Consideration of approval to award Bid #IFB-FKAA-0010-17 to Airgas Specialty Products for a 1-Year Contract - Anhydrous Ammonia for use at the J. Robert Dean WTP at a cost of \$0.74 per pound for a total amount of \$71,040.

ITEM BACKGROUND: The Bid #IFB-FKAA-0010-17, Anhydrous Ammonia was posted on Demand Star, advertised, posted on the FKAA website, and forwarded to suppliers capable of providing the Authority with Anhydrous Ammonia to produce chloramines for disinfection at the J. Robert Dean WTP. On June 9, 2017, only one bid was received by Airgas Specialty Products. Staff has reviewed the bid documents submitted and found that Airgas Specialty Products to be the lowest responsive, responsible bidder at the unit price per pound of \$0.74.

PREVIOUS RELEVANT ACTION BY FKAA BOARD OF DIRECTORS: N/A

STAFF RECOMMENDATION (MOTION): Staff recommends that the Board of Directors approve the award of Bid #IFB-0010-17 to Airgas Specialty Products for a 1-year Contract - Anhydrous Ammonia for use at the J. Robert Dean WTP at a cost of \$0.74 per pound for a total amount of \$71,040.

SUPPLEMENTAL INFORMATION: Staff has reviewed the bid documents and qualifications of the only and lowest responsive, responsible bidder, Airgas Specialty Products, at the cost of \$0.74 per pound. The previous 1-year cost per pound was \$0.75 with Tanner Industries. It is estimated that 96,000 pounds of ammonia will be utilized over the next 12 months at the J. Robert Dean WTP

DOCUMENTATION: Included: To-Follow: Not Required:

Cost to FKAA: \$ 71,040 (est.)

BUDGETED: Yes No

Cost to Others: \$ _____

Total Cost: \$ 71,040 (est.)

DEPARTMENT: Engineering

DEPARTMENT DIRECTOR APPROVAL: J.C.R.

DIVISION DIRECTOR APPROVAL: _____

Reviewed by: Internal Auditor: [Signature]

General Counsel: [Signature]

Executive Director: [Signature]

BOARD ACTION:

Approved: Tabled: Disapproved: Recommendation Revised:

Comments: _____

Date: 7/26/2017

Recording Clerk: Janet Coley

**FLORIDA KEYS AQUEDUCT AUTHORITY
INVITATION TO BID: COMMODITIES/SERVICES
(BIDDERS ACKNOWLEDGMENT)**

MAIL BIDS TO: FLORIDA KEYS AQUEDUCT AUTHORITY
7000 Front St. (Stock Island)
KEY WEST, FLORIDA 33040 (There is no USPS delivery to this address, UPS and FedEx only.)

Page 1 of 4 (305) 296-2454	PROJECT #	FILE #	BID #-FKAA-IFB-0010-17
BIDS WILL BE OPENED: June 8 th , 2017 at 4:00pm 7000 Front St. Key West, FL 33040 (Stock Island)		BID TITLE: Purchase of Anhydrous Ammonia for the J.R. Dean Water Treatment Plant, Florida City, FL 33034. 1-year Contract.	
and may not be withdrawn within <u>60</u> days after such date and time.			
Delivery Date Will Be <u>2-3</u> Days After Receipt of Purchase Order.			
NAME OF VENDOR: <u>Airgas Specialty Products</u>		MAILING DATE: <u>6-2-17</u>	
MAILING ADDRESS: <u>2530 Sever Rd, Ste 300</u>			
CITY-STATE-ZIP: <u>Lawrenceville, GA 30043</u>		CERTIFIED OR CASHIER'S CHECK IS ATTACHED WHEN REQUIRED, IN THE AMOUNT OF \$ <u>NA</u>	
TELEPHONE NUMBER: <u>800-AMMONIA</u>		FAX NUMBER: <u>877-342-3998</u>	
I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting a bid for the same materials, supplies, or equipment and is in all respects fair and without collusion or fraud. I agree to abide by all conditions of this bid and certify that I am authorized to sign this bid for the bidder and that the bidder is in compliance with all requirements of the Invitation to Bid, including but not limited to, certification requirements.		<u>Cynthia Thomas</u> Authorized Signature (Manual)	
		<u>Cynthia Thomas Mgr of Contracts</u> Authorized Signature (Typed) and Title	

GENERAL CONDITIONS

BIDDER: To insure acceptance of the bid follow these instructions

SEALED BIDS: This form must be executed and returned with one copy of all bid sheets, as well as all addenda acknowledged. The face of the envelope shall contain, in addition to the above address, the date and time of the bid opening, and the bid number. Do not include more than one bid per envelope. All bids are subject to the conditions specified herein. Those that do not comply with these conditions are subject to rejection.

- EXECUTION OF BID:** All bids must contain a manual signature of an authorized representative in the space provided above to be considered formal. The company name must also appear on each page of the bid as required.
- NO BID:** If not submitting a bid, respond by returning one copy of this form, marking it "NO BID", and explain below the reason. Repeated failure to quote without sufficient justification shall be cause for removal of a supplier's name from the bid mailing list. NOTE: A bidder, to qualify as a respondent, must submit a "NO BID", and same must be received no later than the stated bid opening date and hour.

REASON FOR "NO BID":

- BID OPENING:** Shall be public, on the date and at the time specified on the bid form. All bids received after that time shall become the property of the Authority and remain unopened. It is the bidder's responsibility to assure his bid is delivered at the proper time and place of the bid opening. Offers by facsimile, telegram or telephone are not acceptable.
- PRICES QUOTED:** Deduct trade discounts and quote firm net prices. Unless otherwise specified, all prices quoted in this bid will remain firm for a period of 60 days. Give both unit price and extended total. In case of a mistake in extensions, the unit price will take precedence. All prices F.O.B. destination (unless otherwise specified in special conditions). Prices and extensions should be typed or printed in ink.
 - TAXES:** The FKAA does not pay federal excise and state sales taxes. Do not include these items on invoices. The applicable tax exemption number is shown on purchase orders.
 - DISCOUNTS:** Cash discounts for prompt payment shall not be considered in determining the lowest net cost for proposal evaluation purposes.
 - MISTAKES:** Bidders are expected to examine the specifications, delivery schedules, bid prices and extensions, and all instructions pertaining to supplies and services. Failure to do so will be at the bidder's risk. In case of mistake in the extension the unit price will govern.
 - CONDITION AND PACKAGING:** It is understood and agreed that any item offered or shipped as a result of this bid shall be new (current production model at the time of this bid), unless otherwise specified. All containers shall be suitable for storage or shipment, and all prices shall include standard commercial packaging.

The Florida Keys Aqueduct Authority wishes to enter into a one year contract for the purchase of Anhydrous Ammonia with the option to renew for one additional year if agreeable to both parties. The Authority will notify the successful bidder no later than (60) days prior to the termination of the original bid date of its desire to extend the bid term for one additional year, if it chooses to do so. The successful bidder will have (48) hours to affirm they will continue the contract at the same unit cost for the addition time period.

Product must meet ANSI/AWWA Standard B305-15 (Revision of ANSI/AWWA B305-06), ANSI/NSF Standard 60, and the Florida Department of Environmental Protection Standards (Chapter 62-555) for additives and chemicals used for treating potable water.

The successful bidder must provide annual on-site training to FCAA personnel that meets the OSHA Process Safety Management and EPA Risk Management Plan requirements.

Percent by weight must meet the following: C-Grade 99.5%
 P-Grade 99.995%

Delivery shall be by bulk tank to the Florida Keys Aqueduct Authority, J. Robert Dean Water Treatment Plant, 35400 SW 192 Ave., Florida City.

Delivery will be scheduled by telephone call from Florida Keys Aqueduct Authority personnel to the shipper and shall be between the hours of 9:00AM and 4:00PM, Monday through Friday. Contract shall continue for one year from July 1, 2017 through June 30, 2018.

Weight certification will be required. The driver must have in his possession a weight certificate from a certified weigher before a delivery will be accepted.

Delivery Schedule: Within seven (7) days after receipt of notice to deliver.

Proof of insurance required upon award of bid. (See attached insurance requirements.)

FCAA contact person: All questions should be addressed to David Jackson, Purchasing / Inventory Control Manager in writing via email to djackson@fkaa.com.

Quantity: Approximately 96,000 lbs. in a one year period.

Price per pound including delivery and total price including delivery.

\$ 0.74 Unit Price per pound

Unit price per pound written out: Seventy-four cents

\$ 71040.00 Total Price for the 1-Year Contract Period

Total Price for 1-year contract, written out: Seventy-one thousand forty dollars

Note: Prices will be firm for contract period, no escalation clause accepted.

GENERAL CONDITIONS CONTINUED

Revised

4. (Continued)

- e) **SAFETY STANDARDS:** Unless otherwise stipulated in the bid, all manufactured items and fabricated assemblies shall comply with applicable requirements of Occupational Safety and Health Act and any standards thereunder.
- f) **BIDDER'S CONDITIONS:** Any conditions to be made as part of the bid, should be submitted by letter with notes thereof on bid sheet for consideration.
- g) **PAYMENT:** The vendor shall be paid upon submission of properly certified invoices at the prices stipulated on the bid, after delivery and acceptance of the goods and/or services, less deductions if any, as provided.
- 5. **EQUIVALENTS:** Unless otherwise specified, any manufacturer's name, trade names, brand names, information and/or catalog numbers listed in a specification are for information and not to limit competition. Bid any brand which meets or exceeds the quality of specifications listed for any item. If the bid is based on equivalent products, indicate on the bid form the manufacturer's name and number and indicate any deviation from the specifications as listed. Include fully descriptive literature on item(s). Lacking any written indication of intent to quote an alternate brand or model number, the bid will be considered as a quotation in complete compliance with the specifications listed in the form. The FKAA reserves the right to determine acceptance of item(s) as an approved equivalent.
- 6. **NONCONFORMANCE TO CONTRACT CONDITIONS:** Items may be tested for compliance with specifications under the direction of the Florida Department of Agriculture and Consumer Services. Items delivered not conforming to specifications may be rejected and returned at vendor's expense. These items and items not delivered as per delivery date in bid and/or purchase order may be purchased on the open market. Any increase in cost may be charged against the bidder. Any violation of these stipulations may also result in the vendor's name being removed from the FKAA vendor list.
- 7. **SAMPLES:** Samples of items, when required, must be furnished free of expense and, if not destroyed, will, upon request, be returned at the bidder's expense. Request for the return of samples must be submitted by letter with notes thereof on bid sheet. Each individual sample must be labeled with bidder's name, bid number, and item number. Failure of bidder to either deliver required samples or to clearly identify samples as indicated may be reason for rejection of the bid.
- 8. **DELIVERY:** Unless actual date of delivery is specified (or if specified delivery cannot be met), show number of days required to make delivery after receipt of purchase order in space provided. Delivery time may become a basis for making an award (see Special Conditions). Delivery shall be within the normal working hours of the FKAA, Monday through Friday, excluding holidays. Upon delivery the FKAA has five working days to inspect and approve the goods and services, unless bid specifications or purchase order specify otherwise. Inspection and acceptance will be at destination unless otherwise provided. Title to/risk of loss or damage to all items shall be the responsibility of the successful bidder until acceptance by the FKAA unless loss or damage results from negligence by the FKAA.
- 9. **INTERPRETATIONS/DISPUTES:** Any questions concerning conditions and specifications should be submitted to the buyer no later than five (5) days prior to the bid opening. Any person who is adversely affected by a decision or intended decision shall be subject to the FKAA's procedures for Bid Protests (48-101.11). In case of any doubt or difference of opinion as to the items to be furnished hereunder, the decision of the FKAA shall be final and binding on both parties.
- 10. **AWARDS:** The FKAA reserves the right to accept any Bid or combination of Bid alternates which, in the FKAA's judgement will best serve the FKAA's interest, reject any and all Bids, to waive any and all informalities and/or irregularities, and to negotiate contract terms with the Successful Bidder, and the right to disregard all nonconforming, non-responsive, unbalanced or conditional Bids. The FKAA reserves the right to reject any one or all Bids, or any part of any Bid, to waive any informality in any Bid, and to award the purchase in the best interest of the FKAA. Discrepancies in the multiplication of units of work and/or unit prices will be resolved in favor of the unit price.

- Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Within 60 calendar days after the opening of Proposals, unless otherwise stated in the Supplementary Conditions of the Documents, the FKAA will issue notice that it intends to accept one of the proposals or will award the contract to the lowest Base Bid. Acceptance of the Proposal by the FKAA will be by written Notice of Award, mailed or delivered to the office designated in the Proposal. In the event of the failure of the lowest responsible and responsive bidder to meet the requirements of the Bid, the FKAA may award the Contract to the next lowest responsible and responsive Bidder. Such award, if made by the FKAA will be made within 60 days after the opening of Proposals.
- 11. **ADVERTISING:** In submitting a proposal, bidder agrees not to use the results there from as a part of any commercial advertising.
- 12. **GOVERNMENTAL RESTRICTIONS:** In the event any governmental restrictions may be imposed which would necessitate alteration of the material, quality, workmanship or performance of items offered on this bid prior to their delivery, it shall be the responsibility of the vendor to notify the FKAA at once, indicating in his letter the specific regulation which required an alteration. The FKAA reserves the right to accept any such alteration, including any price adjustments, or to cancel the contract at no further expense to the FKAA.
- 13. **ASSIGNMENT:** Any purchase order issued pursuant to this bid invitation and the monies which may become due are not assignable except with prior written approval of the FKAA.
- 14. **CONFLICT OF INTEREST:** The award hereunder is subject to Chapter 112, Florida Statutes, wherein it states, in part: "...all bidders must disclose with their bid the name of any officer, director, or agent who is also an employee of the FKAA. All bidders must disclose the name of any employee who owns directly or indirectly an interest of 5% or more in the bidder's firm or any of its branches..."
- 15. **LEGAL REQUIREMENTS:** Applicable provision of all Federal, State, county and local laws, and of all ordinances, rules, and regulations shall govern any and all claims and disputes which arise between person(s) submitting a bid response hereto and the FKAA, by and through its officers, employees and authorized representatives, or any other person, natural or otherwise; and lack of knowledge by any bidder shall not constitute a cognizable defense against the legal effect thereof.
PATENTS & ROYALTIES: The bidder without exception, shall indemnify and save harmless, the FKAA and its employees, from liability of any nature or kind, including cost and expenses for or on account of any copyrighted, patented, or unpatented invention, process, or article manufactured or used in the performance of the contract, including its use by the FKAA the bidder uses any design, device, or materials covered by letters, patent or copyright it is mutually agreed and understood without exception that the bid prices shall include all royalties or cost arising from the use of such design, device, or materials in any way involved in the work.
- 17. **SERVICE AND WARRANTY:** Unless otherwise specified, the bidder shall define any warranty service and replacements that will be provided.
- 18. **ELIGIBLE ENTITIES:** Paragraph (2) (a), Section 287.133, Florida Statutes provides that "A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, for CATEGORY TWO for a period of (36) months from the date of being placed on the convicted vendor list."
- 19. **LIABILITY:** The supplier shall hold and save the FKAA, its officers, agents, and employees harmless against claims by third parties resulting from the ~~vendor's breach of contract~~ or the vendor's negligence.

NOTE:
 ANY AND ALL SPECIAL CONDITIONS AND SPECIFICATIONS ATTACHED HERETO WHICH VARY FROM THESE GENERAL CONDITIONS SHALL HAVE PRECEDENCE.

**FLORIDA KEYS AQUEDUCT AUTHORITY
 BID OPENING SUMMARY**

Bid number: FKAA-IFB-0010-17

Bid description: Purchase of Ammonia 1-year Contract

Bid opening date: 9-Jun-17

Time: 4:00 P.M.

Bidder's Name	Bid sealed	Bid signed	Total Lump Sum Bid Price	Comments
Airgas Specialty Products	✓	✓	71,040.00 7% per percent.	

Department Director or Designee

Purchasing and Inventory Control Manager/Designee

Buyer/Purchasing Administrator

Internal Auditor

Time bid opening adjourned

[Handwritten Signature]

Melinda Rodriguez

[Handwritten Signature]

4:05

BOARD OF DIRECTORS, FLORIDA KEYS AQUEDUCT AUTHORITY

AGENDA ITEM SUMMARY

AGENDA ITEM: DUO-02 TAB: 3 CONSENT: REGULAR:

MEETING DATE: June 27, 2018 DIVISION: UTILITY OPERATIONS

AGENDA TITLE: Approval for the sole source purchase of seven water storage tank vents from ARC3 Corporation in the estimated amount of \$54,346.00.

ITEM BACKGROUND: Operations has budgeted a total of \$62,400 for tank vents to replace old units on 7 above ground reservoirs. These new vents from ARC3 Corporation were recommended by Liquid Engineering Corporation, who performs our FDEP required tank inspections, as the best solution to ensure proper ventilation and add security to our distribution system from outside elements.

PREVIOUS RELEVANT ACTION BY FCAA BOARD OF DIRECTORS: N/A

STAFF RECOMMENDATION (MOTION): Board of Directors to approve the sole source purchase of seven water storage tank vents from ARC3 Corporation in the estimated amount of \$54,346.00.

SUPPLEMENTAL INFORMATION:

DOCUMENTATION: Included: To-Follow: Not Required:
Cost to FCAA: \$ 54,346.00 BUDGETED: Yes No
Cost to Others: \$ -0-
Total Cost: \$ 54,346.00

DEPARTMENT: Operations **DEPARTMENT DIRECTOR APPROVAL:** 

DIVISION DIRECTOR APPROVAL: 

Reviewed by: Internal Auditor:  General Counsel:  Executive Director: 

BOARD ACTION:

Approved: Tabled: Disapproved: Recommendation Revised:

Comments: _____

Date: _____ Recording Clerk: _____



December 4, 2017

Mr. Brian O'Connor
Florida Keys Aqueduct Authority

**RE: ARC³ Corporation Omega Vent Security Shroud
Sole Source Letter**

Dear Mr. O'Connor:

This letter is in response to our recent conversations respecting the sole-source implications of the Omega Vent Security Shroud ("Omega Shroud").

ARC³ Corporation designed and developed the Omega Shroud in 2001. A patent application for the device was filed with the United States Patent and Trademark Office in November of that same year. The final patent was issued under U.S. Patent Number 6805627.

The implications of these benchmarks are as follows:

1. ARC³ Corporation will have recourse of various legal remedies for any patent infringement that may occur after June 5, 2003. These legal remedies include, but are not limited to, royalties, legal fees, damages, and injunctive relief, including possible enforced removal and destruction of any installed shroud that potentially infringes on the ARC³ Omega Shroud design.
2. According to our patent attorneys, U.S. patent law stipulates that a patent infringement creates liability for not only the fabricator/manufacturer of the infringing device, but the seller, distributor, *as well as the user* of the device. This means that any water utility that utilized a shroud that infringes on the Omega Shroud patent assumes the same risks and liabilities as the person who actually manufactured the shroud.

ARC³ Corporation will aggressively enforce its rights under the various Federal intellectual property laws. With that in mind, and given the fact that there is no other known technology that addresses the issue of water reservoir vent security, the Omega Shroud offers the sole-source solution for this critical security upgrade.

More importantly, the Omega Vent Security Shroud indeed provides the best available technology to address the issue of water tank vent security, one of the most critical vulnerabilities in virtually all water systems, according to the USEPA.

I hope this will provide you with the information you need to implement your security enhancement strategy. Please feel free to give me a call with any questions you might have. I can be reached at 800 594-8160.

Thank you again for your time and interest in our products.

Sincerely,
ARC³ CORPORATION

Wayne Dykstra
President



Tank Inspection Report

Florida Keys Aqueduct Authority

Ocean Reef #3

Liquid Engineering Corporation 47950

#2

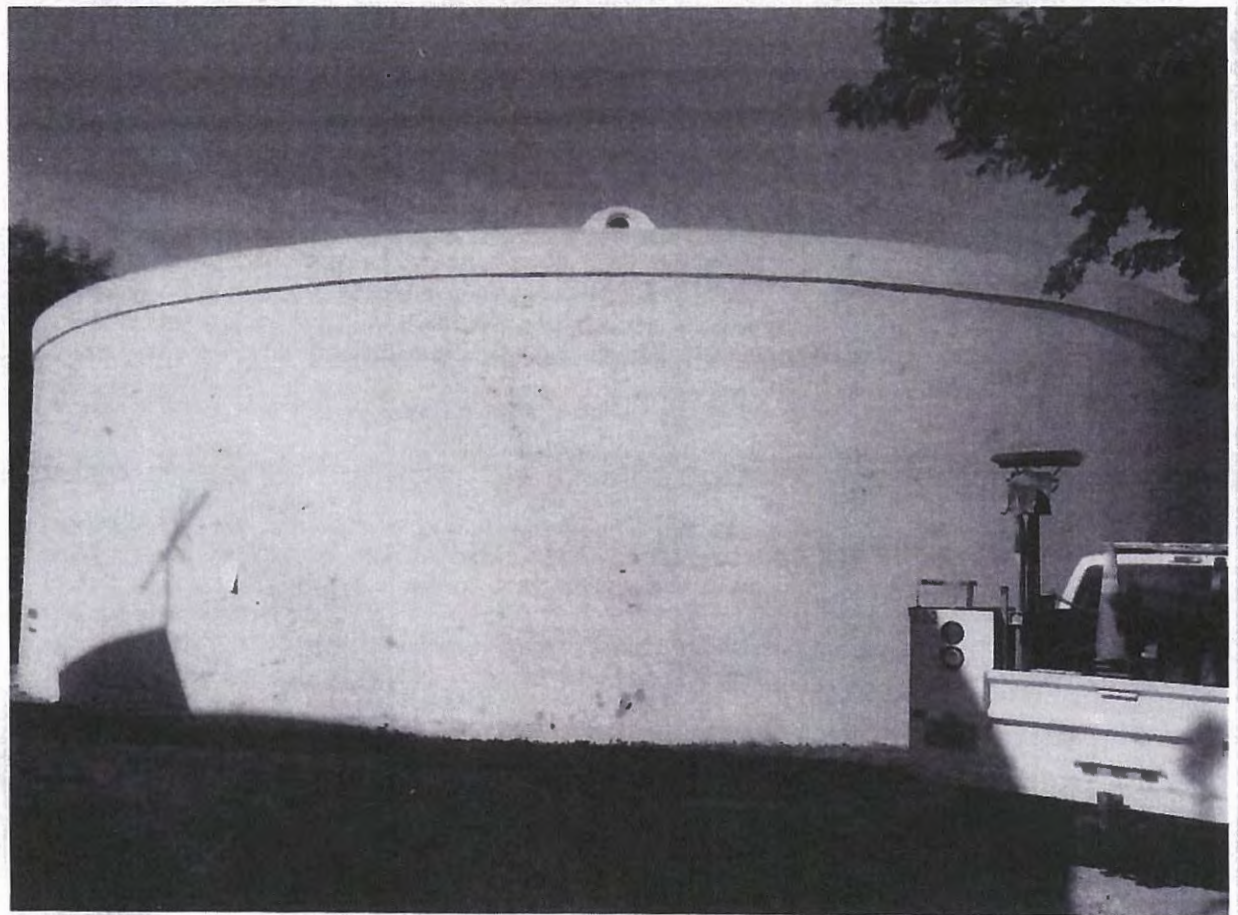
Tank Name:	Ocean Reef #3	Tank Type:	On-Grade
City:	Ocean Reef	Tank Capacity:	500KG
State:	FL	Type of Construction:	Concrete
Built By:	Crom Corporation	Year Built:	1964

Cleaned and Inspected By: LEC Maintenance Team 12 – Team Leader Bobby Heaton

Project Date: January 16th, 2014

GENERAL

This report is a supplement to the visual and video inspection undertaken for the Florida Keys Aqueduct Authority by Liquid Engineering Corporation of Billings, MT. Ocean Reef #3 is an on-grade concrete storage tank. The tank has a 500,000-gallon capacity, an overall height of 18' and is approximately 69' in diameter.



STANDARDS

The inspection of this tank was performed by a dive maintenance technician using surface supplied air, totally encapsulated in a sealed dry suit mated to a sealed dry divers hard hat and conducted in accordance with all applicable OSHA, EPA, AWWA, NACE, SSPC and ADC requirements and/or recommendations.

The inspection consisted of a visual observation of the tank's interior and exterior components and coating system. The tank was not drained for the inspection and all interior assessment data was recorded using real time video with live voice narration. Exterior assessment data was documented using digital still photographs.

CONDITION OBSERVATIONS

Conditions noted during the field inspection are documented in the following pages and are supplemented with color photographs at the end of the report. Condition ratings used to describe the inspection findings are annotated as follows:

Excellent: No deficiencies noted.
Good: Minor deficiencies noted. Item is functioning as designed.
Fair: Major deficiencies noted. Item is in need of repairs to continue functioning as designed.
Poor: Repair or replacement required immediately. Item may no longer function as designed.

CONTAMINATION, HEALTH & SAFETY REPORT

Contamination and Health

- **Air Vents and Screens** – The tank is equipped with a single mushroom vent and four integrated vents that also act as overflows. Each is properly screened and in good condition, but none are equipped with a vent security shroud. Absence of a Vent Security Shroud can allow the intentional introduction of hazardous chemical or biological contaminants. (See *Summary for Recommendations*)
- **Hatches** – The square access hatch is properly sealed and secured.
- **Overflow** – As noted above, the tank is equipped with four integrated vents that also act as overflows. Each unit is properly screened, gasketed and in good condition.
- **Manway** – The manway is properly sealed and in good condition. No signs of leaking are noted.
- **Roof to Wall Joint** – This joint is properly sealed and in good condition.
- **Roof / Wall Integrity** – No holes or standing water are present on the roof or walls, but minor cracking is noted in both locations.
- **Water Clarity** – The water is clear; no odors or surface debris are noted.

Facility Safety Compliance

- **External Ladder** – The exterior ladder measures 17' high and is in good condition overall. There are no missing or damaged rungs, and it is equipped with a locking vandal guard.
- **Rail & Rungs** – The rungs are spaced at 12" and have a 10" toe depth. The rails are 2" wide, ½" thick and the rail to rail span is 18 ¼".
- **Safety Climb** – A fall protection system is not required on a ladder of this height.
- **Manway** – The manway measures 16" x 26" and has a dogged support. Again, no signs of leaking are detected; it is in good condition overall.
- **Hatch** – The primary access way measures approximately 30" square. The hatch lip is 6" and the overlap is 2 ½".

EXTERIOR RESERVOIR INSPECTION REPORT

Exterior Reservoir Roof

- **Roof** – Light staining and minor settling cracks are present in each quadrant, but the slabs do appear to be in good condition overall. As is the case with the interior, efflorescence is also noted.
- **Vents** – The exterior portions of the center vent and each integrated vent are also in good condition.
- **Roof Hatch** – The primary access hatch, gasket and hinges are in good condition. The accessway is properly sealed and secured.
- **Coating** – The exterior coating / paint shows minor cracking, but is otherwise in good condition.

Exterior Reservoir Walls

- **Roof to Wall Joint** – The joint also shows light staining and settling cracks with efflorescence, but is sealed and in good condition.
- **Wall Structure** – As is the case with the roof slabs, cracking with efflorescence and light organic staining are present in each quadrant.
- **Access Ladder** – The primary access ladder and related fittings appear to be securely attached and safe for use.
- **Coating** – The exterior coating / paint on the walls does exhibit staining and minor cracking, but it is otherwise in good condition. Several small spots of coating delamination are present on the lower walls.

Foundation

- **General appearance** – The footing / foundation is buried and could not be fully evaluated, but no signs of leaking or ground subsidence are present.

GENERAL TANK SECURITY

Security

- **Perimeter** – The area surrounding the tank is well lit to deter vandalism.
- **Fencing** – The tank is surrounded by a security fence which was locked upon the crew's arrival.
- **Ladder** – The access ladder is equipped with a proper vandal guard.
- **Vent** - The vents are not equipped with vent security shrouds to prevent the intentional introduction of chemical or biological contaminants. This presents significant water tank security vulnerability and should be addressed as a priority. To the best of LEC's knowledge the only known practical and cost-effective security solution is the Omega Vent Security Shroud, evaluated by the EPA and found on its website. Unless you request otherwise, LEC will have ARC's Omega Vent Security Shroud manufacturer contact you in order to provide detailed information to assist you in addressing this security vulnerability.
- **Hatch** – The hatch location is equipped with a lock and an electronic monitoring device.



Order to Purchase

Customer: FKAA Islamorada #1

Date: May 17, 2018

Shipping Address:

Expiration: Pricing valid for 60 days

Delivery: 4 to 6 weeks from order

Terms: Deposit due upon order & balance net 30 days upon delivery

Item	Size	Vent Diameter	Carbon or Stainless	Color	Price	Quantity	Total Price
OMEGA	M	10"	304ss		\$5,022	1	\$5,022
OMEGA		adapter			\$800	1	\$800
							\$0
							\$0
							\$0
Omega Subtotal							\$5,822

Item	Hatch Width	Hatch Height	Carbon or Stainless	Color	Price	Quantity	Total Price
							\$0
							\$0
							\$0
							\$0
							\$0
Hatchlok Subtotal							\$0
Order Total							\$5,822
Deposit due upon order (25% of Omega Subtotal)							\$1,456
Balance due 30 days upon delivery							\$4,366

To complete, submit and activate your Order to Purchase:

1. SHIPPING IS FOB BILLINGS AND ACTUAL CHARGES WILL BE REFLECTED ON THE FINAL INVOICE
2. Attach a signed original copy of your Purchase Order if required by your organization.
3. Enclose a deposit check for amount listed above.
4. Sign this Order to Purchase where indicated below.

Your order will not be processed, and fabrication will not begin, until all documentation and deposit has been received by ARC³ Corporation. Prices provided in the ARC³ quotation are only guaranteed, if order is received prior to expiration date of that quote.

By signing below you acknowledge and agree to the terms, conditions and specifications described herein, and represent that you are authorized to sign this Order to Purchase.

Once your order has been received and processed, you will be advised of the estimated shipping date of your order. The balance on your order is due and payable within 30 days of the date your order is received. Any past due amounts will accrue a charge of 1.5% per month until paid in full.

Authorized Signature

Date

Printed Name & Title



Order to Purchase

Customer: FKAA Islamorada #2

Date: May 17, 2018

Shipping Address:

Expiration: Pricing valid for 60 days

Delivery: 4 to 6 weeks from order

Terms: Deposit due upon order & balance net 30 days upon delivery

Item	Size	Vent Diameter	Carbon or Stainless	Color	Price	Quantity	Total Price
OMEGA	L	20"	304ss		\$7,462	1	\$7,462
OMEGA		adapter			\$1,100	1	\$1,100
							\$0
							\$0
							\$0
Omega Subtotal							\$8,562

Item	Hatch Width	Hatch Height	Carbon or Stainless	Color	Price	Quantity	Total Price
							\$0
							\$0
							\$0
							\$0
							\$0
Hatchlok Subtotal							\$0
Order Total							\$8,562
Deposit due upon order (25% of Omega Subtotal)							\$2,141
Balance due 30 days upon delivery							\$6,421

To complete, submit and activate your Order to Purchase:

1. SHIPPING IS FOB BILLINGS AND ACTUAL CHARGES WILL BE REFLECTED ON THE FINAL INVOICE
2. Attach a signed original copy of your Purchase Order if required by your organization.
3. Enclose a deposit check for amount listed above.
4. Sign this Order to Purchase where indicated below.

Your order will not be processed, and fabrication will not begin, until all documentation and deposit has been received by ARC³ Corporation. Prices provided in the ARC³ quotation are only guaranteed, if order is received prior to expiration date of that quote.

By signing below you acknowledge and agree to the terms, conditions and specifications described herein, and represent that you are authorized to sign this Order to Purchase.

Once your order has been received and processed, you will be advised of the estimated shipping date of your order. The balance on your order is due and payable within 30 days of the date your order is received. Any past due amounts will accrue a charge of 1.5% per month until paid in full.

Authorized Signature

Date

Printed Name & Title

ARC³ Corporation, 11 East Airport Road, Billings, Montana 59105

Phone: 406-294-6900

Fax: 406-294-6932



Order to Purchase

Customer: FKAA Ocean Reef #1

Date: May 17, 2018

Shipping Address:

Expiration: Pricing valid for 60 days

Delivery: 4 to 6 weeks from order

Terms: Deposit due upon order & balance net 30 days upon delivery

Item	Size	Vent Diameter	Carbon or Stainless	Color	Price	Quantity	Total Price
OMEGA	XL	36"	304ss		\$9,880	1	\$9,880
OMEGA		adapter			\$1,500	1	\$1,500
							\$0
							\$0
							\$0
Omega Subtotal							\$11,380

Item	Hatch Width	Hatch Height	Carbon or Stainless	Color	Price	Quantity	Total Price
							\$0
							\$0
							\$0
							\$0
							\$0
Hatchlok Subtotal							\$0
Order Total							\$11,380
Deposit due upon order (25% of Omega Subtotal)							\$2,845
Balance due 30 days upon delivery							\$8,535

To complete, submit and activate your Order to Purchase:

1. SHIPPING IS FOB BILLINGS AND ACTUAL CHARGES WILL BE REFLECTED ON THE FINAL INVOICE
2. Attach a signed original copy of your Purchase Order if required by your organization.
3. Enclose a deposit check for amount listed above.
4. Sign this Order to Purchase where indicated below.

Your order will not be processed, and fabrication will not begin, until all documentation and deposit has been received by ARC³ Corporation. Prices provided in the ARC³ quotation are only guaranteed, if order is received prior to expiration date of that quote.

By signing below you acknowledge and agree to the terms, conditions and specifications described herein, and represent that you are authorized to sign this Order to Purchase.

Once your order has been received and processed, you will be advised of the estimated shipping date of your order. The balance on your order is due and payable within 30 days of the date your order is received. Any past due amounts will accrue a charge of 1.5% per month until paid in full.

Authorized Signature

Date

Printed Name & Title



Order to Purchase

Customer: FKAA Ocean Reef #2

Date: May 17, 2018

Shipping Address:

Expiration: Pricing valid for 60 days

Delivery: 4 to 6 weeks from order

Terms: Deposit due upon order & balance net 30 days upon delivery

Item	Size	Vent Diameter	Carbon or Stainless	Color	Price	Quantity	Total Price
OMEGA	XL	36"	304ss		\$9,880	1	\$9,880
OMEGA		adapter			\$1,500	1	\$1,500
							\$0
							\$0
							\$0
Omega Subtotal							\$11,380

Item	Hatch Width	Hatch Height	Carbon or Stainless	Color	Price	Quantity	Total Price
							\$0
							\$0
							\$0
							\$0
							\$0
Hatchlok Subtotal							\$0
Order Total							\$11,380
Deposit due upon order (25% of Omega Subtotal)							\$2,845
Balance due 30 days upon delivery							\$8,535

To complete, submit and activate your Order to Purchase:

1. SHIPPING IS FOB BILLINGS AND ACTUAL CHARGES WILL BE REFLECTED ON THE FINAL INVOICE
2. Attach a signed original copy of your Purchase Order if required by your organization.
3. Enclose a deposit check for amount listed above.
4. Sign this Order to Purchase where indicated below.

Your order will not be processed, and fabrication will not begin, until all documentation and deposit has been received by ARC³ Corporation. Prices provided in the ARC³ quotation are only guaranteed, if order is received prior to expiration date of that quote.

By signing below you acknowledge and agree to the terms, conditions and specifications described herein, and represent that you are authorized to sign this Order to Purchase.

Once your order has been received and processed, you will be advised of the estimated shipping date of your order. The balance on your order is due and payable within 30 days of the date your order is received. Any past due amounts will accrue a charge of 1.5% per month until paid in full.

Authorized Signature

Date

Printed Name & Title

ARC³ Corporation, 11 East Airport Road, Billings, Montana 59105

Phone: 406-294-6900

Fax: 406-294-6932



Order to Purchase

Customer: FKAA- Ocean Reef #3

Date: May 17, 2018

Shipping Address:

Expiration: Pricing valid for 60 days

Delivery: 4 to 6 weeks from order

Terms: Deposit due upon order & balance net 30 days upon delivery

Item	Size	Vent Diameter	Carbon or Stainless	Color	Price	Quantity	Total Price
OMEGA	XL	36"	304ss		\$9,880	1	\$9,880
OMEGA		adapter			\$1,500	1	\$1,500
							\$0
							\$0
							\$0
Omega Subtotal							\$11,380
Item	Hatch Width	Hatch Height	Carbon or Stainless	Color	Price	Quantity	Total Price
							\$0
							\$0
							\$0
							\$0
							\$0
Hatchlok Subtotal							\$0
Order Total							\$11,380
Deposit due upon order (25% of Omega Subtotal)							\$2,845
Balance due 30 days upon delivery							\$8,535

To complete, submit and activate your Order to Purchase:

1. SHIPPING IS FOB BILLINGS AND ACTUAL CHARGES WILL BE REFLECTED ON THE FINAL INVOICE
2. Attach a signed original copy of your Purchase Order if required by your organization.
3. Enclose a deposit check for amount listed above.
4. Sign this Order to Purchase where indicated below.

Your order will not be processed, and fabrication will not begin, until all documentation and deposit has been received by ARC³ Corporation. Prices provided in the ARC³ quotation are only guaranteed, if order is received prior to expiration date of that quote.

By signing below you acknowledge and agree to the terms, conditions and specifications described herein, and represent that you are authorized to sign this Order to Purchase.

Once your order has been received and processed, you will be advised of the estimated shipping date of your order. The balance on your order is due and payable within 30 days of the date your order is received. Any past due amounts will accrue a charge of 1.5% per month until paid in full.

Authorized Signature

Date

Printed Name & Title

ARC³ Corporation, 11 East Airport Road, Billings, Montana 59105

Phone: 406-294-6900

Fax: 406-294-6932

BOARD OF DIRECTORS, FLORIDA KEYS AQUEDUCT AUTHORITY

AGENDA ITEM SUMMARY

AGENDA ITEM: DUO- 03 TAB: 4 CONSENT: REGULAR:

MEETING DATE: June 27, 2018 DIVISION: UTILITY OPERATIONS

AGENDA TITLE: Consideration of Approval to Award Bid #: FKAA-IFB-0010-18, Two-Year Contract for the Removal of Lime Sludge from the J. Robert Dean Water Treatment Plant.

ITEM BACKGROUND: The bid request was posted on Demand Star, posted on the FKAA website, advertised once in one newspaper, and bid requests were forwarded to suppliers capable of providing the Authority with the service to remove up to 30,000cy of Lime Sludge at the J. Robert Dean Water Treatment Plant over a Two-Year period. Staff has reviewed the bid documents and qualifications of all the bidders. Based on the price per cubic yard removed, the lowest responsive, responsible bidder is Galafre Construction and Land Design, Inc. The following bids were opened 6/12/18:

<u>Vendor</u>	<u>Unit Price Per Cubic Yard Removed</u>
Galafre Construction and Land Design, Inc.	\$ 3.10
Austin Tupler Trucking, Inc.	\$29.30
True Haul LLC	\$ 7.50

PREVIOUS RELEVANT ACTION BY FKAA BOARD OF DIRECTORS: None.

STAFF RECOMMENDATION (MOTION): Board of Directors award the Bid # FKAA-IFB-0010-18 for a Two-Year Contract to remove up to 30,000 cubic yards of lime sludge at the J. Robert Dean Water Treatment Plant in Florida City, to Galafre Construction and Land Design, Inc., at a cost of \$3.10 per cubic yard removed, for an approximate total contract price of \$ 93,000.00.

SUPPLEMENTAL INFORMATION: Staff has reviewed the bid documents and qualifications of the lowest responsive, responsible bidder, Galafre Construction and Land Design, Inc. The monies are available in the 18/19 FY Budget under 5010-Sludge removal.

DOCUMENTATION: Included: To-Follow: Not Required:



Cost to FKAA: \$ 93,000 BUDGETED: Yes No

Cost to Others: \$ _____

Total Cost: \$ 93,000

DEPARTMENT: Ops DEPARTMENT DIRECTOR APPROVAL: 

DIVISION DIRECTOR APPROVAL: 

Reviewed by: Internal Auditor:  General Counsel: RTF Executive Director: 

BOARD ACTION:

Approved:

Tabled:

Disapproved:

Recommendation Revised:

Comments: _____

Date: _____

Recording Clerk: _____



Florida Keys Aqueduct Authority

1100 Kennedy Drive
Key West, Florida 33040
Telephone (305) 296-2454
www.fkaa.com



- J. Robert Dean
Chairman
District 3
- Antoinette M. Appell
Vice-Chairman
District 4
- David C. Ritz
Secretary/Treasurer
District 5
- Cara Higgins
District 1
- Richard J. Toppino
District 2
- Kirk C. Zuelch
Executive Director

MEMORANDUM

TO: Anthony Rossetti, WTP Operations Supervisor

FROM: David Jackson, Purchasing Manager

DATE: June 13, 2018

SUBJECT: FKAA-IFB-0010-18, Removal of Spent Lime from the J.R. Dean WTP, Florida City, FL 33034

Subject bid opening was conducted on June 12, 2018. This bid was advertised once in one newspaper, as well as being published on the Authority's website, and Demand Star. Three bids were received, which are as follows:

<u>Vendor</u>	<u>Total Price</u>
Galafre Construction and Land Design	\$3.10 per CY
True Haul LLC	\$7.50 per CY
Austin Tupler Trucking Inc.	\$29.30 per CY

It is recommended that we award the bid to Galafre Construction and Land Design as the lowest qualified bidder for the service. Please see the attached bid for your review. Please ensure that a purchase order is generated upon acceptance of the recommendation.

ACCEPTED: Yes UNACCEPTED: _____ Reason for Not

Accepting Bid: D. Rossetti 6/13/18

General Counsel's Signature (If Bid Not Accepted): _____

FLORIDA KEYS AQUEDUCT AUTHORITY
 BID OPENING SUMMARY

Bid number: FKAA-IFB-0010-18

Bid description: Remove Spent Lime

Bid opening date: 12-Jun-18

Time: 4:00 P.M.

Bidder's Name	Bid sealed	Bid signed	Unit price	Unit Price per cubic yard removed written out	Comments
Austin Tupler	✓	✓	29.30	Twenty Nine Dollars, thirty Cents	
Galafre Construction	✓	✓	3.10	three Dollars, ten Cents	
True Haul	✓	✓	7.50	Seven Dollars, fifty cents	

Department Director or Designee

Peter Gray

Purchasing and Inventory Control Manager/Designee

Kruphne Salazar Washburn

Buyer/Purchasing Administrator

Melinda Kochupuz

Internal Auditor

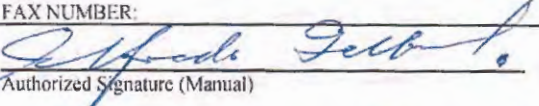
[Signature] For T.E.

Time bid opening adjourned

4:04 pm

**FLORIDA KEYS AQUEDUCT AUTHORITY
INVITATION TO BID: COMMODITIES/SERVICES
(BIDDERS ACKNOWLEDGMENT)**

MAIL BIDS TO: FLORIDA KEYS AQUEDUCT AUTHORITY
7000 Front St. (Stock Island)
KEY WEST, FLORIDA 33040 (No USPS deliveries, FedEx and UPS only.)

