



Cape Fear
Public Utility Authority

Stewardship. Sustainability. Service.

FY 2018-2019

ADOPTED BUDGET



235 Government Center Drive
Wilmington, NC 28403

www.cfpua.org
(T) 910.332.6550

Jim Flechtner, PE
Executive Director

John McLean, CPA
Chief Financial Officer

On the cover: CFPUA Customer Service Representative assisting customers.



**CAPE FEAR PUBLIC UTILITY AUTHORITY
ADOPTED BUDGET
FISCAL YEAR 2018 - 2019**

Board Members

**Mike Brown, Chairman
Wesley P. Corder, Vice-Chair
Jennifer Adams, Secretary
William A. Norris, Treasurer
Deans Hackney
Patricia O. Kusek, New Hanover County Commissioner
Kevin O'Grady, City of Wilmington Councilman
Charles Rivenbark, City of Wilmington Councilman
Larry Sneed
Skip Watkins, New Hanover County Commissioner
Cindee Wolf**

**James R. Flechtner, PE, Executive Director
John B. McLean, CPA, Chief Financial Officer**

**235 Government Center Drive
Wilmington, NC 28403
www.cfpua.org**

Board Members



Michael C. Brown, III

Chairman

Appointed by New Hanover County

Seated in 2010

Term ends in 2019

Committees: Executive & Long
Range Planning



Wesley P. Corder

Vice-Chair

Jointly appointed by City of Wilmington
and New Hanover County

Seated in 2017

Term ends 2020

Committee: Executive & Finance



Jennifer Adams

Secretary

Appointed by New Hanover County

Seated in 2016

Term ends 2019

Committee: Executive & Finance



Kevin O'Grady

Councilman

Appointed by City of Wilmington

Seated in 2014

Term ends 2019

Committees: Human Resources &
Communications



Charlie Rivenbark

Councilman

Appointed by City of Wilmington

Seated in 2010

Term ends 2018

Committee: Long Range Planning



Larry Sneed

Member

Appointed by New Hanover County

Seated in 2012

Term ends in 2020

Committees: Executive, Finance,
Long Range Planning



William Norris

Treasurer

Appointed by the City of Wilmington

Seated in 2013

Term ends in 2018

Committees: Executive, Finance,
Communications



Deans Hackney

Member

Appointed by City of Wilmington

Seated in 2018

Term ends 2019

Committees: Long Range Planning &
Human Resources



Pat Kusek

Commissioner

Appointed by New Hanover County

Seated in 2011

Term ends in 2018

Committees: Finance



Skip Watkins

Commissioner

Appointed by New Hanover County

Seated in 2017

Term ends in 2018

Committees: Finance



Cindee Wolf

Member

Appointed by City of Wilmington

Seated in 2011

Term ends in 2020

Committees: Long Range Planning,
Human Resources, Communications



Donna S. Pope

Clerk to the Board

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GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished
Budget Presentation
Award*

PRESENTED TO

**Cape Fear Public Utility Authority
North Carolina**

For the Fiscal Year Beginning

July 1, 2017

Christopher P. Morrill

Executive Director

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BUDGET GUIDE

This document contains Cape Fear Public Utility Authority's Fiscal Year 2018-2019 Budget, which is the financial plan that will guide the Authority's operations over the year.

The budget document is divided into the following sections:

Introduction – This section begins with the Executive Director's Budget Message which explains the major goals and challenges, major changes in financial policies, important features of the activities incorporated into the budget, and the reasons for changes in appropriation levels. Next, information is presented to help stakeholders understand some of the environmental, organizational, and policy factors that drive the development of the Authority's budget including the Strategic Plan, organizational profile and structure, financial structure, a description of the Authority's budget process, budget calendar, and key financial policies.

Operating Budget – The Operating Budget section provides a detailed picture of the Authority's FY 2018-2019 annual operating budget including information on total budgeted expenditures, revenues, and net position. This section also presents information for each of the Authority's departments including departmental descriptions and performance goals/metrics.

Capital Budget – This section details the Authority's FY 2018-2019 capital budget and the approach to funding the capital program. Detailed project descriptions are included for each of the projects appropriated as part of the FY 2018-2019 Capital Improvements Program, including an infrastructure risk assessment before and after project completion to demonstrate the value of each project from a risk mitigation perspective.