Page 1 of 7	(305) 296-2454	PROJECT #	FILE #	BID #-FKAA-IFB-0010-18
BIDS WILL BE OPENED: June 12 th , 2018 at 4:00pm 7000 Front St. Key West, FL 33040 NO USPS Delivery, Fed Ex or UPS ONLY and may not be withdrawn within <u>15</u> days after such date and time.			BID TITLE: Removal of Spent Lime from the J.R. Dean Water Treatment Plant, Florida City, FL 33034, 2-year Contract	
Delivery Date Will Be <u>15</u> Days After Receipt of Purchase Order.				
NAME OF VENDOR: <u>Galafee Construction + Land</u>			MAILING DATE: <u>6/5/2018</u>	
MAILING ADDRESS: <u>9173 NW 146 TR.</u>				
CITY-STATE-ZIP: <u>Miami Lakes FL 33018</u>			CERTIFIED OR CASHIER'S CHECK IS ATTACHED, WHEN REQUIRED, IN THE AMOUNT OF \$	
TELEPHONE NUMBER: <u>(305) 244-7593</u>			FAX NUMBER:	
I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting a bid for the same materials, supplies, or equipment and is in all respects fair and without collusion or fraud. I agree to abide by all conditions of this bid and certify that I am authorized to sign this bid for the bidder and that the bidder is in compliance with all requirements of the Invitation to Bid, including but not limited to, certification requirements.			 Authorized Signature (Manual) <u>Alfredo Galban, President.</u> Authorized Signature (Typed) and Title	

GENERAL CONDITIONS

BIDDER: To insure acceptance of the bid follow these instructions

SEALED BIDS: This form must be executed and returned with one copy of all bid sheets, as well as all addenda acknowledged. The face of the envelope shall contain, in addition to the above address, the date and time of the bid opening, and the bid number. Do not include more than one bid per envelope. All bids are subject to the conditions specified herein. Those that do not comply with these conditions are subject to rejection.

- EXECUTION OF BID:** All bids must contain a manual signature of an authorized representative in the space provided above to be considered formal. The company name must also appear on each page of the bid as required.
- NO BID:** If not submitting a bid, respond by returning one copy of this form, marking it "NO BID", and explain below the reason. Repeated failure to quote without sufficient justification shall be cause for removal of a supplier's name from the bid mailing list. NOTE: A bidder, to qualify as a respondent, must submit a "NO BID", and same must be received no later than the stated bid opening date and hour:

REASON FOR "NO BID":

N/A

- BID OPENING:** Shall be public, on the date and at the time specified on the bid form. All bids received after that time shall become the property of the Authority and remain unopened. It is the bidder's responsibility to assure his bid is delivered at the proper time and place of the bid opening. Offers by facsimile, telegram or telephone are not acceptable.
- PRICES QUOTED:** Deduct trade discounts and quote firm net prices. Unless otherwise specified, all prices quoted in this bid will remain firm for a period of 60 days. Give both unit price and extended total. In case of a mistake in extensions, the unit price will take precedence. All prices F.O.B. destination (unless otherwise specified in special conditions). Prices and extensions should be typed or printed in ink.
 - TAXES:** The FCAA does not pay federal excise and state sales taxes. Do not include these items on invoices. The applicable tax exemption number is shown on purchase orders.
 - DISCOUNTS:** Cash discounts for prompt payment shall not be considered in determining the lowest net cost for proposal evaluation purposes.
 - MISTAKES:** Bidders are expected to examine the specifications, delivery schedules, bid prices and extensions, and all instructions pertaining to supplies and services. Failure to do so will be at the bidder's risk. In case of mistake in the extension the unit price will govern.
 - CONDITION AND PACKAGING:** It is understood and agreed that any item offered or shipped as a result of this bid shall be new (current production model at the time of this bid), unless otherwise specified. All containers shall be suitable for storage or shipment, and all prices shall include standard commercial packaging.

GENERAL CONDITIONS CONTINUED

4. (Continued)

- c) **SAFETY STANDARDS:** Unless otherwise stipulated in the bid, all manufactured items and fabricated assemblies shall comply with applicable requirements of Occupational Safety and Health Act and any standards thereunder.
 - f) **BIDDER'S CONDITIONS:** Any conditions to be made as part of the bid, should be submitted by letter with notes thereof on bid sheet for consideration.
 - g) **PAYMENT:** The vendor shall be paid upon submission of properly certified invoices at the prices stipulated on the bid, after delivery and acceptance of the goods and/or services, less deductions if any, as provided.
5. **EQUIVALENTS:** Unless otherwise specified, any manufacturer's name, trade names, brand names, information and/or catalog numbers listed in a specification are for information and not to limit competition. Bid any brand which meets or exceeds the quality of specifications listed for any item. If the bid is based on equivalent products, indicate on the bid form the manufacturer's name and number and indicate any deviation from the specifications as listed. Include fully descriptive literature on item(s). Lacking any written indication of intent to quote an alternate brand or model number, the bid will be considered as a quotation in complete compliance with the specifications listed in the form. The FKAA reserves the right to determine acceptance of item(s) as an approved equivalent.
6. **NONCONFORMANCE TO CONTRACT CONDITIONS:** Items may be tested for compliance with specifications under the direction of the Florida Department of Agriculture and Consumer Services. Items delivered not conforming to specifications may be rejected and returned at vendor's expense. These items and items not delivered as per delivery date in bid and/or purchase order may be purchased on the open market. Any increase in cost may be charged against the bidder. Any violation of these stipulations may also result in the vendor's name being removed from the FKAA vendor list.
7. **SAMPLES:** Samples of items, when required, must be furnished free of expense and, if not destroyed, will, upon request, be returned at the bidder's expense. Request for the return of samples must be submitted by letter with notes thereof on bid sheet. Each individual sample must be labeled with bidder's name, bid number, and item number. Failure of bidder to either deliver required samples or to clearly identify samples as indicated may be reason for rejection of the bid.
8. **DELIVERY:** Unless actual date of delivery is specified (or if specified delivery cannot be met), show number of days required to make delivery after receipt of purchase order in space provided. Delivery time may become a basis for making an award (see Special Conditions). Delivery shall be within the normal working hours of the FKAA, Monday through Friday, excluding holidays. Upon delivery the FKAA has five working days to inspect and approve the goods and services, unless bid specifications or purchase order specify otherwise. Inspection and acceptance will be at destination unless otherwise provided. Title to/risk of loss or damage to all items shall be the responsibility of the successful bidder until acceptance by the FKAA unless loss or damage results from negligence by the FKAA.
9. **INTERPRETATIONS/DISPUTES:** Any questions concerning conditions and specifications should be submitted to the buyer no later than five (5) days prior to the bid opening. Any person who is adversely affected by a decision or intended decision shall be subject to the FKAA's procedures for Bid Protests (48-101.11). In case of any doubt or difference of opinion as to the items to be furnished hereunder, the decision of the FKAA shall be final and binding on both parties.
10. **AWARDS:** The FKAA reserves the right to accept any Bid or combination of Bid alternates which, in the FKAA's judgement will best serve the FKAA's interest, reject any and all Bids, to waive any and all informalities and/or irregularities, and to negotiate contract terms with the Successful Bidder, and the right to disregard all nonconforming, non-responsive, unbalanced or conditional Bids. The FKAA reserves the right to reject any one or all Bids, or any part of any Bid, to waive any informality in any Bid, and to award the purchase in the best interest of the FKAA. Discrepancies in the multiplication of units of work and/or unit prices will be resolved in favor of the unit price.

Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Within 60 calendar days after the opening of Proposals, unless otherwise stated in the Supplementary Conditions of the Documents, the FKAA will issue notice that it intends to accept one of the proposals or will award the contract to the lowest Base Bid. Acceptance of the Proposal by the FKAA will be by written Notice of Award, mailed or delivered to the office designated in the Proposal. In the event of the failure of the lowest responsible and responsive bidder to meet the requirements of the Bid, the FKAA may award the Contract to the next lowest responsible and responsive Bidder. Such award, if made by the FKAA will be made within 60 days after the opening of Proposals.

- 11. **ADVERTISING:** In submitting a proposal, bidder agrees not to use the results there from as a part of any commercial advertising.
 - 12. **GOVERNMENTAL RESTRICTIONS:** In the event any governmental restrictions may be imposed which would necessitate alteration of the material, quality, workmanship or performance of items offered on this bid prior to their delivery, it shall be the responsibility of the vendor to notify the FKAA at once, indicating in his letter the specific regulation which required an alteration. The FKAA reserves the right to accept any such alteration, including any price adjustments, or to cancel the contract at no further expense to the FKAA.
 - 13. **ASSIGNMENT:** Any purchase order issued pursuant to this bid invitation and the monies which may become due are not assignable except with prior written approval of the FKAA.
 - 14. **CONFLICT OF INTEREST:** The award hereunder is subject to Chapter 112, Florida Statutes, wherein it states, in part: "...all bidders must disclose with their bid the name of any officer, director, or agent who is also an employee of the FKAA. All bidders must disclose the name of any employee who owns directly or indirectly an interest of 5% or more in the bidder's firm or any of its branches..."
 - 15. **LEGAL REQUIREMENTS:** Applicable provision of all Federal, State, county and local laws, and of all ordinances, rules, and regulations shall govern any and all claims and disputes which arise between person(s) submitting a bid response hereto on the FKAA, by and through its officers, employees and authorized representatives, or any other person, natural or otherwise; and lack of knowledge by any bidder shall not constitute a cognizable defense against the legal effect thereof.
- PATENTS & ROYALTIES:** The bidder without exception, shall indemnify and save harmless, the FKAA and its employees, from liability of any nature or kind, including cost and expenses for or on account of any copyrighted, patented, or unpatented invention, process, or article manufactured or used in the performance of the contract, including its use by the FKAA the bidder uses any design, device, or materials covered by letters, patent or copyright it is mutually agreed and understood without exception that the bid prices shall include all royalties or cost arising from the use of such design, device, or materials in any way involved in the work.
- 17. **SERVICE AND WARRANTY:** Unless otherwise specified, the bidder shall define any warranty service and replacements that will be provided.
 - 18. **ELIGIBLE ENTITIES:** Paragraph (2) (a), Section 287.133, Florida Statutes provides that "A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, for CATEGORY TWO for a period of (36) months from the date of being placed on the convicted vendor list."
 - 19. **LIABILITY:** The supplier shall hold and save the FKAA, its officers, agents, and employees harmless against claims by third parties resulting from the vendor's breach of contract or the vendor's negligence.

NOTE:

ANY AND ALL SPECIAL CONDITIONS AND SPECIFICATIONS ATTACHED HERETO WHICH VARY FROM THESE GENERAL CONDITIONS SHALL HAVE PRECEDENCE.

BID SPECIFICATIONS

FKAA-IFB-0010-18

Remove Spent Lime – The spent lime is located at the J. Robert Dean Water Treatment Plant located at 35400 SW 192nd Ave. Florida City, Fl. 33034 in the Navy Wells Pineland Preserve, geographical coordinates: 25.439322, 80.508327 owned by the Florida Keys Aqueduct Authority. Our storage area is limited in size, so we are requesting bidders to provide a price per cubic yard to remove and dispose of spent lime up to three (3) times each year. Contract length is 2 years.

Sludge Storage Area: The successful bidder will be required to mobilize, remove and dispose sludge “tailings”, a byproduct of the treatment process, amounting to approximately 4,000-5000 Cu Yds. once every 4-months. This will be done three (3) times per year over two (2) years. No escalation clause is permitted during the contract period.

The TOTAL AMOUNT of sludge per contract period is not expected to exceed ~15,000 cubic yds./yr.

The Successful bidder “Company” is responsible for determining through laboratory testing and knowing the exact composition of constituent elements in the spent lime before removing. Our laboratory results have shown the spent lime is 96% calcium carbonate (CaCO₃). The remaining 4% contains various other elements that are removed from the raw water during the treatment process. A recent grab sample laboratory result taken from the lime pile is attached for you review. Obtaining samples for additional laboratory analysis is the responsibility of the successful bidder “Company” and should be conducted prior to submitting your bid.

It is also the responsibility of the Successful Bidder “Company” to know and comply with all transportation and dumping regulations that may/will require permits, licenses, disposal fees and/or certificates that may/will be required by DERM, FDEP, DOT, etc. to handle, haul and dispose of this material. DERM has commented on conditions surrounding the “permitted reuse” of our spent lime which is outlined in the attached April, 14, 2011 DERM re-use determination letter. A dumpsite specific DERM permit to dump is required and is the responsibility of the Successful Bidder “Company” to obtain and it must be submitted to the Florida Keys Aqueduct Authority, upon request, prior to issuing a purchase order and a/or a Notice to Proceed. The Permit must indicate: Florida Keys Aqueduct Authority, J. Robert Dean WTP as the waste generator and (Spent Lime) as the industrial waste component being removed accompanied by dump site details such as owner’s name and the physical address of the proposed disposal site. The successful bidder “Company” is responsible for supplying all loading, moving and hauling equipment. This includes, but is not limited to: front end loaders, dozers, dump trucks, fuel costs, permits, tolls, licenses, tip and/or dump fees, taxes, labor costs, etc.

Pre-Bid inspection of the spent lime is encouraged prior to submitting your bid. Contact Mr. Tony Rossetti at 786349-6530 or arossetti@fkaa.com to arrange a site visit.

Project length: This is a two (2) year contract covering 730 days. The contract will begin October 1, 2018 and continue through to September 30, 2020. Available work hours are Monday through Friday between 8am & 5pm, excluding weekends and all Federal Holidays.

Return this sheet with your bid

Two (2) year contract Maximum sludge removal ~15,000 per year

OFFICIAL BID FORM

Florida Keys Aqueduct Authority, Sludge Removal at the J. Robert Dean Water Treatment Plant in Florida City from October 1, 2018 to September 30, 2020

\$ 3.10 Unit Price per cubic yard removed and disposed.

Unit Price per cubic yard, written out: Three Dollars + Ten Cents per cubic yard.

NOTE: Prices should be firm for the contract period, no escalation clause accepted. Proof of insurance required upon award of bid. (See attached.) Any questions or requests for clarification should be sent in writing via email to David Jackson, Purchasing Manager at djackson@fkaa.com.

Bids should be returned to:

FCAA Purchasing Department
7000 Front St. (Stock Island)
Key West, FL 33040

Bids not received by June 12, 2018 at 4:00 PM will not be considered.

Please note the USPS does not deliver to this address.

The Governing Board of Directors of the Florida Keys Aqueduct Authority reserves the right to reject any and all bids, in whole or in part, to waive any irregularities or informalities in any bid, and to award to any party considered to be in the best interest of the Authority.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
06/04/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	ALL CITY INSURANCE INC. 1400 NW 107th AVE SUITE 210 DORAL FL 33172-	CONTACT NAME:	INGRID HERRERA	
		PHONE (A/C, No, Ext):	(305)483-9431	FAX (A/C, No): (305)436-6797
		E-MAIL ADDRESS:	GMAIL@ALLCITYINS.COM	
		INSURER(S) AFFORDING COVERAGE		NAIC #
		INSURER A:	NorGUARD INSURANCE COMPANY	
INSURED	GALAFRE CONSTRUCTION AND LAND DESIGN INC 9173 NW 146 TERRACE Hialeah FL 33018-	INSURER B:	PROGRESSIVE EXPRESS INSUR	
		INSURER C:	WESTERN WORLD INSURANCE C	
		INSURER D:		
		INSURER E:		
		INSURER F:		

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL SUBR INSD WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
C	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR		NPP8508527	02/03/2018	02/03/2019	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea. occurrence) \$ 100,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 POLLUTION LIAB. \$50,000/100,000
B	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY		05472426-8	06/17/2017	06/17/2018	COMBINED SINGLE LIMIT (Ea. accident) \$ BODILY INJURY (Per person) \$ 1,000,000 BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	UMBRELLA LIAB EXCESS LIAB DED RETENTION \$					OCCUR CLAIMS-MADE EACH OCCURRENCE \$ AGGREGATE \$
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N <input checked="" type="checkbox"/> N/A	GAWC827676-R	05/15/2018	05/15/2019	<input checked="" type="checkbox"/> PER STATUTE OTH-ER E.L. EACH ACCIDENT \$ 100,000 E.L. DISEASE - EA EMPLOYEE \$ 100,000 E.L. DISEASE - POLICY LIMIT \$ 500,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
BLANKET ADDITIONAL INSURED INCLUDING WAIVER OF SUBROGATION AND PRIMARY-NON CONTRIBUTORY ENDORSEMENT INCLUDED UNDER FORM WW433 (09/14)

CERTIFICATE HOLDER	CANCELLATION	AI 004912
FKAA 1100 Kennedy Drive Key West FL 33040-	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.	
	AUTHORIZED REPRESENTATIVE <i>Ingrid Herrera</i>	

© 1988-2015 ACORD CORPORATION. All rights reserved.



Pace Analytical Services, Inc.
 8 East Tower Circle
 Ormond Beach, FL 32174
 (386)672-5653

ANALYTICAL RESULTS

Project: Residual 4/1/11
 Pace Project No.: 3528472

Sample: Residual Storage Area Lab ID: 3528472001 Collected: 04/01/11 13:00 Received: 04/02/11 10:40 Matrix: Solid
 Results reported on a "dry-weight" basis

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP									
Analytical Method: EPA 6010 Preparation Method: EPA 3050									
Aluminum	28.2	mg/kg	5.8	2.9	1	04/04/11 09:30	04/04/11 18:27	7429-90-5	
Arsenic	0.29U	mg/kg	0.58	0.29	1	04/04/11 09:30	04/04/11 18:27	7440-38-2	
Barium	27.6	mg/kg	0.58	0.29	1	04/04/11 09:30	04/04/11 18:27	7440-39-3	
Cadmium	0.029U	mg/kg	0.058	0.029	1	04/04/11 09:30	04/04/11 18:27	7440-43-9	
Chromium	0.14U	mg/kg	0.29	0.14	1	04/04/11 09:30	04/04/11 18:27	7440-47-3	
Copper	0.14U	mg/kg	0.29	0.14	1	04/04/11 09:30	04/04/11 18:27	7440-50-8	
Iron	8.7	mg/kg	2.3	1.2	1	04/04/11 09:30	04/04/11 18:27	7439-89-6	
Lead	0.29U	mg/kg	0.58	0.29	1	04/04/11 09:30	04/04/11 18:27	7439-92-1	
Manganese	5.8	mg/kg	0.29	0.14	1	04/04/11 09:30	04/04/11 18:27	7439-96-5	
Nickel	0.14U	mg/kg	0.29	0.14	1	04/04/11 09:30	04/04/11 18:27	7440-02-0	
Selenium	0.52	mg/kg	0.87	0.43	1	04/04/11 09:30	04/04/11 18:27	7782-49-2	
Silver	0.14U	mg/kg	0.29	0.14	1	04/04/11 09:30	04/04/11 18:27	7440-22-4	
Zinc	0.58U	mg/kg	1.2	0.58	1	04/04/11 09:30	04/04/11 18:27	7440-86-6	
7471 Mercury									
Analytical Method: EPA 7471 Preparation Method: EPA 7471									
Mercury	0.048U	mg/kg	0.19	0.048	1	04/05/11 08:42	04/05/11 14:22	7439-97-6	
Percent Moisture									
Analytical Method: ASTM D2974-87									
Percent Moisture	16.6	%	0.10	0.10	1		04/04/11 18:12		





miamidade.gov

Department of Environmental Resources Management
Office of the Director
701 NW 1st Court, 4th Floor
Miami, Florida 33136-3912
T 305-372-6754 F 305-372-6759

April 14, 2011

Mr. Rick Zucker,
Florida Keys Aqueduct Authority,
35400 SW 192 Ave
Florida City, FL 33034

CERTIFIED MAIL NO: 7010 1870 0000 2691 4774
RETURN RECEIPT REQUESTED

Re: Request for reuse determination for calcium carbonate residuals generated from the Florida Keys Aqueduct Authority's J. Robert Dean Water Treatment Plant (IW5-3972/3667) located at, near, or in the vicinity of, Florida City, Florida.

Dear Mr. Zucker:

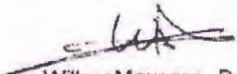
The Department of Environmental Resources Management (DERM) has reviewed the request received via email on April 1, 2010, for a reuse determination with respect to the calcium carbonate residuals (lime sludge) which are the by-product of the lime softening process at potable water treatment plant. Based on the analytical results submitted for lime sludge samples obtained on April 1, 2011 the contaminants of concern in the above referenced lime sludge do not exceed the residential soil cleanup target levels pursuant to Section 24-44(2) of the Code of Miami-Dade County. The material is hereby approved for reuse within Miami-Dade County subject to the conditions below:

1. The material shall not be reused within ecologically sensitive areas (e.g., wetlands, etc.). At a minimum a setback of 25 feet shall be maintained between any ecologically sensitive area and the reuse area. The DERM's Wetland Resources Section (305 372 6567) shall be contacted for additional guidance if the material is proposed to be reused adjacent to wetlands areas.
2. If the material is proposed to be used to fill a lake the operator of the lakefill shall submit an application to the DERM's Permit Regulation and Enforcement Section indicating intent to utilize the material for lake filling.

Be advised that this approval is specific only to the reuse of the material with respect to potential environmental contamination and is not intended to address geotechnical, structural, stability, foundational, technical, health and safety or any other concerns related to the reuse of this material. The approval does not constitute a waiver from any other applicable approval or permit requirements, pursuant to other local, state or federal regulations.

If you have any questions concerning the above please contact Lorna Bucknor of the Pollution Control Division at (305) 372-6700 or via email at (bucknl@miamidade.gov).

Sincerely


Wilbur Mayorga, P.E., Chief
Pollution Control Division

pc: Patti Emad/Matt Davis, DERM

Delivering Excellence Every Day

**FLORIDA KEYS AQUEDUCT AUTHORITY
INDEMNITY, LIABILITY AND INSURANCE REQUIREMENTS**

INDEMNIFICATION AND HOLD HARMLESS

The Contractor covenants and agrees to indemnify and hold harmless the Florida Keys Aqueduct Authority (The Authority) from any and all claims for bodily injury (including death), personal injury, and property damage (including attorney's fees) which arise out of, in connection with, or by reason of services provided by the Contractor or any of its Subcontractor(s) in any tier, occasioned by the negligence, errors, or other wrongful act or omission of the Contractor or its Subcontractors in any tier, their employees, or agents.

GENERAL INSURANCE REQUIREMENTS

The successful proposer is responsible for ensuring that all such insurance obtained will extend protection to any subcontractor who may perform any part of this contract or require any such subcontractor to obtain insurance consistent with this section. Such insurance will be required during the entire term of the contract.

All proposals shall include proof as evidence of the required insurance, either;

Certificate(s) of Insurance

or

A certified copy of the actual insurance policy (ies).

FKAA, at its sole discretion, has the right to request a certified copy of any or all insurance policies required by this section. **Required insurance with the FKAA as the certificate holder must be provided prior to commencement of work.**

Insurance policies must be provided by a company authorized to transact business in the state of Florida and companies must maintain a minimum rating of A-, as assigned by the A.M. Best Company.

The Commercial General Liability must include FKAA as an additional insured (Note: the proof of insurance included with the proposal does not have to include FKAA as an additional insured. (This will only be required of the awarded proposer).

X Commercial General Liability with minimum limits of \$1,000,000 Combined Single Limit to include, as a minimum:

Premises Operations
Products and Completed Operations
Blanket Contractual Liability
Personal Injury Liability
Expanded Definition of Property Damage

If coverage is provided on a claims made basis, its provisions should include coverage for which claims filed on or after the effect date of this contract. In addition, the period for which claims may be reported should extend for a minimum of twenty four (24) months following the acceptance of work by the Authority.

X Vehicle Liability with combined single limits of \$ 1,00,000 Combined Single Limit (CSL) to cover all vehicles to be used in fulfilling contract. Coverage must be extended to all Owned, Non-Owned and Hired Vehicles.

X Workers' Compensation Benefits with Employer's Liability with the following minimum limits:

Workers' Compensation: Statutory consistent with Florida Statute 440

Employer's Liability: \$100,000 Bodily Injury

\$300,000 Bodily Injury by Disease, policy limits

\$100,000 Bodily Injury by Disease, each employee

Forward all insurance required to FKAA prior to commencement.



Florida Keys Aqueduct Authority

1100 Kennedy Drive
Key West, Florida 33040
Telephone (305) 296-2454
www.fkaa.com



J. Robert Dean
Chairman
District 3

Richard J. Toppinc
Vice-Chairman
District 2

David C. Ritz
Secretary/Treasurer
District 5

Antoinette M. Appi
District 4

Cara Higgins
District 1

Kirk C. Zuelch
Executive Director

MEMORANDUM

TO: Board of Directors

FROM: Kirk C. Zuelch, Executive Director 

DATE: June 18, 2018

SUBJECT: Executive Director's Report – Board of Directors Meeting
June 27, 2018

Below is an outline of issues that I'll be discussing in my Executive Director's report:

1. Florida Power and Light Update

The Nuclear Regulatory Commission (NRC) held an initial Public Scoping Meeting in Homestead on May 31, 2018 to allow public comment on FPL's Application to renew the operating licenses of Turkey Point Nuclear Generating Units 3 and 4 for an additional 20 years, which would extend the licenses through 2053. FCAA staff were in attendance and provided public comments reflective of the Board's position regarding this issue. In addition, staff also followed up with the attached letter to the NRC reiterating the Board's position to have FPL, as a condition of an operating license renewal, remediate the existing contamination in the Biscayne Aquifer and prevent any further contamination by decommissioning the existing cooling canal system and replacing it with industry-standard cooling tower technology.

2. Key West Administration Building Update

Staff have received and are reviewing a preliminary design to provide temporary shoring for the existing Administration Building in Key West. Staff anticipates completing review and contracting the work to start within the next month.

3. Hurricane Preparedness

Based on review and updates to the FCAA Emergency Response Plan (ERP), the following actions have been taken:

- a) All staff have been trained on the new response procedures indicated in the ERP
- b) Communications have been hardened through additional purchase of handheld radios that operate on the Sheriff's radio system, purchase of portable satellite systems for the Key West

- Administration Building, Marathon Campus and Florida City Plant, and purchase of additional satellite phones for field staff
- c) Staff are actively working on relocating the primary computer servers from the Key West Administration Building to the second floor of the Key West Pump Station
 - d) A contingency plan has been developed for staff reporting to the Key West Administration Building, should the building be deemed uninhabitable following a major storm event

4. Consumer Confidence Report

The FKAA's Annual Drinking Water Quality Report was recently published. The report is intended to inform customers about where our water comes from, how it is treated and the FKAA's compliance with regulatory requirements. This report, also referred to as the Consumer Confidence Report, is published each year as mandated by the United States Environmental Protection Agency. While much of the content is required regulatory verbiage, additional educational information is also provided. The report is available on our website and social media and hard copies are available at the FKAA's Customer Service Offices.



Florida Keys Aqueduct Authority

1100 Kennedy Drive
Key West, Florida 33040
Telephone (305) 296-2454
www.fkaa.com



J. Robert Dean
Chairman
District 3

Richard J. Toppino
Vice-Chairman
District 2

David C. Ritz
Secretary/Treasurer
District 5

Antoinette M. Appell
District 4

Cara Higgins
District 1

Kirk C. Zuelch
Executive Director

June 7, 2018

May Ma, Director, Program Management,
Announcements and Editing Branch
Office of Administration
Mailstop: TWFN-7A60M,
US Nuclear Regulatory Commission
Washington, D.C. 20555-0001

RE: **DOCKET ID NRC-2018-0101**
Florida Power and Light Application for Renewal
Facility Operating License No. DPR-31 and DPR-41

Dear Director Ma:

This letter is in follow-up to a presentation the Florida Keys Aqueduct Authority (FKAA) made on May 31, 2018 at the NRC Public Hearing in Homestead Florida, re: Docket ID NRC-2018-0101, Application by Florida Power and Light (FPL) for Renewal of Facility Operating License Numbers DPR-31 and DPR-41. The Florida Keys Aqueduct Authority is an Independent Special District of the State of Florida with the responsibility of supplying the entirety of Monroe County, consisting of the group of islands known as the Florida Keys, with drinking water from the Class I Biscayne Aquifer located in southeast Miami-Dade County. Our Board of Directors is appointed by the Governor of the State of Florida and has directed staff to prepare this letter regarding the FPL Renewal of Facility Operating License No. DPR-31 and DPR-41.

For more than a decade, FPL has been out of compliance with operating requirements of its cooling canal system (CCS). The salinity values in the CCS have risen to concentrations significantly higher than found in seawater. The FPL interceptor canal originally intended to contain hypersaline water from the CCS from migrating offsite is not effective and as a result, a hypersaline plume has migrated more than two miles beyond FPL's property and contaminated a large portion of the Biscayne Aquifer. This hypersaline plume has also forced the freshwater-saltwater interface within the Biscayne Aquifer as much as four miles westward, which is farther than would otherwise naturally occur. This condition, which FPL has been ignoring for decades, is now starting to threaten critical drinking water supplies for south Miami-Dade, as well as all FKAA customers in Monroe County. **If the FKAA drinking water wellfield, which is located approximately ten miles from the Turkey Point Facility, becomes contaminated by the hypersaline plume created by FPL, the primary drinking water supply to Monroe County is lost.**

The State of Florida and Miami-Dade County have both found FPL in violation of their operating conditions and filed regulatory and permit violations against FPL. FPL entered Consent Orders with both entities rather than contest these violations in court. The primary element of both orders is to allow FPL to develop and implement a remediation strategy to reduce the artificially high salinities in the Biscayne Aquifer resulting from uncontrolled leakage from its CCS.

Contrary to groundwater modeling results performed by FPL in development of their remediation strategy to comply with both Consent Orders, actual data gathered to date from our wellfield monitoring program indicate that the current FPL remediation strategy is:

- 1) Not effective in first halting and then retracting the migration of the existing hypersaline plume, and
- 2) Continued use of the CCS is only exacerbating the migration of the existing hypersaline plume.

Past and current operational practices by FPL have led to the environmental degradation of the Biscayne Aquifer and FPL had shown little interest in dealing with these unpermitted consequences of its operation until enforcement action was taken. Even with two Consent Orders in place, there is no clear evidence that FPL can or will resolve the issues caused by continued use of its CCS.

FKAA believes that the existing damage to the local environment must be fully remediated before FPL is granted an extension to operate Units 3 and 4 at its Turkey Point facility. It makes no sense to allow this extension when FPL has such a poor track record operating the existing system.

FKAA also requests the NRC to require cooling towers be built for use with the existing operation and the closure of the existing CCS. Once built, the towers would alleviate further contamination of the Biscayne Aquifer with proven technology consistent with current industry design standards.

We appreciate the opportunity to provide these comments to your Commission. If there are any questions please contact me.

Sincerely,



Kirk C. Zuehl

Executive Director

cc: J. Robert Dean, FKAA Board of Directors
Richard J. Toppino, FKAA Board of Directors
David C. Ritz, FKAA Board of Directors
Antoinette M. Appell, FKAA Board of Directors
Cara Higgins, FKAA Board of Directors

George Neugent, Monroe County Commissioner
David Rice, Monroe County Commissioner
Danny Kolhage, Monroe County Commissioner
Heather Carruthers, Monroe County Commissioner
Sylvia Murphy, Monroe County Commissioner
Roman Gastesi, Monroe County Administrator
Bob Shillinger, Monroe County Attorney

BOARD OF DIRECTORS, FLORIDA KEYS AQUEDUCT AUTHORITY

AGENDA ITEM SUMMARY

AGENDA ITEM: DOA-01

CONSENT:

REGULAR:

MEETING DATE: June 27, 2018

DIVISION: Administration

AGENDA TITLE: Summary of financial information for October 2017 through May 2018.

ITEM BACKGROUND:

Financial highlights

Percentage of fiscal year elapsed	66.67%
Percentage of budgeted revenue earned	66.60%
Percentage of operating budget expended	61.80%
Budget amendments year to date	10
Budget line item transfers year to date	2
Operating revenue increase (decrease) year over year	-0.03%
Operating expense (less depreciation) increase (decrease) year over year	23.00%

PREVIOUS RELEVANT ACTION BY FCAA BOARD OF DIRECTORS:

STAFF RECOMMENDATION (MOTION): Informational only

SUPPLEMENTAL INFORMATION:

DOCUMENTATION: Included: To-Follow: Not Required:

Cost to FCAA: \$ _____ BUDGETED: Yes No
 Cost to Others: \$ _____
 Total Cost: \$ _____

DEPARTMENT: Finance **DEPARTMENT DIRECTOR APPROVAL:** _____

DIVISION DIRECTOR APPROVAL: _____

Reviewed by: Internal Auditor: [Signature] General Counsel: [Signature] Executive Director: [Signature]

BOARD ACTION:

Approved: Tabled: Disapproved: Recommendation Revised:

Comments: _____

Date: _____ Recording Clerk: _____

FLORIDA KEYS AQUEDUCT AUTHORITY

Financial Analysis

May 31, 2018

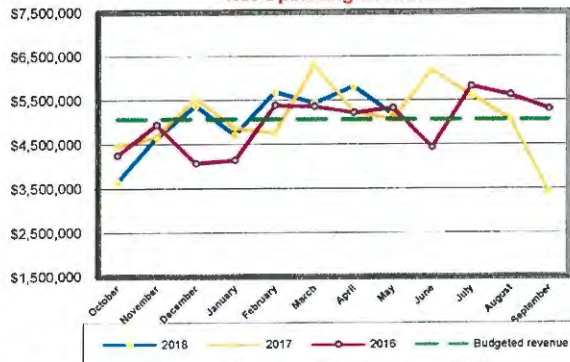
Balance sheet summary

	Amount	Increase (decrease) from last month	Increase (decrease) from last year-end
Cash, cash equivalents and investments	\$ 45,557,814	13.9%	-10.0%
Capital assets, net of depreciation	266,124,047	0.0%	-0.6%
Other assets	14,511,453	-8.2%	7.0%
Total assets	326,193,314	0.5%	-1.7%
Deferred outflow of resources	37,253,582	0.00%	-0.02%
Long-term debt (including current portion)	203,476,280	0.0%	-0.3%
Other liabilities	13,489,788	24.1%	-17.5%
Total liabilities	216,966,068	1.2%	-2.6%
Deferred inflow of resources	1,678,306	0.00%	0.00%
Net assets	\$ 144,802,522	-0.7%	0.1%

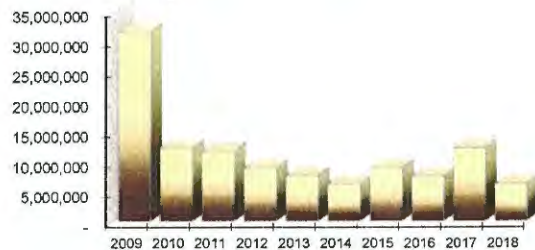
Revenue and expense summary

	Month-to-date	Increase (decrease) from same month last year	Year-to-date	Increase (decrease) from year-to-date last year
Net operating revenues	\$ 5,176,079	1.9%	\$ 40,936,024	0.0%
Interest income	60,049	26.7%	433,080	93.9%
Other income	(542,951)	-1416.1%	484,685	100.0%
Total income	4,693,177	-9.2%	41,853,789	0.6%
Operating expenses (less depreciation)	4,626,434	51.8%	30,745,881	23.0%
Depreciation	1,433,025	11.5%	10,220,888	-1.0%
Interest expense	474,259	-1.8%	3,714,348	1.7%
Other expenses	(8,123)		(101,465)	
Total expenses	6,525,595	35.5%	44,579,652	13.7%
Excess of revenues over expenses	(1,832,418)		(2,725,863)	
System development fees and other contributions	773,879	-54.6%	2,823,452	-30.2%
Change in net assets	\$ (1,058,539)		\$ 97,589	

Net Operating Revenues



Capital Expenditures
Last ten fiscal years



Financial indicators

	Current month-end	Last month-end	Last year-end
Unrestricted net assets	\$ 6,465,713	\$ 9,653,844	\$ 9,746,645
Current cash and investments to current liabilities	2.2	2.4	2.1
# months operating expenses in cash and investments	3.3	3.9	2.3
Working capital (current assets less current liabilities) to total assets	0.1	0.1	0.1
Net assets to total assets	0.4	0.4	0.4
Average rate of return on investments (year to date)	1.44%	1.35%	0.73%
% of total annual budgeted revenue earned (year to date)	66.6%	58.1%	103.8%
% of total annual budget expended (year to date)	61.8%	54.2%	100.8%
Total capital expenditures (year-to-date)	\$ 6,206,267	\$ 5,162,256	\$ 12,202,582
Total capital improvement commitments	\$ 7,867,726	\$ 6,782,784	\$ 8,374,324

STATEMENT OF NET POSITION
May 31, 2018

Assets	
Current assets	
Unrestricted current assets	
Cash and cash equivalents	12,116,281
Investments	20,000,000
Receivables:	
Accounts - customers	4,485,125
Accounts - other	3,196,355
Interest	282,207
Current portion of assessments	341,919
Material and supplies	2,806,738
Prepaid expenses and other current assets	1,152,364
Total unrestricted current assets	44,180,989
Restricted current assets	
Cash and cash equivalents	10,519,993
Investments	-
Interest rate swap collateral	-
Total restricted current assets	10,519,993
Total current assets	54,700,982
Noncurrent assets	
Restricted noncurrent assets	
Cash and cash equivalents	2,921,540
Investments	-
Total restricted noncurrent assets	2,921,540
Capital assets	
Capital assets in service	504,682,232
Construction in progress	21,759,275
Less accumulated depreciation	(260,317,460)
Capital assets, net of accumulated depreciation	266,124,047
Assessments receivable, net of current portion	2,446,745
Total noncurrent assets	271,492,332
Total assets	326,193,314
Deferred outflow of resources	
Accumulated change in fair value of hedging derivatives	10,838,657
Deferred amount on debt refundings	2,527,706
Pension	8,691,842
Navy Wastewater	15,195,477
	37,253,582
Liabilities	
Current liabilities	
Current liabilities payable from unrestricted assets	
Accounts payable	1,743,285
Accrued wages and benefits	691,100
Unearned receipts	-
Other liabilities	2,598,159
Total current liabilities payable from unrestricted assets	5,032,544
Current liabilities payable from restricted assets	
Customer deposits	2,021,540
Interest payable	634,061
Advances from other governments	4,901,543
Current portion of credit due to US government	937,846
Current portion of bonds payable	4,368,174
Current portion of compensated absences	305,216
Total current liabilities payable from restricted assets	14,066,280
Total current liabilities	19,100,824
Long-term liabilities	
Credit due to US government	26,144,796
Bonds payable	137,056,091
Derivative instrument - swap	10,838,557
Compensated absences	3,052,156
Net OPEB obligation	2,675,695
Net pension liabilities	21,705,895
	203,476,280
Less current portion	(5,611,036)
Total long-term liabilities	197,865,244
Total liabilities	216,966,068
Deferred inflow of resources	
Pension	1,678,306
Net position	
Invested in capital assets, net of related debt	129,484,910
Restricted:	
Debt service	2,757,928
Capital projects	3,172,431
Other purposes	2,921,540
Unrestricted	6,465,713
Total net position	\$ 144,802,522

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET ASSETS
For the eight months ending May 31, 2018

	Month-to-date			Year-to-date		
	This year	Last year	Increase (decrease)	This year	Last year	Increase (decrease)
Operating revenue						
Metered revenue water:						
Residential	\$ 2,219,848	\$ 2,127,395	\$ 92,453	\$ 17,240,659	\$ 17,453,952	\$ (213,293)
Commercial	1,699,028	1,661,884	37,144	13,268,303	13,377,878	(109,575)
U. S. Navy	84,919	85,689	(770)	730,470	748,656	(18,186)
Other governmental	11		11	(20)	73,929	(73,949)
Senior citizens	29,816	30,926	(1,110)	290,700	243,956	46,744
Reclaimed water	10,430	11,712	(1,282)	70,202	83,895	(13,693)
Metered revenue wastewater:						
Residential	510,317	500,815	9,502	4,120,750	3,762,171	358,579
Commercial	70,514	79,789	(9,275)	596,669	579,690	16,979
U. S. Navy	120,488	125,467	(4,979)	1,029,404	1,016,748	12,656
Other governmental	566	1,011	(445)	4,196	6,968	(2,772)
Senior citizens	10,217	10,293	(76)	99,954	65,278	34,676
Total metered revenue	4,756,154	4,634,981	121,173	37,451,287	37,413,121	38,166
Other operating revenue	470,480	465,156	5,324	3,778,376	3,787,595	(9,219)
Total operating revenue	5,226,634	5,100,137	126,497	41,229,663	41,200,716	28,947
Less: abatements	(50,555)	(19,054)	(31,501)	(293,639)	(252,115)	(41,524)
Net operating revenue	5,176,079	5,081,083	94,996	40,936,024	40,948,601	(12,577)
Operating expenses						
Source of supply	49,289	41,208	8,081	514,271	382,161	132,110
Water treatment	449,003	131,518	317,485	2,638,942	2,262,910	376,032
Transmission	611,070	409,186	201,884	3,814,239	3,350,839	463,400
Distribution	775,034	651,712	123,322	6,441,102	4,924,961	1,516,141
Customer accounts	382,010	266,364	115,646	2,348,550	2,210,193	138,357
General and administration	1,928,101	1,269,434	658,667	11,287,049	9,662,250	1,624,799
Wastewater treatment	121,385	108,033	13,352	824,962	889,728	(64,766)
Wastewater collection	310,542	170,345	140,197	2,876,766	1,313,815	1,562,951
Depreciation	1,433,025	1,285,309	147,716	10,220,888	10,320,375	(99,487)
Total operating expenses	6,059,459	4,333,109	1,726,350	40,966,769	35,317,232	5,649,537
Utility operating income	(883,380)	747,974	(1,631,354)	(30,745)	5,631,369	(5,662,114)
Non-operating revenues (expenses)						
Interest income	60,049	47,399	12,650	433,080	223,359	209,721
Other income	(542,951)	41,254	(584,205)	484,685	442,560	42,125
Gain (loss) on disposal of assets and inventory	8,123	-	8,123	251,498	2,456	249,042
Interest expense	(474,259)	(483,090)	8,831	(3,714,348)	(3,652,545)	(61,803)
Other financing fees	-	(1,250)	1,250	(150,033)	(218,113)	68,080
Bond issuance costs	-	-	-	-	(23,467)	23,467
Amortization	-	-	-	-	-	-
Total non-operating revenues (expenses)	(949,038)	(395,687)	(553,351)	(2,695,118)	(3,225,750)	530,632
Net income before contributions	(1,832,418)	352,287	(2,184,705)	(2,725,863)	2,405,619	(5,131,482)
Capital contributions	773,879	1,704,490	(930,611)	2,823,452	4,046,159	(1,222,707)
Change in net position	\$ (1,058,539)	\$ 2,056,777	\$ (3,115,316)	\$ 97,589	\$ 6,451,778	\$ (6,354,189)
Net position, beginning of period	145,861,061			144,704,933		
Net position, end of period	\$ 144,802,522			\$ 144,802,522		

SCHEDULE OF OPERATING EXPENSES
For the eight months ending May 31, 2018

	Month-to-date			Year-to-date		
	This year	Last year	Increase (decrease)	This year	Last year	Increase (decrease)
Salaries	\$ 2,345,102	\$ 1,377,010	\$ 968,092	\$ 12,830,086	\$ 11,242,782	\$ 1,587,304
Salaries (capitalized)	-	-	-	-	-	-
Overtime	70,710	48,495	22,215	532,919	363,033	169,886
Overtime (capitalized)	-	-	-	-	-	-
Retirement	217,600	212,754	4,846	1,448,685	1,234,342	214,343
Payroll taxes	184,487	112,714	71,773	1,012,148	900,178	111,970
Employee health insurance	222,655	200,078	22,577	2,492,122	2,292,437	199,685
Other benefits	6,946	9,815	(2,869)	80,089	54,713	25,376
Electricity	288,494	265,067	23,427	1,910,755	1,884,593	26,162
Fuel for power production	21,259	2,671	18,588	111,654	35,267	76,387
Chemicals	159,090	19,378	139,712	1,141,514	1,094,840	46,674
Maintenance and materials	385,104	311,365	73,739	2,909,989	2,429,613	480,376
Maintenance and materials - construction	(18,320)	6,111	(24,431)	209,364	170,595	38,769
Emergency materials and supplies	13,612	-	13,612	2,307,054	-	2,307,054
Engineering services	6,000	225	5,775	52,472	10,553	41,919
Accounting and auditing services	-	-	-	88,489	79,500	8,989
Legal services	-	610	(610)	2,874	13,026	(10,152)
Other consulting and support services	117,206	102,850	14,356	760,986	762,345	(1,359)
Outsourced operations	272,948	88,828	184,120	620,826	447,870	172,956
Sludge removal	21,222	8,372	12,850	82,794	83,210	(416)
Rental of building - real property	466	1,752	(1,286)	5,104	12,316	(7,212)
Rental expense - equipment	1,799	1,800	(1)	18,487	16,782	1,705
Transportation expense	55,057	39,978	15,079	289,202	208,333	80,869
Insurance-vehicle	5,585	6,526	(941)	44,512	51,783	(7,271)
Vehicle repairs (net of insurance reimbursements)	-	6,008	(6,008)	(2,696)	13,094	(15,790)
Insurance-general liabilities	9,363	8,563	800	76,540	67,924	8,616
General liability claims (net of insurance reimbursements)	-	-	-	25,979	10,265	15,714
Insurance-workers' compensation	23,946	22,346	1,600	191,570	178,766	12,804
Workers compensation (net of insurance reimbursements)	-	1,435	(1,435)	35,686	24,708	10,978
Insurance-other	85,471	70,661	14,810	605,592	580,612	24,980
Other claims and damages	3,015	(7,795)	10,810	(228,517)	(8,085)	(220,432)
Advertising	9,639	6,649	2,990	41,138	34,026	7,112
Bad debt expense	10,000	6,750	3,250	47,140	54,000	(6,860)
Office supplies	8,363	6,494	1,869	54,241	52,163	2,078
Bank charges	51,371	50,718	653	375,386	342,021	33,365
Cashiers over/short	10	-	10	52	(53)	105
Other utilities and technical services	63,700	44,829	18,871	496,677	304,563	192,114
Postage	3,444	1,755	1,689	15,625	17,531	(1,906)
Travel	7,238	4,099	3,139	47,114	34,658	12,456
Training	10,979	4,421	6,558	33,202	23,631	9,571
Miscellaneous	13,081	19,842	(6,761)	97,709	101,450	(3,741)
Public information and outreach	6,453	13,702	(7,249)	19,061	42,771	(23,710)
Misc. Freight	303	763	(460)	3,028	4,610	(1,582)
Less: administrative overhead (capitalized)	(56,964)	(29,839)	(27,125)	(140,771)	(269,909)	129,138
Total operating expenses before depreciation	4,626,434	3,047,800	1,578,634	30,745,881	24,996,857	5,749,024
Depreciation	1,433,025	1,285,309	147,716	10,220,888	10,320,375	(99,487)
Total operating expenses	\$ 6,059,459	\$ 4,333,109	\$ 1,726,350	\$ 40,966,769	\$ 35,317,232	\$ 5,649,537

BUDGETARY COMPARISON SCHEDULE
For the eight months ending May 31, 2018

	Budgeted expenditures		Actual expenditures		% of budget expended	Budget remaining
	Original	Adjusted	Month-to-date	Year-to-date		
Capital expenditures:						
Additions to capital assets	\$ 3,732,300	\$ 4,419,000	\$ 508,493	\$ 2,325,854	52.6%	\$ 2,093,146
Salaries (capitalized)	1,033,800	1,033,800	67,552	378,931	37%	654,869
Overtime (capitalized)	-	-	916	20,453	na	(20,453)
Total Capital Outlay	4,766,100	5,452,800	576,961	2,725,238		2,727,562
Operating expenses:						
Personnel services						
Salaries	18,932,100	19,419,100	2,345,102	12,830,086	66%	6,589,014
Overtime	483,600	683,600	70,710	532,919	78%	150,681
Retirement	1,797,400	2,397,400	217,600	1,448,685	60%	948,715
Payroll taxes	1,564,500	1,564,500	184,487	1,012,148	65%	552,352
Employee health insurance	3,600,000	3,600,000	222,655	2,492,122	69%	1,107,878
Other benefits	229,000	229,000	6,946	80,089	35%	148,911
Total personnel services	26,606,600	27,893,600	3,047,500	18,396,049		9,497,551
Other operating expenses						
Electricity	3,192,500	3,192,500	286,494	1,910,755	60%	1,261,745
Fuel for power production	83,500	133,500	21,259	111,654	84%	21,846
Chemicals	2,157,700	2,157,700	159,090	1,141,514	53%	1,016,186
Maintenance and materials	3,975,900	4,527,900	385,104	2,909,989	64%	1,617,911
Maintenance and materials - construction	-	-	(18,320)	209,364	na	(209,364)
Emergency materials and supplies	-	2,432,500	13,612	2,307,054	95%	125,446
Engineering services	290,000	290,000	6,000	52,472	18%	237,528
Accounting and auditing services	89,500	169,500	-	88,489	52%	81,011
Legal services	30,000	30,000	-	2,874	10%	27,126
Other consulting and support services	1,579,700	1,579,700	117,206	760,986	48%	818,714
Outsourced operations	1,681,300	1,896,300	272,948	620,826	33%	1,275,474
Sludge removal	294,000	294,000	21,222	82,794	28%	211,206
Rental of building - real property	14,000	14,000	466	5,104	37%	8,896
Rental expense - equipment	63,000	63,000	1,799	18,487	29%	44,513
Transportation expense	495,600	495,600	55,057	289,202	58%	206,398
Insurance-vehicle	110,000	110,000	5,585	44,512	41%	65,488
Vehicle repairs (net of insurance reimbursements)	-	-	-	(2,696)	na	2,696
Insurance-general liabilities	137,000	137,000	9,363	76,540	56%	60,460
General liability claims (net of insurance reimbursements)	-	-	-	25,979	na	(25,979)
Insurance-workers' compensation	270,000	270,000	23,946	191,570	71%	78,430
Workers compensation (net of insurance reimbursements)	-	-	-	35,686	na	(35,686)
Insurance-other	993,300	993,300	85,471	605,592	61%	387,708
Other claims and damages	-	-	3,015	(228,517)	na	228,517
Advertising	69,000	69,000	9,639	41,138	60%	27,862
Bad debt expense	81,000	81,000	10,000	47,140	58%	33,860
Office supplies	144,000	144,000	8,363	54,241	38%	89,759
Bank charges	520,000	520,000	51,371	375,386	72%	144,614
Cashiers over/short	-	-	10	52	na	(52)
Other utilities and technical services	819,900	819,900	63,700	496,677	61%	323,223
Postage	38,300	38,300	3,444	15,625	41%	22,675
Travel	162,400	162,400	7,238	47,114	29%	115,286
Training	153,400	153,400	10,979	33,202	22%	120,198
Miscellaneous	163,000	163,000	13,081	97,709	60%	65,291
Public Information and outreach	129,000	129,000	6,453	19,061	15%	109,939
Misc. Freight	10,000	10,000	303	3,028	30%	6,972
Total other operating expenses	17,747,000	21,076,500	1,635,898	12,490,603		8,585,897
Total operating expense budget	44,353,600	48,970,100	4,683,398	30,886,652		18,083,448
Total operating budget	49,119,700	54,422,900	5,260,359	33,611,890		20,811,010
Less: Capital expenditures			5,260,359	33,611,890	61.8%	\$ 20,811,010
Administrative overhead capitalized			(576,961)	(2,725,238)		
Add: Depreciation			(56,964)	(140,771)		
Total actual operating expenses			1,433,025	10,220,888		
			\$ 6,059,459	\$ 40,966,769		

Florida Keys Aqueduct Authority
Cash Summary
May 31, 2018

Cash	\$	25,557,814.15
Investments		20,000,000.00
Total cash and investments		45,557,814.15
Externally restricted by statute or covenant		
Debt service reserves		(5,158,287.03)
Monroe County funds advanced for wastewater construction		(4,916,943.23)
Grant match for on-site wastewater project		(1,296,050.00)
Bond proceeds held for future projects		(2,070,253.00)
Cash and investments at board's discretion		32,116,280.89
Board restrictions		
Contingency fund for unanticipated losses		(2,982,531.81)
Operating reserve (3 months of minimal operating expenses)		(9,000,000.00)
Cash and investments after board restrictions		20,133,749.08
Other set asides		
Customer deposits		(2,921,540.00)
Reserve for self-retained health care claims		(1,128,290.13)
Cash and investments available for capital projects		16,083,918.95
Capital project contract balances outstanding funded from reserves		(7,867,725.93)
Cash and investments available for future projects	\$	8,216,193.02

BUDGET AMENDMENTS AND TRANSFERS
For the year ending September 30, 2018

	Original budget	Amendments	Budget transfers	Adjusted budget
Capital expenditures:				
Utility plant in service	\$3,732,300	\$ 672,700	\$ 14,000	\$ 4,419,000
Salaries (capitalized)	1,033,800	-	-	1,033,800
Overtime (capitalized)	-	-	-	-
Total operating capital expenditures	4,766,100	672,700	14,000	5,452,800
Operating expenses:				
Personnel services				
Salaries	18,932,100	487,000	-	19,419,100
Overtime	483,600	200,000	-	683,600
Retirement	1,797,400	600,000	-	2,397,400
payroll taxes	1,564,500	-	-	1,564,500
Insurance	3,600,000	-	-	3,600,000
Other	229,000	-	-	229,000
Total personnel services	26,606,600	1,287,000	-	27,893,600
Other operating expenses				
Electricity	3,192,500	-	-	3,192,500
Fuel for power production	83,500	50,000	-	133,500
Chemicals	2,157,700	-	-	2,157,700
Maintenance and materials	3,975,900	566,000	(14,000)	4,527,900
Emergency materials and supplies	-	2,432,500	-	2,432,500
Engineering services	290,000	-	-	290,000
Accounting and auditing services	89,500	80,000	-	169,500
Legal services	30,000	-	-	30,000
outsourced operations	1,681,300	215,000	-	1,896,300
Other consulting and support services	1,579,700	-	-	1,579,700
Sludge removal	294,000	-	-	294,000
Rent expense-building	14,000	-	-	14,000
Rent expense-equipment	63,000	-	-	63,000
Transportation expenses	495,600	-	-	495,600
Insurance - vehicle	110,000	-	-	110,000
Insurance - general liabilities	137,000	-	-	137,000
Insurance - workers' compensation	270,000	-	-	270,000
Insurance - property and flood	993,300	-	-	993,300
Advertising	69,000	-	-	69,000
Bad debt expense	81,000	-	-	81,000
Office supplies	144,000	-	-	144,000
Other utilities and technical services	819,900	-	-	819,900
Postage	38,300	-	-	38,300
Travel	162,400	-	-	162,400
Training	153,400	-	-	153,400
Miscellaneous other	163,000	-	-	163,000
Bank charges	520,000	-	-	520,000
Public information and outreach	129,000	-	-	129,000
Miscellaneous-freight	10,000	-	-	10,000
Total other operating expenses	17,747,000	3,343,500	(14,000)	21,076,500
Total operating expense budget	44,353,600	4,630,500	(14,000)	48,970,100
Total operating budget	\$ 49,119,700	\$ 5,303,200	\$ -	\$ 54,422,900

BUDGET AMENDMENTS
For the year ending September 30, 2018

Amendment #	Date of Board Approval	Account	Description and justification	Amount
1	11/15/2017	1-4108-10100-99	Purchase of new vehicles	345,000
1	11/15/2017	1-4208-10100-99	Purchase of new vehicles	95,500
2	12/20/2017	1-4001-10100-99	Purchase of new gas fueling stations	33,600
2	12/20/2017	1-5060-10100-99	Purchase of new gas fueling stations	13,500
3	1/31/2018	1-4214-62003-14	Emergency Services & Repairs to Infrastructure	627,100
3	1/31/2018	1-4101-62003-08	Emergency Services & Repairs to Infrastructure	104,500
3	1/31/2018	1-5001-62003-04	Emergency Services & Repairs to Infrastructure	147,800
4	1/31/2018	1-4201-10100-99	Purchase of backhoe	87,300
5	1/31/2018	1-5060-10100-99	Emergency purchase of a Centrifuge Control System	39,800
6	1/31/2018	1-4101-62003-08	FlaWam Mutual Aid Agreement provided after Hurricane Irma	170,700
7	2/28/2018	1-2021-83500-10	Purchase of e-builder, a web based const mngmt software	215,000
8	2/28/2018	1-4301-62003-08	Emergency Services & Repairs to Infrastructure	17,900
8	2/28/2018	1-4214-62003-14	Emergency Services & Repairs to Infrastructure	95,000
8	2/28/2018	1-2021-62003-10	Emergency Services & Repairs to Infrastructure	244,500
9	3/28/2018	1-2027-62001-08	Water Meter Interface units	366,000
10	5/23/2018	1-4201-62003-08	Emergency Services & Repairs to Infrastructure	75,000.00
10	5/23/2018	1-5020-10100-99	Purchase of new AC chiller	58,000.00
10	5/23/2018	1-4214-62003-14	Emergency Services & Repairs to Infrastructure	691,000.00
10	5/23/2018	1-4301-62003-08	Emergency Services & Repairs to Infrastructure	85,000.00
10	5/23/2018	1-8010-62003-10	Emergency Services & Repairs to Infrastructure	34,000.00
10	5/23/2018	1-4201-62003-08	Emergency Services & Repairs to Infrastructure	105,000.00
10	5/23/2018	1-8020-62003-10	Emergency Services & Repairs to Infrastructure	20,000.00
10	5/23/2018	1-4101-62003-08	Emergency Services & Repairs to Infrastructure	15,000.00
10	5/23/2018	1-4205-61600-06	Fuel for power production	10,000.00
10	5/23/2018	1-5020-61600-06	Fuel for power production	35,000.00
10	5/23/2018	1-4104-61800-08	Fuel for power production	5,000.00
10	5/23/2018	1-4108-62001-08	materials and supplies	30,000.00
10	5/23/2018	1-4216-62001-14	materials and supplies	16,000.00
10	5/23/2018	1-4110-62001-02	materials and supplies	154,000.00
10	5/23/2018	1-1011-63200-10	contractual services acct.	80,000.00
10	5/23/2018	1-2021-60101-10	salaries	100,000.00
10	5/23/2018	1-3032-60101-09	salaries	50,000.00
10	5/23/2018	1-4001-60101-10	salaries	100,000.00
10	5/23/2018	1-4214-60101-14	salaries	87,000.00
10	5/23/2018	1-5001-60101-04	salaries	100,000.00
10	5/23/2018	1-6010-60101-10	salaries	50,000.00
10	5/23/2018	1-5060-60103-10	overtime	100,000.00
10	5/23/2018	1-4102-60103-08	overtime	40,000.00
10	5/23/2018	1-2022-60103-10	overtime	11,000.00
10	5/23/2018	1-2023-60103-10	overtime	12,000.00
10	5/23/2018	1-2025-60103-08	overtime	20,000.00
10	5/23/2018	1-3037-60103-09	overtime	12,000.00
10	5/23/2018	1-4202-60103-08	overtime	3,000.00
10	5/23/2018	1-6010-60103-10	overtime	2,000.00
10	5/23/2018	1-2021-60401-10	Retirement	100,000.00
10	5/23/2018	1-4214-60401-14	Retirement	100,000.00
10	5/23/2018	1-6010-60401-10	Retirement	60,000.00
10	5/23/2018	1-5060-60401-10	Retirement	40,000.00
10	5/23/2018	1-5001-60401-04	Retirement	25,000.00
10	5/23/2018	1-4001-60401-10	Retirement	200,000.00
10	5/23/2018	1-1012-60401-10	Retirement	25,000.00
10	5/23/2018	1-3032-60401-09	Retirement	30,000.00
10	5/23/2018	1-7010-60401-10	Retirement	10,000.00
10	5/23/2018	1-8010-60401-10	Retirement	10,000.00

Total amendments

\$ 5,303,200

BUDGET TRANSFERS
For the year ending September 30, 2018

Account#	Account description	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total
10100	Utility plant in service						\$ 7,000	\$ 7,000						\$ 14,000
60101	Salaries													-
60102	Utility plant in service													-
60103	Overtime													-
60104	Overtime (capitalized)													-
60401	Retirement													-
60402	payroll taxes													-
60403	Insurance													-
60404	Other													-
61500	Electricity													-
61600	Fuel for power production													-
61800	Chemicals													-
62001	Maintenance and materials						(7,000)	(7,000)						(14,000)
63100	Engineering services													-
63200	Accounting and auditing services													-
63300	Legal services													-
63400	Other consulting and support services													-
63500	outsourced operations													-
63600	Sludge removal													-
64100	Rent expense-building													-
64200	Rent expense-equipment													-
65000	Transportation expenses													-
65601	Insurance - vehicle													-
65701	Insurance - general liabilities													-
65801	Insurance - workers' compensation													-
65901	Insurance - property and flood													-
66000	Advertising													-
67000	Bad debt expense													-
67501	Office supplies													-
67502	Bank charges													-
67505	Other utilities and technical services													-
67506	Postage													-
67507	Travel													-
67509	Training													-
67510	Miscellaneous other													-
67511	Community Relations													-
67512	Water conservation and outreach													-
67515	Miscellaneous-freight													-
		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Florida Keys Aqueduct Authority

Capital Improvement Plan and Debt Service Budget to Actual Comparison

April 30, 2018

	Budgeted costs	Actual costs	Remaining budget
Capital Improvement Plan			
Distribution replacement	4,000,000	1,659,929	2,340,071
Transmission main improvements C-905 Key Largo	4,000,000	867,475	3,998,807
Transmission main replacements-Grassy Key, Islamorada	500,000	1,193	493,244
Cathodic protection, metal piping, tanks	500,000	6,756	493,244
Valve replacement program-Key West	100,000	-	100,000
Gateway meter reading data collectors	350,000	78,230	271,770
Stock Island seawater reverse osmosis plant	400,000	-	400,000
demo/replace water storage tanks-C69 Trumbo Point	550,000	59,079	490,921
Collection system improvement-Key Haven	4,000,000	2,499,077	1,500,923
Connection of Navy system to Big Coppitt	1,100,000	910,200	189,800
Onsite wastewater program	500,000	1,019	498,981
Storage tank flow control	-	36,128	(36,128)
Collection system R/R system wide	250,000	-	250,000
Swim Well	-	38,865	(38,865)
Design of emergency operation plans	-	7,442	(7,442)
Hurricane IRMA Fema projects	-	4,421	(4,421)
Capital salaries to be allocated	-	36,452	(36,452)
	\$ 16,250,000	\$ 6,206,267	\$ 10,904,452
Debt Service			
Interest expense	\$ 4,519,000	\$ 3,714,348	\$ 804,652
Principal payments	4,345,000	-	4,345,000
	\$ 8,864,000	\$ 3,714,348	\$ 5,149,652

BOARD OF DIRECTORS, FLORIDA KEYS AQUEDUCT AUTHORITY
AGENDA ITEM SUMMARY

AGENDA ITEM: DOA-02

CONSENT:

REGULAR:

MEETING DATE: June 27, 2018

DIVISION: Administration

AGENDA TITLE:

Summary of contractual commitments through May 31, 2018.

ITEM BACKGROUND:

PREVIOUS RELEVANT ACTION BY FCAA BOARD OF DIRECTORS:

As requested by the Board of Directors, task order approvals by the Executive Director in the previous month are included in this report and highlighted in yellow.

STAFF RECOMMENDATION (MOTION):

SUPPLEMENTAL INFORMATION:

DOCUMENTATION: Included: To-Follow: Not Required:

Cost to FCAA: \$ _____
Cost to Others: \$ _____
Total Cost: \$ _____

BUDGETED: Yes No

DEPARTMENT: Finance

DEPARTMENT MANAGER APPROVAL: _____

Kerry Shelby

Digitally signed by Kerry
Shelby
Date: 2018.06.14 14:55:19
-04'00'

DIVISION DEPUTY EXECUTIVE DIRECTOR APPROVAL: _____

Reviewed by: Internal Auditor: [Signature]

General Counsel: RTF

Executive Director: [Signature]

BOARD ACTION:

Approved: Tabled: Disapproved: Recommendation Revised:

Comments: _____

Date: _____

Recording Clerk: _____

Florida Keys Aqueduct Authority Summary of contractual commitments

Thursday, May 31, 2018

Vendor name	Contract #	Project	Approved	Awarded contract amount	Amendments / change orders	Total paid to date	Remaining commitment	Total FCAA Capital Commitments
Water construction contracts								6/12/2018
J.A. LaRocco Enterprises	1094-08	Ocean Reef Transmission Replacement	Board	3,225,656.30	(79,930.54)	3,140,710.76	5,015.00	5,015.00
Florida Design Contractors, Inc.	1141-15	Chlorination Improvements Florida City Plant	Board	106,900.00	-	104,762.00	2,138.00	2,138.00
NVS, Inc.	1145-16	Biscayne Aquifer Saline Water Monitoring Wells	Board	93,935.00	6,400.00	98,385.00	1,950.00	1,950.00
Florida Design Contractors, Inc.	1157-17	Tank Demolition and Misc. Water System Improvements	Board	320,600.00	-	119,871.90	200,728.10	200,728.10
Douglas N. Higgins, Inc.	2323-16	Key Haven Utility Improvements (B & C)	Board	1,430,000.00	-	817,135.62	612,864.38	612,864.38
Charley Toppino and Sons, Inc.	2324-16	Key Haven Utility Improvements (D, E, & F)	Board	800,000.00	-	743,536.06	56,463.94	56,463.94
J.A. LaRocco Enterprises	2278-12	Tavernier (Atlantic and Sunset Acres) Water Main Replacement	Board	1,570,440.00	-	-	1,570,440.00	1,570,440.00
Total water construction contracts							2,449,599.42	2,449,599.42
Water project design contracts								
CH2MHill	CH4-15	Emergency operations plan for transmission main crossings	Board	45,648.00	59,163.00	49,706.08	55,104.92	55,104.92
CH2MHill	CH6-17	Systems on FCAA's Water Transmission Mains	Board	211,964.00	-	119,202.20	92,761.80	92,761.80
Black and Veatch	1130-14	Water/revenue loss management	Board	139,596.00	35,355.70	165,560.81	9,390.89	9,390.89
Atkins	1133-15	Marathon distribution system & integration hydraulic model support	Exec. Dir.	21,580.00	31,820.00	47,754.04	5,645.96	5,645.96
AECOM	1137-15	C-111 transmission main crossing	Board	204,545.00	-	200,248.34	4,296.66	4,296.66
Mathews Consulting	3224-16	Marathon distribution improvements	Board	184,726.00	3,399.50	166,251.14	21,874.36	21,874.36
Water Science Associates	1130-14	Professional service agreement	Exec. Dir.	45,000.00	200,485.00	244,819.59	665.41	665.41
Water Science Associates	1145-16	Modify swim data	Board	29,500.00	58,000.00	87,325.00	175.00	175.00
Water Science Associates	1159-18	Services to plug and abandon three wells	Exec. Dir.	29,700.00	-	9,025.00	20,675.00	20,675.00
Water Science Associates	1160-18	Hydrogeological services related to Mechanical Integrity Testing	Exec. Dir.	19,500.00	-	4,300.00	15,200.00	15,200.00
CSA Central INC	1161-18	General Engineering Services	Exec. Dir.	25,000.00	-	-	25,000.00	25,000.00
Thomas E. Pope, PA		Space Programming, Planning and Conceptual Design Marathon	Exec. Dir.	63,300.00	-	-	63,300.00	63,300.00
Thomas E. Pope, PA	7054-18	Space Programming, Planning and Conceptual Design KW	Exec. Dir.	161,000.00	7,500.00	-	168,500.00	168,500.00
Total water project and design contracts							482,590.00	482,590.00
Total water capital improvement commitments							2,932,189.42	2,932,189.42
Wastewater construction contracts								
3rd Generation Plumbing Inc.	4029-09	Decentralized Wastewater Treatment Demonstration Project	Board	362,967.00	-	177,076.80	185,890.20	185,890.20
Wharton-Smith Inc.	4051-12	Cudjoe SWRF	Board	21,872,000.00	1,107,616.98	22,978,616.98	1,000.00	-
Layne Heavy Civil, Inc.	4053-12	Cudjoe design build outer islands	Board	74,558,000.00	26,475,828.47	96,941,854.34	4,091,974.13	-
Douglas N. Higgins, Inc.	4058-15 ABC	Key Haven Utility Improvements (A, B, C)	Board	4,387,000.00	564,000.00	3,452,053.95	1,498,946.05	1,498,946.05
Charley Toppino and Sons, Inc.	4058-15 DEF	Key Haven Utility Improvements (D, E, F)	Board	1,966,744.00	215,999.84	1,472,010.89	710,732.95	710,732.95
Layne Heavy Civil, Inc.	4059-15	Long Key wastewater system	Board	921,475.00	-	379,509.93	541,965.07	-
Charley Toppino and Sons, Inc.	4062-16	Boca Chica NAS Key West Pump Station and FM Extension	Board	1,847,000.00	719,642.23	1,814,944.59	751,697.64	751,697.64
Key Honey Contracting LLC	4067-16	Middle Torch Key Extension to the CRWS	Board	2,435,400.00	30,742.00	2,130,347.70	335,794.30	-
Key Honey Contracting LLC	4068-17	No Name Key Low Pressure Sewer System	Board	2,092,400.00	-	1,092,653.05	999,746.95	-
Charley Toppino and Sons, Inc.	4070-17	Key Haven FM Transmission System	Board	2,762,000.00	-	1,122,488.50	1,639,511.50	1,639,511.50
Total wastewater construction projects							10,757,258.79	4,786,778.34
Wastewater project design contracts								
Chen & Associates	4044-10	J.R. Dean WTP wastewater meter	Exec. Dir.	24,974.00	10,986.00	30,113.81	5,846.19	5,846.19
Chen Moore	4062-12	Navy transmission	Board	187,600.00	115,740.00	235,082.67	68,257.33	68,257.33
CH2MHill	CH10-12	Programming planning of Cudjoe Regional wastewater system	Board	284,196.00	5,287,080.00	5,510,650.29	60,625.71	-
Mathews Consulting	4054-12	Engineer of record for Cudjoe inner islands	Board	140,000.00	923,011.50	993,677.68	69,333.82	-
Wastewater Technologies	4029-09	Decentralized wastewater treatment demo	Board	100,000.00	-	47,725.81	52,274.19	-
Mathews Consulting	4058-15	Key Haven Utility Improvements	Board	135,181.00	-	125,507.73	9,673.27	9,673.27
Brown and Caldwell	4069-17	Big Coppitt WWTP Expansion	Exec. Dir.	34,745.00	-	534,672.96	72.04	72.04
Mathews Consulting	4070-17	Key Haven Force Main	Board	194,281.80	103,153.70	232,526.16	64,909.34	64,909.34
Total wastewater project design contracts							330,991.89	148,758.17
Total wastewater capital improvement commitments							11,088,250.68	4,935,536.51
Total contractual commitments							\$ 14,020,440.10	\$ 7,867,725.93

Florida Keys Aqueduct Authority Summary of contractual commitments

Thursday, May 31, 2018

Vendor name	Tast Order #	Project	Approved	Awarded task order amount	Amendments	Total paid to date	Remaining task order
Task orders							
CH2MHill	1-17	SCADA repair and upkeep	Board	45,000.00	75,000.00	106,107.45	13,892.55
CH2MHill	1-18	SCADA repair and upkeep	Board	100,000.00	-	-	100,000.00
CH2MHill	2-17	General Engineering Services	Exec. Dir.	20,000.00	-	11,373.80	8,626.20
ACR, LLC	1132-15	Water portals	Board	60,000.00	60,000.00	111,000.00	9,000.00
CH2MHill	2-16	SCADA repair and upkeep	Board	45,000.00	45,000.00	84,123.78	5,876.22
CH2MHill	3-17	General technical electrical services	Exec. Dir.	25,000.00	-	13,424.40	11,575.60
CH2MHill	5-15	Technical and programming service	Exec. Dir.	24,492.00	-	14,353.39	10,138.61
Douglas N. Higgins, Inc.	ITB-15-021	Utility service contract	Board	500,000.00	-	276,060.52	223,939.48
Data Flow Systems	Data Flow System	Remote Monitoring and Control System for Lift Stations	Board	149,775.00	-	31,471.16	118,303.84
FJ Nugent	E-One/Sentry	Remote Monitoring Systems for Grinder Pumps	Board	281,300.00	-	108,000.00	173,300.00
Mathews Consulting	1793	Engineering services	Board	50,000.00	-	48,633.32	1,366.68
Mead and Hunt	1101-09	Technical and strategic assistance for NAS Key West water	Board	30,000.00	43,480.00	61,145.62	12,334.38
Mead and Hunt	4037-09	NAS Wastewater utility services	Exec. Dir.	24,600.00	53,670.00	74,895.00	3,375.00
Raftelis	01-2015	Utility financial consulting services	Exec. Dir.	24,000.00	-	13,075.36	10,924.64
Raftelis	02-2014	System development charges	Exec. Dir.	24,365.00	-	13,562.85	10,802.15
Raftelis	02-2016	Water Revenue Sufficiency	Exec. Dir.	27,200.00	-	24,263.47	2,936.53
Raftelis	03-2016	Wastewater Revenue Sufficiency	Exec. Dir.	18,900.00	-	16,176.75	2,723.25
CH2MHill	05-18	SCADA Modification to Tank Fill Flow Controls	Exec. Dir.	34,729.00	-	8,533.11	26,195.89
Mathews Consulting	1136-18	General Engineering Services	Board	50,000.00	-	1,137.50	48,862.50
Carollo	1158-18	General Engineering Services	Board	50,000.00	-	-	50,000.00
Southeastern Investment Securities	01-18	General requirements	Exec. Dir.	20,000.00	-	8,000.00	12,000.00
Carollo	7002-03	Hurricane Irma Damage Assessment Assistance	Exec. Dir.	34,430.00	-	32,708.50	1,721.50
Carollo	8034-17	Trumbo Tank and Pump Station Replacement	Board	136,677.00	-	51,896.25	84,780.75
CH2MHill	7002-03	Mech/Electrical Damage Assessment Assistance Post Irma	Board	210,537.84	-	120,505.28	90,032.56
Carollo	1154-17	Grassy Key 30 inch Water Transmission main replacement	Board	49,792.00	-	-	49,792.00
Carollo	4053-12	Cudjoe Regional Wastewater System	Exec. Dir.	5,472.00	-	-	5,472.00
CH2MHill	7-18	Emergency Recovery Assistance	Exec. Dir.	24,000.00	-	-	24,000.00
Total task orders						\$	1,111,972.33

Current month additions or changes by Executive Director

BOARD OF DIRECTORS, FLORIDA KEYS AQUEDUCT AUTHORITY
AGENDA ITEM SUMMARY

AGENDA ITEM: DOA- 03

CONSENT:

REGULAR:

MEETING DATE: June 27, 2018

DIVISION: Administration

AGENDA TITLE: Consideration to declare surplus equipment with a total book value of \$183,881.32 as surplus.

ITEM BACKGROUND: Attached is a list of equipment with a total book value of \$183,881.32 that are no longer of any use or value to the FCAA, due to maintenance repair costs beyond economic repair or maintenance charges beyond the asset's value. The items on Schedule B cannot be solicited for bids due to assets being beyond economical repair. The items on Schedule A can be solicited for bids.

PREVIOUS RELEVANT ACTION BY FCAA BOARD OF DIRECTORS:

STAFF RECOMMENDATION (MOTION): The Board declares equipment with a total book value of \$183,881.32 as surplus.

SUPPLEMENTAL INFORMATION:

DOCUMENTATION: Included: To-Follow: Not Required:

Cost to FCAA: \$ 183,881.32
Cost to Others: \$ _____
Total Cost: \$ 183,881.32

BUDGETED: Yes No

DEPARTMENT: _____ **DEPARTMENT DIRECTOR APPROVAL:** _____

DIVISION DIRECTOR APPROVAL: Kerry G Shelby

Reviewed by: Internal Auditor: [Signature] General Counsel: RTF Executive Director: [Signature]

BOARD ACTION:			
Approved: <input type="checkbox"/>	Tabled: <input type="checkbox"/>	Disapproved: <input type="checkbox"/>	Recommendation Revised: <input type="checkbox"/>
Comments: _____			
Date: _____		Recording Clerk: _____	

SCHEDULE A

Asset ID	Asset Description	Asset Class ID	Reason for Surplusing	Acquisition Date	Acquisition Cost	Depreciation	Net Book Value			
<u>Total Class 05- Vehicles</u>										
14993	2018 RV #899	05010	No longer needed- Employee moved back into home	10/24/2017	29,097.00	1,939.84	27,157.16			
14995	2018 RV #902	05010	No longer needed- Employee moved back into home	10/24/2017	18,733.00	1,248.88	17,484.12			
15000	2018 RV-#904	05010	No longer needed- Employee moved back into home	10/24/2017	26,528.00	1,768.56	24,759.44			
15001	2018 RV #894	05010	No longer needed- Employee moved back into home	10/24/2017	30,811.00	2,054.08	28,756.92			
15005	2018 RV- #901	05010	No longer needed- Employee moved back into home	10/24/2017	18,733.00	1,248.88	17,484.12			
15007	2018 RV #903	05010	No longer needed- Employee moved back into home	10/24/2017	25,645.00	1,709.68	23,935.32			
15008	2018 RV #906	05010	No longer needed- Employee moved back into home	10/24/2017	25,280.00	1,685.36	23,594.64			
11865	2004 Ford F150 #137	05005	Beyond economical repair	4/12/2004	15,632.00	15,632.00	-			
11870	2004 Ford F150 #139	05005	Beyond economical repair	4/26/2004	13,434.00	13,434.00	-			
12438	2006 GMC Sierra # 154	05005	Beyond economical repair	5/25/2006	13,712.00	13,712.00	-			
12825	2007 Ford Econoline Van #337	05005	Beyond economical repair	5/17/2007	14,254.00	14,254.00	-			
12829	2007 Ford Econoline Van #198	05005	Beyond economical repair	6/5/2007	16,941.00	16,941.00	-			
12856	2007 Dodge/Ram #194	05005	Beyond economical repair	7/25/2007	26,343.00	26,343.00	-			
13052	2007 Chevy Silverado #187	05010	Beyond economical repair	4/14/2008	26,910.00	26,910.00	-			
13551	1991 Ford/F600 Bucket Truck #605	05005	Beyond economical repair	3/21/2011	4,000.00	4,000.00	-			
13689	2012 Ford F/350 #505	05010	Beyond economical repair	3/1/2012	26,566.70	16,604.19	9,962.51			
					<u>332,619.70</u>	<u>159,485.47</u>	<u>173,134.23</u>			
<u>Total Class 04- Equipment</u>										
12677	American/Signal Message Sign #847	04010	Beyond economical repair/ replaced with new	11/30/2006	13,985.00	13,985.00	-			
12126	Cement Mixer #220	04010	Beyond economical repair/ replaced with new	11/18/2003	2,928.00	2,928.00	-			
11221	Chemical Container Trailer #279	04010	Beyond economical repair/ replaced with new	5/18/2001	6,200.00	6,200.00	-			
08342	Air Compressor #248	04010	Beyond economical repair/ replaced with new	6/4/1996	9,349.00	9,349.00	-			
					<u>32,462.00</u>	<u>32,462.00</u>	<u>-</u>			
Total Schedule A					\$	365,081.70	\$	191,947.47	\$	173,134.23

SCHEDULE B							
Asset ID	Asset Description	Asset Class ID	Reason for Surplusing	Acquisition Date	Acquisition Cost	Depreciation	Net Book Value
Total Class 02- Building & Structures							
11904	HRS Aerobic System	02025	Obsolete	5/20/2004	21,004.99	11,622.92	9,382.07
Total Class 03-							
11234	Ice Machine	03005	Beyond economical repair/ replaced with new	3/20/2001	2,400.00	2,400.00	-
12792	Time Clock	03005	Obsolete	2/12/2007	2,411.66	2,411.66	-
12794	Time Clock	03005	Obsolete	2/12/2007	2,411.66	2,411.66	-
12797	Time Clock	03005	Obsolete	2/12/2007	2,411.67	2,411.67	-
					<u>9,634.99</u>	<u>9,634.99</u>	-
Total Class 04-							
10682	Pressure Washer	04005	Beyond economical repair/ replaced with new	2/18/2000	1,735.90	1,735.90	-
13471	Lawn Tractor	04005	Beyond economical repair/ replaced with new	4/21/2010	1,999.00	1,999.00	-
11422	Power Unit	04008	Beyond economical repair/ replaced with new	8/1/2002	4,787.50	4,787.50	-
03872	Pump	04010	Beyond economical repair/ replaced with new	5/1/1986	1,886.25	1,886.25	-
03873	Pump	04010	Beyond economical repair/ replaced with new	5/1/1986	1,886.25	1,886.25	-
11325	Crane	04010	Beyond economical repair/ replaced with new	11/27/2001	7,050.17	7,050.17	-
12841	Compressor	04010	Beyond economical repair/ replaced with new	6/22/2007	2,124.46	2,124.46	-
					<u>21,469.53</u>	<u>21,469.53</u>	-
Total Class 10-							
09104	Meter	10008	Beyond economical repair/ replaced with new	10/1/1988	1,618.00	1,618.00	-
Total Class 13- Computer Equipment							
11426	Printer	13005	Beyond economical repair	8/12/2002	3,019.66	3,019.66	-
12230	Server	13005	Beyond economical repair	1/12/2005	8,441.00	8,441.00	-
12248	Server	13005	Beyond economical repair	1/12/2005	8,441.00	8,441.00	-
12277	Laptop	13005	Beyond economical repair	7/26/2005	3,160.00	3,160.00	-
13642	Kiosk	13005	Obsolete	9/28/2011	21,612.46	21,612.46	-
14092	Printer	13005	Beyond economical repair	9/19/2014	4,550.00	3,184.98	1,365.02
					<u>49,224.12</u>	<u>47,859.10</u>	
Total					\$ 102,951.63	\$ 92,204.54	\$ 10,747.09

BOARD OF DIRECTORS, FLORIDA KEYS AQUEDUCT AUTHORITY
AGENDA ITEM SUMMARY

AGENDA ITEM: DOA- 04

CONSENT:

REGULAR:

MEETING DATE: June 27, 2018

DIVISION: Administration

AGENDA TITLE:

Consideration to approve the purchase of three Fly-Away Emergency Satellite Systems in the amount of \$91,934.80.

ITEM BACKGROUND:

These units provide Internet access, wireless data access and phone service when extended outages occur with current network providers.

PREVIOUS RELEVANT ACTION BY FCAA BOARD OF DIRECTORS:

STAFF RECOMMENDATION (MOTION):

Approve the purchase of three Fly-Away Emergency Satellite Systems in the amount of \$91,934.80.

SUPPLEMENTAL INFORMATION:

Attached.

DOCUMENTATION: Included: To-Follow: Not Required:

Cost to FCAA: \$ 91,934.80

BUDGETED: Yes No

Cost to Others: \$ _____

Total Cost: \$ 91,934.80

DEPARTMENT: Information Technology

DEPARTMENT MANAGER APPROVAL: 

DIVISION DEPUTY EXECUTIVE DIRECTOR APPROVAL: _____

Reviewed by: Internal Auditor: 

General Counsel: RTF

Executive Director: 

BOARD ACTION:

Approved: _____ Tabled: _____ Disapproved: _____ Recommendation Revised: _____

Comments: _____

Date: _____

Recording Clerk: _____

Quote



3100 El Camino Real
Atascadero, CA 93422
800-773-7168
www.groundcontrol.com

Expires	Sales Rep	Acct. No.	Date	Quote #
7/15/2018	Brent J Thomason	GC030136	6/15/2018	Q40140

Bill To Address		Ship To Address	Installation Address	
Rick Ketcham Florida Keys Aqueduct Authority 1100 Kennedy Drive Key West FL 33040 United States		Rick Ketcham Florida Keys Aqueduct Authority 1100 Kennedy Drive Key West FL 33040 United States		
Qty	Description	Rate	Amount	
	New Quote for Qty 3 Toughsat Flyaway Systems. *100' Cable Bundle Upgrade*			
	VoIP # Request: 305			
	Note: If customer moves forward, they are already in possession of one of these flyaway systems.			
	Need by: ASAP			
3	1.2m Toughsat XP Complete System Consists of			
3	1.2m TOUGHSAT XP iDirect Mobile Satellite Antenna with 1.2m MSS mount and reflector.	16,223.00	48,669.00	
3	Multi-Unit Order Discount for Qty 3	-3,500.00	-10,500.00	
3	Ground Control Toughsat TS2 Dual Matrix Controller with integrated wireless 4 port router, graphical web interface, compact 1RU rackmount LED panel design, backlit front display and integrated MicroSD card design. One-Button operation with onboard diagnostic history and lifetime firmware upgrades.	799.00	2,397.00	
3	NJRC NJT8306UF 6W Universal Ku-Band Block Upconverter. Includes installation and testing.	999.00	2,997.00	
3	iDirect Evolution X7 Satellite Router	2,899.00	8,697.00	
3	NJR2835H Ku-Band PLL LNB (Americas)	179.00	537.00	
3	1 Year Parts and Labor warranty for Toughsat XP Mobile Satellite System.	0.00	0.00	
3	Toughsat Custom Shipping Crate	299.00	897.00	
3	Antenna Booster for Toughsat Flyaway Case. Up to a Half Mile Range.	299.00	897.00	
6	(2 phones per Flyaway) PolyCom IP Phone 550: Four Line 2200-12550-01	299.00	1,794.00	
3	RED PHONE Satellite Voice Network: A satellite teleport hosted phone PBX for site-to-site calling independent of the PSTN and the Internet. The browser based Red Phone Directory allows extension-to-extension calling with all other public agencies on the Ground Control satellite network anywhere in North America. Includes hardware and annual service fees.	49.95	149.85	
	Red Phone Promotional Discount	-49.95	-49.95	
3	Toughsat Three Piece Flyaway Case Components			
3	Toughsat Cable Bundle 100' UPGRADE	200.00	600.00	
3	Toughsat Flyaway 3 Piece System. Includes Customized Case for MSS, Soft Case Reflector Bag, 6U Ruggedized Controller/Modem Rack	1,999.00	5,997.00	
3	Toughsat Fly and Drive System: Includes Fly and Drive Brackets, Leveling Feet and Storage Bag	299.00	897.00	
3	Toughsat Flyaway Case Custom Two-Wheel Dolly	99.00	297.00	
3	Toughsat Flyaway Reflector Quick Disconnect System	99.00	297.00	
			8,088.00	
3	Dual Matrix iDirect Service and Modem Provisioning Fee	349.00	1,047.00	
6	Voice Hardware Provisioning	49.00	294.00	
6	Voice Configuration per Line	59.95	359.70	

Quote



3100 El Camino Real
Atascadero, CA 93422
800-773-7168
www.groundcontrol.com

Acct. No.	Date	Quote #
GC030136	6/15/2018	Q40140

Qty	Description	Rate	Amount
36	(12 months prepaid for 3 Flyaway's = Qty 36)Ground Control iDirect Emergency Responder Service 20Mbps/5Mbps Burstable Bandwidth Includes 10 24 Hour Periods of Usage per Calendar Month Additional days billed @ \$69. Requires Minimum 6W BUC; availability subject to location. Twelve Month Contract. All Mobile and Fixed Emergency plans and Unlimited Data plans are shared TDM/TDMA satellite bandwidth services. Usage graphs should resemble burst traffic typical of an office environment. If you require specific data rates for VoIP, Video or other applications, CIR is available. Includes 1 Static IP address Dual Matrix Service: Dual Satellite Service activated on Galaxy 18 and SES-2 -Monthly Service Charge	389.00	14,004.00
		20.00%	2,800.80
72	(12 months prepaid for 6 lines). VoIP Bundle: Includes voice optimization - 20/20Kbps CIR, phone number with choice of area code and 1000 minutes of nationwide calling. \$.04 each additional minute (monthly recurring charge). Includes 10 Days of Usage in Calendar Month. Extra days are charged at \$20.00 per Day.	89.95	6,476.40
2	Shipping and Handling (customer is already in possession of 1 system) via FedEx Priority. A tracking number showing delivery date will be emailed at the time of shipping.	1,190.00	2,380.00

Payment is due upon signed contract unless other terms are mutually agreed upon. Ground Control Terms and Conditions may be viewed at <http://www.groundcontrol.com/GC-Subscriber-Agreement.pdf> - if you are unable to view online, please contact your sales representative for a fax or hard copy.