Long-term Financial Management – Because the Authority's operating and capital activities are budgeted separately using differing perspectives (single fiscal year versus project life), it can be difficult for stakeholders to determine Authority-wide financial operations from budgetary information alone. Projecting financial results and monitoring key financial metrics over multiple years allows the Authority to take proactive measures to ensure the continuance of high-quality water and wastewater services. This section provides a big picture, entity-wide, multi-year view of the Authority's finances including operating and capital expenditures, debt, liquidity, and rate affordability.

Supplemental & Statistical Information – This section provides stakeholders with statistical and background information that may serve as context to supplement the budgetary and financial information contained in this document.

BUDGET MESSAGE

Members of the Authority Board
Cape Fear Public Utility Authority
235 Government Center Drive
Wilmington, NC 28403

Dear Members of the Authority Board:

I am pleased to present the Authority's Fiscal Year 2018-2019 budget. This budget was prepared in accordance with the Local Government Budget and Fiscal Control Act, and is designed to provide services meeting or exceeding all applicable state regulations and rate covenants. This budget contains the necessary projects and operational funding to ensure that we continue providing the highest quality water and wastewater services to our customers at the lowest practical cost.

As we enter our tenth year of serving over 200,000 people in the City of Wilmington and New Hanover County, we continue to successfully operate under our guiding principles of Stewardship, Sustainability, and Service. These tenets provide a strong base upon which we have built award-winning services. At the same time, they drive us to continually increase the value of the services we offer.

Given the complex issues facing water and sewer providers, I am confident this budget continues the Authority in the right direction. It addresses a broad spectrum of important topics such as customer service, public health, environmental stewardship, staff development, risk management and emergency preparedness to name a few. With the Authority's human and financial resources focused in the right areas, we will remain ready to meet the needs of our community.

The following factors influenced the decisions made in developing the budgets for FY 18-19:

- The rehabilitation and replacement of gaining infrastructure - We are pleased to report that deliberate investment in infrastructure and operations is consistently paying dividends, improving our resiliency and enhancing our services while reducing risk. The primary components of this budget include projects identified in the ten-year Capital Improvements Program (CIP), forecasted water and wastewater demands, projected operating costs required to sustain service levels, and debt obligations. With continued input from you and key stakeholders, our budgets will accurately assess and meet community needs, both now and into the future.
- Recently adopted financial policies that limit the issuance of debt - The Board adopted a policy that provides general criteria that indicate which projects are optimal candidates for debt funding. These policies also provide for an explicit debt limit expressed in terms of the debt-to-capitalization ratio. The debt limit was based on the Authority's desired level of debt service coverage and its expectation of borrowing costs over the long-term. These policies have major implications on the operating and capital budgets and how capital costs are funded.

BUDGET MESSAGE

The debt limit implies that the normal, recurring level of annual capital expenditures will be funded through current year water and wastewater rate revenue collections. Increases to water and wastewater rates will be necessary to achieve this funding level. The Authority's long-term financial plans include gradual rate increases over a six-year timeframe to transition to where normal, recurring capital expenditures are fully funded through rates. During this transition period, available fund balance identified pursuant to the Authority's liquidity and cash reserve policy will be used to supplement rate revenues as a capital funding source. The rates incorporated in the FY18-19 budget include an increase for both water and wastewater service that equates to an additional \$2.82 on an average residential customer's bi-monthly combined water and wastewater bill.

- In 2017, the issue of water quality became the focus of our community when emerging contaminants were discovered in the drinking water and in the Cape Fear River—the largest source of drinking water for our region. Over the past year, Cape Fear Public Utility Authority has taken legal action, continued to monitor and track levels of these compounds, and begun testing new treatment technologies that have the potential to remove them from the drinking water. As of March 31, 2018, the Authority has spent \$1,740,730 related to GenX and other emerging contaminants. These costs include \$320,500 for water and wastewater treatment costs related to water removed from the Authority's contaminated aquifer storage and recovery well. Except for \$185,000 in state grants, all of these costs were funded with rate revenues.