Credit Card processing fees and/or restocking fees may be withheld should you cancel your order.

Total	\$91,934.80
--------------	--------------------

I agree that this Contract is for the purchase of the item(s) and/or service(s) listed above and that they are provided under the limited Terms & Conditions as listed on this Contract and under additional terms as listed on the Ground Control Subscriber Agreement, which is available upon request. Additionally, I am an authorized purchasing representative of the company or agency represented under the Account Number listed above. Please sign and return this form to Ground Control at PO Box 4459, San Luis Obispo, CA 93403 | FAX to 805.267.4085 | Email Sales@GroundControl.com.

Customer Signature: _____ Print Name: _____ Date: _____

Credit Card #: _____ Exp. Date _____ CVC# _____ Check _____ Wire Transfer _____ PO _____

BOARD OF DIRECTORS, FLORIDA KEYS AQUEDUCT AUTHORITY

AGENDA ITEM SUMMARY

AGENDA ITEM: DUO-01

CONSENT:

REGULAR:

MEETING DATE: June 27, 2018

DIVISION: UTILITY OPERATIONS

AGENDA TITLE: Consideration to approve a design wind load and conceptual exterior design style for the new Key West Administration Building.

ITEM BACKGROUND: The attached presentation highlights the following:

- 1) A summary table of minimum and maximum design wind loads, based on the 2017 Florida Building Code.
- 2) A summary of discussions with Pritam Singh with respect to parking for the BB&T building occupants during and after construction of the new Key West Administration Building.
- 3) Base assumptions and design highlights for the new Key West Administration Building.
- 4) Three style options developed by our architect, Thomas E. Pope PA, with respect to the overall look of the new Key West Administration Building, based on initial design assumptions and how these designs would "fit" within the context of the existing space and surrounding buildings.

PREVIOUS RELEVANT ACTION BY FCAA BOARD OF DIRECTORS:

- 1) Award of space programming, planning and conceptual design for the new Key West Administration Building to Thomas E. Pope, PA in the amount of not to exceed \$136,000.00 on March 28, 2018.
- 2) Board update and site selection approval on May 23, 2018.

STAFF RECOMMENDATION (MOTION): Consideration to approve a design wind load and conceptual exterior design style for the new Key West Administration Building.

SUPPLEMENTAL INFORMATION: Attached presentation.

DOCUMENTATION: Included: To-Follow: Not Required:

Cost to FCAA:	\$	_____ -	BUDGETED:	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Cost to Others:	\$	_____ -					
Total Cost:	\$	_____ -					

DEPARTMENT: Engineering

DEPARTMENT DIRECTOR APPROVAL: 

DIVISION DIRECTOR APPROVAL: 

Reviewed by: Internal Auditor:  General Counsel: RIF Executive Director: 

BOARD ACTION:

Approved: Tabled: Disapproved: Recommendation Revised:

Comments: _____

Date: _____ Recording Clerk: _____

A photograph of a single water droplet on a metallic surface, creating concentric ripples. The image is overlaid with geometric shapes: a dark blue triangle on the left, a light blue triangle at the bottom, and a green diagonal line crossing the center. The text 'FKAA KEY WEST SCHEMATIC DESIGN CONCEPT' is printed in white on the dark blue triangle.

FKAA KEY WEST
SCHEMATIC DESIGN CONCEPT

WIND SPEEDS

Equivalent Basic Wind Speeds (mph)									
	Saffir-Simpson Category	Category 1	Category 2	Category 3	Miami/Dade Risk Category III	Key West Risk Category III/IV	Category 4	DEM EHPA	Category 5
1971	1 – minute Sustained (Saffir-Simpson Scale)	74	96	111	118	127	131	157	157
VARIOUS	Fastest Mile (Standard Building Code)	75	100	117	125	136	141	166	170
2007	Nominal (V_{50}) 3-second Gust (ASCE 7-05 and 2007 Florida Building Code)	90	117	135	144	155	160	186	190
2010	Ultimate (V_{90}) 3-second Gust (ASCE 7-10 and 2010 Florida Building Code)	116	151	174	186	200	207	240	245
2014	Ultimate (V_{90}) 3-second Gust (ASCE 7-10 and 2014 Florida Building Code)	116	151	174	186	200	207	240	245
2017	Ultimate (V_{90}) 3-second Gust (ASCE 7-10 and 2017 Florida Building Code)	116	151	174	186	200	207	240	245

Source: McCarthy & Associates, Inc., Division of Performance

- Minimum 200 mph wind speed per Florida Building Code.
- Minimum standard close to Category 4 Building.
- To design beyond Cat 4 has major cost implications.
- Windows likely to be custom because of high design pressures.
- Schematic Design not likely to change with wind speed, but the cost will.

OBJECTIVE

Select a wind speed design for the FCAA Administration Building.

SITE PLAN

- We had a meeting to discuss parking with BB&T Building Representative.
- Will need final approval from Condo Association because all 99 parking spaces are not located on Parcel A&C (existing parking lot.)
- No immediate objections to relocating some parking to new parking garage.
- Possible concerns brought up in meeting:
 - Confirm garage height tall enough for Comcast trucks.
 - BB&T Canopy access must be maintained.
 - Parking during construction.
- The first two concerns will be addressed in the Building and Site Design. The parking will need to be resolved but is also an issue for the FKA employees.

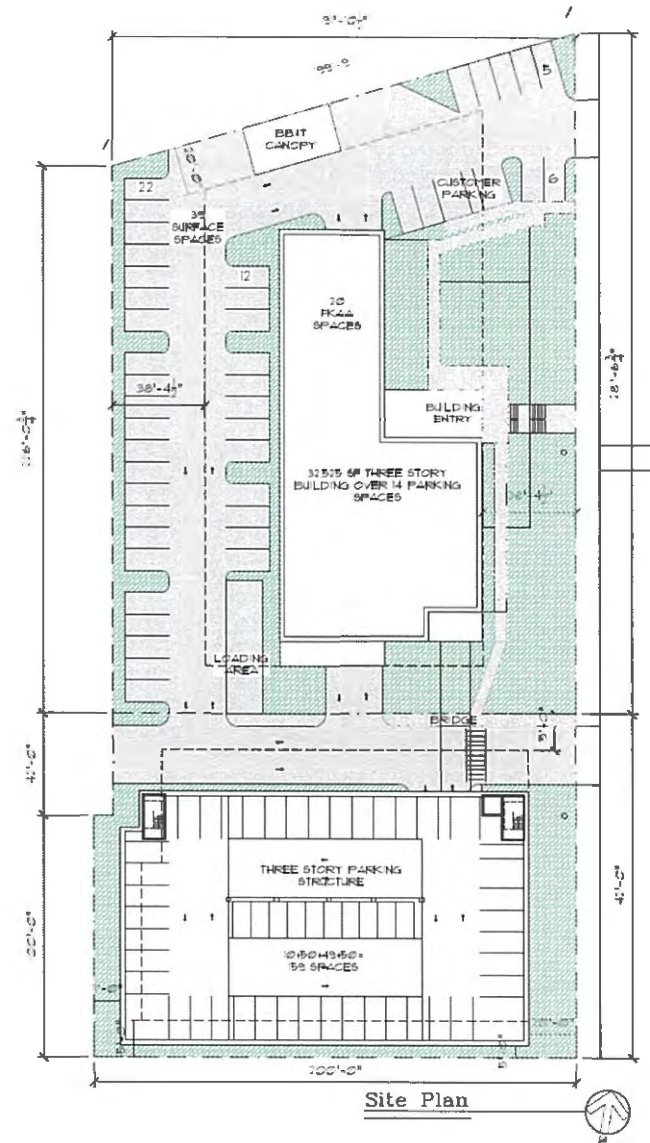
Parking Analysis:

109 spaces required per City LDC

99 spaces for BB&T Easement

208 spaces required

218 spaces provided



DESIGN APPROACH

- Three schematic designs
 - Dynamic
 - Traditional
 - Environmentally efficient
- Final design scheme may take qualities from each approach.
- All three designs maintain a strong Institutional/Government presence.
- The building should have a prominence on the streetscape, without an excessive appearance.

OBJECTIVE

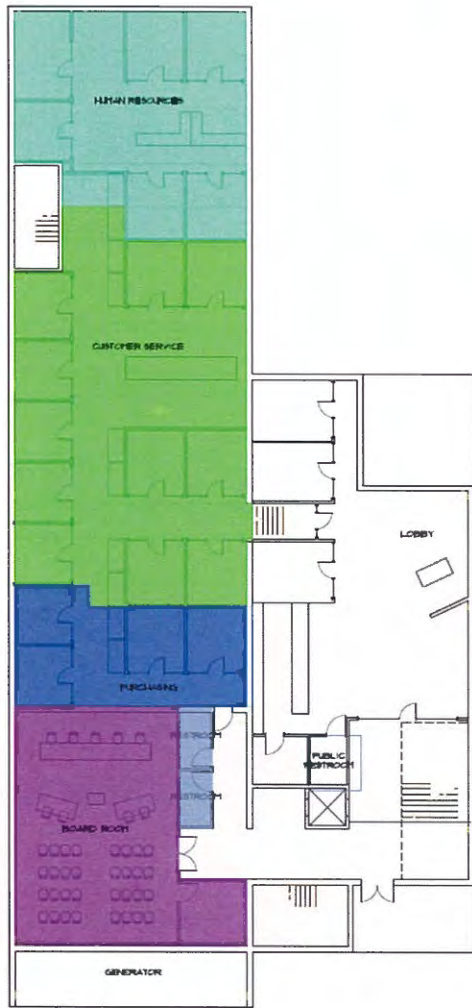
Select a design approach for the FKAA Administration Building.

FKAA KEY WEST
SCHEMATIC CONCEPT DESIGN
THOMAS E. POPE, PA

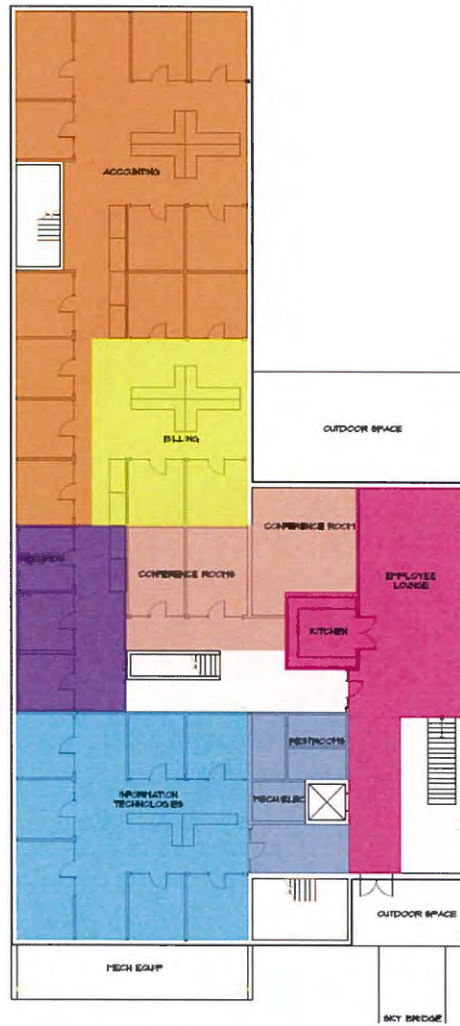


PLANS

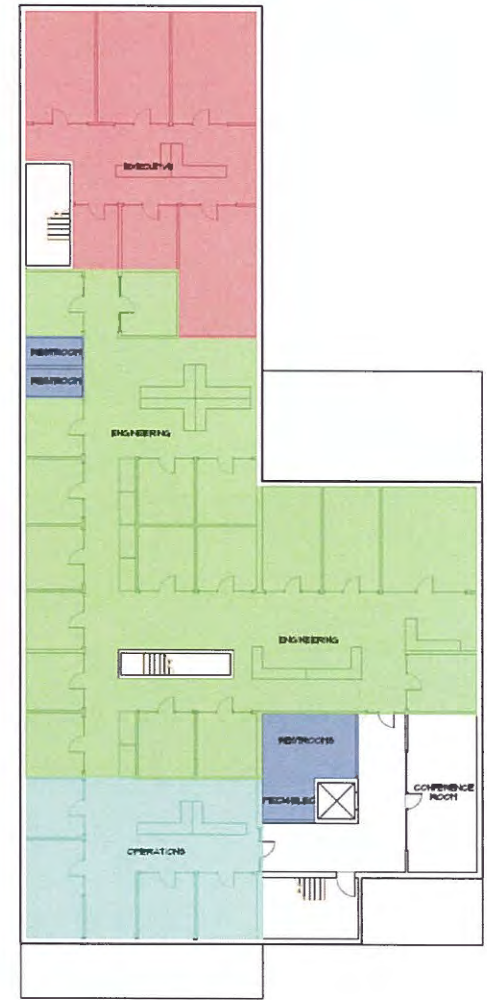
- Public (Lobby) and semi public space oriented toward Kennedy Drive.
- Department locations based on Programming studies.



First Floor Plan



Second Floor Plan

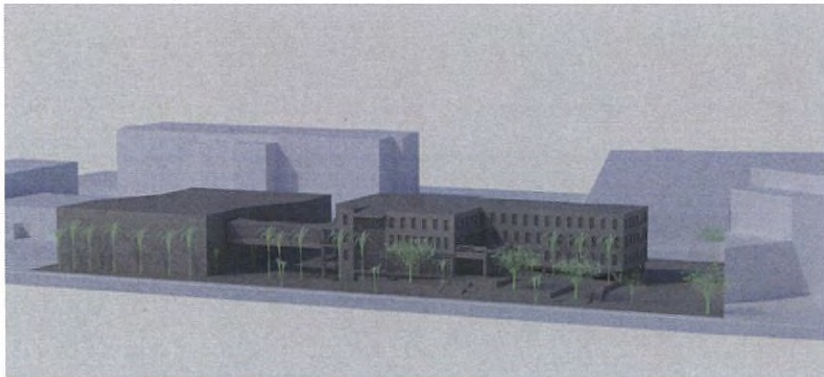


Third Floor Plan



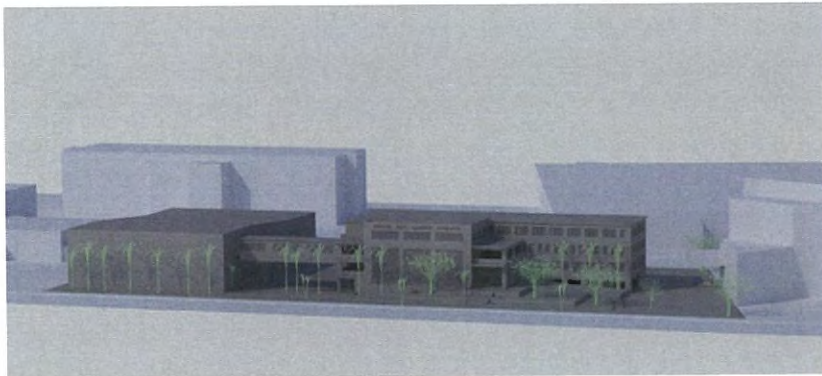
OPTION 1

- Dynamic design
- Form is based on transparency of public and semi public spaces.
- The primary mass of the building is modular the reflect the interior office space configuration. A slight shift in the windows in each floor help to break up the rigid layout. Larger windows on the North side of the building allow the building's cadence to change as you move around the building.
- Transparency and open space under the building used to lighten mass of building.



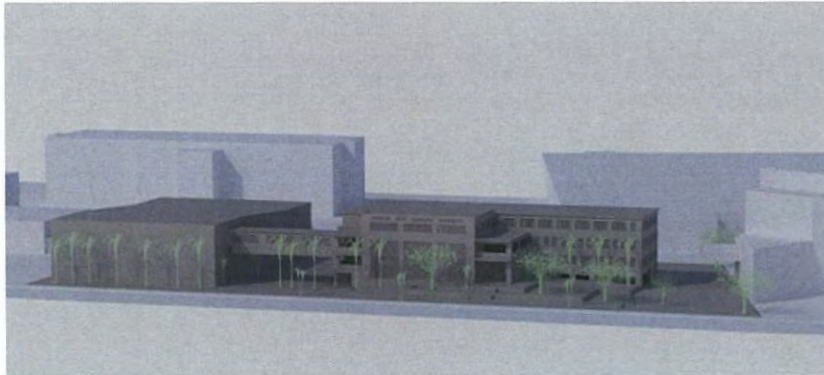
OPTION 2

- Traditional design
- Form is based on symmetrical hierarchy of the main façade.
- Linear office space at rear building acts as a backdrop in massing hierarchy.
- Solid corners and building base promote Institutional permanence.
- Public space and primary building circulation are transparent.



OPTION 3

- Environmentally efficient design
- Form is based on simple modular grid with solar shading for depth.
- Solar shades and building entry angled to add interest to the façade.
- Linear office wing floats above the ground to lighten mass of building, while main façade is anchored to the ground for a strong street presence.
- North facing windows are larger for natural lighting without solar heat gain.



FKAA KEY WEST
SCHEMATIC CONCEPT DESIGN
THOMAS E. POPE, PA

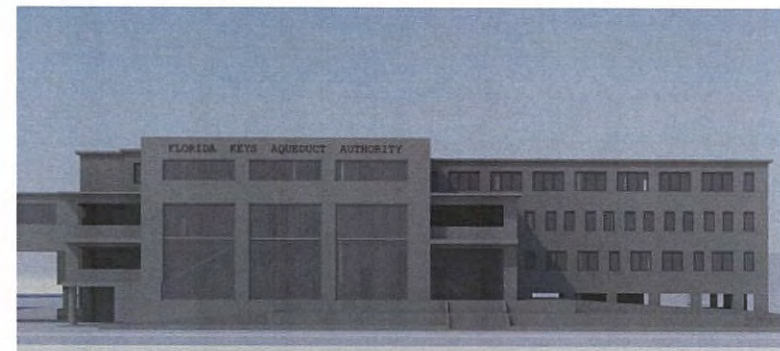
DESIGN DISCUSSION

What qualities would the Board like to see in the FCAA Administration Building?

OBJECTIVE

Select a design approach for the FCAA Administration Building.

FCAA KEY WEST
SCHEMATIC CONCEPT DESIGN
THOMAS E. POPE, PA





THANK YOU!

BOARD OF DIRECTORS, FLORIDA KEYS AQUEDUCT AUTHORITY

AGENDA ITEM SUMMARY

AGENDA ITEM: DUO- 02

CONSENT:

REGULAR:

MEETING DATE: June 27, 2018

DIVISION: UTILITY OPERATIONS

AGENDA TITLE: Status Report for Wastewater Projects.

ITEM BACKGROUND: The attached report provides the activities conducted over the past month and the upcoming activities planned and anticipated in the near future.

PREVIOUS RELEVANT ACTION BY FCAA BOARD OF DIRECTORS: The Board requested staff to include this report as part of the monthly agenda package.

STAFF RECOMMENDATION (MOTION): N/A

SUPPLEMENTAL INFORMATION: Attached status report.

DOCUMENTATION: Included: To-Follow: Not Required:

Cost to FCAA:	\$	<u> -</u>	BUDGETED:	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Cost to Others:	\$	<u> -</u>					
Total Cost:	\$	<u> -</u>					

DEPARTMENT: Engineering

DEPARTMENT DIRECTOR APPROVAL: 

DIVISION DIRECTOR APPROVAL: 

Reviewed by: Internal Auditor: 

General Counsel: RTF

Executive Director: 

BOARD ACTION:

Approved: Tabled: Disapproved: Recommendation Revised:

Comments: _____

Date: _____

Recording Clerk: _____

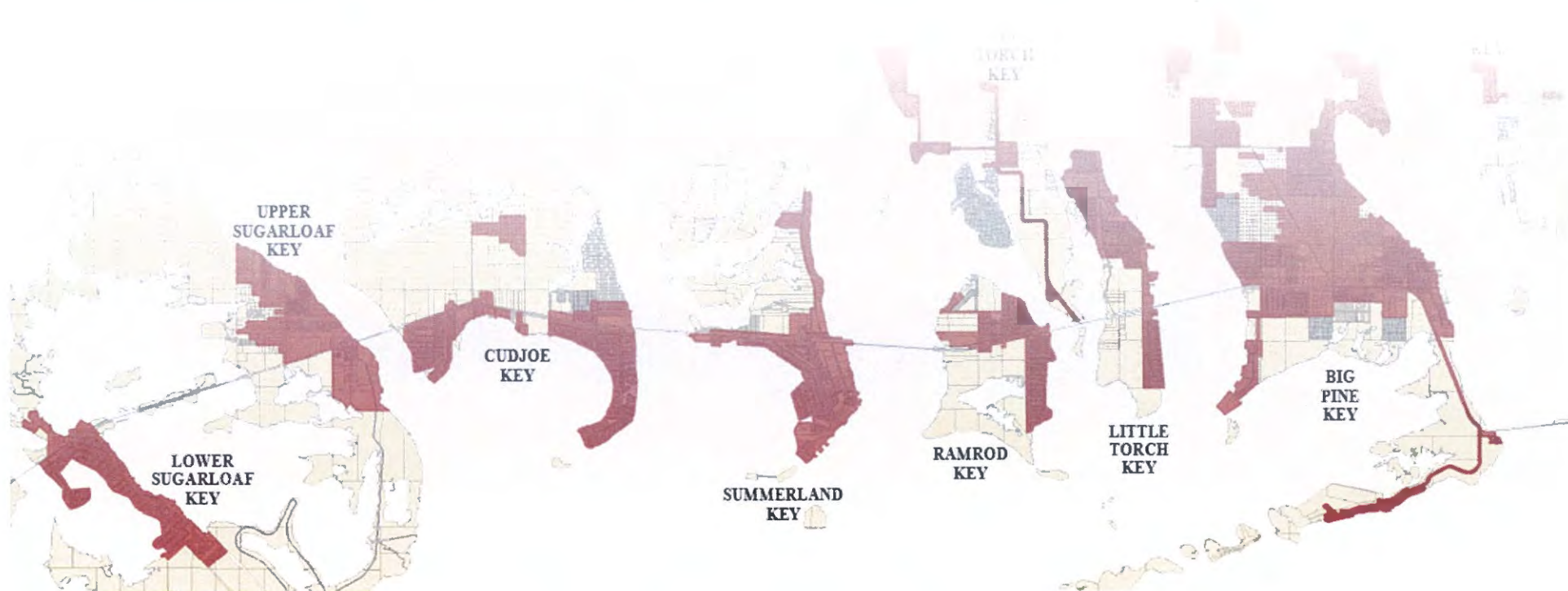


**Florida Keys
Aqueduct Authority**



CURRENT STATUS OF THE REGIONAL WASTEWATER PROJECT

27-JUNE 2018



Work in the Central Sewer System is continuing with a focus on Key Haven and Cudjoe

2.

Achievements this month *(to date)*

- **Key Haven** *(78% project completion)*
 - Sewer lateral connections continuing in Sections B and C
 - Installation of lift stations complete in Sections D, E and F
- **Layton/Long Key** *(98% project completion)*
 - Continued ongoing connection installation
 - Telemetry punchlist work nearing completion
- **Cudjoe Regional** *(96% project completion)*
 - FDEP certification for Middle and Big Torches received and connection notices mailed to residents
 - Ongoing grinder station and connection installation throughout
 - Contract for AWRF closed out

Anticipated achievements next month

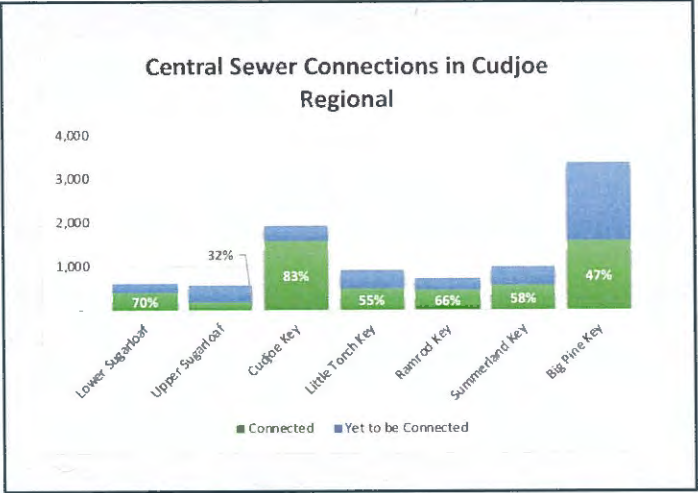
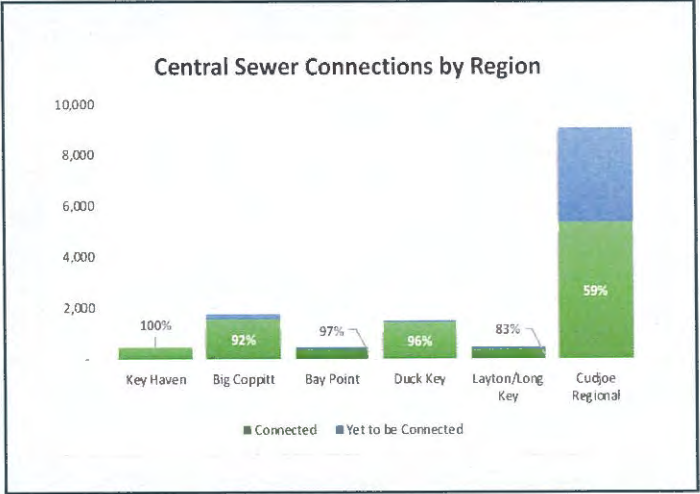
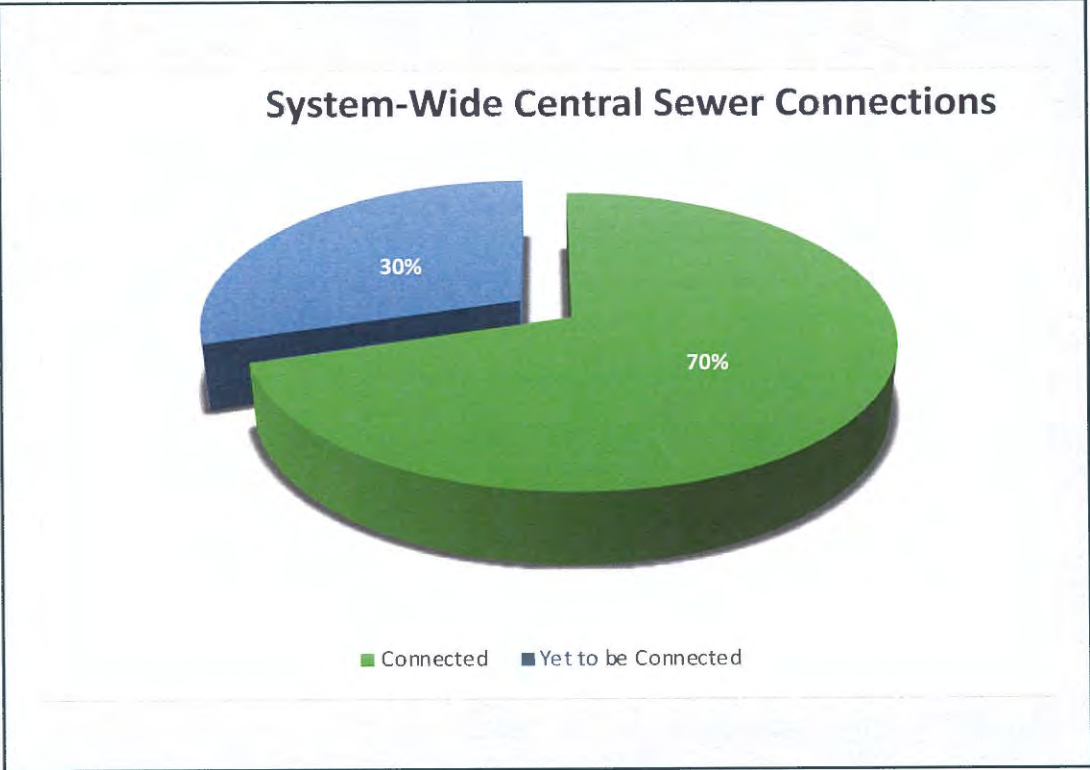
- **Key Haven**
 - Finish lateral connections in Sections B and C; complete electrical work in Sections E and F
 - Complete final pavement for Sections A, D, E and F
- **Layton/Long Key**
 - Continue connection installation; complete punchlist for project closeout
- **Cudjoe Regional**
 - Continue connection installation on No Name Key
 - Continue grinder station, chimney seal and telemetry installation; closeout Outer Islands contract
 - Start construction of Breezy Pines

Issues and mitigation plans

- None

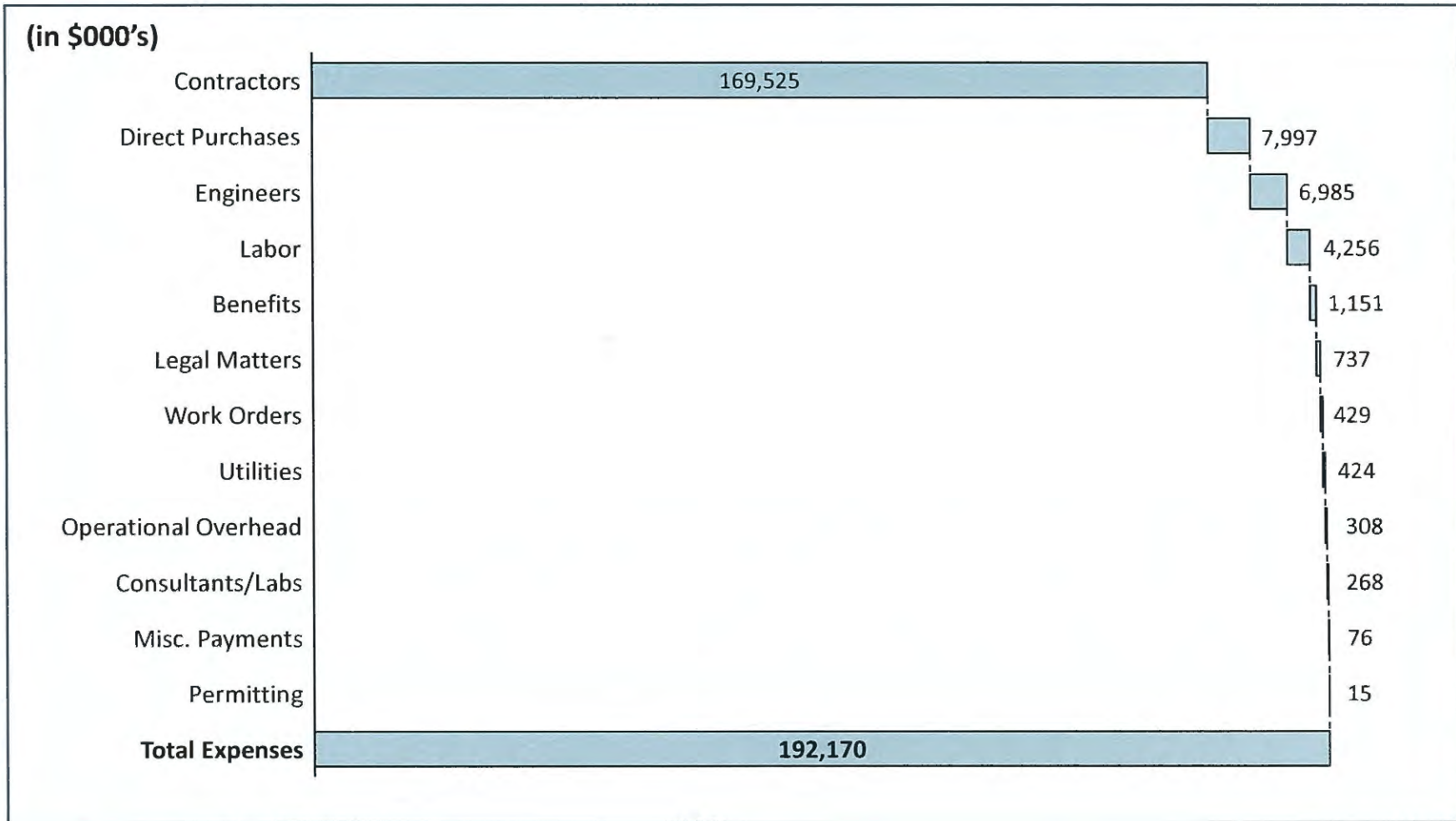
A total of 89 new connections were made last month – all in Cudjoe Regional

3.



Total project expenditures (as of May 31, 2018) no exceed \$192M

4.



CONTRACT
FKAA PROJECT NO.

Consultant Project NO.
General Engineering Services

THIS AGREEMENT, made and entered into this _____ day of _____, by and between the Florida Keys Aqueduct Authority, hereinafter "FKAA", Carollo Engineers, Inc., hereinafter referred to as "CONSULTANT".

WHEREAS, the FKAA has provided notice of the desired professional services and carried out the proper selection process pursuant to and in accordance with CONSULTANT's Competitive Negotiation Act, and;

WHEREAS, the FKAA represents that it is a Utility, organized under the State of Florida with the authority to engage CONSULTANT and accept the obligation for payment for the services desired, and;

WHEREAS, the FKAA desires to engage CONSULTANT to perform certain professional services pertinent to such work in accordance with this AGREEMENT, and;

WHEREAS, CONSULTANT shall provide such professional services in accordance with this AGREEMENT.

NOW, THEREFORE, in consideration of the premises and the mutual benefits which will accrue to the parties hereto in carrying out the terms of this AGREEMENT, it is mutually understood and agreed as follows:

I. **DEFINITIONS; GENERAL CONDITIONS**

- A. THE SCOPE OF SERVICES is to be implemented as set forth by this AGREEMENT and by Exhibit A, Project Documentation as attached to this agreement that are made part hereof.
- B. CONSTRUCTION COSTS shall be the total estimated cost to the FKAA of all elements of the project designed or specified by CONSULTANT. Construction costs shall include the cost at current market rates of labor and materials furnished by the Contractor and equipment designed, specified, selected or specially provided for by CONSULTANT, plus a reasonable allowance for the contractor's overhead and profit. In addition, a reasonable allowance for contingencies shall be included for market conditions at the time of bidding and for changes in the work during construction. Construction costs does not include the compensation of CONSULTANT or CONSULTANTS subconsultants, the cost of the land, rights-of-way, financing or other costs which are the responsibility of the FKAA. CONSULTANT shall use its best judgment as a design professional familiar with the construction industry in estimating the construction cost. FKAA acknowledges that construction cost estimates, financial analyses and feasibility projections are subject to many influences including, but not limited to, price of labor and materials, unknown or latent conditions of existing equipment or structures, and time or quality of performance by third parties. FKAA acknowledges that such influences may not be precisely forecasted and are beyond the control of CONSULTANT and that actual costs incurred may vary substantially from the estimates prepared by CONSULTANT. CONSULTANT does not warrant or guarantee the accuracy of construction or development cost estimates.
- C. PHASES: A phased approach may be utilized. The FKAA and CONSULTANT shall have the right to negotiate the terms of each phase. In the event the parties cannot agree, the FKAA may

select another CONSULTANT or go out for additional proposals in order to complete the subsequent phase(s) of the project. This phased approach shall not waive the FKAA's right to terminate this AGREEMENT during any phase of the project.

II. GENERAL DUTIES OF CONSULTANT

- A. The relationship of CONSULTANT to the FKAA will be that of a professional CONSULTANT, and CONSULTANT will provide the professional and technical services required under this AGREEMENT in accordance with acceptable practices and ethical standards which may include, but are not limited to professional engineering services as identified in the attached Exhibit A, Project Documentation. No employer/employee relationships shall be deemed to be established and CONSULTANT, its agents, subcontractors, and employee shall be independent contractors at all times.
- B. Professional and Technical Services. It shall be the responsibility of CONSULTANT to work with the FKAA and appraise it of solutions to problems and the approach or technique to be used towards accomplishment of the FKAA's objectives as set forth in this AGREEMENT upon execution by both parties.
- C. Exhibit A-1 establishes a budget for the project. CONSULTANT shall be responsible for providing, at no additional cost to the FKAA, completed designs, drawings, specifications, reports and other applicable services if the budget for the entire project is exceeded during and up to completion of the final design phase of the project; however, nothing contained herein shall require CONSULTANT to bear additional costs if the additional costs are a result of a change in the scope of services directed by the FKAA.
- D. CONSULTANT shall be responsible for the professional quality, technical accuracy, timely completion, compliance with regulations and rules, and the coordination with all appropriate agencies of all drawings, specifications, reports and other services furnished by CONSULTANT. CONSULTANT shall perform its services in accordance with generally accepted standards and practices customarily utilized by competent engineering firms in effect at the time CONSULTANT's services are rendered. CONSULTANT shall, without additional compensation, correct or revise said error or omissions to the satisfaction of the FKAA.
- E. Approval by the FKAA of drawings, designs, specifications, reports and incidental professional services or materials furnished hereunder shall not in any way relieve CONSULTANT of responsibility for the technical adequacy of its work. The FKAA's review, approval or acceptance of, or payment for, any of the services shall not be construed to operate as a waiver of any rights under this AGREEMENT or of any cause of action arising out of the performance of this AGREEMENT.
- F. CONSULTANT designates Lyle Munce, P.E., as its representative to act as liaison with the FKAA. The representative shall manage and coordinate FKAA projects and is hereby authorized to act on behalf of CONSULTANT to act on related matters with respect to performance of services for the FKAA in accordance with the AGREEMENT. Any change to name other person shall be requested in writing to the FKAA, and shall be approved by the FKAA.
- G. CONSULTANT shall attend all meetings, as specified or as defined where the project is discussed, unless the FKAA's representative declares such attendance and participation is not necessary. In addition, CONSULTANT shall attend all additional meetings as may be required to facilitate the project.

III. DUTIES OF CONSULTANTS; STUDY AND REPORT PHASE THROUGH CONSTRUCTION PHASE AND RESIDENT PROJECT REPRESENTATIVE SERVICES PHASE - The following Duties of CONSULTANT are separated into phases of the project that shall be performed by CONSULTANT. The FKAA may require additional requirements applicable to the project that will be specified in attached Exhibits. The FKAA must authorize the commencement of each phase of the work unless otherwise agreed upon.

A. Phase I - Study and Report Phase

If the Study and Report Phase is authorized, the following requirements shall apply.

1. CONSULTANT shall consult with the FKAA to clarify and define the FKAA's requirements for the Project and review available data.
2. CONSULTANT shall advise the FKAA as to the necessity of the FKAA's providing or obtaining from others, data or services.
3. CONSULTANT shall identify and analyze permit and approval requirements of all governmental authorities having jurisdiction to approve the design of the Project and participate in consultations with such authorities.
4. CONSULTANT shall provide analyses of the FKAA's needs, planning surveys, site evaluations and comparative studies of prospective sites and solutions.
5. CONSULTANT shall provide a general economic analysis of Owner's requirements applicable to variable alternatives.
6. CONSULTANT shall prepare a Report containing schematic layouts, sketches and conceptual design criteria with appropriate exhibits to indicate clearly the considerations involved (including applicable requirements of governmental authorities having jurisdictions as aforesaid) and the alternative solutions available to the FKAA and setting forth CONSULTANTS findings and recommendations. This Report will be accompanied by CONSULTANTS pre-design opinion of probable costs for the Project, including, but not limited to the following which will be separately itemized: Construction Cost, allowance for engineering costs and contingencies allowances for such other items, such as charges of all other professionals and consultants, for the cost of land and rights-of-way, for compensation for or damages to properties, and for permit, review and/or approval fees by other governmental agencies, if required. CONSULTANT shall also provide a preliminary evaluation of the FKAA's Project Schedule. The FKAA's Project Schedule and probable construction costs shall be evaluated and updated throughout subsequent phases of the work.
7. CONSULTANT shall furnish the number of copies of the Study and Report documents as provided in this AGREEMENT and review them with the FKAA.

B. Phase II - Preliminary Design Phase

If the Preliminary Design Phase is authorized, the following requirements will apply:

1. CONSULTANT, in consultation with the FKAA shall determine the general scope, extent and character of the Project.
2. Prepare Preliminary Design documents consisting of final design criteria, preliminary drawings, outline specifications and written descriptions of the Project.

3. Advise the FKAA if additional data or services are necessary and assist the FKAA in obtaining such data and services.
4. Furnish the specified number of copies of the above Preliminary Design documents as contained within the Project Documentation and present and review them with the FKAA.
5. CONSULTANT shall submit to the FKAA a preliminary estimate of construction costs based on current area, volume or other unit costs, which shall be updated throughout the design development phase.
6. CONSULTANT shall prepare a development schedule, which shall include, but shall not be limited to, the review and approval times by all governmental agencies as may be required.
7. CONSULTANT shall make available all design calculations and associated Data, and participate in meetings in which Value Engineering Analysis of the project takes place, at such times and places as shall be determined by the FKAA.

C. Phase III - Final Design Phase

If the Final Design Phase is authorized, the following requirements shall apply:

1. CONSULTANT shall prepare construction documents which shall include but not be limited to drawings and technical specifications, general and supplementary conditions, bid forms, invitations to bid, instructions to bidders, with technical criteria, descriptions and design data necessary for permitting by governmental authorities, and shall include any further adjustments in the scope or quality of the project or in the construction budget authorized by the FKAA.
2. CONSULTANT shall in the preparation of construction documents, technical criteria, written descriptions and design data, take into account all currently prevailing codes and regulations governing construction in the Florida Keys and shall meet the requirements of all other agencies or governmental authorities having jurisdiction over the project.
 3. CONSULTANT shall prepare a detailed opinion of probable cost that shall be reviewed by the FKAA prior to going out for bids.
4. CONSULTANT shall provide the required documents and attend meetings as necessary, for the approval of governmental boards, agencies or authorities having jurisdiction over the project.
5. CONSULTANT shall use front end bid documents provided by the FKAA including bidding forms, conditions of the contract, and form of AGREEMENT between the FKAA and CONTRACTOR.
6. CONSULTANT shall prepare all documents including design and plan revisions required for the approval of governmental authorities having jurisdiction over the project. Said approvals are required prior to the public notice for the Invitation to Bid and submission of application and therefore are the responsibility of CONSULTANT.
 - a. CONSULTANT shall provide the FKAA the number of copies of contract documents as specified in this AGREEMENT.

D. Phase IV - Bidding/Negotiation Phase

If the bidding phase is authorized, the following requirements shall apply

1. CONSULTANT shall assist the FKAA in obtaining bids or negotiated proposals, assist in awarding and preparing contracts for construction, attend pre-bid conferences, prepare addenda, provide written recommendation of award, assist in the compilation/preparation of contract documents, and after the award assist the FKAA in securing the required bonds and certificates of insurance, and in the review of the contract documents for completeness.
2. CONSULTANT shall attend the bid opening, prepare bid tabulation sheets and assist the FKAA in evaluating bids or proposals and in assembling and awarding contracts for construction, materials, equipment and services.
3. CONSULTANT shall issue addenda as appropriate to interpret, clarify or expand the Bidding Documents.
4. CONSULTANT shall consult with and advise the FKAA as to the acceptability of subcontractors, suppliers and other persons and organizations proposed by the prime contractor(s) (herein called CONTRACTOR(S)) for those portions of the work as to which such acceptability is required by the Bidding Documents.
5. Consult with the FKAA concerning and determine the acceptability of substitute materials and equipment proposed by CONTRACTOR(S) when substitution prior to the award of contracts is allowed by the Bidding Documents.

E. Phase V - Construction Phase

If Contract Administration is authorized, the following requirements shall apply:

1. CONSULTANT shall provide administration of the contract for construction as set forth herein and as contained with the general conditions of the contract for construction.
2. CONSULTANT shall be a representation of and shall advise and consult with the FKAA during construction and until final payment to the contractor is due. CONSULTANT shall have authority to act on behalf of the FKAA only to the extent provided in this AGREEMENT and as provided in the contract for construction unless otherwise modified by written instrument.
3. CONSULTANT shall visit the site at regular intervals appropriate to the stage of construction or as otherwise agreed to by the FKAA and CONSULTANT, in writing, to become generally familiar with the progress and quality of the work completed and shall determine in general if the work is being performed in a manner indicating that the work when completed will be in accordance with the contract documents. CONSULTANT shall keep the FKAA informed of the progress and quality of the work and shall provide certification to the FKAA of satisfactory completion of all phases of the work in compliance with the plans, specifications, and/or approved changes or modifications thereto.
4. CONSULTANT shall not have control over or charge of and shall not be responsible for construction means, methods, techniques, sequences or procedures of construction or for safety precautions and programs in connection with the work, since these are solely the CONTRACTOR'S responsibility under the contract for construction. CONSULTANT shall make every reasonable effort to ensure that the CONTRACTOR completes the work in

accordance with the current approved schedule and carries out the work in accordance with the contract documents. CONSULTANT makes no warranty or guarantee with respect to the performance of a CONTRACTOR.

5. CONSULTANT based on observations and evaluations of CONTRACTOR'S applications for payment, shall review and certify the amounts due the CONTRACTOR within seven (7) days of receipt.
6. CONSULTANTS certification for payment shall constitute a representation to the FKAA, based on CONSULTANTS observations at the site as provided herein and on the data comprising the CONTRACTOR'S application for payment, that the work has progressed to the point indicated and that, to the best of CONSULTANTS knowledge, information, and belief, the quality and quantity of work is in accordance with the contract documents. The foregoing representations are subject to an evaluation of the work for conformance with the contract documents, correctable prior to completion and to specific qualifications expressed by CONSULTANT. The issuance of the certificate of payment shall further constitute a representation that CONSULTANT has made observations to review the quality or quantity of the work.
7. CONSULTANT shall recommend disapproval or rejection of CONTRACTOR'S WORK to the FKAA which does not conform to the contract documents. CONSULTANT will have authority to require additional inspection or testing of the work in accordance with the provisions of the contract documents, whether or not such work is fabricated, installed or completed.
8. CONSULTANT shall review and approve or take other appropriate action upon CONTRACTOR'S submittals such as shop drawings, product data, and samples for the purpose of checking for conformance with information given and the design concept expressed in the contract documents. CONSULTANT shall evaluate and determine the acceptability of substitute materials and equipment proposed by CONTRACTORS.
9. CONSULTANT shall prepare change orders and construction change directives with supporting documentation and data if deemed necessary by CONSULTANT, for the FKAA's approval and execution in accordance with the contract documents, and may authorize minor changes in the work not involving an adjustment in the contract sum or an extension of the contract time which is consistent with the intent of the contract documents.
10. CONSULTANT shall conduct inspections to determine the date or dates of substantial completion and the date of final completion, shall receive and forward to the FKAA for the FKAA's review and records, written warranties and related documents required by the contract documents and assembled by the CONTRACTOR and shall issue a final certificate for payment upon compliance with the requirements of the contract documents.
11. CONSULTANT shall interpret matters concerning performance of the FKAA and CONTRACTOR under the requirements of the contract documents on written request of either the FKAA or CONTRACTOR. CONSULTANT'S response to such requests shall be made with reasonable promptness and within any time limits agreed upon.
12. Interpretations of CONSULTANT shall be consistent with the intent of and reasonably inferable from the contract documents and shall be in writing or in the form of drawings. When making such interpretations, CONSULTANT shall endeavor to secure faithful performance by both the FKAA and the CONTRACTOR.

13. The FKAA shall be the final arbiter on matters relating to aesthetics.
14. CONSULTANT shall render written interpretations within a reasonable time on all internal disputes between the FKAA and CONTRACTOR relating to the execution of the progress of the work as provided in the contract documents. CONSULTANT'S interpretations on internal disputes are not binding on the FKAA and the FKAA may result to remedies afforded by this contract to resolve the issue.
15. CONSULTANT shall provide the number of sets of the construction documents to the CONTRACTOR as specified in this AGREEMENT
16. Upon completion of construction CONSULTANT shall provide to the FKAA, three sets of record drawings, signed and sealed, plus one electronic set incorporating record conditions and other data furnished by CONTRACTOR(S) to CONSULTANT.
17. In company with the FKAA, CONSULTANT shall visit the Project to observe any apparent defects in the complete construction, assist the FKAA in consultations and discussions with CONTRACTOR(S) concerning correction of such deficiencies, and make recommendations as to replacement or correction of defective work.
18. The presence or duties of CONSULTANT's personnel at a construction site, whether as onsite representatives or otherwise, do not make CONSULTANT or CONSULTANT's personnel in any way responsible for those duties that belong to FKAA and/or the construction contractors or other entities, and do not relieve the construction contractors or any other entity of their obligations, duties, and responsibilities, including, but not limited to, all construction methods, means, techniques, sequences, and procedures necessary for coordinating and completing all portions of the construction work in accordance with the construction Contract Documents and any health or safety precautions required by such construction work.
19. CONSULTANT and CONSULTANT's personnel have no authority to exercise any control over any construction contractor or other entity or their employees in connection with their work or any health or safety precautions and have no duty for inspecting, noting, observing, correcting, or reporting on health or safety deficiencies of the construction contractor(s) or other entity or any other persons at the site except CONSULTANT's own personnel.
20. The presence of CONSULTANT's personnel at a construction site is for the purpose of providing to FKAA a greater degree of confidence that the completed construction work will conform generally to the construction documents and that the integrity of the design concept as reflected in the construction documents has been implemented and preserved by the construction contractor(s). CONSULTANT neither guarantees the performance of the construction contractor(s) nor assumes responsibility for construction contractor's failure to perform work in accordance with the construction documents

F. Phase VI - Resident Project Representative Services Phase

If the Resident Project Representative Services Phase is authorized the following requirements shall apply:

1. Resident Project Representative will be assigned to assist CONSULTANT in carrying out his

responsibilities to FKAA at the site. Resident Project Representative is CONSULTANTS agent at site, will act as directed by and under the supervision of CONSULTANT, and will confer with CONSULTANT regarding Resident Representative's actions. Resident Representative's dealing in matters pertaining to the on-site work shall in general be with CONSULTANT and CONTRACTOR keeping the FKAA advised as necessary. Resident Project Representative's dealings with subcontractors shall only be through or with the full knowledge and approval of CONTRACTOR. Resident Project Representative shall generally communicate with the FKAA with the knowledge of and under the director of CONSULTANT.

2. Resident Project Representative shall where applicable:
 - a. Review the progress schedule, schedule of Shop Drawing submittals and schedule of values prepared by CONTRACTOR and consult with CONSULTANT concerning its general acceptability.
 - b. Attend meetings with CONTRACTOR, such as preconstruction conferences, progress meetings, job conferences and other project-related meetings, and prepare and circulate copies of minutes thereof.
 - c. Working principally through CONTRACTOR'S superintendent, assist CONSULTANT in serving as the FKAA's liaison with CONTRACTOR, when CONTRACTOR'S operations affect the FKAA's on-site operations.
 - d. Assist in obtaining from the FKAA additional details or information, when required for proper execution of the Work.
 - e. Record date of receipt of Shop Drawings and samples.
 - f. Receive samples which are furnished at the site by CONTRACTOR, and notify CONSULTANT of availability of samples for examination.
 - g. Advise CONSULTANT and CONTRACTOR for the commencement of any Work requiring a Shop Drawing if the submittal has not been approved by CONSULTANT.
 - h. Conduct on-site observations of the Work in progress to assist CONSULTANT in determining if the Work is, in general, proceeding in accordance with the Contract Documents. CONSULTANT makes no warranty or guarantee with respect to the performance of a CONTRACTOR.
 - i. Report to CONSULTANT whenever Residential Project Representative believes that any Work is unsatisfactory, faulty or defective or does not conform to the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise CONSULTANT of Work that Resident Project Representative believes should be uncovered for observation, or requires special testing, inspection or approval. Nothing herein shall relieve the CONTRACTOR or CONSULTANT from the duties imposed by the contract.
 - j. Verify that tests, equipment and systems start-up, and operating and maintenance training are conducted in the presence of appropriate personnel, and that CONTRACTOR maintains adequate records, thereof; and observe, record and report to CONSULTANT appropriate details relative to the test procedures and start-ups.

- k. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the results of these inspections and report to CONSULTANT.
- l. Report to CONSULTANT when clarifications and interpretations of the Contract Documents are needed and transmit to CONTRACTOR clarifications and interpretations as issued by CONSULTANT.
- m. Consider and evaluate CONTRACTOR'S suggestions for modifications in Drawings or Specifications and report with Resident Project Representative's recommendations to CONSULTANT. Transmit to CONTRACTOR decisions as issued by CONSULTANT.
- n. Maintain at the job site orderly files for correspondence, reports of job conferences, Shop Drawings and samples, reproductions of original Contract Documents including all Work Directive Changes, Addenda, Change Orders, Field Orders, additional Drawings issued subsequent to the execution of the Contract, CONSULTANT'S clarifications and interpretations of the Contract Documents, progress reports, and other Project related documents.
- o. Keep a diary or log book, recording CONTRACTOR hours on the job site, weather conditions, data relative to questions of Work Directive Changes, Change Orders or changed conditions, list of job site visitors, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to CONSULTANT.
- p. Record all names, addresses and telephone numbers of the CONTRACTOR, all subcontractors and major suppliers of material and equipment.
- q. Furnish CONSULTANT periodic reports as required of progress of the Work of the CONTRACTOR'S compliance with the progress schedule and schedule of Shop drawing and sample submittals.
- r. Consult with CONSULTANT in advance of schedule major tests, inspections or start of important phases of the Work.
- s. Draft proposed Change Orders and work Directive Changes, obtaining backup material from CONTRACTOR and recommend to CONSULTANT, Change Orders, Work Directive changes, and Field Orders.
- t. Report immediately to CONSULTANT and the FKAA upon the occurrence of any accident.
- u. Review applications for payment with CONTRACTOR for compliance with the established procedure for their submission and forward with recommendations to CONSULTANT, noting particularly the relationship of the payment requested to the schedule of values, work completed and materials and equipment delivered at the site but not incorporated in the work.
- v. During the course of the work, verify that certificates, maintenance and operation manuals and other data required to be assembled and furnished by CONTRACTOR are applicable to the items actually installed and in accordance with the Contract Documents, and have this material delivered to CONSULTANT for review and forwarding to FKAA prior to final payment for the work.

- w. Before CONSULTANT issues a Certificate of Substantial Completion, submit to CONTRACTOR a list of observed items requiring completion or correction.
 - x. Conduct final inspection in the company of CONSULTANT, the FKAA and the CONTRACTOR and prepare a final list of items to be completed or corrected.
 - y. Observe that all items on final list have been completed or corrected and make recommendations to CONSULTANT concerning acceptance.
3. The Resident Project Representative shall not:
- a) Authorize any deviation from the Contract Documents or substitution of materials or equipment.
 - b) Exceed limitations of CONSULTANT'S authority as set forth in the Contract Documents.
 - c) Undertake any of the responsibilities of CONTRACTOR, subcontractors, or CONTRACTOR'S superintendent.
 - d) Advise on, issue directions relative to or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction unless such advice or directions are specifically required by the Contract Documents.
 - e) Advise on, issue directions regarding or assume control over safety precautions and programs in connection with the work.
 - f) Accept Shop Drawing or sample submittals from anyone other than CONTRACTOR.
 - g) Authorize the FKAA to occupy the Project in whole or in part.
 - h) Participate in specialized field or laboratory tests or inspections conducted by others except as specifically authorized by CONSULTANT.

IV. DATA AND SERVICES TO BE PROVIDED BY THE FKAA

The FKAA shall provide the following:

- A. Furnish or cause to be furnished such reports, studies, instruments, documents, and other information as CONSULTANT and FKAA mutually deem necessary and which are under control of the FKAA.
- B. Pay for all legal advertisements incidental to obtaining bids or proposals from contractors.
- C. The Executive Director or his designee shall act as the FKAA's representative with respect to the work to be performed under this AGREEMENT. The Executive Director or his designee shall have the authority to the extent authorized by the FKAA Board of Directors to exercise the rights and responsibilities of the FKAA provided in this contract. Said authority may include but is not limited to: transmit instructions, stop work, receive information, interpret FKAA's policies and decisions with respect to materials, equipment, elements, and systems pertinent to the services covered by this AGREEMENT.

D. Pay all permit application filing fees.

E. Provide access to FKAA facilities.

V. TIME OF PERFORMANCE

A. CONSULTANT will begin work promptly after issuance of a notice to proceed.

B. CONSULTANT'S services called for under the AGREEMENT shall be completed in accordance with the schedule contained in the Project Documentation. If CONSULTANT'S services are unreasonably delayed by the FKAA in excess of 180 days, the time of performance and compensation shall be renegotiated, provided, however, CONSULTANT as a condition precedent to renegotiation shall notify the FKAA within fifteen (15) calendar days from the end of the delay of CONSULTANT'S proposed additional costs incurred by reason of said delay.

VI. AGREEMENT PERIOD

The period of service is from the date of execution of this AGREEMENT. This AGREEMENT will terminate at such time as the engineering services required by this AGREEMENT have been completed.

VII. COMPENSATION

A. The FKAA will compensate CONSULTANT for the services in accordance with a negotiated lump sum, or a not to exceed budgeted amount based on time charges which are based upon hourly rates, plus reimbursable expenses if compensation is based on Method II and other related costs as are specified in this AGREEMENT.

1. METHOD I - LUMP SUM

Wherever possible, the scope of services for Services, Projects or Programs shall be thoroughly defined and outlined prior to its authorization. The FKAA and CONSULTANT shall mutually agree to a lump sum amount for services to be rendered and a detailed scope of services. Should the FKAA deem that a change in the scope of services is appropriate, then a decrease or increase in compensation shall be authorized in writing. In lump sum contracts, CONSULTANT shall submit the estimated man hours, wage rates and other actual unit costs supporting the compensation. CONSULTANT shall submit a truth in negotiation certificate stating that all data supporting the compensation is accurate, complete and current at the time of contracting.

2. METHOD II - TIME/CHARGES NOT TO EXCEED BUDGETED AMOUNT

When a service is to be compensated for a time charge/not to exceed basis, CONSULTANT will submit a not to exceed budget cost to the FKAA for prior approval based on actual time charges which shall not exceed established hourly rates as shown in Exhibit B attached hereto, plus reimbursable expenses and other related costs. The FKAA shall not be obligated to reimburse CONSULTANT for costs incurred in excess of the not to exceed cost amount.

a. The FKAA agrees to pay CONSULTANT compensation for services rendered based upon the established raw hourly salary rates as shown in Exhibit B for services rendered on FKAA projects multiplied by an overhead factor containing a ten percent (10%) profit, which shall not exceed 3.0. The overhead factor may be subject to audit. The schedule of hourly rates as set forth in Exhibit B is attached hereto and made a part hereof. The rates listed in Exhibit B may be adjusted upon AGREEMENT of the parties.

- b. In addition, the FKAA shall pay for reimbursable expenses invoiced at the actual cost of expenditures incurred by CONSULTANT if provided in this AGREEMENT as follows:
 1. Transportation and subsistence when traveling in connection with the work required of this AGREEMENT shall be reimbursed in accordance with the FKAA Travel and Business Reimbursement Policy and Florida Statute; FS 112.061. The method of transportation shall be by the most efficient and economical means of travel (considering time of the traveler, cost of transportation and per diem or subsistence required). Lodging of CONSULTANT'S while on official FKAA business in Monroe County should be arranged and paid for directly by CONSULTANT. FKAA will reimburse lodging for hotels in comparable value to Hampton Inn, Holiday Inn, Fairfield Inn, etc. Mileage and per diem will be reimbursed in accordance with the FKAA Travel and Business Reimbursement Policy and F.S. 112.061.
 2. Actual expense of reproductions of documents in excess of that stipulated in the Project Documentation.
 3. Actual expenses of testing, laboratory services, and field equipment, postage, supplies incurred directly for the project, and CONSULTANT'S standard project charges for special health and safety requirements of OSHA.
 4. Actual expenses of overtime work requiring higher than regular rates, when authorized by the FKAA.
 5. Express courier services shall only be utilized with the approval of the Director of Environmental Services or Director of Engineering.
 6. Travel expenses for CONSULTANT'S employees traveling to and from CONSULTANT'S offices shall not be reimbursable unless the travel is required for meetings with FKAA personnel, or as otherwise approved by the Director of Environmental Services or Director of Engineering.
- B. Subcontractual service shall be invoiced at the actual fees paid by CONSULTANT, plus an additional ten percent (10%) of the cost of these services to compensate CONSULTANT, for the procuring and management of the subconsultant, and for the other financial and administrative costs. Subcontractual services shall be approved by the FKAA in writing prior to performance of the Subcontractual work.
- C. Total Compensation (including, but not limited to compensation for subconsultants) for all services and expenses shall not exceed the budget cost listed in this AGREEMENT, without written approval.
- D. If the FKAA determines that any price for services, however calculated, provided by CONSULTANT, including profit, negotiated in connection with this AGREEMENT or any cost reimbursable under this AGREEMENT was increased by any significant sums because CONSULTANT or any subcontractor furnished incomplete or inaccurate costs or pricing data, then such price or cost of profit shall be reduced accordingly and the AGREEMENT shall be reduced accordingly and the AGREEMENT shall be modified in writing to reflect such reduction.

VIII. PAYMENT

The FKAA agrees that it will use its best effort to pay CONSULTANT within thirty (30) calendar days from presentation of CONSULTANT'S itemized report and invoice and approval of the FKAA's representative, unless additional time for processing is required for payments for basic services, Subcontractual services, and reimbursable expenses as defined in Section VII. CONSULTANT shall submit monthly invoices, as required in this AGREEMENT, which shall include a report of work completed during the respective invoice period. Invoices shall be in a format consistent with those shown in Exhibit C. The report shall be adequate in detail to describe work progress (% completed for each task) and written summaries of work completed. No payment request shall exceed the value of work and services performed by CONSULTANT under this AGREEMENT.

IX. MISCELLANEOUS PROVISIONS

A. Ownership of Documents

A set of reproducible mylar drawings and electronic documents in a format compatible with AutoCadd, Latest Edition, FKAA's computer system, shall be given to the FKAA. Details, design calculations, and all other documents and plans that result from CONSULTANT'S SERVICES under this AGREEMENT shall become and remain the property of the FKAA, including patent and copyright rights, whether the project is completed or not, and will be delivered to the FKAA upon demand. CONSULTANT reserves the right to retain a copy of all such documents for record purposes. Where such documents are required to be filed with governmental agencies, CONSULTANT will furnish copies to the FKAA upon request. The contract work is represented by hard copy documentation; software, is provided to the FKAA for convenience only.

B. Copies of Documents

CONSULTANT shall prepare sufficient copies of all documents necessary to obtain approval through the FKAA's processes, as well as other governmental authorities. See also Section III for additional requirements. The FKAA acknowledges that the materials cited in Paragraph IX and other data provided in connection with this AGREEMENT which are provided by CONSULTANT are not intended for use in connection with any project other than the project for which such materials are prepared. Any use by the FKAA of such materials in connection with a project other than that for which such materials were prepared without prior written consent and adaption by CONSULTANT shall be at the FKAA's sole risk, and CONSULTANT shall have no responsibility or liability therefore.

C. Insurance

Without limiting any of the other obligations or liabilities of CONSULTANT, CONSULTANT shall, at his own expense provide and maintain in force, until all of its services to be performed under this AGREEMENT have been completed and accepted by the FKAA (or for such duration as it otherwise specified hereinafter), the following insurance coverage:

1. Worker's Compensation Insurance to apply to all of CONSULTANT'S employees in compliance with the "Worker's Compensation Law" of the State of Florida and all applicable Federal Laws.
 - a. Employer's Liability with limits of \$100,000 per person, \$500,000 per occurrence and \$100,000 per each disease.
2. Comprehensive General Liability with minimum limits of \$1,000,000 per occurrence

combined single limit for Bodily Injury Liability and Property Damage Liability. Coverage must be afforded on a form no more restrictive than the latest edition of the Comprehensive General Liability policy, without restrictive endorsements other than ISO Endorsement GL 21 06 (Engineers, Architects, or Surveyors Professional Liability exclusion), as Filed by the Insurance Services Office and must include:

- a. Premises and/or Operations
 - b. Independent Contractors
 - c. Products and Complete Operations - CONSULTANTS shall maintain in force until at least three years after completion of all services required under this AGREEMENT, coverage for Products and Completed Operations, including Broad Form Property Damage.
 - d. Broad Form Property Damage
 - e. Contractual Coverage applicable to this specific AGREEMENT.
 - f. Personal Injury Coverage with minimum, limits of coverage equal to those required for Bodily Injury Liability.
 - g. Business Automobile Liability with minimum limits of \$1,000,000 per occurrence combined single limit for Bodily Injury Liability and Property damage Liability. Coverage must be afforded on a form no more restrictive than the latest edition of the Business Automobile Liability policy, without restrictive endorsements, as filed by the Insurance Services Office and must include:
 - i. Owned Vehicles
 - ii. Hired and Non-Owned Vehicles
 - iii. Employer's Non-Ownership
3. Professional Liability Insurance with minimum limits of \$1,000,000 per claim. Coverage shall be afforded on a form acceptable to the FKAA. CONSULTANT shall maintain such professional liability insurance until at least one year after a Certificate of Occupancy is issued.
 4. Prior to commencement of services, CONSULTANT shall provide to the FKAA Certificates of Insurance evidencing the insurance coverage specified in the foregoing Paragraphs. All policies covered within subparagraphs of section C shall be endorsed to provide the FKAA with thirty (30) days notice of cancellation and/or restriction (ten (10) days notice for cancellation due to non-payment of premium). The FKAA shall be named as an additional insured as to CONSULTANTS liability on policies referenced except Workers Compensation and Professional liability.
 5. If the initial insurance policies required by this AGREEMENT expire prior to the completion of the services, renewal Certificates of Insurance of policies shall be furnished thirty (30) days prior to the date of their expiration. For Notice of Cancellation and/or Restriction; the policies must be endorsed to provide the FKAA with thirty (30) days notice of cancellation and/or restriction (ten (10) days notice for cancellation due to non-payment of premium).
 6. CONSULTANT'S insurance, including that applicable to the FKAA as an additional Insured, shall apply on a primary basis.

D. Litigation Services

It is understood and agreed that CONSULTANT'S services include reasonable participation in litigation or dispute resolution arising from this AGREEMENT. CONSULTANTS participation shall include up to 20 hours of services related to litigation or dispute resolution. Any such services in excess of 20 hours shall be an additional service.

E. Authority to Contract

The FKAA represents that it is an Agency of the State of Florida with the authority to engage CONSULTANT for professional services and to accept the obligation for payment for the services described in this Agreement.

F. Assignment

The FKAA and CONSULTANT each binds itself and its successors, legal representatives, and assigns to the other party to this AGREEMENT and to the partners, successors, legal representatives, and assigns of such other party, in respect to all covenants of this AGREEMENT subject to budget considerations and requirements of law; and, neither the FKAA nor CONSULTANT will assign or transfer their interest in this AGREEMENT without the written consent of the other.

G. Confidential Information

During all times that CONSULTANT is employed on behalf of the FKAA and at all times subsequent to the date of this contract, all discussions between the FKAA and CONSULTANT and all information developed or work products produced by CONSULTANT during its employment and all matters relevant to the business of the FKAA not otherwise being a matter of public record shall be deemed to be confidential. All such information and work product shall be protected by CONSULTANT and shall not be revealed to other persons without the express written permission of the FKAA, unless mandated by order of the court.

H. Non-Exclusive Contract

The FKAA reserves the right to award projects to other firms pursuant to the Florida Statutes Consultant's Competitive Negotiations Act during the period of service of CONSULTANT. CONSULTANT agrees to cooperate with the FKAA and other firms in accomplishing work that may require joint efforts to accomplish the FKAA's goals. This cooperation, when requested by the FKAA, will include but not be limited to:

1. Sharing technical information developed under contract with the FKAA.
2. Joint meeting for project coordination.
3. Establish lines of communication.

I. Subconsultants

In the event CONSULTANT, during the course of the work under this AGREEMENT requires the services of any subcontractors or other professional associates in connection with services covered by this AGREEMENT, CONSULTANT must secure the prior written approval of the FKAA.

J. Notices

Whenever either party desires to give notice unto the other, it must be given by written notice, sent by registered United States mail, with return receipt requested, addressed to the party for whom it is intended at the place last written, as the place for giving of notice in compliance with the provisions of this paragraph. For the present, the parties designate the following as the representative places of giving notice to with:

Florida Keys Aqueduct Authority
1100 Kennedy Drive
Key West, Florida 33040

CONSULTANT

Carollo Engineers, Inc.
2056 Vista Parkway, Suite 400
West Palm Beach, FL 33411

K. Attachments

Request for Qualifications is hereby incorporated within and made an integral part of this AGREEMENT.

L. Truth-In-Negotiation Certificate

Signature of the AGREEMENT by CONSULTANT shall act as the execution of a truth in negotiation certificate stating that wage rates and other factual unit costs supporting the compensation of this AGREEMENT are accurate, complete, and current. The original contract price and any additions thereto shall be adjusted to exclude any significant sums by which the FKAA determines the contract price was increased due to inaccurate, incomplete, or non-current wage rates and other factual unit costs.

M. Records

Records of all expenses relative to project shall be kept on a general recognized accounting basis and shall be available to the FKAA or its authorized representative at mutually convenient times.

N. Personnel

CONSULTANT represents that it has or will secure at its own expense, qualified personnel required in performing the services under this AGREEMENT. All work shall be performed under the direction of a professional, registered under the State of Florida in the field for which he is responsible for performing such services. The project manager shall be approved by the FKAA. Key personnel will be identified for each project and expected to perform the work assignment as can reasonably be expected, and as approved by the FKAA.

O. Equal Opportunity Employment; Non-Discrimination

CONSULTANT agrees that it will not discriminate against employees or applications for

employment because of race, creed, color, religion, sex, age, handicapped status or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment advertising; lay-off or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. CONSULTANT agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth this non-discrimination clause. This provision applies to all CONSULTANT'S subcontractors and it is the responsibility of CONSULTANT to ensure subcontractor's compliance.

P. Prohibition Against Contingent Fees

CONSULTANT warrants that he has not employed or retained any company or person, other than a bonafide employee working solely for CONSULTANT, to solicit or secure this AGREEMENT, and that he has not paid or agreed to pay any persons, company, corporation, individual or firm, other than a bonafide employee working solely for CONSULTANT any fee, commission, percentage, gift, or any other consideration, contingent upon or resulting from the award or making of this AGREEMENT.

Q. Termination

This AGREEMENT may be terminated by either party by seven (7) calendar days prior written notice, in the event of substantial failure to perform in accordance with the terms hereof by the other party through no fault of the terminating party. CONSULTANT and the FKAA shall also have a right to terminate this AGREEMENT for convenience at any time by thirty (30) calendar days written notice to either one or the other. In the event the project described in this AGREEMENT, or the services of CONSULTANT called for under this AGREEMENT, is or are suspended, canceled, or abandoned by the FKAA, CONSULTANT shall be given five days prior written notice of such action and shall be compensated for the professional services provided and reimbursable expenses incurred up to the date of suspension, cancellation or abandonment. CONSULTANT agrees to provide all documents to the FKAA (specifically those referenced within). Further, prior to CONSULTANT'S destruction of any of the above referenced documents, the FKAA shall be notified and allowed a reasonable period of time to gain access to and make copies of any such documents. Upon any termination of this AGREEMENT, CONSULTANT agrees that it shall use its best efforts to work harmoniously with any successor who enters an AGREEMENT to provide services for the FKAA in order to provide for a smooth transition period.

R. Indemnification

CONSULTANT will at all times indemnify, save and hold harmless and defend the FKAA, its officers, agents (the term agents shall not include the CONTRACTOR(s), any subcontractors, any materialman or others who have been retained by the FKAA or CONTRACTOR, or materialman to supply goods or services to the project) and employees, from and against liability, claim, demand, damage, loss, expense or cause of action and costs (including attorney's fees at trial or appellate levels) to the proportionate extent arising out of negligent action of CONSULTANT, its agents, servants or employees in the performance of services under this AGREEMENT. The indemnifications contained herein shall survive the expiration or earlier termination of this AGREEMENT

Nothing in this AGREEMENT shall be deemed to affect the rights, privileges and immunities of the FKAA as set forth in Florida Statutes 768.28.

S. Interest of CONSULTANT

CONSULTANT covenants that it presently has no interest and shall not acquire any interest, direct or indirect, in any Project to which this AGREEMENT pertains or any other interest which would conflict in any manner or degree with the performance of its service hereunder. CONSULTANT further covenants that in the performance of this AGREEMENT, no person having such interest shall be employed.

T. Prohibited Practices

CONSULTANT during the period of this AGREEMENT shall not hire, retain, or utilize for compensation any member, officer, or employee of FKAA or any person who, to the knowledge of CONSULTANT, has a conflict of interest.

U. Compliance With Laws

1. CONSULTANT shall comply with the applicable requirements of State, Federal and applicable County laws and all Codes of Ordinances of the local municipality as amended from time to time, and that exist at the time of building permit issuance.
2. For Projects involving work under Federal or State Grantors or Approving Agencies, the FKAA and CONSULTANT shall review and approve the applicable required provisions or any other supplemental provisions as may be included.

V. Jurisdiction; Venue

CONSULTANT hereby covenants, consents and yields to the jurisdiction of the State Courts of the 16th Judicial Circuit, in and for Monroe County, Florida. Any dispute between CONSULTANT and the FKAA shall be governed by the laws of Florida with venue in the State Courts of the 16th Judicial Circuit, in and for Monroe County, Florida.

W. Attorney's Fees

In the event a suit is filed in court arising out of this AGREEMENT, the prevailing party shall be entitled to recover from the other party all costs incurred, including reasonable attorney's fees and costs on appeal.

X. Internal Dispute Between FKAA and Consultant

The Executive Director shall be the final decision maker regarding internal disputes between FKAA and CONSULTANT.

Y. Project Scheduling

CONSULTANT shall provide scheduling to FKAA, within ten (10) days of the date of commencement as contained within this AGREEMENT. During the course of the work, CONSULTANT shall provide monthly updates with a written description of any changes in the schedule.

Z. Extent of Agreement

This AGREEMENT represents the entire integrated AGREEMENT between the FKAA and CONSULTANT and supersedes all prior negotiations, representations or AGREEMENTS, written or oral. This AGREEMENT may not be amended, changed, modified, or otherwise altered in any

way, at any time after the execution hereof, except by approval of the FCAA Board of Directors and CONSULTANT.

AA. Audit and/or Access to Records

1. At all times during the period that the CONTRACT is in force and for a period of not less than three (3) years thereafter, the CONTRACTOR shall provide all authorized representatives of the FCAA with full access/audit to all its financial records that pertain to services performed and determination of amounts payable under the CONTRACT including access to appropriate individuals with knowledge of financial records and full access to all additional records, that pertain to services performed and determination of amounts payable under the CONTRACT, permitting such representatives to examine, audit and copy such records at the site at which they are located. Such access/audit shall include both announced and unannounced inspections and on-site audits.
2. Audits conducted under this provision shall be in accordance with generally accepted auditing standards and within established procedures and guidelines of the reviewing or auditing agency.
3. This right to access/audit clause applies to financial records pertaining to all contracts, all contract change orders, and all contract amendments. In addition, this right to access applies to all records pertaining to all contracts, additional work clause items and contract amendments.
4. To the extent the records pertain directly to contract performance. If there is any indication that fraud, gross abuse or corrupt practices may be involved; or if the CONTRACT is terminated for default or for convenience.
5. If an audit, litigation, or other action involving the records is started before the end of the three (3) year period, the records must be retained until all issues arising out of the action are resolved or until the end of the three (3) year period, whichever is later.

IN WITNESS WHEREOF, the FCAA has caused these presents to be executed in its name by its Executive Director, and attested and its official Seal to be hereunto affixed by its Records Clerk, and CONSULTANT has hereunto set its hand and Seal the day and year first written above:

FLORIDA KEYS AQUEDUCT AUTHORITY

Kirk C. Zuelch, Executive Director

Date _____

Reviewed by: Legal Counsel _____

Date _____

Carollo Engineers, Inc.,

Lyle Munce Elizabeth Fujikawa
Lyle Munce, Elizabeth Fujikawa, Vice President

Witness: Paul Berg

Witness: [Signature]

BOARD APPROVAL DATE _____

**CORPORATE ACKNOWLEDGMENT
STATE OF FLORIDA
COUNTY OF MONROE**

The foregoing instrument was acknowledgment before me this 13 day of June, 2018, by (name of officer or agent title of officer of agent, of Lyle Munce, Vice President of Carollo Engineers, Inc., a Delaware (State or place of incorporation) corporation, on behalf of the corporation. He is personally know to me, Nancy Maze.

Nancy Maze
Signature of Person Making Acknowledgment

Nancy Maze
Name of Acknowledger – Typed Printed or Stamped

BOARD APPROVAL DATE _____ **(Required if under \$10,000.00)**

EXHIBIT A

PROJECT SCOPE AND BUDGET GENERAL ENGINEERING SERVICES

A. GENERAL DESCRIPTION

Design Engineering Services. Design for the installation of a 16-inch PVC pipeline from the proposed connection point of the currently under construction 16-inch pipeline which is being placed in the County Road CR-905 right of way (ROW) (near Reef Drive) to a connection point downstream of the Key Largo Pump Station (PS) (David C. Ritz Booster PS). This design will include several hundred feet of pipeline and a crossing of US Highway 1 near the intersection of Reef Drive and CR-905.

B. SCOPE OF SERVICES

CONSULTANT will provide the following professional engineering services to FKAA to identify and evaluate the proposed pipeline route, road crossing issues, and other considerations for the placement of the proposed 16-inch water main. Services will include:

Task 1: Pipeline route investigation. CONSULTANT shall investigate the proposed area for pipeline installation. It is anticipated that the pipeline route will be along CR-905 until adjacent to US 1, at which point it will cross US 1. The extent of the route will be from the terminus of the pipeline project currently under construction to the Key Largo PS. Considerations will be given to installation factors, neighborhood & traffic issues, and cost impacts. FKAA will arrange for access to and make all provisions for CONSULTANT to enter upon property not owned by FKAA to allow for such investigations.

Task 2: Pipeline installation requirements. CONSULTANT shall research and determine requirements associated with pipeline placement (set-backs, depth of cover, pipeline separation, etc.). Factors that affect open cut, tunneling/boring installation methods, maintenance of traffic, and restoration requirements will be considered.

Task 3: Pipeline design: CONSULTANT shall develop plan and profile drawings which identify the location and depth of the proposed pipeline. Details associated with the method of crossing US 1 will be included. Technical specifications will be developed. Front-end/contract specification sections shall be FKAA standard.

Task 4: Pipeline Surge Mitigation Investigation/Design. CONSULTANT shall investigate and analyze the surge issues and concerns in the 12-mile pipeline that runs from the Key Largo Pump Station to the Ocean Reef development. Upon completion of the surge analysis the CONSULTANT shall develop construction plans and specifications to implement the approved surge mitigation method.

Task 5: Permitting requirements. CONSULTANT shall identify required permits and prepare necessary applications for FKAA processing. Permitting fees shall be provided by FKAA.

Task 6: Cost estimating. The CONSULTANT shall develop a project cost estimate in accordance with American Association of Cost Engineers (AACE) International Recommended Practice No. 18R-97.

Task 7: Bidding assistance. The CONSULTANT shall assist FKAA with construction bid solicitation. This effort shall include assistance with the following:

- Bid advertisement;
- Prebid Meeting;
- RFI/Addenda preparation;
- Bid review and opinion of acceptability

Task 8: Survey, Utility Locates, Geotechnical Services: For the purpose of this scope of services the CR-905 roadway survey will be utilized for the pipeline design purposes. No survey services are included in this scope of work.

The location of underground utilities in the area of the proposed pipeline location will be determined utilizing ground penetrating radar (GPR). Should it be determined that additional physical location of existing utilities is required, the associated excavation efforts will be necessary under a separate agreement.

It is anticipated that the location of the proposed pipeline will be primarily in an existing ROW and that suitable geotechnical condition exist for pipe placement and no additional geotechnical information will be gathered as part of this scope of work.

Deliverable: The deliverables shall consist of:

- Pipeline design/installation drawings (draft & final)
- Surge mitigation design/installation drawings (draft & final)
- Specifications
- Cost estimate
- Utility Locates
- Permit application forms and supporting documentation
- Bid solicitation support documentation

Information Required from FKAA: 1) Design documents for the pipeline that is currently under construction, 2) Flow and pressure requirements; 3) Asbuilts of existing piping at connection points and at proposed surge mitigation location; 4) Pipeline surge information history; 5) Pipeline hydraulic model (if available), and 6) Available survey, geotechnical, and utility locates information. The CONSULTANT shall be entitled to use and rely upon all information provided by FKAA or others, in performing the services required hereunder.

Schedule: From the date of information receipt, the CONSULTANT shall provide deliverables in accordance with the following:

- Pipeline & surge mitigation design/installation drawings draft – 6 weeks
- Pipeline & surge mitigation design/installation drawings final – 4 weeks after receipt of FKAA comments on draft drawings
- Specifications – 6 weeks
- Cost estimate – 6 weeks
- Survey/Utility Locates/Geotechnical Information – 4 weeks
- Permit application information – 6 weeks
- Bid solicitation support documentation – In accordance with FKAA bidding and award schedule

It is mutually understood that authorization to perform any of the above mentioned services will be at the direction of the Executive Director or the Deputy Director of Utility Operations.

The services to be performed by the CONSULTANT are intended solely for the benefit of FKAA. No person or entity other than FKAA shall be entitled to rely on the CONSULTANT's performance of its services hereunder, and no right to assert a claim against the CONSULTANT by assignment of indemnity rights or otherwise shall accrue to a third party as a result of the performance of the CONSULTANT's services hereunder.

C. FEES

Compensation for the Labor and Reimbursement Expenses shall be performed under the Lump Sum method of compensation as provided for in Method I of the Agreement.

Fee Table

TASK DESCRIPTION	Lump Sum Fee (\$)
Design Engineering Services – CR-905/US I Crossing	\$63,751
Expenses	\$5,250
FEE TOTAL	\$69,001

SIGNED:

ENGINEERING CORPORATION

Carollo Engineers, Inc.


Lyle Munce, Elizabeth Fujikawa, Vice President

ACCEPTED:

FLORIDA KEYS AQUEDUCT AUTHORITY

Kirk Zuelch, Executive Director

Kent Nelson, P.E., Deputy Director of Utility Operations

BOARD APPROVAL DATE _____

**SCHEDULE OF HOURLY RATES
EXHIBIT B**

Attached

(see Exhibit A for lump sum fee amount)

**SCHEDULE OF HOURLY RATES
GENERAL ENGINEERING**

EXHIBIT B

Client: Florida Keys Aqueduct Authority

<u>Labor Category</u>	<u>Raw Labor Rate Range</u>	<u>Total Billing Rate Range</u>
Engineer/Scientists		
Civil/Process Engineer I	\$34.00 - \$38.00	\$102.00 - \$114.00
Civil/Process Engineer II	\$39.00- \$46.00	\$117.00 - \$138.00
Lead Process/ Design Engineer	\$47.00 - \$52.00	\$141.00 - \$156.00
Project Engineer	\$54.00 - \$62.00	\$162.00 - \$186.00
Process Specialist	\$65.00 - \$72.00	\$195.00 - \$216.00
Senior Process Specialist	\$65.00 - \$80.00	\$195.00 - \$240.00
Project Manager	\$62.00 - \$70.00	\$186.00 - \$210.00
Senior Project Manager	\$65.00 - \$75.00	\$195.00 - \$225.00
Technical Advisor	\$65.00 - \$80.00	\$195.00 - \$240.00
Principle-in-Charge	\$80.00 - \$85.00	\$240.00 - \$255.00
Technicians		
Technicians	\$24.50 - \$31.50	\$73.50 - \$94.50
Senior Technicians/Designers	\$31.50 - \$45.00	\$94.50 - \$135.00
Lead Design Specialist	\$47.00 - \$58.00	\$141.00 - \$174.00
Support Staff		
Word Processing/Clerical	\$19.00 - \$23.00	\$57.00 - \$69.00
Senior Word Processing/Clerical	\$23.00 - \$26.00	\$69.00 - \$78.00
Field Staff		
Inspector	\$22.00 - \$34.00	\$66.00 - \$102.00
Senior Inspector	\$34.00 - \$45.00	\$102.00 - \$135.00
Senior Construction Manager	\$58.00 - \$75.00	\$174.00 - \$225.00
Other Direct Expenses		
Travel, Subsistence and Other Direct Expenses		At Cost
Subconsultant		Cost + 10%
Mileage (in accordance with FCAA Travel & Business Reimbursement Policy and F.S. 112.061)		

AMENDMENT 8 TO PROJECT 1130-14 (May 2018)

FKAA Professional Services Agreement with Water Science Associates

Exhibit A

Scope of Services

Per your request, we have prepared this cost proposal to provide professional hydrogeologic services on behalf of the Florida Keys Aqueduct Authority (FKAA) in the review and analyses of potential impacts to the FKAA water supply system as a result of Florida Power and Light's (FPL's) the Cooling Canal System (CCS) at the Turkey Point Power Plant. Water Science Associates, through FKAA, has been participating in technical and legal actions with regard to the CCS impacts that have resulted in positive movement including:

- A settlement agreement between FPL and Miami Dade County requiring active abatement (removal) of the hypersaline plume and significantly increased monitoring of the plume movement and recovery progress.
- A Consent Order between FPL and the Florida Department of Environmental Protection (FDEP) confirming that:
 - The CCS is the primary cause of continued movement of the saline water interface threatening FKAA wellfield operations;
 - Groundwater originating from beneath the CCS is reaching tidal surface waters connected to Biscayne Bay; and
 - Requiring implementation of remedial action and monitoring plans that include, halting and reducing the westward extent of the hypersaline plume to remove its influence on the saline water interface, and elimination of deep bay connections to reduce connection of CCS groundwater to Biscayne Bay.

Water Science Associates continues to provide responsive services to the scientific and legal teams challenging FPL in the form of data research, data extractions and analyses, preparation of graphical and tabular interpretations, preparation of expert opinions, and participation in various ongoing communications with the team and with FKAA. However, as indicated in earlier correspondence, we have exhausted our authorized funding for support of the FPL challenge efforts as of April of this year.

General Services

In early May of 2018, Water Science Associates developed an expert opinion report for the pending case of Southern Alliance for Clean Energy et al vs. FPL in the United States District Court Southern District providing groundwater and surface water quality analysis and conclusions on the potential impact of proposed actions by FPL for improvement of their facility operating conditions and remediation of the hypersaline plume emanating from the CCS. In addition, Water Science Associates has been asked provide groundwater modeling expertise in support of the pending case by updating existing models developed during previous challenges to FPL by the firm of Earthfx Inc. Continued and expanded hydrogeological services are therefore anticipated over the next six months in support of ongoing legal challenge efforts.

Water Science will provide hydrogeological analyses and expert testimony to address potential impacts to the FCAA water supply system from proposed actions at the FPL Turkey Point Power Plant. Proposed work efforts may include data review, data analysis, data acquisition, groundwater modeling, and preparation of technical documentation as needed to support the legal team regarding protection of the water supply system.

Specific tasks we anticipate that will be required include:

- Review of technical documents and data from FPL, agencies, stakeholders, and consultants.
- Preparation of graphics and statistical analysis to aid in data interpretation and presentation.
- Assessment of potential plume migration in groundwater from the FPL CCS to the FCAA public water supply well system.
- Direction and inputs to hydrogeologic modeling to evaluate contaminant migration from FPL CSS operations and impacts of proposed remedial actions.
- Collection and analysis of new data to assess potential contaminant migration.
- Preparation of technical documents summarizing data collection, analysis, and conclusions.
- Attend team meetings (in person and via teleconference) in preparation of legal proceedings.
- Preparation and attendance in depositions and trial in support of the protection of the FCAA water supply system.