OPERATING BUDGET

The total Fiscal Year 2018-2019 operating budget is approximately \$81.6 million. As a foundation for the FY 18-19 budget process, key goals and assumptions are identified and highlighted below:

- Fiscal Year 2018-2019 budgeted operating expenditures (excluding salaries and benefits, contingency, and debt service appropriations) are based on known costs or projections of likely costs derived from historical data adjusted for current expectations. Budgeted operating expenditures for FY 18-19 are approximately \$1.3 million greater than operating expenditures in the adopted FY 17-18 budget. Approximately \$650,000 of this increase is attributable to forecasted legal, sampling, and other costs directly attributable to GenX.
- Budgeted salaries include 4.25 additional full-time equivalent (FTE) positions including two FTE in Information Technology, one FTE in Water Treatment, one FTE in Operations – Utility Services, and .25 FTE in Environmental Management/Safety. Budgeted salaries also include equity adjustments for various positions, a 1.5% cost-of-living adjustment, and 2.5% merit increases.

BUDGET MESSAGE

- Benefits were budgeted with a composite 4% in health premiums, respectively, effective January 1, 2019 and an increase in the Local Government Employee Retirement System employer contribution rate from 7.5% to 7.75% of covered payroll.
- Unlike prior operating budgets, the FY 18-19 operating budget does not contain a contingency appropriation as authorized by North Carolina General Statutes. In accordance with board-adopted policy, the Authority's unrestricted fund balance is deliberately designed to include sufficient amounts to cover any unanticipated expenditures and/or revenue shortfalls. Consequently, a separate contingency appropriation is not necessary.
- Transfers to the capital projects funds are approximately \$16.7 million, an increase of \$1.8 million from the FY 17-18 adopted budget. The increase in budgeted transfers is a deliberate decision made to transition to where normal, recurring annual capital expenditures are fully funded though rates pursuant to the Authority's debt management policy.
- Debt service requirements (principal and interest on outstanding debt) in FY 18-19 are \$23.2 million.

CAPITAL BUDGET

The total of the 10-Year Capital Improvements Program (CIP) is \$272.2 million. New projects appropriated in FY 18-19 total \$54.9 million with most of the budgeted expenditures programmed to rehabilitate or replace existing infrastructure as part of asset management and addressing aging infrastructure.

The 10-Year CIP plan is reevaluated each year and provides opportunities to revisit the priorities and progress of these criteria. All projects were evaluated by preparing initial business cases. This process reviewed the best information available to identify project alternatives, pros and cons for each alternative, and planning level cost comparisons.

The initial business cases assess current risk and the risk reduction achieved by various project alternatives, in terms of consequence of failure and likelihood of failure. All projects were also prioritized on one or more of the following criteria:

- Compliance with regulatory requirements.
- Efficiency leading to future operating or capital savings.
- Capacity increases necessary for current or future flows.
- Growth in the number of customers served.

Once projects are prioritized, the 10-Year CIP is incorporated into the Authority's long-term financial plan prepared within the constraints established in policy to determine the financial impact on debt and debt service coverage, fund balance, and rates. This process is iterative in which the goal is to optimize system investment while being responsible to our rate payers and ensuring the financial sustainability of the organization.

BUDGET MESSAGE

AWARDS

The Government Finance Officers Association of the United States and Canada (GFOA) presented a Distinguished Budget Presentation Award to the Authority for its annual budget for the fiscal year beginning July 1, 2017. The Authority has received this prestigious award for six years. In order to receive this award, a governmental unit must publish a budget document that meets criteria as a policy document, as an operations guide, as a financial plan and as a communications device. We believe our FY 18-19 budget continues to conform to program requirements, and we are submitting it to GFOA to determine eligibility for another award.

This budget represents the combined efforts, experience, and expertise of the Authority Board, its Committees, and staff. This important work allows Cape Fear Public Utility Authority to meet the short and long-term needs of the customers we serve. A clear and transparent track record of responsibly employing our funding to the betterment of our customers and community has been established, and I am confident we will continue on this path in FY 18-19.

Respectfully submitted,

James R. Flechtner, P.E.
Executive Director

CAPE FEAR PUBLIC UTILITY AUTHORITY PROFILE

Organizational Overview

Cape Fear Public Utility Authority was formed by the City of Wilmington and New Hanover County to combine the water and wastewater operations, and began operations on July 1, 2008. The Authority was established pursuant to the Chapter 162A, Article 1 of the North Carolina General Statutes, known as the North Carolina Water and Sewer Authorities Act. The Authority's service area consists of the City of Wilmington and areas of New Hanover County previously served by the New Hanover County Water and Sewer District (District). It does not include the municipalities of Carolina Beach, Kure Beach, and Wrightsville Beach; although by agreement, wastewater flows from Wrightsville Beach and a portion of Pender County are conveyed to and treated by the Authority. New Hanover County's population is approximately 220,000 in an area encompassing approximately 220 square miles. Of this total, 21 square miles consist of water and wetlands. New Hanover County is the second smallest county in North Carolina by land area and is also the second most densely populated of the 100 counties. The County's beaches provide miles of unspoiled natural beauty and are the area's most popular tourist attractions. The County is the eastern terminus of Interstate Highway 40, a transcontinental route ending in Barstow, California.