The cost to provide these general services will be based on Time and Materials expended with a not to exceed limit of **\$50,000**.

Hydrogeologic Modeling Services

A freshwater/saltwater model was developed by Earthfx for Atlantic Civil Inc. (ACI) in 2015 to represent groundwater flow and the movement of the freshwater/saltwater interface in the portion of the Biscayne aquifer in South Dade County, FL. The model represented the ACI quarry, other quarries in the area, pumping for municipal supply (including the FCAA wells), agricultural pumping, and the Cooling Canal System (CCS) operated by Florida Power and Light (FPL) at its Turkey Point Nuclear facility. The model used 13 layers to represent the Biscayne Aquifer and was built on a regular finite-difference grid consisting of square cells 500 ft on a side. The eastern model boundary coincided with the shoreline where a fixed equivalent freshwater head and fixed concentration were assigned in all 13 layers. The simulation of the CCS was included in the model as part of the cumulative impact investigation but the study focussed on the area between ACI and the CCS. Based on the results of the ACI modeling study (Earthfx, 2014), along with water quality data collected by the DERM, FCAA, FPL, and others, it was shown that the CCS is having a major impact on the freshwater/saltwater balance west of the CCS as well as affecting water quality east of CCS under Biscayne Bay. Additional studies have been conducted since that modeling effort and FPL has implemented some remedial measures and proposed others to manage salinity levels in the CCS and the affected parts of the Biscayne aquifer.

To better understand the impact of the CCS on the area between the FCAA wellfield and on Biscayne Bay and to predict future conditions under different remedial actions, it is important to

have a model that accurately represents the geometry and physical properties of the CCS and correctly represents flow conditions along the eastern and western sides the CCS and out into Biscayne Bay. The proposed scope of work for this study would include building a more refined model grid that includes extending the model boundary out beneath Biscayne Bay, model calibrations to match the most up to date observed heads and solute concentrations, and application of the model to simulate the migration of hypersaline water leaking from the CCS that is currently impacting the Biscayne Aquifer and Biscayne Bay.

Model construction would begin with an update and assessment of the available data. All inputs for the model, based on the available data, will have to be updated. It will also be necessary to review and revise all the model pre-processor codes used to generate SEAWAT model input files to be compatible with the new model grid, model layers, and boundary conditions. All gridded data (e.g., layer properties and geometry) and representation of the canals and lakes will be revised.

Once the data has been analysed and used to construct the refined model, the model will be calibrated to known hydrologic data to ensure that the new model can recreate the history of saltwater migration in South Dade County and match observed water level and water chemistry data. To test the predictive capabilities of the new model, the same suite of six scenarios that capture past conditions ranging from pre-development to 2015 will be simulated and compared with historic observations. Once the new model is calibrated, it will be capable of characterizing the freshwater/saltwater system and assess potential impacts from the CCS under a wide variety of conditions including remedial actions currently proposed by FPL.

The cost to provide these modeling services by Earthfx under this contract amendment will be based on Time and Materials expended with a not to exceed limit of **\$75,000**. A partial breakdown of modeling cost is provided below.

Task		Estimated Cost
1	Review of Available Data Expansion of Model into Biscayne Bay	\$48,500
2	Expansion and Refinement of Model Grid	
3	Refinement of Model Layering	
4	Model Calibration	
5	Model Testing by Running Simulations of Past Conditions	\$10,500
6	Reporting, Testimony, Liaison, and Project Management	\$16,000
Total Estimated Cost		\$75,000

Summary

The described scope of work above provides for a wide range of technical analyses and support of current and proposed legal actions. All work will be provided on a time and materials basis with a total cost not to exceed. \$125,000.

BOARD OF DIRECTORS, FLORIDA KEYS AQUEDUCT AUTHORITY

AGENDA ITEM SUMMARY

AGENDA ITEM: DUO-05

CONSENT:

REGULAR:

MEETING DATE: June 27, 2018

DIVISION: UTILITY OPERATIONS

AGENDA TITLE: Consideration to approve contract with Black & Veatch Corporation to conduct a facility planning assessment for Project # 1150-17 Stock Island Reverse Osmosis Upgrades in the amount of \$174,879.

ITEM BACKGROUND: The FCAA recognizes the need to focus on establishing a more resilient water system and improve water supply reliability. The consultant will perform a facility planning assessment of the Stock Island Reverse Osmosis (SIRO) Facility that will determine optimal water production capacity and operational mode along with associated capital and operating costs for the three (3) alternatives shown below. This will provide the FCAA the information needed to identify the preferred alternative.

- Existing facility in emergency standby
- New facility in emergency standby
- New facility with baseload flow

PREVIOUS RELEVANT ACTION BY FCAA BOARD OF DIRECTORS: N/A

STAFF RECOMMENDATION (MOTION): Board approve contract with Black & Veatch Corporation conduct a facility planning assessment for Project # 1150-17 Stock Island Reverse Osmosis Upgrades in the amount of \$174,879.

SUPPLEMENTAL INFORMATION: See Attached.

DOCUMENTATION: Included: To-Follow: Not Required:

Cost to FCAA:	\$	<u>\$174,879</u>	BUDGETED:	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
Cost to Others:	\$	_____					
Total Cost:	\$	<u>\$174,879</u>					

DEPARTMENT: Engineering **DEPARTMENT DIRECTOR APPROVAL:** J.C.R.

DIVISION DIRECTOR APPROVAL: [Signature]

Reviewed by: Internal Auditor: [Signature] General Counsel: RTF Executive Director: [Signature]

BOARD ACTION:

Approved: Tabled: Disapproved: Recommendation Revised:

Comments: _____

Date: _____ Recording Clerk: _____

CONTRACT
FKAA PROJECT NO.

THIS AGREEMENT, made and entered into this _____ day of _____, by and between the Florida Keys Aqueduct Authority, hereinafter "FKAA", and _____, hereinafter referred to as "CONSULTANT".

WHEREAS, the FKAA has provided notice of the desired professional services and carried out the proper selection process pursuant to and in accordance with CONSULTANT's Competitive Negotiation Act, and;

WHEREAS, the FKAA represents that it is a Utility, organized under the State of Florida with the authority to engage CONSULTANT and accept the obligation for payment for the services desired, and;

WHEREAS, the FKAA desires to engage CONSULTANT to perform certain professional services pertinent to such work in accordance with this AGREEMENT, and;

WHEREAS, CONSULTANT shall provide such professional services in accordance with this AGREEMENT.

NOW, THEREFORE, in consideration of the premises and the mutual benefits which will accrue to the parties hereto in carrying out the terms of this AGREEMENT, it is mutually understood and agreed as follows:

I. DEFINITIONS; GENERAL CONDITIONS

- A. THE SCOPE OF SERVICES is to be implemented as set forth by this AGREEMENT and by Exhibit A, Project Documentation as attached to this agreement that are made part hereof.
- B. CONSTRUCTION COSTS shall be the total estimated cost to the FKAA of all elements of the project designed or specified by CONSULTANT. Construction costs shall include the cost at current market rates of labor and materials furnished by the Contractor and equipment designed, specified, selected or specially provided for by CONSULTANT, plus a reasonable allowance for the contractor's overhead and profit. In addition, a reasonable allowance for contingencies shall be included for market conditions at the time of bidding and for changes in the work during construction. Construction costs does not include the compensation of CONSULTANT or CONSULTANTS subconsultants, the cost of the land, rights-of-way, financing or other costs which are the responsibility of the FKAA. CONSULTANT shall use its best judgment as a design professional familiar with the construction industry in estimating the construction cost. FKAA acknowledges that construction cost estimates, financial analyses and feasibility projections are subject to many influences including, but not limited to, price of labor and materials, unknown or latent conditions of existing equipment or structures, and time or quality of performance by third parties. FKAA acknowledges that such influences may not be precisely forecasted and are beyond the control of CONSULTANT and that actual costs incurred may vary substantially from the estimates prepared by CONSULTANT. CONSULTANT does not warrant or guarantee the accuracy of construction or development cost estimates.
- C. PHASES: A phased approach may be utilized. The FKAA and CONSULTANT shall have the right to negotiate the terms of each phase. In the event the parties cannot agree, the FKAA may select another CONSULTANT or go out for additional proposals in order to complete the subsequent phase(s) of the project. This phased approach shall not waive the FKAA's right to terminate this AGREEMENT during any phase of the project.

II. GENERAL DUTIES OF CONSULTANT

- A. The relationship of CONSULTANT to the FKAA will be that of a professional CONSULTANT, and CONSULTANT will provide the professional and technical services required under this AGREEMENT in accordance with acceptable practices and ethical standards which may include, but are not limited to professional engineering services as identified in the attached Exhibit A, Project Documentation. No employer/employee relationships shall be deemed to be established and CONSULTANT, its agents, subcontractors, and employee shall be independent contractors at all times.
- B. Professional and Technical Services. It shall be the responsibility of CONSULTANT to work with the FKAA and appraise it of solutions to problems and the approach or technique to be used towards accomplishment of the FKAA's objectives as set forth in this AGREEMENT upon execution by both parties.
- C. Exhibit A-1 establishes a budget for the project. CONSULTANT shall be responsible for providing, at no additional cost to the FKAA, completed designs, drawings, specifications, reports and other applicable services if the budget for the entire project is exceeded during and up to completion of the final design phase of the project; however, nothing contained herein shall require CONSULTANT to bear additional costs if the additional costs are a result of a change in the scope of services directed by the FKAA.
- D. CONSULTANT shall be responsible for the professional quality, technical accuracy, timely completion, compliance with regulations and rules, and the coordination with all appropriate agencies of all drawings, specifications, reports and other services furnished by CONSULTANT. CONSULTANT shall perform its services in accordance with generally accepted standards and practices customarily utilized by competent engineering firms in effect at the time CONSULTANT's services are rendered. CONSULTANT shall, without additional compensation, correct or revise said error or omissions to the satisfaction of the FKAA. CONSULTANT shall have no liability for defects in the services attributable to CONSULTANT's reliance upon or use of data, design criteria, drawings, specifications, or other information furnished by FKAA or third parties.
- E. Approval by the FKAA of drawings, designs, specifications, reports and incidental professional services or materials furnished hereunder shall not in any way relieve CONSULTANT of responsibility for the technical adequacy of its work. The FKAA's review, approval or acceptance of, or payment for, any of the services shall not be construed to operate as a waiver of any rights under this AGREEMENT or of any cause of action arising out of the performance of this AGREEMENT.
- F. CONSULTANT designates Ricardo Vieira, P.E., as its representative to act as liaison with the FKAA. The representative shall manage and coordinate FKAA projects and is hereby authorized to act on behalf of CONSULTANT to act on related matters with respect to performance of services for the FKAA in accordance with the AGREEMENT. Any change to name other person shall be requested in writing to the FKAA, and shall be approved by the FKAA.
- G. CONSULTANT shall attend all meetings, as specified or as defined where the project is discussed, unless the FKAA's representative declares such attendance and participation is not necessary. In addition, CONSULTANT shall attend all additional meetings as may be required to facilitate the project.

III. DUTIES OF CONSULTANTS: STUDY AND REPORT PHASE THROUGH CONSTRUCTION PHASE AND RESIDENT PROJECT REPRESENTATIVE SERVICES PHASE - The following

Duties of CONSULTANT are separated into phases of the project that shall be performed by CONSULTANT. The FKAA may require additional requirements applicable to the project that will be specified in attached Exhibits. The FKAA must authorize the commencement of each phase of the work unless otherwise agreed upon.

A. Phase I - Study and Report Phase

If the Study and Report Phase is authorized, the following requirements shall apply.

1. CONSULTANT shall consult with the FKAA to clarify and define the FKAA's requirements for the Project and review available data.
2. CONSULTANT shall advise the FKAA as to the necessity of the FKAA's providing or obtaining from others, data or services.
3. CONSULTANT shall identify and analyze permit and approval requirements of all governmental authorities having jurisdiction to approve the design of the Project and participate in consultations with such authorities.
4. CONSULTANT shall provide analyses of the FKAA's needs, planning surveys, site evaluations and comparative studies of prospective sites and solutions.
5. CONSULTANT shall provide a general economic analysis of Owner's requirements applicable to variable alternatives.
6. CONSULTANT shall prepare a Report containing schematic layouts, sketches and conceptual design criteria with appropriate exhibits to indicate clearly the considerations involved (including applicable requirements of governmental authorities having jurisdictions as aforesaid) and the alternative solutions available to the FKAA and setting forth CONSULTANTS findings and recommendations. This Report will be accompanied by CONSULTANTS pre-design opinion of probable costs for the Project, including, but not limited to the following which will be separately itemized: Construction Cost, allowance for engineering costs and contingencies allowances for such other items, such as charges of all other professionals and consultants, for the cost of land and rights-of-way, for compensation for or damages to properties, and for permit, review and/or approval fees by other governmental agencies, if required. CONSULTANT shall also provide a preliminary evaluation of the FKAA's Project Schedule. The FKAA's Project Schedule and probable construction costs shall be evaluated and updated throughout subsequent phases of the work.
7. CONSULTANT shall furnish the number of copies of the Study and Report documents as provided in this AGREEMENT and review them with the FKAA.

B. Phase II - Preliminary Design Phase

If the Preliminary Design Phase is authorized, the following requirements will apply:

1. CONSULTANT, in consultation with the FKAA shall determine the general scope, extent and character of the Project.
2. Prepare Preliminary Design documents consisting of final design criteria, preliminary drawings, outline specifications and written descriptions of the Project.

3. Advise the FKAA if additional data or services are necessary and assist the FKAA in obtaining such data and services.
4. Furnish the specified number of copies of the above Preliminary Design documents as contained within the Project Documentation and present and review them with the FKAA.
5. CONSULTANT shall submit to the FKAA a preliminary estimate of construction costs based on current area, volume or other unit costs, which shall be updated throughout the design development phase.
6. CONSULTANT shall prepare a development schedule, which shall include, but shall not be limited to, the review and approval times by all governmental agencies as may be required.
7. CONSULTANT shall make available all design calculations and associated Data, and participate in meetings in which Value Engineering Analysis of the project takes place, at such times and places as shall be determined by the FKAA.

C. Phase III - Final Design Phase

If the Final Design Phase is authorized, the following requirements shall apply:

1. CONSULTANT shall prepare construction documents which shall include but not be limited to drawings and technical specifications, general and supplementary conditions, bid forms, invitations to bid, instructions to bidders, with technical criteria, descriptions and design data necessary for permitting by governmental authorities, and shall include any further adjustments in the scope or quality of the project or in the construction budget authorized by the FKAA.
2. CONSULTANT shall in the preparation of construction documents, technical criteria, written descriptions and design data, take into account all currently prevailing codes and regulations governing construction in the Florida Keys and shall meet the requirements of all other agencies or governmental authorities having jurisdiction over the project.
 3. CONSULTANT shall prepare a detailed opinion of probable cost that shall be reviewed by the FKAA prior to going out for bids.
4. CONSULTANT shall provide the required documents and attend meetings as necessary, for the approval of governmental boards, agencies or authorities having jurisdiction over the project.
5. CONSULTANT shall use front end bid documents provided by the FKAA including bidding forms, conditions of the contract, and form of AGREEMENT between the FKAA and CONTRACTOR.
6. CONSULTANT shall prepare all documents including design and plan revisions required for the approval of governmental authorities having jurisdiction over the project. Said approvals are required prior to the public notice for the Invitation to Bid and submission of application and therefore are the responsibility of CONSULTANT.
 - a. CONSULTANT shall provide the FKAA the number of copies of contract documents as specified in this AGREEMENT.

D. Phase IV - Bidding/Negotiation Phase

If the bidding phase is authorized, the following requirements shall apply

1. CONSULTANT shall assist the FKAA in obtaining bids or negotiated proposals, assist in awarding and preparing contracts for construction, attend pre-bid conferences, prepare addenda, provide written recommendation of award, assist in the compilation/preparation of contract documents, and after the award assist the FKAA in securing the required bonds and certificates of insurance, and in the review of the contract documents for completeness.
2. CONSULTANT shall attend the bid opening, prepare bid tabulation sheets and assist the FKAA in evaluating bids or proposals and in assembling and awarding contracts for construction, materials, equipment and services.
3. CONSULTANT shall issue addenda as appropriate to interpret, clarify or expand the Bidding Documents.
4. CONSULTANT shall consult with and advise the FKAA as to the acceptability of subcontractors, suppliers and other persons and organizations proposed by the prime contractor(s) (herein called CONTRACTOR(S)) for those portions of the work as to which such acceptability is required by the Bidding Documents.
5. Consult with the FKAA concerning and determine the acceptability of substitute materials and equipment proposed by CONTRACTOR(S) when substitution prior to the award of contracts is allowed by the Bidding Documents.

E. Phase V - Construction Phase

If Contract Administration is authorized, the following requirements shall apply:

1. CONSULTANT shall provide administration of the contract for construction as set forth herein and as contained with the general conditions of the contract for construction.
2. CONSULTANT shall be a representation of and shall advise and consult with the FKAA during construction and until final payment to the contractor is due. CONSULTANT shall have authority to act on behalf of the FKAA only to the extent provided in this AGREEMENT and as provided in the contract for construction unless otherwise modified by written instrument.
3. CONSULTANT shall visit the site at regular intervals appropriate to the stage of construction or as otherwise agreed to by the FKAA and CONSULTANT, in writing, to become generally familiar with the progress and quality of the work completed and shall determine in general if the work is being performed in a manner indicating that the work when completed will be in accordance with the contract documents. CONSULTANT shall keep the FKAA informed of the progress and quality of the work and shall provide certification to the FKAA of satisfactory completion of all phases of the work in compliance with the plans, specifications, and/or approved changes or modifications thereto.
4. CONSULTANT shall not have control over or charge of and shall not be responsible for construction means, methods, techniques, sequences or procedures of construction or for safety precautions and programs in connection with the work, since these are solely the

CONTRACTOR'S responsibility under the contract for construction. CONSULTANT shall make every reasonable effort to ensure that the CONTRACTOR completes the work in accordance with the current approved schedule and carries out the work in accordance with the contract documents. CONSULTANT makes no warranty or guarantee with respect to the performance of a CONTRACTOR.

5. CONSULTANT based on observations and evaluations of CONTRACTOR'S applications for payment, shall review and certify the amounts due the CONTRACTOR within seven (7) days of receipt.
6. CONSULTANTS certification for payment shall constitute a representation to the FKAA, based on CONSULTANTS observations at the site as provided herein and on the data comprising the CONTRACTOR'S application for payment, that the work has progressed to the point indicated and that, to the best of CONSULTANTS knowledge, information, and belief, the quality and quantity of work is in accordance with the contract documents. The foregoing representations are subject to an evaluation of the work for conformance with the contract documents, correctable prior to completion and to specific qualifications expressed by CONSULTANT. The issuance of the certificate of payment shall further constitute a representation that CONSULTANT has made observations to review the quality or quantity of the work.
7. CONSULTANT shall recommend disapproval or rejection of CONTRACTOR'S WORK to the FKAA which does not conform to the contract documents. CONSULTANT will have authority to require additional inspection or testing of the work in accordance with the provisions of the contract documents, whether or not such work is fabricated, installed or completed.
8. CONSULTANT shall review and approve or take other appropriate action upon CONTRACTOR'S submittals such as shop drawings, product data, and samples for the purpose of checking for conformance with information given and the design concept expressed in the contract documents. CONSULTANT shall evaluate and determine the acceptability of substitute materials and equipment proposed by CONTRACTORS.
9. CONSULTANT shall prepare change orders and construction change directives with supporting documentation and data if deemed necessary by CONSULTANT, for the FKAA's approval and execution in accordance with the contract documents, and may authorize minor changes in the work not involving an adjustment in the contract sum or an extension of the contract time which is consistent with the intent of the contract documents.
10. CONSULTANT shall conduct inspections to determine the date or dates of substantial completion and the date of final completion, shall receive and forward to the FKAA for the FKAA's review and records, written warranties and related documents required by the contract documents and assembled by the CONTRACTOR and shall issue a final certificate for payment upon compliance with the requirements of the contract documents.
11. CONSULTANT shall interpret matters concerning performance of the FKAA and CONTRACTOR under the requirements of the contract documents on written request of either the FKAA or CONTRACTOR. CONSULTANT'S response to such requests shall be made with reasonable promptness and within any time limits agreed upon.
12. Interpretations of CONSULTANT shall be consistent with the intent of and reasonably inferable from the contract documents and shall be in writing or in the form of drawings.

When making such interpretations, CONSULTANT shall endeavor to secure faithful performance by both the FKAA and the CONTRACTOR.

13. The FKAA shall be the final arbiter on matters relating to aesthetics.
14. CONSULTANT shall render written interpretations within a reasonable time on all internal disputes between the FKAA and CONTRACTOR relating to the execution of the progress of the work as provided in the contract documents. CONSULTANT'S interpretations on internal disputes are not binding on the FKAA and the FKAA may result to remedies afforded by this contract to resolve the issue.
15. CONSULTANT shall provide the number of sets of the construction documents to the CONTRACTOR as specified in this AGREEMENT
16. Upon completion of construction CONSULTANT shall provide to the FKAA, three sets of record drawings, signed and sealed, plus one electronic set incorporating record conditions and other data furnished by CONTRACTOR(S) to CONSULTANT.
17. In company with the FKAA, CONSULTANT shall visit the Project to observe any apparent defects in the complete construction, assist the FKAA in consultations and discussions with CONTRACTOR(S) concerning correction of such deficiencies, and make recommendations as to replacement or correction of defective work.
18. The presence or duties of CONSULTANT's personnel at a construction site, whether as onsite representatives or otherwise, do not make CONSULTANT or CONSULTANT's personnel in any way responsible for those duties that belong to FKAA and/or the construction contractors or other entities, and do not relieve the construction contractors or any other entity of their obligations, duties, and responsibilities, including, but not limited to, all construction methods, means, techniques, sequences, and procedures necessary for coordinating and completing all portions of the construction work in accordance with the construction Contract Documents and any health or safety precautions required by such construction work.
19. CONSULTANT and CONSULTANT's personnel have no authority to exercise any control over any construction contractor or other entity or their employees in connection with their work or any health or safety precautions and have no duty for inspecting, noting, observing, correcting, or reporting on health or safety deficiencies of the construction contractor(s) or other entity or any other persons at the site except CONSULTANT's own personnel.
20. The presence of CONSULTANT's personnel at a construction site is for the purpose of providing to FKAA a greater degree of confidence that the completed construction work will conform generally to the construction documents and that the integrity of the design concept as reflected in the construction documents has been implemented and preserved by the construction contractor(s). CONSULTANT neither guarantees the performance of the construction contractor(s) nor assumes responsibility for construction contractor's failure to perform work in accordance with the construction documents

F. Phase VI - Resident Project Representative Services Phase

If the Resident Project Representative Services Phase is authorized the following requirements

shall apply:

1. Resident Project Representative will be assigned to assist CONSULTANT in carrying out his responsibilities to FKAA at the site. Resident Project Representative is CONSULTANT'S agent at site, will act as directed by and under the supervision of CONSULTANT, and will confer with CONSULTANT regarding Resident Representative's actions. Resident Representative's dealing in matters pertaining to the on-site work shall in general be with CONSULTANT and CONTRACTOR keeping the FKAA advised as necessary. Resident Project Representative's dealings with subcontractors shall only be through or with the full knowledge and approval of CONTRACTOR. Resident Project Representative shall generally communicate with the FKAA with the knowledge of and under the direction of CONSULTANT.
2. Resident Project Representative shall where applicable:
 - a. Review the progress schedule, schedule of Shop Drawing submittals and schedule of values prepared by CONTRACTOR and consult with CONSULTANT concerning its general acceptability.
 - b. Attend meetings with CONTRACTOR, such as preconstruction conferences, progress meetings, job conferences and other project-related meetings, and prepare and circulate copies of minutes thereof.
 - c. Working principally through CONTRACTOR'S superintendent, assist CONSULTANT in serving as the FKAA's liaison with CONTRACTOR, when CONTRACTOR'S operations affect the FKAA's on-site operations.
 - d. Assist in obtaining from the FKAA additional details or information, when required for proper execution of the Work.
 - e. Record date of receipt of Shop Drawings and samples.
 - f. Receive samples which are furnished at the site by CONTRACTOR, and notify CONSULTANT of availability of samples for examination.
 - g. Advise CONSULTANT and CONTRACTOR for the commencement of any Work requiring a Shop Drawing if the submittal has not been approved by CONSULTANT.
 - h. Conduct on-site observations of the Work in progress to assist CONSULTANT in determining if the Work is, in general, proceeding in accordance with the Contract Documents. CONSULTANT makes no warranty or guarantee with respect to the performance of a CONTRACTOR.
 - i. Report to CONSULTANT whenever Residential Project Representative believes that any Work is unsatisfactory, faulty or defective or does not conform to the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise CONSULTANT of Work that Resident Project Representative believes should be uncovered for observation, or requires special testing, inspection or approval. Nothing herein shall relieve the CONTRACTOR or CONSULTANT from the duties imposed by the contract.
 - j. Verify that tests, equipment and systems start-up, and operating and maintenance training

are conducted in the presence of appropriate personnel, and that CONTRACTOR maintains adequate records, thereof; and observe, record and report to CONSULTANT appropriate details relative to the test procedures and start-ups.

- k. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the results of these inspections and report to CONSULTANT.
- l. Report to CONSULTANT when clarifications and interpretations of the Contract Documents are needed and transmit to CONTRACTOR clarifications and interpretations as issued by CONSULTANT.
- m. Consider and evaluate CONTRACTOR'S suggestions for modifications in Drawings or Specifications and report with Resident Project Representative's recommendations to CONSULTANT. Transmit to CONTRACTOR decisions as issued by CONSULTANT.
- n. Maintain at the job site orderly files for correspondence, reports of job conferences, Shop Drawings and samples, reproductions of original Contract Documents including all Work Directive Changes, Addenda, Change Orders, Field Orders, additional Drawings issued subsequent to the execution of the Contract, CONSULTANT'S clarifications and interpretations of the Contract Documents, progress reports, and other Project related documents.
- o. Keep a diary or log book, recording CONTRACTOR hours on the job site, weather conditions, data relative to questions of Work Directive Changes, Change Orders or changed conditions, list of job site visitors, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to CONSULTANT.
- p. Record all names, addresses and telephone numbers of the CONTRACTOR, all subcontractors and major suppliers of material and equipment.
- q. Furnish CONSULTANT periodic reports as required of progress of the Work of the CONTRACTOR'S compliance with the progress schedule and schedule of Shop drawing and sample submittals.
- r. Consult with CONSULTANT in advance of schedule major tests, inspections or start of important phases of the Work.
- s. Draft proposed Change Orders and work Directive Changes, obtaining backup material from CONTRACTOR and recommend to CONSULTANT, Change Orders, Work Directive changes, and Field Orders.
- t. Report immediately to CONSULTANT and the FCAA upon the occurrence of any accident.
- u. Review applications for payment with CONTRACTOR for compliance with the established procedure for their submission and forward with recommendations to CONSULTANT, noting particularly the relationship of the payment requested to the schedule of values, work completed and materials and equipment delivered at the site but not incorporated in the work.
- v. During the course of the work, verify that certificates, maintenance and operation

manuals and other data required to be assembled and furnished by CONTRACTOR are applicable to the items actually installed and in accordance with the Contract Documents, and have this material delivered to CONSULTANT for review and forwarding to FCAA prior to final payment for the work.

- w. Before CONSULTANT issues a Certificate of Substantial Completion, submit to CONTRACTOR a list of observed items requiring completion or correction.
 - x. Conduct final inspection in the company of CONSULTANT, the FCAA and the CONTRACTOR and prepare a final list of items to be completed or corrected.
 - y. Observe that all items on final list have been completed or corrected and make recommendations to CONSULTANT concerning acceptance.
3. The Resident Project Representative shall not:
- a) Authorize any deviation from the Contract Documents or substitution of materials or equipment.
 - b) Exceed limitations of CONSULTANT'S authority as set forth in the Contract Documents.
 - c) Undertake any of the responsibilities of CONTRACTOR, subcontractors, or CONTRACTOR'S superintendent.
 - d) Advise on, issue directions relative to or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction unless such advice or directions are specifically required by the Contract Documents.
 - e) Advise on, issue directions regarding or assume control over safety precautions and programs in connection with the work.
 - f) Accept Shop Drawing or sample submittals from anyone other than CONTRACTOR.
 - g) Authorize the FCAA to occupy the Project in whole or in part.
 - h) Participate in specialized field or laboratory tests or inspections conducted by others except as specifically authorized by CONSULTANT.

IV. DATA AND SERVICES TO BE PROVIDED BY THE FCAA

The FCAA shall provide the following:

- A. Furnish or cause to be furnished such reports, studies, instruments, documents, and other information as CONSULTANT and FCAA mutually deem necessary and which are under control of the FCAA.
- B. Pay for all legal advertisements incidental to obtaining bids or proposals from contractors.
- C. The Executive Director or his designee shall act as the FCAA's representative with respect to the work to be performed under this AGREEMENT. The Executive Director or his designee shall have the authority to the extent authorized by the FCAA Board of Directors to exercise the rights

and responsibilities of the FKAA provided in this contract. Said authority may include but is not limited to: transmit instructions, stop work, receive information, interpret FKAA's policies and decisions with respect to materials, equipment, elements, and systems pertinent to the services covered by this AGREEMENT.

- D. Pay all permit application filing fees.
- E. Provide access to FKAA facilities.

V. TIME OF PERFORMANCE

- A. CONSULTANT will begin work promptly after issuance of a notice to proceed.
- B. CONSULTANT'S services called for under the AGREEMENT shall be completed in accordance with the schedule contained in the Project Documentation. If CONSULTANT'S services are unreasonably delayed by the FKAA in excess of 180 days, the time of performance and compensation shall be renegotiated, provided, however, CONSULTANT as a condition precedent to renegotiation shall notify the FKAA within fifteen (15) calendar days from the end of the delay of CONSULTANT'S proposed additional costs incurred by reason of said delay.

VI. AGREEMENT PERIOD

The period of service is from the date of execution of this AGREEMENT. This AGREEMENT will terminate at such time as the engineering services required by this AGREEMENT have been completed.

VII. COMPENSATION

- A. The FKAA will compensate CONSULTANT for the services in accordance with a negotiated lump sum, or a not to exceed budgeted amount based on time charges which are based upon hourly rates, plus reimbursable expenses if compensation is based on Method II and other related costs as are specified in this AGREEMENT.

1. METHOD I - LUMP SUM

Wherever possible, the scope of services for Services, Projects or Programs shall be thoroughly defined and outlined prior to its authorization. The FKAA and CONSULTANT shall mutually agree to a lump sum amount for services to be rendered and a detailed scope of services. Should the FKAA deem that a change in the scope of services is appropriate, then a decrease or increase in compensation shall be authorized in writing. In lump sum contracts, CONSULTANT shall submit the estimated man hours, wage rates and other actual unit costs supporting the compensation. CONSULTANT shall submit a truth in negotiation certificate stating that all data supporting the compensation is accurate, complete and current at the time of contracting.

2. METHOD II - TIME/CHARGES NOT TO EXCEED BUDGETED AMOUNT

When a service is to be compensated for a time charge/not to exceed basis, CONSULTANT will submit a not to exceed budget cost to the FKAA for prior approval based on actual time charges which shall not exceed established hourly rates as shown in Exhibit B attached hereto, plus reimbursable expenses and other related costs. The FKAA shall not be obligated to reimburse CONSULTANT for costs incurred in excess of the not to exceed cost amount.

- a. The FKAA agrees to pay CONSULTANT compensation for services rendered based upon the established raw hourly salary rates as shown in Exhibit B for services rendered on FKAA projects multiplied by an overhead factor containing a ten percent (10%) profit, which shall not exceed 3.0. The overhead factor may be subject to audit. The schedule of hourly rates as set forth in Exhibit B is attached hereto and made a part hereof. The rates listed in Exhibit B may be adjusted upon AGREEMENT of the parties.
- b. In addition, the FKAA shall pay for reimbursable expenses invoiced at the actual cost of expenditures incurred by CONSULTANT if provided in this AGREEMENT as follows:
 1. Transportation and subsistence when traveling in connection with the work required of this AGREEMENT shall be reimbursed in accordance with the FKAA Travel and Business Reimbursement Policy and Florida Statute; FS 112.061. The method of transportation shall be by the most efficient and economical means of travel (considering time of the traveler, cost of transportation and per diem or subsistence required). Lodging of CONSULTANT'S while on official FKAA business in Monroe County should be arranged and paid for directly by CONSULTANT. FKAA will reimburse lodging for hotels in comparable value to Hampton Inn, Holiday Inn, Fairfied Inn, etc. Mileage and per diem will be reimbursed in accordance with the FKAA Travel and Business Reimbursement Policy and F.S. 112.061.
 2. Actual expense of reproductions of documents in excess of that stipulated in the Project Documentation.
 3. Actual expenses of testing, laboratory services, and field equipment, postage, supplies incurred directly for the project, and CONSULTANT'S standard project charges for special health and safety requirements of OSHA.
 4. Actual expenses of overtime work requiring higher than regular rates, when authorized by the FKAA.
 5. Express courier services shall only be utilized with the approval of the Director of Environmental Services or Director of Engineering.
 6. Travel expenses for CONSULTANT'S employees traveling to and from CONSULTANT'S offices shall not be reimbursable unless the travel is required for meetings with FKAA personnel, or as otherwise approved by the Director of Environmental Services or Director of Engineering.
- B. Subcontractual service shall be invoiced at the actual fees paid by CONSULTANT, plus an additional ten percent (10%) of the cost of these services to compensate CONSULTANT, for the procuring and management of the subconsultant, and for the other financial and administrative costs. Subcontractual services shall be approved by the FKAA in writing prior to performance of the Subcontractual work.
- C. Total Compensation (including, but not limited to compensation for subconsultants) for all services and expenses shall not exceed the budget cost listed in this AGREEMENT, without written approval.
- D. If the FKAA determines that any price for services, however calculated, provided by CONSULTANT, including profit, negotiated in connection with this AGREEMENT or any cost

reimbursable under this AGREEMENT was increased by any significant sums because CONSULTANT or any subcontractor furnished incomplete or inaccurate costs or pricing data, then such price or cost of profit shall be reduced accordingly and the AGREEMENT shall be reduced accordingly and the AGREEMENT shall be modified in writing to reflect such reduction.

VIII. PAYMENT

The FKAA agrees that it will use its best effort to pay CONSULTANT within thirty (30) calendar days from presentation of CONSULTANTS itemized report and invoice and approval of the FKAA's representative, unless additional time for processing is required for payments for basic services, Subcontractual services, and reimbursable expenses as defined in Section VII. CONSULTANT shall submit monthly invoices, as required in this AGREEMENT, which shall include a report of work completed during the respective invoice period. Invoices shall be in a format consistent with those shown in Exhibit C. The report shall be adequate in detail to describe work progress (% completed for each task) and written summaries of work completed. No payment request shall exceed the value of work and services performed by CONSULTANT under this AGREEMENT. If FKAA fails to pay any invoiced amounts when due, interest will accrue on each unpaid amount at the rate of one and one-half percent per month.

IX. MISCELLANEOUS PROVISIONS

A. Ownership of Documents

A set of reproducible mylar drawings and electronic documents in a format compatible with AutoCadd, Latest Edition, FKAA's computer system, shall be given to the FKAA. Details, design calculations, and all other documents and plans that result from CONSULTANT'S SERVICES under this AGREEMENT shall become and remain the property of the FKAA, including patent and copyright rights, whether the project is completed or not, and will be delivered to the FKAA upon demand. CONSULTANT reserves the right to retain a copy of all such documents for record purposes. Where such documents are required to be filed with governmental agencies, CONSULTANT will furnish copies to the FKAA upon request. The contract work is represented by hard copy documentation; software, is provided to the FKAA for convenience only. Nothing contained in this Agreement shall be construed as limiting or depriving CONSULTANT of its rights to use its basic knowledge and skills to design or carry out other projects or work for itself or others, whether or not such other projects or work are similar to the work to be performed pursuant to this Agreement. At all times, CONSULTANT shall retain all of its rights in and to its designs, specification, databases, models, know how, computer software, copyrights, trade and service marks, patents, trade secrets, and any other proprietary property developed or otherwise obtained by or for CONSULTANT independent of this Agreement and any modification thereof ("Pre-existing Intellectual Property"). Rights to intellectual property developed, utilized, or modified in the performance of the services shall remain the property of CONSULTANT. CONSULTANT hereby grants to FKAA an irrevocable, nonexclusive, royalty-free license to utilize CONSULTANT's Pre-existing Intellectual Property provided to FKAA as part of the services.

B. Copies of Documents

CONSULTANT shall prepare sufficient copies of all documents necessary to obtain approval through the FKAA's processes, as well as other governmental authorities. See also Section III for additional requirements. The FKAA acknowledges that the materials cited in Paragraph IX and other data provided in connection with this AGREEMENT which are provided by

CONSULTANT are not intended for use in connection with any project other than the project for which such materials are prepared. Any use by the FKAA of such materials in connection with a project other than that for which such materials were prepared without prior written consent and adaptation by CONSULTANT shall be at the FKAA's sole risk, and CONSULTANT shall have no responsibility or liability therefore.

C. Insurance

Without limiting any of the other obligations or liabilities of CONSULTANT, CONSULTANT shall, at his own expense provide and maintain in force, until all of its services to be performed under this AGREEMENT have been completed and accepted by the FKAA (or for such duration as it otherwise specified hereinafter), the following insurance coverage:

1. Worker's Compensation Insurance to apply to all of CONSULTANT'S employees in compliance with the "Worker's Compensation Law" of the State of Florida and all applicable Federal Laws.
 - a. Employer's Liability with limits of \$100,000 per person, \$500,000 per occurrence_and \$100,000 per each disease.
2. Comprehensive General Liability with minimum limits of \$1,000,000 per occurrence combined single limit for Bodily Injury Liability and Property Damage Liability. Coverage must be afforded on a form no more restrictive than the latest edition of the Comprehensive General Liability policy, without restrictive endorsements other than ISO Endorsement GL 21 06 (Engineers, Architects, or Surveyors Professional Liability exclusion), as Filed by the Insurance Services Office and must include:
 - a. Premises and/or Operations
 - b. Independent Contractors
 - c. Products and Complete Operations - CONSULTANTS shall maintain in force until at least three years after completion of all services required under this AGREEMENT, coverage for Products and Completed Operations, including Broad Form Property Damage.
 - d. Broad Form Property Damage
 - e. Contractual Coverage applicable to this specific AGREEMENT.
 - f. Personal Injury Coverage with minimum, limits of coverage equal to those required for Bodily Injury Liability.
 - g. Business Automobile Liability with minimum limits of \$1,000,000 per occurrence combined single limit for Bodily Injury Liability and Property damage Liability. Coverage must be afforded on a form no more restrictive than the latest edition of the Business Automobile Liability policy, without restrictive endorsements, as filed by the Insurance Services Office and must include:
 - i. Owned Vehicles
 - ii. Hired and Non-Owned Vehicles

iii. Employer's Non-Ownership

3. Professional Liability Insurance with minimum limits of \$1,000,000 per claim. Coverage shall be afforded on a form acceptable to the FKAA. CONSULTANT shall maintain such professional liability insurance until at least one year after a Certificate of Occupancy is issued.
4. Prior to commencement of services, CONSULTANT shall provide to the FKAA Certificates of Insurance evidencing the insurance coverage specified in the foregoing Paragraphs. All policies covered within subparagraphs of section C shall be endorsed to provide the FKAA with thirty (30) days notice of cancellation and/or restriction (ten (10) days notice for cancellation due to non-payment of premium). The FKAA shall be named as an additional insured as to CONSULTANTS liability on policies referenced except Workers Compensation and Professional liability.
5. If the initial insurance policies required by this AGREEMENT expire prior to the completion of the services, renewal Certificates of Insurance of policies shall be furnished thirty (30) days prior to the date of their expiration. For Notice of Cancellation and/or Restriction; the policies must be endorsed to provide the FKAA with thirty (30) days notice of cancellation and/or restriction (ten (10) days notice for cancellation due to non-payment of premium).
6. CONSULTANT'S insurance, including that applicable to the FKAA as an additional Insured, shall apply on a primary basis.

D. Litigation Services

It is understood and agreed that CONSULTANT'S services include reasonable assistance with litigation or dispute resolution arising from this AGREEMENT; *provided that* such services will not require CONSUTLANT to testify or participate as an expert witness in the litigation or dispute resolution. CONSULTANTS participation shall include up to 20 hours of services related to litigation or dispute resolution. Any such services in excess of 20 hours shall be an additional service.

E. Authority to Contract

The FKAA represents that it is an Agency of the State of Florida with the authority to engage CONSULTANT for professional services and to accept the obligation for payment for the services described in this Agreement.

F. Assignment

The FKAA and CONSULTANT each binds itself and its successors, legal representatives, and assigns to the other party to this AGREEMENT and to the partners, successors, legal representatives, and assigns of such other party, in respect to all covenants of this AGREEMENT subject to budget considerations and requirements of law; and, neither the FKAA nor CONSULTANT will assign or transfer their interest in this AGREEMENT without the written consent of the other.

G. Confidential Information

During all times that CONSULTANT is employed on behalf of the FKAA and at all times subsequent to the date of this contract, all discussions between the FKAA and CONSULTANT

and all information developed or work products produced by CONSULTANT during its employment and all matters relevant to the business of the FKAA not otherwise being a matter of public record shall be deemed to be confidential. All such information and work product shall be protected by CONSULTANT and shall not be revealed to other persons without the express written permission of the FKAA, unless mandated by order of the court.

H. Non-Exclusive Contract

The FKAA reserves the right to award projects to other firms pursuant to the Florida Statutes Consultant's Competitive Negotiations Act during the period of service of CONSULTANT. CONSULTANT agrees to cooperate with the FKAA and other firms in accomplishing work that may require joint efforts to accomplish the FKAA's goals. This cooperation, when requested by the FKAA, will include but not be limited to:

1. Sharing technical information developed under contract with the FKAA.
2. Joint meeting for project coordination.
3. Establish lines of communication.

I. Subconsultants

In the event CONSULTANT, during the course of the work under this AGREEMENT requires the services of any subcontractors or other professional associates in connection with services covered by this AGREEMENT, CONSULTANT must secure the prior written approval of the FKAA.

J. Notices

Whenever either party desires to give notice unto the other, it must be given by written notice, sent by registered United States mail, with return receipt requested, addressed to the party for whom it is intended at the place last written, as the place for giving of notice in compliance with the provisions of this paragraph. For the present, the parties designate the following as the representative places of giving notice to with:

Florida Keys Aqueduct Authority
1100 Kennedy Drive
Key West, Florida 33040

CONSULTANT

Rafael E. Frias III
2855 North University Drive, Suite 210
Coral Springs, FL 33065

K. Attachments

Request for Qualifications is hereby incorporated within and made an integral part of this AGREEMENT.

L. Truth-In-Negotiation Certificate

Signature of the AGREEMENT by CONSULTANT shall act as the execution of a truth in negotiation certificate stating that wage rates and other factual unit costs supporting the compensation of this AGREEMENT are accurate, complete, and current. The original contract price and any additions thereto shall be adjusted to exclude any significant sums by which the FKAA determines the contract price was increased due to inaccurate, incomplete, or non-current wage rates and other factual unit costs.

M. Records

Records of all expenses relative to project shall be kept on a general recognized accounting basis and shall be available to the FKAA or its authorized representative at mutually convenient times.

N. Personnel

CONSULTANT represents that it has or will secure at its own expense, qualified personnel required in performing the services under this AGREEMENT. All work shall be performed under the direction of a professional, registered under the State of Florida in the field for which he is responsible for performing such services. The project manager shall be approved by the FKAA. Key personnel will be identified for each project and expected to perform the work assignment as can reasonably be expected, and as approved by the FKAA.

O. Equal Opportunity Employment; Non-Discrimination

CONSULTANT agrees that it will not discriminate against employees or applications for employment because of race, creed, color, religion, sex, age, handicapped status or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment advertising; lay-off or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. CONSULTANT agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth this non-discrimination clause. This provision applies to all CONSULTANT'S subcontractors and it is the responsibility of CONSULTANT to ensure subcontractor's compliance.

P. Prohibition Against Contingent Fees

CONSULTANT warrants that he has not employed or retained any company or person, other than a bonafide employee working solely for CONSULTANT, to solicit or secure this AGREEMENT, and that he has not paid or agreed to pay any persons, company, corporation, individual or firm, other than a bonafide employee working solely for CONSULTANT any fee, commission, percentage, gift, or any other consideration, contingent upon or resulting from the award or making of this AGREEMENT.

Q. Termination

This AGREEMENT may be terminated by either party by seven (7) calendar days prior written notice, in the event of substantial failure to perform in accordance with the terms hereof by the other party through no fault of the terminating party. CONSULTANT and the FKAA shall also have a right to terminate this AGREEMENT for convenience at any time by thirty (30) calendar days written notice to either one or the other. In the event the project described in this AGREEMENT, or the services of CONSULTANT called for under this AGREEMENT, is or are suspended, canceled, or abandoned by the FKAA, CONSULTANT shall be given five days prior

written notice of such action and shall be compensated for the professional services provided and reimbursable expenses incurred up to the date of suspension, cancellation or abandonment. CONSULTANT agrees to provide all documents to the FKAA (specifically those referenced within). Further, prior to CONSULTANT'S destruction of any of the above referenced documents, the FKAA shall be notified and allowed a reasonable period of time to gain access to and make copies of any such documents. Upon any termination of this AGREEMENT, CONSULTANT agrees that it shall use its best efforts to work harmoniously with any successor who enters an AGREEMENT to provide services for the FKAA in order to provide for a smooth transition period.

R. Indemnification

CONSULTANT will at all times indemnify, save and hold harmless and defend the FKAA, its officers, agents (the term agents shall not include the CONTRACTOR(s), any subcontractors, any materialman or others who have been retained by the FKAA or CONTRACTOR, or materialman to supply goods or services to the project) and employees, from and against liability, claim, demand, damage, loss, expense or cause of action and costs based upon third party claims (including attorney's fees at trial or appellate levels) relating to property damages and personal injury to the proportionate extent arising out of negligent action of CONSULTANT, its agents, servants or employees in the performance of services under this AGREEMENT. The indemnifications contained herein shall survive the expiration or earlier termination of this AGREEMENT

Nothing in this AGREEMENT shall be deemed to affect the rights, privileges and immunities of the FKAA as set forth in Florida Statutes 768.28.

S. Interest of CONSULTANT

CONSULTANT covenants that it presently has no interest and shall not acquire any interest, direct or indirect, in any Project to which this AGREEMENT pertains or any other interest which would conflict in any manner or degree with the performance of its service hereunder. CONSULTANT further covenants that in the performance of this AGREEMENT, no person having such interest shall be employed.

T. Prohibited Practices

CONSULTANT during the period of this AGREEMENT shall not hire, retain, or utilize for compensation any member, officer, or employee of FKAA or any person who, to the knowledge of CONSULTANT, has a conflict of interest.

U. Compliance With Laws

1. CONSULTANT shall comply with the applicable requirements of State, Federal and applicable County laws and all Codes of Ordinances of the local municipality as amended from time to time, and that exist at the time of building permit issuance.
2. For Projects involving work under Federal or State Grantors or Approving Agencies, the FKAA and CONSULTANT shall review and approve the applicable required provisions or any other supplemental provisions as may be included.

V. Jurisdiction; Venue

CONSULTANT hereby covenants, consents and yields to the jurisdiction of the State Courts of the 16th Judicial Circuit, in and for Monroe County, Florida. Any dispute between CONSULTANT and the FKAA shall be governed by the laws of Florida with venue in the State Courts of the 16th Judicial Circuit, in and for Monroe County, Florida.

W. Attorney's Fees

In the event a suit is filed in court arising out of this AGREEMENT, the prevailing party shall be entitled to recover from the other party all costs incurred, including reasonable attorney's fees and costs on appeal.

X. Internal Dispute Between FKAA and Consultant

The Executive Director shall be the 1 decision maker regarding internal disputes between FKAA and CONSULTANT; *provided that* this will not limit or waive either Party's right to seek review of or relief from such decision as stated in section IX.V.

Y. Project Scheduling

CONSULTANT shall provide scheduling to FKAA, within ten (10) days of the date of commencement as contained within this AGREEMENT. During the course of the work, CONSULTANT shall provide monthly updates with a written description of any changes in the schedule.

Z. Extent of Agreement

This AGREEMENT represents the entire integrated AGREEMENT between the FKAA and CONSULTANT and supersedes all prior negotiations, representations or AGREEMENTS, written or oral. This AGREEMENT may not be amended, changed, modified, or otherwise altered in any way, at any time after the execution hereof, except by approval of the FKAA Board of Directors and CONSULTANT.

AA. Audit and/or Access to Records

1. At all times during the period that the CONTRACT is in force and for a period of not less than three (3) years thereafter, the CONTRACTOR shall provide all authorized representatives of the FKAA with full access/audit to all its financial records that pertain to services performed and determination of amounts payable under the CONTRACT including access to appropriate individuals with knowledge of financial records and full access to all additional records, that pertain to services performed and determination of amounts payable under the CONTRACT, permitting such representatives to examine, audit and copy such records at the site at which they are located. Such access/audit shall include both announced and unannounced inspections and on-site audits.
2. Audits conducted under this provision shall be in accordance with generally accepted auditing standards and within established procedures and guidelines of the reviewing or auditing agency.
3. This right to access/audit clause applies to financial records pertaining to all contracts, all contract change orders, and all contract amendments. In addition, this right to access applies to all records pertaining to all contracts, additional work clause items and contract amendments.

4. To the extent the records pertain directly to contract performance. If there is any indication that fraud, gross abuse or corrupt practices may be involved; or if the CONTRACT is terminated for default or for convenience.
5. If an audit, litigation, or other action involving the records is started before the end of the three (3) year period, the records must be retained until all issues arising out of the action are resolved or until the end of the three (3) year period, whichever is later.

BB. Limitation of Liability.

Neither party shall be liable to the other party for loss of profits or revenue; loss of use; loss of opportunity; loss of goodwill; cost of substitute facilities, goods or services; cost of capital; cost of replacement power; governmental and regulatory sanctions; and claims of customers for such damages; or for any special, consequential, incidental, indirect or exemplary damages whether a claim for any such loss arises out of breach of contract, warranty, tort (including negligence), strict liability, indemnity, or another theory. Except for an obligation to make payments, neither party shall be in default to the extent any nonperformance is caused by a circumstance beyond such party's reasonable control. The warranties, obligations, liabilities and remedies of the parties, as provided herein, are exclusive and in lieu of any others available at law or in equity. CONSULTANT's total aggregate liability under this Agreement shall not exceed the compensation received by CONSULTANT under the Scope of Services. To the fullest extent allowed by law, releases from, and limitations of liability shall apply notwithstanding the breach of contract, tort including negligence, strict liability or other theory of legal liability of the party released or whose liability is limited. The benefit of such releases, waivers, or limitations of liability shall extend to the affiliates, successors, assigns and subcontractors of each party, and the directors, officers, partners, employees, and agents of such parties and their affiliates and successors and assigns.

IN WITNESS WHEREOF, the FCAA has caused these presents to be executed in its name by its Executive Director, and attested and its official Seal to be hereunto affixed by its Records Clerk, and CONSULTANT has hereunto set its hand and Seal the day and year first written above:

FLORIDA KEYS AQUEDUCT AUTHORITY

Kirk C. Zuelch, Executive Director

Date _____

Reviewed by: Legal Counsel

Date _____

BLACK & VEATCH CORPORATION



Rafael E. Frias III, Associate Vice President

Witness:



Witness:



BOARD APPROVAL DATE: _____

**CORPORATE ACKNOWLEDGMENT
STATE OF FLORIDA
COUNTY OF MONROE**

The foregoing instrument was acknowledgment before me this _____ day of 20____, by _____ (name of officer or agent title of officer of agent, of (name of corporation acknowledging), a _____(State or place of incorporation) corporation, on behalf of the corporation. He/She is (personally know to me) (or has produced identification) _____ (type of identification) as identification and (did/did not) take an oath.

Signature of Person Taking Acknowledgment

Name of Acknowledger – Typed Printed or Stamped

**ACKNOWLEDGMENT IF PARTNERSHIP
STATE OF
COUNTY OF**

The foregoing instrument was acknowledged before me this _____ day of
by _____ (name of acknowledging partner or agent) of
(name of partnership), a partnership. He/she is (personally know to me) (or has produced identification)
(type or identification) (as identification) and (did/did not) take an oath.

Signature of Person Taking Acknowledgment

Name of Acknowledger – Typed Printed or Stamped

BOARD APPROVAL DATE _____ (Required if under \$10,000.00)

Scope of Services

I. BACKGROUND

The Florida Keys Aqueduct Authority (AUTHORITY) operates four (4) water treatment facilities to meet its water supply needs during normal and/or emergency conditions. Two water treatment plants at Florida City, one lime-softening plant (source: Biscayne Aquifer) and one brackish RO plant (source: Floridan Aquifer), are used to meet the AUTHORITY's demand during normal conditions. During emergency conditions seawater from wells is desalted using RO membrane technology at two emergency water supply plants, the Kermit H. Lewin Seawater Desalination Facility (KHLSDf) at Stock Island and the Marathon Seawater Desalination Facility at Marathon.

The KHLSDf was originally constructed in the early 1980s with a capacity of three (3) MGD. Today, the KHLSDf has a nominal capacity of two (2) MGD, consisting of four (4) parallel RO membrane trains.

The AUTHORITY is focusing on establishing a more resilient system by proactively planning for improvements to the seawater treatment systems to manage risk and improve supply reliability. Part of said improvements includes upgrades and expansion of the KHLSDf and consideration of new building codes and standards.

The AUTHORITY has requested Black & Veatch (CONSULTANT) under this General Engineering Contract, to conduct a facility planning assessment for the KHLSDf, that will provide:

- 1) A review of water demands tributary to the KHLSDf to determine optimal plant size
- 2) An assessment of facility operational mode (e.g. emergency standby or baseload) and power supply (AUTHORITY owned facility at KHLSDf or shared with Keys Power)
- 3) Associated lifecycle costs (capital and operating) and non-economic factors for these scenarios to better determine the optimal and cost-effective approach for the KHLSDf

The scope and fee provided here will assess the following three (3) alternatives for the KHLSDf as follows:

1. Existing Facility in Emergency Standby: Utilizing existing facilities which can be reused or with modifications while operating in standby mode to provide an emergency level of supply (Capacity to be determined based on demand analysis and client workshop)
2. New Facility in Emergency Standby: Providing new equipment and building while operating in standby mode to provide an emergency level of supply (Capacity to be determined based on demand analysis and client workshop)
3. New Facility with Baseload Flow: Expanded capacity (TBD based on demand analysis and client workshop) with new equipment and building while operated as a continuous local supply.



Scope of Services

II. SCOPE OF SERVICES

Phase 100: Project Coordination

Task 101 – Project Initiation Meeting

CONSULTANT will conduct a project initiation meeting at AUTHORITY’S office to clarify the requirements for the project, review pertinent available data, review project staffing and organization, present initial work plan, and present initial work schedule.

Task 102 – Project Controls and Team Coordination

CONSULTANT will perform general administrative duties associated with the Project, including project set-up, resource management, progress monitoring, scheduling, QA/QC plan development and updating, general correspondence, office administration, and invoicing.

CONSULTANT will maintain an accurate project documentation and project cost accounting system throughout the project to include the following:

- Maintain a project filing system throughout life of Project to use for storage and retrieval of Project documents
- Prepare status reports and invoices for engineering services in format acceptable to AUTHORITY. Status reports will include a summary of work completed during the previous month

CONSULTANT will update the project execution schedule based upon the AUTHORITY’S Notice to Proceed date and distribute the updated schedule at the project initiation meeting. The project schedule will identify the following information:

- Key project tasks and deliverables
- Meetings

CONSULTANT will review, update and submit to AUTHORITY an updated Project schedule upon completion of each Project Phase. Each updated schedule will track original target completion dates.

Task 103 – Progress Meetings

CONSULTANT will prepare for and conduct progress meetings. Progress meetings will be conducted by phone on a monthly basis opposite the three workshops described in the tasks. CONSULTANT will prepare agendas prior to meetings and distribute meeting summaries within one week of meetings.

Scope of Services

CONSULTANT shall also attend up to three Board meeting and will prepare project updates to be presented by staff or if directed by staff, CONSULTANT shall present.

Task 104 – Quality Assurance/Quality Control (QA/QC)

CONSULTANT will maintain continuous control over the quality of all work effort and project deliverables. This will include oversight and review by the lead technical engineer(s), project manager, and senior technical specialists. In addition to this overall level of quality assurance, CONSULTANT will provide specific review and quality control throughout the project at key project milestones.

Deliverables:

- Meeting agendas and summaries
- Status reports with invoices
- Project schedule updates

Phase 200: Water Resources Analysis

Task 201 – Demand Analysis

The objective of this task is to identify two demand scenarios to assess the optimal sizing and use of the proposed desalination plant improvements. The first scenario will consider a base-loaded plant that would essentially be ran every day at a defined output. Under this scenario, CONSULTANT will review existing and future water demands provided by the AUTHORITY to identify baseload options, which will consider both demand conditions (i.e. average day demand (ADD), maximum day demand (MDD), peak hour demands (PHD)) and the required area of service.

Under the second scenario, the CONSULTANT will identify an emergency-level of demand. CONSULTANT shall build upon the demand conditions provided by the AUTHORITY to further develop options for emergency conditions that will consider such factors as minimal potable use needs, indoor usage levels, potential length of outage/emergency supply needs, and area of service.

Task 202 – Workshop #1

CONSULTANT will conduct a 2-hour engineering workshop with the AUTHORITY for the following:

- Demand Analysis: Review the different options under the base-loaded and emergency scenarios to identify a preferred option under each scenario (1 for baseload and 1 for emergency) to carry forward for evaluation in the next Task(s). CONSULTANT shall utilize a spreadsheet-based approach in assessing the demand options.
- Cost Estimate Assumptions: Review and confirm key cost assumptions that will be the basis for the cost estimates.

Scope of Services

- System Operations: Review AUTHORITY plant and distribution system facilities and operations, as facilitated by the AUTHORITY, as well as assumptions for the basis of design for each alternative. This workshop will also review issues relevant for Phase 300 tasks (such as dedicated or shared emergency power generation facilities), and present the proposed framework for the economic analysis.

Task 203 – Draft Technical Memorandum

After the workshop, CONSULTANT shall prepare a Draft Technical Memorandum (TM) that summarizes the result of this task. The Draft TM shall be sent to the AUTHORITY electronically for review and comment. Consolidated comments provided by the AUTHORITY shall be addressed as part of the Final Report task (Task 500).

Deliverables

- Workshop Agenda and Summary
- Draft Facility Size TM (electronic)

Phase 300: Conceptual Facility Planning and Operations Analysis

Task 301 – SWRO WTP Conceptual Plan and Capital Costs

CONSULTANT will prepare and submit conceptual facility plan with an opinion of probable construction cost (OPCC) for each of the 3 alternatives listed above. CONSULTANT shall prepare the OPCCs as follows: Class 4 OPCC per the Association for the Advancement of Cost Consulting International (AACE) Recommended Practice No.17R-97A, inclusive of: preliminary quantity takeoff, equipment and unit cost estimates, and -30% to +50% expected accuracy level. OPCC's will be presented in spreadsheet format. The OPCC will be organized through a project Work Breakdown Structure (WBS). The WBS will be established to incorporate AUTHORITY standard price schedule items for the project. CONSULTANT will investigate the capital and O&M costs of the facility having dedicated or shared emergency power generation facilities.

Cost estimates presented by CONSULTANT will be accompanied by a Conceptual Facility Plan and Estimate Technical Memorandum, which will consist of the basis of estimate (including the conceptual basis of design and layout), notes, clarifications, assumptions, inclusions, and exclusions made in preparing the estimate.

Task 302 – Water Blending and O&M Analysis

CONSULTANT will conduct a qualitative assessment of the distribution system facilities tributary to the KHLSDf that may consider:

- Water quality issues related to corrosion, residual stability, and potential blending

Scope of Services

- Operational concerns in the distribution system related to KHLSDf operation
- Additional facilities to address RO stability concerns like chemical trim facilities or active mixing within tanks
- O&M costs for the KHLSDf to be used in the economic analysis

Task 303 – Workshop #2

CONSULTANT will conduct a 2-hour engineering workshop with the AUTHORITY to review preliminary cost estimates, blending and O&M results, and economic assessment assumptions, and to discuss the evaluation criteria and approach.

Task 304 – Draft Technical Memorandum

After the workshop, CONSULTANT shall prepare a Draft Technical Memorandum (TM) that summarizes the result of this task. The Draft TM shall be sent to the AUTHORITY electronically for review and comment. Consolidated comments provided by the AUTHORITY shall be addressed as part of the Final Report task.

Deliverables

- Workshop Agenda and Summary
- Draft Estimate TM (electronic)

Phase 400: Alternatives Evaluation

Task 401 – Present Value and Life Cycle Cost Evaluation for Alternatives

CONSULTANT will develop an MS Excel-based cost model to evaluate the present value and life cycle cost for each alternative. The economic evaluation will be based on a consensus-based framework determined with the AUTHORITY, but is expected to combine the opinions of probable construction costs, AUTHORITY financing methods, O&M costs, avoided O&M costs, deferred or reduced CIP costs, and other identified non-economic costs and savings.

Task 402 – Alternatives Evaluation

Establish Alternatives Evaluation Criteria: In addition to an economic evaluation of the alternatives, non-economic criteria shall also be considered. Non-economic criteria shall reflect the interest of the AUTHORITY and the community it serves including, but not limited to, regulatory, social constraints, community impact, environmental benefits/impacts, operational benefits/challenges, ease of implementation, water quality, and supply reliability. CONSULTANT shall develop an initial short list of criteria and evaluation methodology to review with the AUTHORITY prior to conducting the alternatives evaluation. CONSULTANT shall also develop an initial evaluation scoring

Scope of Services

methodology to be reviewed with the AUTHORITY as part of a workshop and will be used as basis of comparisons of the alternatives.

Evaluate Alternatives: Using the alternatives defined previously, CONSULTANT shall conduct an evaluation to assess each alternative in their effectiveness in addressing the identified criteria and economic benefits.

Workshop #3: The results of the Alternative Evaluation shall be reviewed with the AUTHORITY via a 2-hour workshop that will identify a preferred alternative.

Deliverables

- Workshop Agenda and Summary
- Summary of the criteria and alternatives evaluations will be provided as part of the draft report

Phase 500: Final Report

Task 501 – Draft Report

CONSULTANT shall prepare a Draft Report that summarizes the results of the study. The main report is expected to be a summary-level document (up to 20 pages) that explains the overall approach, alternatives evaluations approach, and final recommendations. Previously submitted Technical Memorandums will be finalized and included as Appendices.

Task 502 – Final Report

CONSULTANT shall incorporate comments on the Draft Report. This task assumes that the AUTHORITY will consolidate comments and resolve any conflicting direction. CONSULTANT shall respond to all consolidated comments prior to finalizing the report.

Deliverables

- Draft Technical Report (electronic)
- Final Technical Report (1 hard copies and 1 electronic)

Supplemental Services: Additional Scenarios

If AUTHORITY desires, CONSULTANT can prepare additional demand scenarios and/or treatment alternatives to reflect additional criteria and to compare project benefits and costs. Budgetary need for each additional scenario will depend on the effort required to provide additional analysis and cost estimates under Phases 200 through 500.

Scope of Services

III. SCHEDULE

Task completion schedule is 14 weeks from Notice-to-Proceed as identified in the following summarized schedule of deliverables.

Phase	Deliverable Description	Completion in Weeks after NTP
100	Project Coordination	14
200	Water Resources Analysis	4
300	Conceptual Facility Planning and Operations Analysis	8
400	Alternatives Evaluation	12
500	Final Report	14

IV. COMPENSATION

CONSULTANT agrees to provide the scope of services above in a Lump Sum amount of \$166,679 (in accordance with General Engineering Services Contract) for Phases 100 through 500 and Time & Materials Expenses in the amount of \$8,200. Invoices will be submitted monthly based on CONSULTANT's percent complete (Lump Sum). CONSULTANT will manage work hours between tasks and employee classifications, and/or utilize other appropriate employee classifications, provided that the work assignment total compensation is not exceeded.

The fees for the scope of work under this work order are listed in the following table.

Phase	Description	Method of Payment	Amount
100	Project Coordination	Lump Sum	\$24,837
200	Water Resources Analysis	Lump Sum	\$23,441
300	Conceptual Facility Planning and Operations Analysis	Lump Sum	\$71,3061
400	Alternatives Evaluation	Lump Sum	\$29,063
500	Final Report	Lump Sum	\$18,033
	Subtotal:	Lump Sum	\$166,679
	Reimbursable Expenses	Time & Materials	\$8,200
	Subtotal:	Time & Materials	\$8,200
	Project Total:		\$174,879

See attachments for the compensation breakdown.

Scope of Services

V. ASSUMPTIONS

Work described herein is based upon the assumptions listed below. If conditions differ from those assumed in a manner that will affect schedule or Scope of Work, CONSULTANT shall advise AUTHORITY of the magnitude of the required adjustments. Changes in completion schedule or compensation to CONSULTANT will be negotiated with AUTHORITY.

1. The Florida Keys market place is truly unique to any market in the state of Florida due to the logistics of doing work in the said location that has distinct challenges to attract craft labor, house said labor, as well as difficulties in materials deliveries and such.
2. AUTHORITY will provide CONSULTANT record drawings of all available existing facilities in the project area, necessary demand and/or project data, input/confirmation on key assumptions, and timely input/decisions at workshops.
3. CONSULTANT assumes that there are no contaminated soils or groundwater in the project area.
4. CONSULTANT assumes no wetlands are in the project area.
5. CONSULTANT assumes the project area is not on Sovereign Submerged Land.

VI. EXCLUSIONS

- Design consultants are not responsible for engineering the aforementioned KHLSDf alternatives
- Value Engineering services are not included in the Scope of Work

AUTHORIZATION

FLORIDA KEYS AQUEDUCT AUTHORITY

Kent Nelson P.E., Deputy Executive Director and COO

Date _____

Jolynn Reynolds, P.E., Manager of Engineering

Date _____

BLACK & VEATCH CORPORATION



Ricardo Vieira, P.E.
Project Manager. Client Director, South Florida

Date 6/12/2018

Scope of Services

Attachment A Engineering Services Labor and Expense

Exhibit A - Fee Summary by Task

**Florida Keys Aqueduct Authority
KHLSDf (Stock Island RO Facility) Facility Plan and Cost Estimate
Project Task/Level of Effort Development Table**



Representative Level of Effort: This data is provided for informational purposes only, and it is not intended to be restrictive in the performance of the Work Scope.

Task Description	Project Manager	Director	Engineer 6 (Lead Engineer)	Engineer 4 (Engineer)	Engineer 7 (RO WTP Specialist)	Engineer 7 (Cost Estimator)	Engineer 5 (Cost Estimator)	Engineer 3 (Project/Staff Engineer)	Clerical/Office Support	Total B&V Hours	Total Task Labor	Expenses	Total Task Cost
100 Project Coordination													
101 Project Initiation Meeting	2	2	2	2		2				10	\$2,680	\$200	\$2,880
102 Project Controls and Team Coordination	2		8	8					12	30	\$4,860		\$4,860
103 Progress Meetings	4	4		4		4				16	\$4,387		\$4,387
Board Review Meetings (three)	12	6								18	\$5,496		\$5,496
104 Quality Assurance / Quality Control (included in individual tasks)				16	16					32	\$7,414		\$7,414
Subtotal	20	12	10	30	16	6	0	0	12	106	\$24,837	\$200	\$25,037
200 Water Resources Analysis													
201 Demand Analysis			24					36		60	\$10,955		\$10,955
202 Workshop #1	2	2	8	4		2		4		22	\$5,057	\$2,500	\$7,557
203 Draft TM	2	2	10					24	4	42	\$7,429		\$7,429
Subtotal	4	4	42	4	0	2	0	64	4	124	\$23,441	\$2,500	\$25,941
300 Conceptual Facility Planning and Operations Analysis													
301 SWRO WTP Conceptual Plan and Capital Costs		2	16		24	4	120		2	168	\$37,360		\$37,360
302 Blending and O&M Analysis										0	\$0		\$0
Identify Water Quality Issues/Solutions			8					16		24	\$4,220		\$4,220
Identify Operational Issues/Solutions			4		12	4		8		28	\$6,729		\$6,729
Identify O&M Cost Assumptions		2			12	4	8	12		38	\$8,662		\$8,662
303 Workshop #2	2	2	8	4		2	4			22	\$5,306	\$2,500	\$7,806
304 Draft TM	2	2	2		2	4	20	8	4	44	\$9,028		\$9,028
Subtotal	4	8	38	4	50	18	152	44	6	324	\$71,306	\$2,500	\$73,806
400 Alternatives Evaluation													
401 Present Value and Life Cycle Cost Evaluation for Alternatives										0	\$0		\$0
Develop Cost Model		2	8				8	16		34	\$6,558		\$6,558
Estimate Costs for Alternatives	2	1	4				12	16		35	\$6,616		\$6,616
402 Alternatives Evaluation										0	\$0		\$0
Establish Alternatives Evaluation Criteria		2	4			2	4			12	\$3,069		\$3,069
Evaluate Alternatives	2	1	4			2	8	24		41	\$7,514		\$7,514
Workshop #3	2	2	8	4		2	4			22	\$5,306	\$2,500	\$7,806
Subtotal	6	8	28	4	0	6	36	56	0	144	\$29,063	\$2,500	\$31,563
500 Final Report													
501 Draft Report	2	2	6	4	4	8	4	20	12	62	\$11,503		\$11,503
502 Final Report	1	1	2		2	6	2	10	16	40	\$6,530	\$500	\$7,030
Subtotal	3	3	8	4	6	14	6	30	28	102	\$18,033	\$500	\$18,533
Project Total	37	35	126	46	72	46	194	194	50	800	\$166,679	\$8,200	\$174,879
Billable Rates	\$282.48	\$351.00	\$243.15	\$174.69	\$288.66	\$288.66	\$204.39	\$142.20	\$79.38				

**SCHEDULE OF HOURLY RATES
EXHIBIT B – BLACK & VEATCH**

Range of Hourly Raw Salary Rates

Average Hourly Raw Salary Rate
Times 3.00 Multiplier

Employer Category	Avg. Raw Rate	At 3.00 Mult.
<u>Professionals:</u> Engineers, Architects, Planners, Economists, Scientists, Hydrologists, Hydrogeologists, Geologists		
Engineer 9	\$102.09	\$306.27
Engineer 8	\$ 98.69	\$296.07
Engineer 7	\$ 96.22	\$288.66
Engineer 6	\$ 81.05	\$243.15
Engineer 5	\$ 68.13	\$204.39
Engineer 4	\$ 58.23	\$174.69
Engineer 3	\$ 47.40	\$142.20
Engineer 2	\$ 41.68	\$125.04
Engineer 1	\$ 39.97	\$119.91
Analyst	\$ 38.00	\$114.00
Senior Analyst	\$ 48.00	\$144.00
Consultant	\$ 53.00	\$159.00
Manager	\$ 75.00	\$225.00
Principal	\$ 91.00	\$273.00
Director	\$117.00	\$351.00
 <u>Technicians:</u> Drafters, Graphic Artists, Computer, Surveyors, Cartographics, Construction Inspectors		
Technician 5	\$ 58.23	\$174.69
Technician 4	\$ 49.69	\$149.07
Technician 3	\$ 45.78	\$137.34
Technician 2	\$ 37.75	\$113.25
Technician 1	\$ 34.69	\$104.07
Technical Aide	\$ 29.21	\$ 87.63
 Project Manager	 \$ 94.16	 \$282.48
 Office Support	 \$ 33.02	 \$ 99.06
 Specification Processor Clerical/Office Support	 \$ 26.46	 \$ 79.38

Note: Rates applicable through December 2018.

BOARD OF DIRECTORS, FLORIDA KEYS AQUEDUCT AUTHORITY

AGENDA ITEM SUMMARY

AGENDA ITEM: DUO- 06 CONSENT: REGULAR:
 MEETING DATE: June 27, 2018 DIVISION: UTILITY OPERATIONS

AGENDA TITLE: Consideration to approve payment of FY 2017 Annual Fee for Miami-Dade County Department of Environmental Resource Management (DERM) Wellfield Protection Program in the amount of \$174,477.

ITEM BACKGROUND: The Florida Keys Aqueduct Authority entered into an interlocal agreement with Miami-Dade County Department of Environmental Resources Management (DERM) on November 6, 1984, for wellfield protection. DERM has a regular ground and surface water monitoring program to detect water quality trends, a surveillance and enforcement program to eliminate illegal discharges, a wetlands program to protect important aquifer recharge areas, a hazardous materials management program, including regulation of underground storage tanks and liquid waste haulers, and a planning program to analyze monitoring data and refine the regulatory program as needed.

The cost to FCAA for this program is based on a percentage of Miami Dade Water and Sewer Authority's retail rate and the FCAA's raw water pumpage from the Biscayne Aquifer during the fiscal year - October 2016 to September 2017. For FY 2017, the fee is calculated to be \$174,477. Funds were included in the FY 2018 Budget to cover this amount.

PREVIOUS RELEVANT ACTION BY FCAA BOARD OF DIRECTORS: N/A

STAFF RECOMMENDATION (MOTION): To approve payment of the annual fee for FY 2017 Wellfield Protection to Miami-Dade County Department of Environmental Resource Management in the amount of \$174,477.

SUPPLEMENTAL INFORMATION: Payment calculations for the FY 2017 wellfield protection efforts are attached. Attachments 3-7 were omitted from this Agenda Item and are available upon request.

DOCUMENTATION: Included: To-Follow: Not Required:
 Cost to FCAA: \$ 174,477 BUDGETED: Yes No
 Cost to Others: \$ _____
 Total Cost: \$ 174,477

DEPARTMENT: Engineering **DEPARTMENT DIRECTOR APPROVAL:** 

DIVISION DIRECTOR APPROVAL: 

Reviewed by: Internal Auditor:  General Counsel: RTF Executive Director: 

BOARD ACTION:			
Approved: <input type="checkbox"/>	Tabled: <input type="checkbox"/>	Disapproved: <input type="checkbox"/>	Recommendation Revised: <input type="checkbox"/>
Comments: _____			
Date: _____		Recording Clerk: _____	



Florida Keys Aqueduct Authority

1100 Kennedy Drive
Key West, Florida 33040
Telephone (305) 296-2454
www.fkaa.com



J. Robert Dean
Chairman
District 3

Richard J. Toppino
Vice-Chairman
District 2

David C. Ritz
Secretary/Treasurer
District 5

Antoinette M. Appel
District 4

Cara Higgins
District 1

Kirk C. Zuelch
Executive Director

June 14, 2018

MEMORANDUM

TO: FKAA Board of Directors

FROM: Jolynn Reynolds, P.E., Manager of Engineering *J. R.*

VIA: Kent Nelson, P.E., Deputy Executive Director and COO

SUBJECT: Consideration to Approve Payment of Annual Fee for Wellfield Protection

The Florida Keys Aqueduct Authority entered into an agreement with Metro Dade Environmental Resources Management (DERM) on November 6, 1984, for wellfield protection. DERM has a regular ground and surface water monitoring program to detect water quality trends, a surveillance and enforcement program to eliminate illegal discharges, a wetlands program to protect important aquifer recharge areas, a hazardous materials management program, including regulation of underground storage tanks and liquid waste haulers, and a planning program to analyze monitoring data and refine the regulatory program as needed.

The cooperative agreement and calculation of fee is provided as an attachment. The fee is based on a percentage of Miami Dade Water and Sewer Authority (MDWSA) retail rate and the FKAA's Biscayne Aquifer water pumpage from October 2016 to September 2017. For FY 2017, the fee is calculated to be \$174,476.95. Funds were included in the FY 2018 Budget to cover this amount.

Therefore, Staff recommends that the Board of Directors approve payment of the annual fee for 2017 Wellfield Protection to Metro Dade Environmental Resources Management in the amount of \$174,477.

Kirk Zuelch
Executive Director

FLORIDA KEYS AQUEDUCT AUTHORITY
FY 2016-2017 Fee
DERM WELLFIELD PROTECTION

YEAR	MONTH	BISCAYNE RAW WATER PUMPED (GALLONS)
2016	October	511,137,000
	November	517,717,000
	December	523,467,000
2017	January	546,098,000
	February	522,277,000
	March	574,560,000
	April	546,562,000
	May	545,776,000
	June	503,064,000
	July	557,525,000
	August	521,014,000
	September	486,976,000
Total Biscayne Pumpage:		6,356,173,000
Average Monthly Pumpage:		529,681,083
Average Daily Pumpage:		17,414,173
Fee to DERM:		
0.75% x \$3.66 x (total pumpage/1,000 gallons) =		\$174,476.95

Florida Keys Aqueduct Authority (FKAA)

2017 ANNUAL REPORT

Including Annual Fee Calculations

By

**MIAMI DADE COUNTY DEPARTMENT OF REGULATORY
AND ECONOMIC RESOURCES – Division of
Environmental Resources Management**

June 2018



Table of Contents

Description	Page No.
EXECUTIVE SUMMARY	1
1. RETAIL RATE CALCULATIONS FOR ANNUAL FEE	2
2. DEVELOPMENT ACTIVITIES	3
2.1 Operating Permits.....	3
2.2 Building Permits.....	3
3. ENVIRONMENTAL CONDITIONS	4
3.1 Wellfield Protection and Salt Intrusion Monitoring	4
3.2 Ground Water Monitoring Activities	4
3.2.1 2017 Groundwater Sampling Activities	5
3.3 Environmentally Endangered Lands.....	6
3.4 Wetlands Resources.....	7

List of Tables

Table 1. Water Rate Calculations.....	2
Table 2. Regulated Facilities Located Within the FCAA Wellfield.....	3
Table 3. Water Sample Parameters	5

List of Attachments

- ATTACHMENT 1** Cooperative Agreement between FCAA and DERM
- ATTACHMENT 2** Fee letter for 2018 and excerpts from WASD Comprehensive Annual Financial Report Fiscal Year Ending September 30, 2016
- ATTACHMENT 3** Pollution Regulation Division, Environmental Evaluation & Compliance Section (EE&C), Inspection Reports
- ATTACHMENT 4** Plan Review and Development Approvals, Site Map of Building Permits Issued, and List of Building Permits Issued within and near FCAA
- ATTACHMENT 5** Wellfield Protection and Saltwater Intrusion Monitoring, and Figures of Monitoring Wells
- ATTACHMENT 6** Groundwater Sampling Activities, Results and Monitoring Well Network Information
- ATTACHMENT 7** Environmentally Endangered Lands Program, Navy Wells Preserve, EEL Map

EXECUTIVE SUMMARY

In accordance with conditions number three (3) and six (6) of the Cooperative Agreement signed between Miami-Dade County and the Florida Keys Aqueduct Authority (FKAA) (**Attachment 1**), the Miami-Dade County Department of Regulatory and Economic Resources (RER) – Division of Environmental Resources Management (DERM) provides in this report a summary of the activities associated with the FKAA Wellfield Protection Area (WPA) and the information utilized to calculate the annual fee to the County.

The retail rate of **\$3.85/1000 gallons** for the 2018 Annual Fee was calculated and provided to the FKAA on April 3, 2018, in order to assist with budgetary planning activities. This rate was based on the Miami-Dade Water and Sewer Department's (WASD) operating revenue and water usage information for the 2016 Comprehensive Annual Financial Report.

This report also includes an update on the FKAA wellfield protection activities such as compliance inspections associated with facility operating permits and environmental reviews associated with the issuance of building permits. For the time period of 2017, a total of three (3) facilities maintained an active DERM operating permit within the WPA and a total of 21 building applications were reviewed and approved in accordance to Chapter 24 of the Miami-Dade Code.

The monitoring activities associated with environmental conditions within the FKAA WPA include both wellfield groundwater monitoring and saltwater intrusion monitoring. Groundwater samples are collected twice a year from the WPA monitoring well clusters (installed in 2009), once during the dry season and once during the wet season, and analyzed for nutrients, cations, anions, physical properties, Individual organics, aggregate organics, total metals and bacterial organisms. These results are transmitted to the FKAA following each sampling event and have been summarized herein.

With respect to saltwater intrusion monitoring, the USGS (working in cooperation with Miami-Dade County) has developed enhancements to the existing public access website "Groundwater Conditions in Southern Florida". These enhancements provide easier, user-friendly access to information on the status of saltwater intrusion into the county's drinking water supplies. Since the last mapping of the inland extent of saltwater at the base of the Biscayne aquifer in 2011, the saltwater interface has continued to move inland. A 2016 estimate of the movement of the saltwater interface in the Model Land Area is detailed in the USGS article "Data Pertaining to Mapping the Approximate Inland Extent of Saltwater at the Base of the Biscayne Aquifer in the Model Land Area of Miami-Dade County, Florida, 2016".

Navy Wells Preserve is a 245-acre pine rockland owned by Miami-Dade County and managed by the RER's Environmentally Endangered Lands (EEL) Program. Navy Wells Preserve serves as a protective buffer to the FKAA WPA. For fiscal year 2016-2017, over \$54,000 was allocated for management, monitoring and maintenance activities. In the past, there have been incidences of pineland damage that appear to be related to the operations of FKAA along the roads and fire breaks in the EEL Preserve. EEL is currently coordinating with FKAA to eliminate the reoccurrence of these chronic impacts and/or refer FKAA staff to the appropriate contacts for any required permits.

The DERM Coastal and Wetlands Resources Section (CWRS) have not issued any permits, covenants or enforcement actions regarding properties within the FKAA WPA. However, the CWRS continues to provide comments on zoning and platting matters when requested. In addition, the CWRS has been actively involved with permits and enforcements actions in the areas to the south and east of the WPA.

1. RETAIL RATE CALCULATIONS FOR ANNUAL FEE

The retail rate for the 2018 Annual Fee was calculated to be \$3.85/1000 gallons and was provided to FCAA on April 3, 2017 (**Attachment 2**). This rate was based on WASD's operating revenue and water usage information for the 2016 Comprehensive Annual Financial Report. The aforementioned WASD report also contains data from the past fiscal years, each ending on September 30th (**Attachment 2**). As with previous years, we will continue to use the previous available year's information in order to facilitate your budget process. Water retail rate calculations are included in **Table 1**.

Table 1. WATER RATE CALCULATIONS			
Rates applicable for:	2018*	2017**	2016***
Retail operating revenues:	247,088,000	233,464,000	219,880,000
Retail water sold; million Gallons:	64,108	63,783	63,539
Calculation of retail rate \$/1,000 Gallons:	247,088,000 / (64,108x 1,000)	233,464,000 / (63,783x 1,000)	219,880,000 / (63,539x 1,000)
Average Retail rate \$/1,000 Gallons:	3.85	3.66	3.46

*Based on "2016 WASD Comprehensive Annual Financial Report" which covers fiscal year 2015 period ending on 09/30/16

**Based on "2015 WASD Comprehensive Annual Financial Report" which covers fiscal year 2014 period ending on 09/30/15

***Based on "2014 WASD Comprehensive Annual Financial Report" which covers fiscal year 2013 period ending on 09/30/14

2. DEVELOPMENT ACTIVITIES

2.1 Operating Permits

DERM's Pollution Regulation Division (PRD) is responsible for regulating facilities that have the potential to cause pollution or contamination of the air, water and soil. The Environmental Evaluations and Environmental Compliance Sections of PRD are responsible for minimizing and/or eliminating adverse impacts to environmental resources (e.g. water supply) through inspections, education, enforcement and the encouragement of best management practices at regulated industrial and commercial businesses.

During the period of time covered in this report, PRD staff continued to conduct routine inspections at the regulated facilities within the FCAA Wellfield. There are three (3) facilities operating within the wellfield that have active DERM permits. **Table 2** provides information on each of these facilities, including inspection dates and compliance status.

Table 2. REGULATED FACILITIES LOCATED WITHIN THE FCAA WELLFIELD			
Facility	Permits	Inspection Dates	Inspection Results
The Mannheimer Foundation Inc. 20255 SW 360 Street	IW5-3109	9/26/2017	In Compliance*
	PWO-36	2/27/2018	In Compliance
Robert is Here 34815 SW 202 Street	PWO-383	2/27/2018	In Compliance
Florida Keys Aqueduct Authority 35400 SW 192 Avenue	IW-349	4/11/2018	In Compliance
	UT-4238	4/17/2018	In Compliance

**NOTE: During the IW5 inspection on 9-26-2017 at the Mannheimer Foundation, the septic tank was sampled and lab results revealed elevated FLPRO at 11.8 mg/l. A Warning Notice was issued requiring the pump out of the septic tank. The septic tank was pumped out on 2-5-2018 and the receipt was received by the Department on 2-8-2018. Facility is now in compliance.*

Copies of reports containing specific details of the inspections conducted at facilities operating within this wellfield are included in **Attachment 3**. This continued monitoring provides early detection of environmental impacts from the regulated facilities. The compliance status of the facilities above supports this approach.

2.2 Building Permits

The Plan Review Division of RER reviews building permit applications for compliance with environmental regulations pursuant to Chapter 24 of Miami-Dade County Code. More specifically, building permit applications within the wellfield areas of the Florida Keys Aqueduct Authority are reviewed for compliance with these environmental regulations. During this report period, a total of 21 building permits were reviewed and approved in compliance with Chapter 24 requirements. **Attachment 4** includes a summary report of each permit issued and a location map for the building permits issued during 2017.

3. ENVIRONMENTAL CONDITIONS

3.1 Wellfield Protection and Salt Intrusion Monitoring

The USGS, working in cooperation with Miami-Dade County, has developed enhancements to the existing public access website “Water Level and Salinity Analysis Mapper” (fl.water.usgs.gov/mapper). These enhancements provide easier, user-friendly access to information on water levels and the status of salt water intrusion into the County’s drinking water supplies. The application links data from saltwater intrusion monitoring stations into a dynamic web mapping system and includes the following features:

- Provides easier access to historical groundwater data from the monitoring wells as well as provides continuously updated graphs, maps, statistics and tables of salinity data;
- Displays on the map with up (↑) and down (↓) arrows those monitoring wells where recent data indicates trending of increasing or decreasing salinities; and
- Displays on the map a line that approximates the landward extent of saltwater intruding along the base of the Biscayne aquifer.

Future refinements to the website will allow the integration of saltwater intrusion data sets from other researchers and agencies working within the County.

The inland extent of saltwater at the base of the Biscayne aquifer was last mapped in 2011. Since that time, the saltwater interface has continued to move inland. In 2016, the USGS used a geographic information system to create a map of the approximate inland extent of saltwater in the Model Land Area (bordered on the east and south sides by Biscayne Bay, Card Sound, Little Card Sound, and Barnes Sound) and estimate the average rate of movement of the saltwater interface in this area. The resulting findings, that the saltwater interface in the study area is advancing at an estimated average rate of 140 meters per year, are detailed in the article “Data Pertaining to Mapping the Approximate Inland Extent of Saltwater at the Base of the Biscayne Aquifer in the Model Land Area of Miami-Dade County, Florida, 2016”, available at:

<https://pubs.er.usgs.gov/publication/sim3380>.