An eleven-member board governs the Authority. The City and County appoint five members each, with four of those appointments (two each) coming from their respective governing boards. The eleventh member is jointly appointed. The Authority board is responsible for the adoption of the annual budget, setting water and wastewater rates, making policy decisions, and managing the Executive Director and Legal Counsel.

The Water System

The water system is composed of a surface water system and two groundwater systems. There are 68,612 customer accounts, an increase of 1,260 compared to the previous year. Also, an additional 4,506 locations have services available (vacant lots). The water system has 1,113 miles of distribution lines at June 30, 2017. The Authority also keeps eight wells on standby to supplement the water supply during emergencies or peak demand periods. Metered water consumption for the fiscal year June 30, 2017 increased .21% from the previous year.

The Authority has a needs-based contract to purchase up to 23.0 MGD of raw water from the Lower Cape Fear Water and Sewer Authority (LCFWSA) with a term ending in 2030. Raw surface water is either drawn from the Cape Fear River through the Authority's 10 million gallon per day (MGD) raw water intake at King's Bluff or purchased through a connection with the LCFWSA at U.S. Highway 421. The raw surface water is pumped to the Sweeney Water Treatment Plant (SWTP), which provides potable water to the majority of the Authority's service area. The SWTP has a rated capacity of 35 MGD. Average production during the fiscal year ended June 30, 2016 was 14.35 MGD. The surface water distribution system has been providing water service for more than 100 years and includes 16.0 million gallons of covered finished water storage and 5.6 million gallons of storage in five elevated tanks. The LCFWSA and CFPWA equally share in the 106 MGD (combined) allocation of raw water from the Cape Fear River withdrawn at the Kings Bluff Raw Water Facilities.

In October 2009, the Authority placed a Richardson Nano-Filtration Groundwater Membrane Plant (the Richardson Plant) into operation to serve the northeast section of the distribution system. The source of raw water is from 25 wells drawing from two different aquifers. The plant softens the groundwater and removes organic and inorganic contaminants to produce a blended groundwater that is followed by

CAPE FEAR PUBLIC UTILITY AUTHORITY PROFILE

disinfection, fluoridation, and corrosion control and pH adjustment. The Richardson Plant has a rated capacity of 6.0 MGD. The Richardson Plant had a daily average production during the fiscal year ended June 30, 2017 of 2.475 MGD. The distribution system provides water service to customers and includes 2.8 million gallons of covered ground storage and 2.35 million gallons of elevated storage in five elevated tanks. In addition, the Authority operates one smaller groundwater system, Monterey Heights, providing groundwater directly to customers from four wells and a single 0.5 million gallon elevated storage tank. The groundwater receives disinfection and pH adjustment before being pumped to the distribution system and the storage tank. Average production of the Monterey Heights system during the fiscal year ended June 30, 2017 was 0.652 MGD.

The Wastewater System

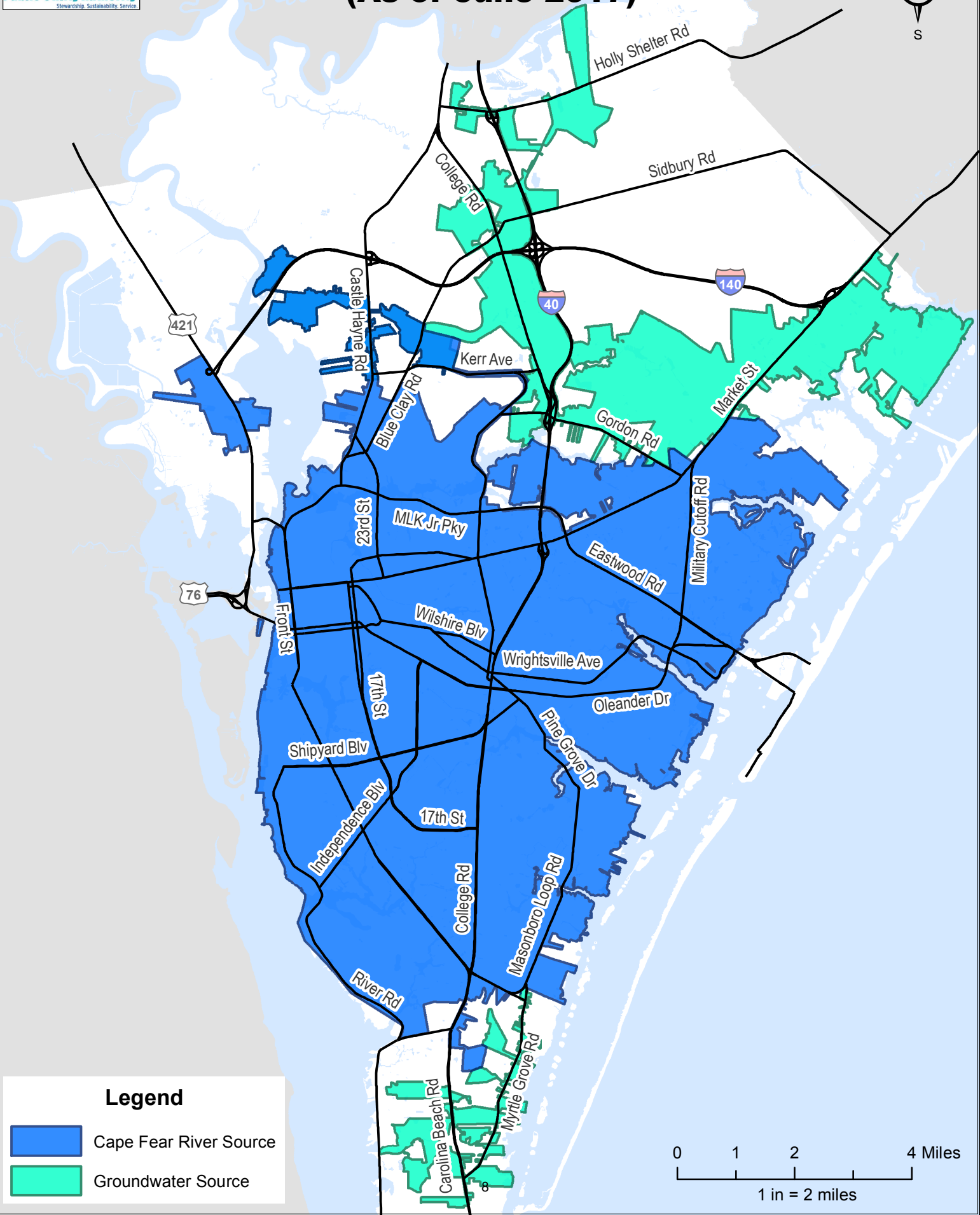
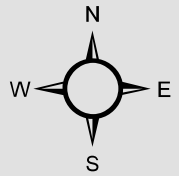
There are 66,384 wastewater accounts, an increase of 654 compared to the previous year. Also, an additional 2,838 locations have services available (vacant lots). The Authority also provides wholesale wastewater treatment services to the Town of Wrightsville Beach and provides wastewater services to a portion of Pender County. The Authority's collection system consists of approximately 850 miles of gravity lines, 21,200 manholes, approximately 140 pump stations and 130 miles of pressurized sewage force main. Wastewater consumption, based on metered water (excluding irrigation) for the fiscal year June 30, 2017 decreased 61% from the previous year.

The Authority currently owns and operates the James A. Loughlin, or Northside Wastewater Treatment Plant (NSWWTP) and the M'Kean Maffitt, or Southside Wastewater Treatment Plant (SSWWTP). The NSWWTP is permitted to treat up to 16.0 MGD. The SSWWTP is permitted to treat up to 12.0 MGD. For the fiscal year ended June 30, 2017, the combined average daily flows were 18.76 MGD of the combined 28.1 MGD permitted, including the Walnut Hills Plant, which ceased operation on June 30, 2017. Flows from the Walnut Hills Treatment Plant have been redirected to the NSWWTP. The NSWWTP and SSWWTP both use physical, chemical and biological processes to clean the wastewater. After the wastewater flows are collected and treated, the treated effluent from the SSWWTP and the NSWWTP is discharged into the Cape Fear River. The Authority also has a hauled waste program receiving septage and other non-hazardous wastes to NSWWTP for processing.