3.2 Ground Water Monitoring Activities

DERM contracted drilling services for the installation of eight (8) monitoring well clusters within the FCAA WPA located in the southern portion of the County within the limits of Florida City. The monitoring well clusters were completed on March 12, 2009. The well clusters were labeled FKMW-1 through FKMW-8. Each monitoring well cluster location consists of a total of three monitoring wells that were drilled to three different depths: shallow (20 feet below land surface (BLS)) denoted by the letter “C”, intermediate (40 feet BLS) denoted by the letter “B”, and deep (60 feet BLS) denoted by the letter “A”. **Attachment 5** illustrates the location of the monitoring wells relative to the location of the FCAA WPA. The monitoring well construction details are provided in **Attachment 6**.

3.2.1 2017 Groundwater Sampling Activities

In order to establish a baseline of the groundwater quality, DERM performed two groundwater sampling events, in October 2009 and April 2010. These sampling events coincided with the seasonal high groundwater table and low groundwater table, respectively. The parameters analyzed during these sampling events are indicated in **Table 3** of this section.

Table 3. WATER SAMPLE PARAMETERS		
Nutrients:		Total Metals:
Ammonia (NH ₃)		Aluminum (Al)
Nitrates / Nitrites (NO _x N)		Arsenic (As)
Total Phosphorus (P)		Silver (Ag)
Cations:	Anions:	Barium (Ba)
Calcium (Ca ⁺)	Chloride (Cl ⁻)	Cadmium (Cd)
Potassium (K ⁺)	Cyanide (CN ⁻)	Chromium (Cr)
Magnesium (Mg ⁺)	Fluoride (F ⁻)	Hexavalent Chromium (Cr 6 ⁺)
Sodium (Na ⁺)	Sulfate (SO ₄ ⁻)	Copper (Cu)
Physical Properties:		Iron (Fe)
Color		Mercury (Hg)
Hardness		Manganese (Mn)
Turbidity		Nickel (Ni)
Total Dissolved Solids (TDS)		Lead (Pb)
Individual Organics:		Selenium (Se)
Chlorinated Organics		Zinc (Zn)
Volatile Organic Compounds		Aggregate Organics:
Semi-Volatile Organic Compounds		Phenols
Organophosphorous Compounds		Total Organic Carbon (TOC)
Triazines		Total Kjeldahl Nitrogen (TKN)
Carbamates		Bacterial Organisms
Glyphosate		Fecal Coliforms
		Total Coliforms

Sampling events have been conducted semi-annually, in March/April and October of each year, subsequent to the baseline sampling. The semiannual sampling consists of analysis of all parameters listed in **Table 3** during the March/April sampling event, and analysis of a reduced list of parameters, to include volatile organics, bacterial organisms, Chloride (Cl⁻), Color, Ammonia (NH₃), Nitrates/Nitrites (NO_xN), Total Phosphorus (P), Total Dissolved Solids (TDS) and Turbidity, during the October sampling event. Analytical results have been provided electronically to the FCAA upon completion of the sampling and quality-control validation of the data. Summary tables of analytical results are included in **Attachment 6**.

In 2017, all samples met EPA primary and/or secondary standards and/or Section 24-44, Code of Miami-Dade County, cleanup target levels, with the exception of Iron, Color and Coliform Bacteria in several monitoring wells. The 2017 groundwater monitoring results are further described below:

Physical Properties:

Color in several monitoring wells exceeded the Environmental Protection Agency's secondary maximum contaminant levels (SMCL). Color is not considered to present a risk to human health at the SMCL, but may cause cosmetic or aesthetic effects in drinking water. All other monitored physical parameters were within standards.

Metals:

Iron concentrations decreased in 2017 and the highest concentration (FKMW-4A at 801 µg/L) is within the range of background iron concentrations in groundwater in Miami-Dade County based on DERM's December 8, 2005 "Background Concentrations of Iron In Groundwater in Miami-Dade County", available at <http://www.miamidade.gov/environment/library/memos/groundwater-study.pdf>. The presence of higher Iron concentrations in the deep aquifer stratum supports a natural background origin. All other metals were within standards and cleanup target levels with no discernible trends in concentrations over time.

Nutrients:

No discernible trends in concentrations of Nitrates/Nitrites (NO_xN), Ammonia or Total Phosphorus over time have been identified during the monitoring period. A figure and graphs of NO_xN are included in **Attachment 6**.

Cations and Anions:

All cation and anion values were within standards or cleanup target levels (when available).

Individual Organics:

The only individual organic parameter detected during the 2017 monitoring period was Caprolactam at values between the laboratory method detection limit and the laboratory practical quantitation limit. However, Caprolactam, which is used in the manufacture of synthetic fibers and plastics and cross-linking for polyurethanes, was also detected in the equipment blank, suggesting contribution of contaminants from sampling equipment or associated sampling processes.

Aggregate Organics:

Phenols, Total Organic Carbon and Total Kjeldahl Nitrogen were all below detection limits and/or standards or cleanup target levels and values are consistent with historic concentrations.

Bacterial Organisms:

Coliform bacteria were detected in several monitoring wells during the 2017 monitoring period. These wells were resampled in April 2018 and coliform levels were below detection limits.

3.3 Environmentally Endangered Lands

Navy Wells Preserve is a 245-acre pine rockland owned by Miami-Dade County and managed by the Department of Regulatory and Economic Resources Environmentally Endangered Lands (EEL) Program. Located at the northwest corner of SW 360 Street & SW 192 Avenue, Navy Wells is one of the largest contiguous tracts of pine rockland remaining on the Miami rockridge outside of Everglades National Park. Pine rocklands are considered a globally-imperiled plant community. Miami-Dade County acquired the preserve in 1977 and it was subsequently designated a Natural Forest Community. Being designated environmentally protected, Navy Wells Preserve serves as a

protective buffer to the FKAA Wellfield Protection Area. It is important to note that portions of the pineland are owned by other entities and not managed by Miami-Dade County.

From 2004-2008, 2,897 acres of natural areas within several parks were accepted into the EEL Program, through four BCC resolutions, for the purposes of management in perpetuity as environmental lands in accordance with the purposes and requirement of the EEL Program. Specifically, as per R-406-04, the EEL Program has been managing Navy Wells Preserve since 2004. Since then, EEL has spent approximately \$485,997 on maintenance of the preserve. This includes controlling exotic invasive plant species, conducting prescribed burns, and monitoring wildlife and post-burn effects.

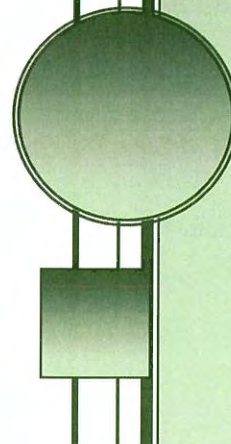
Controlled burns within the Preserve have covered 27 acres in January 2018 and 13.3 acres in January 2017. Less recent burns include: two prescribed burns of 33.9 acres in 2016, two prescribed burns of 35.4 acres in 2007, multiple prescribed burns of 96 acres in 2010, multiple prescribed burns of 106.8 acres in 2014, and wildfires in March 2008, February 2009 and January 2010.

Pine rockland damage related to the operations of FKAA along the roads and fire breaks in the EEL Preserve have occurred. EEL continues to coordinate with FKAA to eliminate the reoccurrence of these chronic impacts and/or refer FKAA staff to the appropriate contacts for any required permits. There have been no new impacts since 2014.

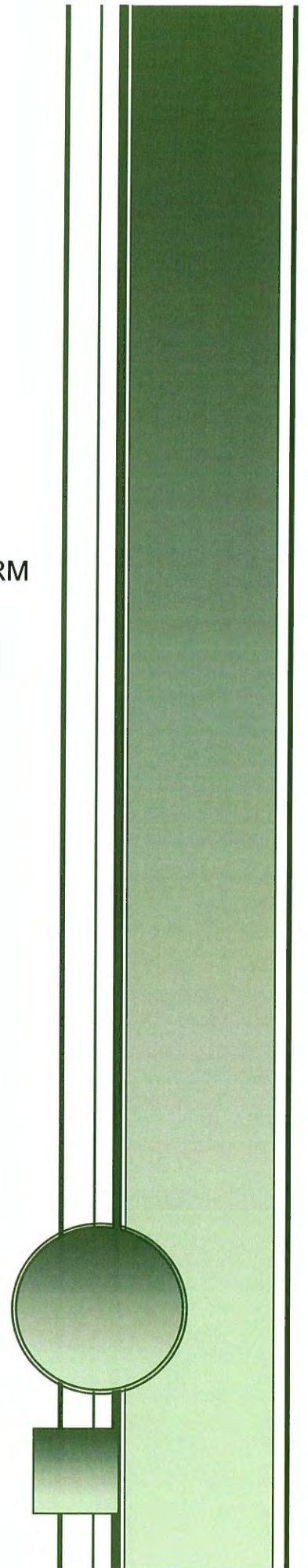
3.4 Wetlands Resources

The DERM CWRS has not issued any permits, covenants or enforcement actions on properties within the FKAA WPA. However, the CWRS continues to provide comments on zoning and platting matters when requested. In addition, the CWRS has been actively involved with permits and enforcements actions in the areas to the south and east of the WPA. Please be advised that wetlands are legally defined by Section 24-5 of the Code of Miami-Dade County on the basis of vegetation composition (presence of wetland indicator species), hydroperiod (extent of yearly inundation/saturation by surface water or ground water) and/or the presence of hydric soils. Section 24-48 of the aforementioned Code requires that a Miami-Dade County Class I or Class IV Wetland Permit be obtained for all work within wetlands. Each project proposed within the FKAA WPA will be evaluated on a case-by-case basis.

ATTACHMENTS



ATTACHMENT 1
Cooperative Agreement between FCAA and DERM



MEMORANDUM

887.09-17A

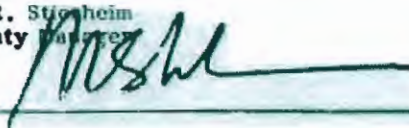
Agenda Item No. 5(e) (3)

TO Honorable Mayor and Members
Board of County Commissioners

DATE November 6, 1984

FROM M. R. Stigheim
County Manager

SUBJECT Cooperative Agree-
ment with Florida
Keys Aqueduct
Authority



RECOMMENDATION

That the attached resolution authorizing an agreement by which Dade County will provide wellfield protection services to the Florida Keys Aqueduct Authority (FKAA) be approved. The FKAA will pay a fee similar to the utility service fee paid by utilities in Dade County.

BACKGROUND

The FKAA operates a wellfield in southern Dade County to serve the Keys. As a state agency serving customers outside of Dade County, FKAA has not been subject to the utility service fee which is paid by utilities providing service to Dade County customers. The fee is used to pay for the costs of regulation and wellfield protection incurred by Environmental Resources Management. This agreement has been negotiated as a mechanism by which FKAA can pay their fair share of the cost of protecting their wellfield. The amount is based upon their annual pumpage and the retail rate charged by the Water and Sewer Authority Department. For 1985 the anticipated revenue is about \$25,000.

THIS AGREEMENT made the 6 day of NOV. in the year 1984
by and between Metropolitan Dade County, hereinafter called the County, and
the Florida Keys Aqueduct Authority, hereinafter called the Authority, hereby
authorizes the Authority to compensate the County for ground water protection
services provided by the County to protect the wellfield owned and operated by
the Authority in southern Dade County

THE PARTIES hereto agree to the following conditions

1. The County, through its Department of Environmental Resources Management (DERM), shall strictly enforce the provisions of 24-12.1 of the Dade County code, governing protection of potable water supply wells with respect to the Authority's wellfield
2. The County, through DERM, shall provide the Authority with official maps of the Cone of Influence of the Authority's wellfield and shall provide written notice of any proposed development subject to the restrictions of 24-12.1. New maps shall be provided whenever official map changes are made
3. The County, through DERM, shall provide to the Authority annual reports describing environmental conditions in Dade County and, in particular, results of ground and surface water quality analyses performed on a routine basis according to published program designs. Reports be provided to the Authority at the times of publication.
4. The County, through DERM, shall involve the Authority in any special studies pertaining to or directly impacting the Authority's wellfield
5. The County, through DERM, shall provide (within budgetary constraints) technical assistance and consultation to the Authority concerning the operation of the wellfield and treatment facilities procurement of needed permits
6. The Authority, in consideration of wellfield protection services provided by the County, shall remit an annual fee to the County payable

no later than December 1st of each year. The fee shall be computed by multiplying .75% of the retail rate for water charged by the Miami Dade Water and Sewer Authority Department times the annual pumpage at the Authority's wellfield for the year ending September 30th prior to the December 1st due date. The retail rate for water charged by the Miami Dade Water and Sewer Authority Department shall be that rate in effect on September 30th prior to the December 1st due date. Said rate shall be provided to the Authority by the County prior to the December 1st due date.

7 This agreement may be amended from time to time by mutual consent of the parties.

8. This agreement shall remain in force until terminated by mutual agreement of the parties or by thirty days prior notice of one party by the other

IN WITNESS WHEREOF, the COUNTY and the AUTHORITY have executed this agreement as of the date first above written

FLORIDA KEYS AQUEDUCT AUTHORITY

ATTEST:

BY

B. L. Schattner
B. L. Schattner, Executive Director

Kathryn A. Ovide
Kathryn A. Ovide

DADE COUNTY, FLORIDA

ATTEST:



BY

[Signature]
County Manager

Asse Shaw
DEPUTY CLERK

Approved by County Attorney as to form and legal sufficiency. _____

RESOLUTION NO. 8-1532-84

RESOLUTION AUTHORIZING EXECUTION OF
COOPERATIVE AGREEMENT FOR WELLFIELD
PROTECTION SERVICES WITH FLORIDA KEYS
AQUEDUCT AUTHORITY

WHEREAS, this Board desires to accomplish the purposes outlined in the accompanying memorandum, a copy of which is incorporated herein by reference,

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF DADE COUNTY, FLORIDA that this Board approves the cooperative agreement between Dade County and the Florida Keys Aqueduct Authority for wellfield protection services, in substantially the form attached hereto and made a part hereof, authorizes the County Manager to execute same for and on behalf of Dade County, to exercise the cancellation provision contained therein; and authorizes and directs the Clerk of this Board to forward such agreements to the Environmental Resources Management Department for transmittal to the Florida Keys Aqueduct Authority

eg:

Beverly B. Phillips

mm

Clara Oesterle

Barbara M. Carey	Aye
Clara Oesterle	Aye
Beverly B. Phillips	Aye
James F. Redford, Jr.	Aye
Harvey Ruvin	Aye
Barry D. Schreiber	Aye
Jorge E. Valdes	Absent
Sherman S. Winn	Aye
Stephen P. Clark	Aye

The Mayor thereupon declared the resolution duly passed and adopted this 6th day of November, 1984

STATE OF FLORIDA)
COUNTY OF DADE) SS:

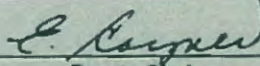
I, RICHARD P. BRINKER, Clerk of the Circuit Court in and for Dade County,
Florida,

----- and the above and foregoing is a true and correct copy of
Resolution No. W-1532-84, adopted by the said Board of County Commis-
sioners at its meeting held on November 6, 19 84.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal on
this 13th day of November, A. D. 19 84.

RICHARD P. BRINKER, Ex-Officio Clerk
Board of County Commissioners
Dade County, Florida

By


Deputy Clerk

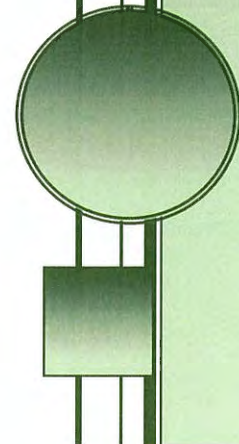
SEAL



Board of County Commissioners
Dade County, Florida

ATTACHMENT 2

Fee Letter for 2018 and excerpts from WASD
Comprehensive Annual Financial Report
Fiscal Year Ending September 30, 2016





Carlos A. Gimenez, Mayor

Department of Regulatory and Economic Resources
Environmental Resources Management
701 NW 1st Court, 7th Floor
Miami, Florida 33136-3912
T 305-372-6600 F 305-372-6893

miamidade.gov

April 03, 2018

Mr. Kirk C Zuelch.
Executive Director
Florida Keys Aqueduct Authority
1100 Kennedy Drive
Key West, Florida 33040

Certified Mail No. 7008 1830 0002 8169 4388
Return receipt Requested

RE: Annual Fee Specified in Cooperative Agreement

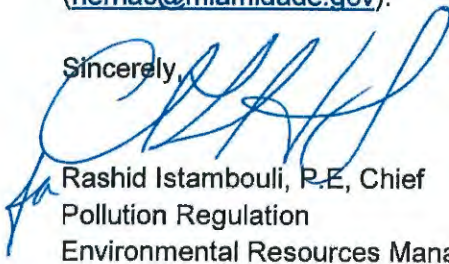
Dear Mr. Zuelch:

The following information is provided to the Florida Keys Aqueduct Authority to assist with the 2018 budgetary planning activities. As specified in the Cooperative Agreement, which provides for wellfield protection services by the Department of Regulatory and Economic Resources, Environmental Resources Management, the annual fee has been calculated and is provided below. The rate was based on the Miami-Dade Water and Sewer Department's (WASD's) Comprehensive Annual Financial Report for fiscal year ending September 30, 2016.

Rates applicable for:	2018
Retail operating revenues:	247,088,000
Retail water sold; million gallons:	64,108
Average retail rate:	3.85
\$/1,000 gallons:	

If you need additional information regarding the above, please contact me at istamr@miamidade.gov or Mr. Carlos L. Hernandez, PE, (305) 372-6600 (hernac@miamidade.gov).

Sincerely,



Rashid Istambouli, P.E, Chief
Pollution Regulation
Environmental Resources Management

Delivering Excellence Every Day

Miami-Dade Water and Sewer Department

A DEPARTMENT OF MIAMI-DADE COUNTY, FL

Comprehensive Annual Financial Report

FOR THE FISCAL YEAR ENDED SEPTEMBER 30, 2016

PREPARED BY: CONTROLLER DIVISION AND PUBLIC AFFAIRS SECTION



Water System

SCHEDULE OF REVENUES AND EXPENSES - LAST TEN FISCAL YEARS

(in thousands)	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
<i>OPERATING REVENUES:</i>										
Retail	\$ 247,088	\$ 233,464	\$ 219,880	\$ 207,117	\$ 202,633	\$ 202,189	\$ 193,632	\$ 169,568	\$ 154,796	\$ 151,034
Wholesale	28,572	37,008	28,815	29,210	35,330	37,990	38,554	29,041	22,909	27,045
Other	15,383	14,966	14,908	11,985	13,167	13,517	12,936	27,102	12,839	12,631
Total operating revenues	291,043	285,438	263,603	248,312	251,130	253,696	245,122	225,711	190,544	190,710
<i>OPERATING AND MAINTENANCE EXPENSES:</i>										
Source of supply	14,284	10,931	10,788	10,874	10,705	13,558	12,354	14,208	12,006	6,710
Pumping	1,982	2,054	1,911	1,816	1,798	1,942	2,003	2,407	2,134	2,593
Treatment	68,272	63,921	58,741	60,188	59,811	62,138	61,967	64,457	61,317	55,925
Transmission and distribution	30,554	30,892	28,844	27,882	27,423	27,929	28,459	25,428	26,528	25,747
Customer accounting and service	16,859	15,651	13,025	13,908	12,841	13,325	15,602	15,325	14,337	15,308
General and administrative	37,983	34,078	36,711	35,292	32,936	35,644	43,860	35,380	34,864	33,299
Total operating and maintenance expenses	169,934	157,527	150,020	149,960	145,514	154,536	164,245	157,205	151,186	139,582
Operating income before depreciation	121,109	127,911	113,583	98,352	105,616	99,160	80,877	68,506	39,358	51,128
<i>DEPRECIATION</i>	72,180	66,642	65,456	69,581	61,158	61,122	62,604	59,028	60,859	61,349
Operating income (loss)	48,929	61,269	48,127	28,771	44,458	38,038	18,273	9,478	(21,501)	(10,221)
<i>NON-OPERATING REVENUES(EXPENSES):</i>										
Investment income (loss)	(2,650)	10,127	1,769	(8,574)	10,980	3,061	8,383	6,713	12,273	17,489
Interest expense	(16,290)	(19,169)	(21,731)	(14,203)	(17,437)	(18,932)	(14,088)	(15,313)	(15,035)	(15,090)
Other income (loss)	11,843	9,812	13,090	6,461	10,024	8,602	8,374	19,491	12,997	27,800
Income (loss) before contributions and transfers	41,832	62,039	41,255	12,455	48,025	30,769	20,942	20,369	(11,266)	19,978
Capital contributions	28,860	27,918	21,370	11,490	15,749	24,108	18,245	28,896	14,518	23,701
Transfers to County's General Fund	-	-	-	-	-	(14,499)	-	-	-	-
Transfer (to) from Wastewater System	(128,373)	(67,666)	(80,939)	1,564	(43,218)	(33,677)	(1,333)	(16,238)	8,306	(4,584)
Increase (decrease) in net position	\$ (57,681)	\$ 22,291	\$ (18,314)	\$ 25,509	\$ 20,556	\$ 6,701	\$ 37,854	\$ 33,027	\$ 11,558	\$ 39,095

Water Treatment

LAST TEN FISCAL YEARS

(millions of gallons)	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007
WATER PUMPED:										
Water treatment plants:										
Alexander Orr, Jr.	65,968	62,566	60,183	58,666	59,805	60,191	59,969	57,025	57,257	61,118
John E. Preston	26,789	27,044	26,942	30,586	27,232	26,555	27,632	30,638	29,468	29,456
Hialeah	20,142	19,488	19,248	21,241	22,688	23,685	24,335	23,880	22,794	25,573
South Dade Water System	3,921	3,570	2,607	2,670	2,658	2,580	2,274	2,502	2,384	2,407
Purchase water	192	164	124	178	152	179	145	386	676	538
Total water pumped	117,013	112,832	109,104	113,341	112,535	113,190	114,355	114,431	112,579	119,092
WATER SOLD:										
Wholesale:										
Miami Beach	8,249	8,346	7,615	7,903	7,918	8,410	6,952	6,489	6,848	7,931
Hialeah	6,857	6,623	7,285	9,429	9,121	9,598	9,103	8,110	8,081	8,228
North Miami	1,538	2,096	1,693	1,655	1,374	1,331	1,175	1,502	2,123	1,827
Opa-Locka	993	950	895	876	876	887	788	845	909	946
Hialeah Gardens	768	694	638	576	591	693	654	695	694	703
Homestead ⁽¹⁾	684	520	188	151	40	-	-	-	-	-
Bal Harbor	506	503	407	494	430	486	455	466	447	462
North Bay Village	419	430	405	415	391	387	395	365	343	322
Medley	381	365	470	516	479	328	400	393	398	433
Bay Harbor Islands	291	328	318	309	310	302	317	329	358	366
Surfside	325	326	303	299	312	317	328	343	327	371
West Miami	319	251	278	236	292	275	293	290	266	267
Indian Creek Village	119	134	117	120	122	133	121	140	133	146
Virginia Gardens	84	82	91	95	93	91	98	100	63	60
North Miami Beach ⁽²⁾	-	3	-	-	-	-	100	107	1,013	2,588
Miami Springs ⁽³⁾	-	-	-	-	-	-	-	-	771	870
Total wholesale	21,533	21,651	20,703	23,074	22,349	23,238	21,179	20,174	22,774	25,520
Retail	64,108	63,783	63,539	63,386	63,169	62,937	64,430	66,086	65,147	67,302
Total water sold	85,641	85,434	84,242	86,460	85,518	86,175	85,609	86,260	87,921	92,822
Non-account water	31,373	27,398	24,862	26,881	27,017	27,015	28,746	28,171	24,658	26,270
Non-account water as a percentage of total water pumped	26.81%	24.28%	22.79%	23.72%	24.01%	23.87%	25.14%	24.62%	21.90%	22.06%
Unaccounted for water as a percentage of total water pumped	10.10%	8.37%	5.67%	8.88%	3.02%	10.46%	8.27%	9.90%	3.70%	6.20%

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

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

⁽³⁾ Miami Springs water system was purchased by the Department and beginning fiscal year 2009, is no longer a wholesale customer.

EXHIBIT A – ADDENDUM 1

PROJECT SCOPE AND BUDGET GENERAL ENGINEERING SERVICES

A. GENERAL DESCRIPTION

Design Engineering Services. Design for the installation of a 30-inch steel potable water transmission main on Grassy Key from approximately Mile Marker (MM) 58 to 60. Design will include approximately 11,000 feet of pipeline, valve installations, connections to existing distribution system pipelines, and three crossings of US Highway 1 along the route. This design will be coordinated with the Florida Department of Environmental Protection (FDEP) Heritage Trail Extension project.

B. SCOPE OF SERVICES

CONSULTANT will provide the following professional engineering services to FKAA to design the pipeline, road crossings, and other considerations for the placement of the proposed 30-inch water transmission main. Services will include:

Task 1: Preliminary Design. Utilizing the information developed in the Grassy Key 30-inch water transmission main replacement corridor study the CONSULTANT shall confirm transmission main hydraulic analysis, and produce preliminary drawings (approximately 30% complete) including:

- General Arrangement
- Pipeline Plan & Profile
- Pipeline Conflict Avoidance/Mitigation
- US 1 Roadway Crossing
- Distribution System Connection
- Valve & Cathodic Protection
- Restoration

Also included in the preliminary design will be a listing of the technical specifications, following CSI MasterFormat 2012 organization, to be incorporated into the project along with a project schedule and cost estimate. Cost estimate shall be developed consistent with American Association of Cost Engineers (AACE) International Recommended Practice No. 18R-97.

Task 2: Permitting. CONSULTANT shall complete appropriate permit applications for the FDEP, Florida Department of Transportation (FDOT), and the South Florida Water Management District (SFWMD). The CONSULTANT shall respond to agency comments as necessary to address project clarifications. FKAA shall provide applicable permitting application fees.

Task 3: Design for Bidding: CONSULTANT shall develop final drawings (approximately 100% complete). Details associated with pipeline construction in the US 1 right of way (ROW),

construction adjacent to the Florida Keys Electric Cooperative (FKEC) facilities, distribution system connections, and the method/s of crossing US 1 will be included. Technical specifications will be developed. Front-end/contract specification sections shall be FKAA standard, consistent with the most current version provided by FKAA.

Task 4: Bidding assistance services. The CONSULTANT shall assist FKAA with construction bid solicitation. This effort shall include assistance with the following:

- Bid advertisement;
- Pre-bid Meeting;
- RFI/Addenda preparation;
- Bid review and opinion of acceptability

Task 5: Survey, Utility Locates, Geotechnical Services: Limited survey, utility locates, and geotechnical services are included in accordance with the following:

Survey: Limited survey will be provided for the area of the transmission main route not included in the proposed Heritage Trail Extension Project. Spot checking of Heritage Trail surveying information is included. Should it be determined that the Heritage Trail survey information has inconsistencies that would impact pipeline placement, additional survey effort will be necessary under a separate agreement.

Utility Locates: The location of underground utilities in the area of the proposed transmission main will be determined utilizing ground penetrating radar (GPR). Should it be determined that additional physical location of existing utilities is required, the associated excavation efforts will be necessary under a separate agreement.

Geotechnical Investigation: Geotechnical services will be provided to determine existing material properties and groundwater information in the area of pipeline placement. Recommendations for pipeline placement in the area of the FKEC facilities, FKEC facilities support during construction, and US 1 crossings will be provided. In addition, pipeline bedding materials will be specified along with compaction and testing requirements.

Deliverable: The deliverables shall consist of:

- Pipeline design/installation drawings (draft & final)
- Specifications
- Project Schedule & Cost estimate
- Survey, Utility Locates, and Geotechnical Information
- Permit application forms and supporting documentation
- Bid solicitation support documentation

Information Required from FKAA: 1) Existing pipeline as-built information, and 2) Distribution system connection locations and requirements.

Schedule: From the date of information receipt, the CONSULTANT shall provide deliverables in accordance with the following:

- Pipeline design/installation drawings draft – 8 weeks
- Pipeline design/installation drawings final – 14 weeks after receipt of FKAA comments on draft drawings
- Specifications – 12 weeks
- Cost estimate – 8 weeks
- Survey/Utility Locates/Geotechnical Information – 8 weeks
- Permit application information – 8 weeks
- Bid solicitation support documentation – In accordance with FKAA bidding and award schedule

It is mutually understood that authorization to perform any of the above mentioned services will be at the direction of the Executive Director or the Deputy Director of Utility Operations.

C. FEES

Compensation for the Labor and Reimbursement Expenses shall be performed under the Lump Sum method of compensation as provided for in Method I of the Agreement.

Fee Table

TASK DESCRIPTION	Lump Sum Fee (\$)
Grassy Key Potable Water Transmission Main Replacement	\$201,050
Additional Utility Locates	\$5,000
FEE TOTAL	\$206,050

SIGNED:

ENGINEERING CORPORATION

Carollo Engineers, Inc.

Lyle Munce, P.E., Vice President; Elizabeth Fujikawa P.E., Vice President

ACCEPTED:

FLORIDA KEYS AQUEDUCT AUTHORITY

Kirk Zuelch, Executive Director

Kent Nelson, P.E., Deputy Director of Utility Operations

BOARD APPROVAL DATE _____

**SCHEDULE OF HOURLY RATES
EXHIBIT B**

Attached

(see Exhibit A for lump sum fee amount)

**SCHEDULE OF HOURLY RATES
GENERAL ENGINEERING**

EXHIBIT B

Client: Florida Keys Aqueduct Authority

<u>Labor Category</u>	<u>Raw Labor Rate Range</u>	<u>Total Billing Rate Range</u>
Engineer/Scientists		
Civil/Process Engineer I	\$34.00 - \$38.00	\$102.00 - \$114.00
Civil/Process Engineer II	\$39.00 - \$46.00	\$117.00 - \$138.00
Lead Process/ Design Engineer	\$47.00 - \$52.00	\$141.00 - \$156.00
Project Engineer	\$54.00 - \$62.00	\$162.00 - \$186.00
Process Specialist	\$65.00 - \$72.00	\$195.00 - \$216.00
Senior Process Specialist	\$65.00 - \$80.00	\$195.00 - \$240.00
Project Manager	\$62.00 - \$70.00	\$186.00 - \$210.00
Senior Project Manager	\$65.00 - \$75.00	\$195.00 - \$225.00
Technical Advisor	\$65.00 - \$80.00	\$195.00 - \$240.00
Principle-in-Charge	\$80.00 - \$85.00	\$240.00 - \$255.00
Technicians		
Technicians	\$24.50 - \$31.50	\$73.50 - \$94.50
Senior Technicians/Designers	\$31.50 - \$45.00	\$94.50 - \$135.00
Lead Design Specialist	\$47.00 - \$58.00	\$141.00 - \$174.00
Support Staff		
Word Processing/Clerical	\$19.00 - \$23.00	\$57.00 - \$69.00
Senior Word Processing/Clerical	\$23.00 - \$26.00	\$69.00 - \$78.00
Field Staff		
Inspector	\$22.00 - \$34.00	\$66.00 - \$102.00
Senior Inspector	\$34.00 - \$45.00	\$102.00 - \$135.00
Senior Construction Manager	\$58.00 - \$75.00	\$174.00 - \$225.00
Other Direct Expenses		
Travel, Subsistence and Other Direct Expenses		At Cost
Subconsultant		Cost + 10%
Mileage (in accordance with FKAA Travel & Business Reimbursement Policy and F.S. 112.061)		

BOARD OF DIRECTORS, FLORIDA KEYS AQUEDUCT AUTHORITY

AGENDA ITEM SUMMARY

AGENDA ITEM: DUO-08

CONSENT:

REGULAR:

MEETING DATE: June 27, 2018

DIVISION: UTILITY OPERATIONS

AGENDA TITLE: Consideration to approve change order #2 for Project # 4067-16 with Key Honey LLC for the reconciliation of Schedule A contract items for Middle/Big Torch Key LPSS and quantity and price adjustments for miscellaneous items on Schedule B, LPS Continuing Services in the amount of \$354,947.

ITEM BACKGROUND: On June 10, 2015 The Monroe County Board of County Commissioners approved an expansion of the Cudjoe Regional Wastewater System. This included the Middle/Big Torch Key area. The FCAA Construction Crew installed the force main portion of the project. Key Honey LLC was selected to install the residential low pressure grinder stations and the neighborhood lift station.

PREVIOUS RELEVANT ACTION BY FCAA BOARD OF DIRECTORS: Board approved contract with Key Honey LLC on October 26, 2016 in the amount of \$2,435,400. The award included funding in the amount of \$1,102,300 for the ongoing wastewater connection activities as approved in FCAA resolution #17 – 03 adopted November 16, 2016.

STAFF RECOMMENDATION (MOTION): Board approve change order #2 for Project # 4067-16 with Key Honey LLC for the reconciliation of Schedule A contract items for Middle/Big Torch Key LPSS and quantity and price adjustments for miscellaneous items on Schedule B, LPS Continuing Services in the amount of \$354,947.

SUPPLEMENTAL INFORMATION: See Attached

DOCUMENTATION: Included: To-Follow: Not Required:

Cost to FCAA:	\$	<u>0</u>	BUDGETED:	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
Cost to Others:	\$	<u>354,947</u>					
Total Cost:	\$	<u>354,947</u>					

DEPARTMENT: Engineering **DEPARTMENT DIRECTOR APPROVAL:** J.C.L.

DIVISION DIRECTOR APPROVAL: [Signature]

Reviewed by: Internal Auditor: [Signature] General Counsel: RTF Executive Director: [Signature]

BOARD ACTION:

Approved: Tabled: Disapproved: Recommendation Revised:

Comments: _____

Date: _____ Recording Clerk: _____

**Florida Keys Aqueduct Authority
Monroe County, Florida
June 25, 2018**

Change Order No. 2

**PROJECT #4067-16
CUDJOE REGIONAL WASTEWATER SYSTEM
INNER AND OUTER ISLANDS CONTINUED LPS INSTALLATIONS**

I. General

This Change Order is hereby made a part of the Contract Documents. All requirements of the original Contract Documents shall remain in full force and effect except as modified hereinafter.

II. Scope of Work and Reason for Modification

At the request of FCAA, the Contractor for this Project, Key Honey LLC, has agreed to furnish the additional/changed work:

- A. Reconciliation of Schedule A Contract Items for Middle/Big Torch Key LPSS
- B. Quantity and Price adjustments for miscellaneous items on Schedule B, LPS Continuing Services

III. Summary of Cost Changes

A. Original Contract	\$ 2,435,400
B. Total Amount of Change Orders To Date	\$ 30,742
C. Amount of this Change Order	\$ 354,947
D. Revised Contract Value	\$ 2,821,089

IV. Summary of Contract Time Changes

The Contractor, Key Honey LLC has not requested any additional time for this portion of the project. The Florida Keys Aqueduct Authority and the Contractor, Key Honey LLC, agree that the time and costs sum agreed to in this Change Order constitute a full and complete settlement of the issues set forth in this Agreement.

The Contractor accepts the terms of this Change Order as full compensation for all other costs, whether direct or indirect, whether incurred or in the future, related to the issues set forth in this Change Order.



**Florida Keys Aqueduct Authority
Monroe County, Florida
Cudjoe Regional Wastewater Program**

Project: CRWS Middle Torch/Big Torch LPSS and Continuing Services
 Project No. 4067-16 Change Order No. 2
 To: Key Honey Holdings, LLC
 From: Stephanie Bruno, Construction Manager
 Date: June 27, 2018
 Re: Change Order (X) Extra Work () Additional Work ()

Proposed Changes: 1) Reconciliation of Over/Under for Schedule A Items
 2) Quantity adjustments for miscellaneous Schedule B items
 3) Price and quantity adjustment for Asphalt Mill and Overlay

Items Detailed Below

Contractor: Key Honey Holdings, LLC
 Amount: \$354,947.00

Itemized and explained as follows:

	Unit	Quantity	Price per Unit	Total Item Amount
Schedule A				
LPS-1 Simplex Low Pressure System (Complete)	EA	-5	\$ 12,500.00	\$ (62,500.00)
LPS-2 1-1/4" HDPE Lateral for Simplex	LF	(1,816)	\$ 20.00	\$ (36,324.00)
L-2 Wood Post 6"X6" Mounted	EA	(10)	\$ 425.00	\$ (4,250.00)
L-3 Concrete Post Adder 6"X6" Mounted	EA	-10	\$ 1,650.00	\$ (16,500.00)
L-4 Pump Cable 100' Adder	EA	20	\$ (500.00)	\$ (10,000.00)
A-1 Electrical Allowance	LS	(1)	\$ 10,000.00	\$ (10,000.00)
A-2 Contingency Allowance	LS	-0.38895	\$ 20,000.00	\$ (7,779.00)
Schedule B				
R-2 (Price Adj.) 1" Mill & 1" Asphalt Overlay	LF	-350	\$ 72.00	\$ (25,200.00)
LPS-1 Simplex Low Pressure System (Complete)	EA	50	\$ 10,000.00	\$ 500,000.00
R-3 Flowable Fill for Trench Back Fill	CY	200	\$ 25.00	\$ 5,000.00
GS-1 6" PVC SDR 26 San. Lateral	EA	-6	\$ 13,000.00	\$ (78,000.00)
LPS-7 1-1/4" HDPE Lateral for Simplex	LF	5000	\$ 20.00	\$ 100,000.00
LPS-9 Wood Post 6"X6" Mounted	EA	10	\$ 425.00	\$ 4,250.00
LPS-19 4" HDPE FM Ext Directional Drill	LF	-100	\$ 95.00	\$ (9,500.00)

The Florida Keys Aqueduct Authority and the Contractor, Key Honey Holdings, LLC, agree that the time and costs sum agreed to in this Change Order constitutes a full and complete settlement of the issues set forth in this Agreement. The Contractor accepts the terms of the Change Order as full compensation for all other costs, whether direct or indirect, whether incurred or in the future, related to the issues set forth in this Change Order.

The undersigned have carefully read this Change Order and by affixing their signatures attest their full agreement with the provisions herein. change Order provides for all costs and schedule adjustments associated with completing this work, including materials, labor, equipment, bond, insurance, overhead, extended overhead, profit, impact, and any and all related items or associated costs included or resulting from the items listed above.

TOTAL AMOUNT FOR CHANGE ORDER NO. 2 \$364,947.00

Owner
Florida Keys Aqueduct Authority

Kirk Zueich - Executive Director

Date

Jodynn Reynolds - Manager of Engineering

Date

Stephanie Bruno - Construction Manager

Date

Contractor
Key Honey Holdings, LLC

Randall Baad - Manager/Member

6-13-18

Date

BOARD OF DIRECTORS, FLORIDA KEYS AQUEDUCT AUTHORITY

AGENDA ITEM SUMMARY

AGENDA ITEM # BOD-01

CONSENT:

REGULAR: X

Meeting Date: June 27, 2018

Department: Board of Directors




AGENDA TITLE: Internal Compliance Audit Update as of June 27, 2018.

ITEM BACKGROUND: Tim Esquinaldo, Internal Compliance Auditor performs an annual audit of specific financial areas, special project reviews, follow-up on prior audit comments as well as a review of the Authority's operations to determine compliance with policies, procedures, contracts, and applicable laws and regulations; and reports the results to the Audit Committee and the Board of Directors.

PREVIOUS RELEVANT ACTION BY FCAA BOARD OF DIRECTORS: The Audit Committee and the Board of Directors received audit reports presented during their meetings on June 28, 2017, September 27, 2017 and February 28, 2018 for the period from October 1, 2016 to September 30, 2017 to report on the status of the Internal Compliance Audit.

STAFF RECOMMENDATION (MOTION): No action required, informational only.

SUPPLEMENTAL INFORMATION: Reports included.

DOCUMENTATION:	Included:	To-Follow:	Not Required:	
COST FCAA:	\$ _____	BUDGETED:	Yes	No
COST/OTHERS:	\$ _____			
COST TOTAL:	\$ _____			
DEPARTMENT DIRECTOR APPROVAL: <u></u>				
Reviewed by: Internal Auditor: <u></u> General Counsel: <u>RTF</u> Executive Director: <u></u>				

BOARD ACTION:

Approved: Tabled: Disapproved: Recommendation Revised:

Comments: _____

Date: _____

Recording Clerk: _____



Florida Keys Aqueduct Authority

1100 Kennedy Drive
Key West, Florida 33040
Telephone (305) 296-2454
www.fkaa.com



J. Robert Dean
Chairman
District 3

Richard J. Toppino
Vice-Chairman
District 2

David C. Ritz
Secretary/Treasurer
District 5


Antoinette M. Appell
District 4

Cara Higgins
District 1

Kirk C. Zuelch
Executive Director

June 27, 2018

TO: FCAA Board of Directors

FROM: Timothy S. Esquinaldo, FCAA Internal Compliance Auditor 

SUBJECT: **Status Report/Update - FY 2018**

Audit Schedule and Testing:

All fieldwork has been completed in the following areas: *cash disbursements and purchasing, and payroll* in accordance with the Standards for the Professional Practice of Internal Auditing and Statements on Internal Auditing Standards. Tests were performed to determine conformity with Florida Keys Aqueduct Authority's policies and procedures, applicable laws and regulations, and executed contracts. Discussions with management are scheduled to discuss the results.

Audits Scheduled:

Planning has been performed in the areas of *customer account adjustments, customer billing and customer meter deposits* and specific tests are currently being performed to address risk, to test compliance with approved guidance and to assess the adequacy of the internal controls governing these processes. I also have attached the audit schedule which indicates all areas that will be audited.

Bids and Meetings:

Since last (3/27/18) apprising the Board of the Internal Compliance Audit status I also have reviewed and critiqued numerous bids to ensure that the bidding process is performed in accordance with Florida Statutes and approved policy. In addition, I regularly attend meetings with the executive team to discuss various issues concerning and affecting the Florida Keys Aqueduct Authority.

**FLORIDA KEYS AQUEDUCT AUTHORITY
INTERNAL AUDIT COMPLIANCE SCHEDULE
For the Period From 10/1/17 to 9/30/18**

As Of 6/27/2018

Section	Area	Status
A	Cash Disbursements (Purchasing)	Completed
B	Cash Receipts	Not Started
C	Customer Account Adjustments	Started
D	Customer Meter Deposits	Started
E	Customer Billing	Started
F	Payroll	Completed
G	Construction/Consultant Contracts	Not Started
H	Inventory	Not Started
I	Fixed Assets	Not Started
J	Investments	Not Started
C1	Compliance - Customer Accounts	Not Started
C2	Compliance - Laws & Regulations	Not Started
C3	Compliance - Enabling Legislation	Not Started
C4	Compliance - Bond Covenants	Not Started
C6	Compliance - Permits & Licenses	Not Started
C7	Compliance - Maintenance & Readiness	Not Started
C8	Regulations	Not Started
C9	Compliance - Safety & Regulatory	Not Started
C10	Compliance - Risk Management	Not Started
C11	Compliance - Information Technology	Not Started
C12	Compliance - Grants	Not Started
C13	Follow-up	Not Started

BOARD OF DIRECTORS, FLORIDA KEYS AQUEDUCT AUTHORITY

AGENDA ITEM SUMMARY

AGENDA ITEM: BOD-02

CONSENT:

REGULAR:

MEETING DATE: JUNE 27, 2018

DIVISION: BOARD OF DIRECTORS

AGENDA TITLE: Board of Directors Discussion

ITEM BACKGROUND: The Board of Directors can bring up any subject they deem necessary to be discussed at this time.

PREVIOUS RELEVANT ACTION BY FCAA BOARD OF DIRECTORS: N/A

STAFF RECOMMENDATION (MOTION): N/A

SUPPLEMENTAL INFORMATION: N/A



DOCUMENTATION: Included: To-Follow: Not Required:

Cost to FCAA: \$ _____
Cost to Others: \$ _____
Total Cost: \$ _____

BUDGETED: Yes No

DEPARTMENT: Board of Directors DEPARTMENT DIRECTOR APPROVAL: _____

DIVISION DIRECTOR APPROVAL: 

Reviewed by: Internal Auditor:  General Counsel: RTF Executive Director: 

BOARD ACTION:

Approved: Tabled: Disapproved: Recommendation Revised:

Comments: _____

Date: _____ Recording Clerk: _____