The Authority has a sewer use ordinance that is administered under the pretreatment program. Ordinance revisions were approved by the Board on October 10, 2012, to ensure compliance with state and federal requirements and incorporate federal streamlining revisions. The pretreatment program monitors and regulates significant wastewater dischargers that are either connected to the Authority's wastewater collection system or hauled to the wastewater treatment plants. Currently, seven significant industrial users (SIU) are permitted under the program. SIU permits contain discharge limits for pollutants such as biochemical oxygen demand (BOD), total suspended solids (TSS), chemical oxygen demand (COD), oil and grease, chlorides, ammonia, total kjeldahl nitrogen (TKN), fluoride, certain metals, and organics. All of these SIUs pre-treat wastewater prior to discharging to the Authority. All SIUs submit monthly monitoring reports. Authority staff conducts semi-annual monitoring. Surcharges are applied to waste that contains pollutants in excess of domestic strength waste. A NC Division of Water Quality approved enforcement response plan ensures permit violations are addressed timely and equitably. Additionally, the pretreatment program permits and monitors food service establishments and other dischargers of non-domestic wastewater that could be harmful to the treatment works, employees, bio-solids, public health, and receiving waters.



CFPUA Water Service Areas (As of June 2017)



CAPE FEAR PUBLIC UTILITY AUTHORITY
STRATEGIC PLAN
JULY 2014

MISSION STATEMENT

The Cape Fear Public Utility Authority's mission is to provide high quality water and sewer service in an environmentally responsible manner that protects public health, while maintaining the lowest practicable cost.

STRATEGIC VISION

Cape Fear Public Utility Authority is committed to excellence. The Authority effectively and efficiently manages operations, infrastructure, and investments to protect, restore, and enhance the natural environment; responsibly uses water and other natural resources; promotes economic vitality; supports public safety and health; and engenders overall community improvement and involvement on significant issues. The Authority continuously improves and not only meets but also strives to exceed all regulatory requirements.

GUIDING PRINCIPLES

The Authority is committed to the principles of **Stewardship**, **Sustainability** and **Service**. These principles serve as a guide for ethical decisions, provide a gauge for measuring success, and define our responsibility to the community. They guide our organization in the following way:

Stewardship

- Of the region's natural resources
- Of the financial resources and assets our customers entrust to us

Sustainability

- Of the region through dependable water and wastewater utilities that support public health and economic prosperity
- Of the Authority's ability to meet the community's current and future water and wastewater needs and expectations

Service

- To our customers by providing reliable, cost-effective water and wastewater utilities
- To our community as a thoughtful and participatory corporate citizen

GOALS & STRATEGIES

GOAL 1: The Authority will hold paramount our responsibility to protect the environment, ensure public health and safety, and respond effectively to the needs of our customers.

Strategy 1.A – Optimize the protection and use of water and other natural resources, and recycle where cost effective. Utilize the Environmental Management System to ensure and monitor regulatory compliance. Maintain and enhance the natural environment.

Strategy 1.B – Provide a safe work environment for our staff, contractors, and customers.

Strategy 1.C – Understand, anticipate, and respond to our customers and our community's needs in a professional, prompt, and efficient manner.

Strategy 1.D – Identify partnerships, develop alliances, and encourage public participation with both public and private community stakeholders.

GOAL 2: The Authority will maintain a stable financial position that balances rates, the environment, and the organization's long-term capital and operating needs.

Strategy 2.A– Establish and maintain a responsible balance among the fee schedule, long-term debt, asset values, Capital Improvement Program needs, operating expenses, and revenues.

Strategy 2.B– Operate as a fiscally sound entity that identifies and implements cost-efficiencies, as well as exceeds benchmarks, targets, and measures comparable to similar utilities and consistent with industry standards.

Strategy 2.C – Build, operate, and maintain high quality and cost-effective collection, treatment, and distribution systems and maximize the life expectancy of physical assets.

GOAL 3: The Authority will build, maintain and operate the enterprise, and all of its human and physical assets, in a manner that provides both new and existing customers with consistently high quality services.

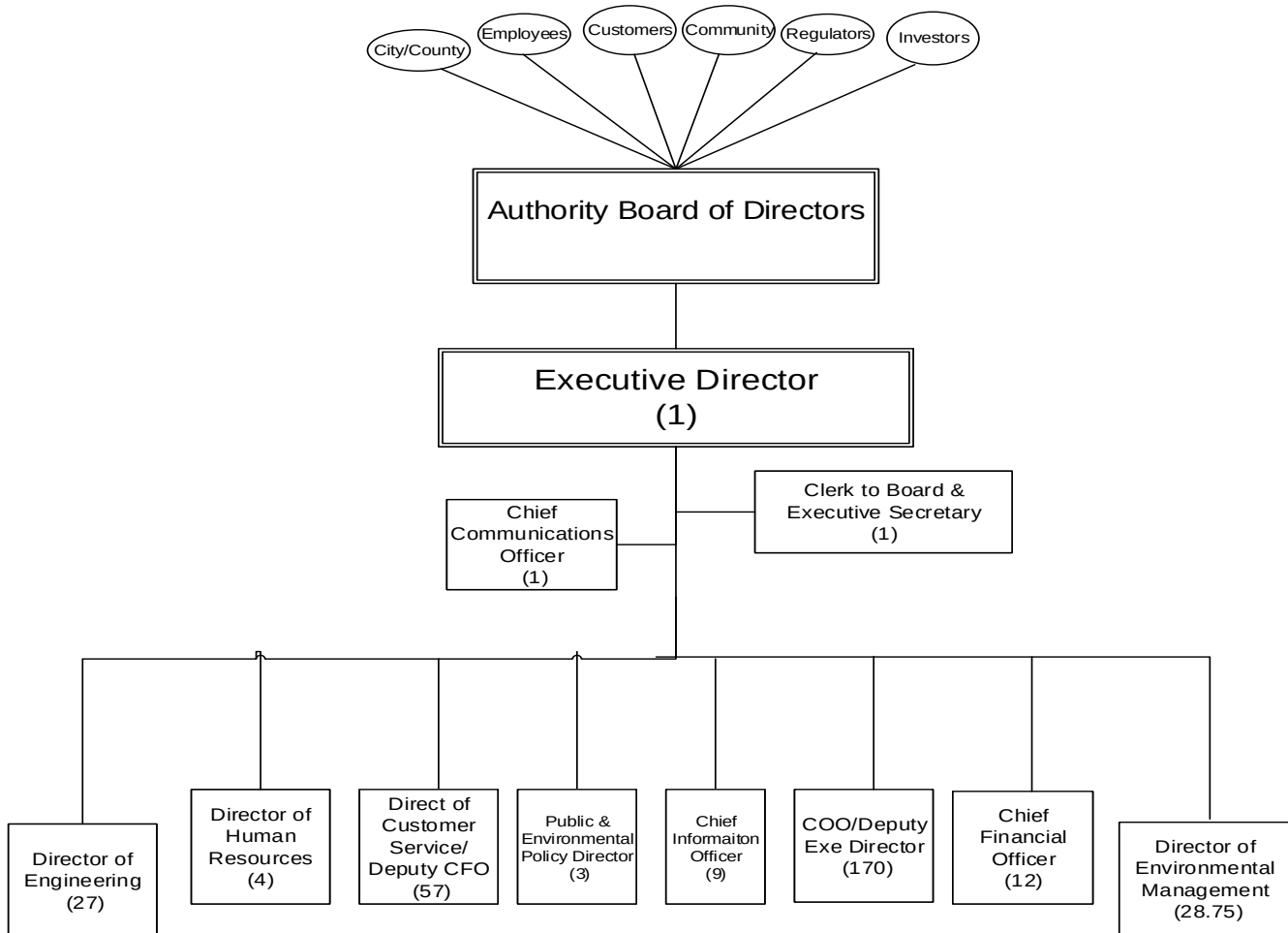
Strategy 3.A – Establish criteria to prioritize the systematic extension of wastewater collection systems to areas with failing septic systems and water distribution systems to areas with poor quality well water in an equitable manner to maximize public health and economic development.

Strategy 3.B – Establish a creative and forward thinking organizational culture that rewards integrity and innovation, and brings about efficiencies.

Strategy 3.C – Acquire and implement technologies and tools that allow for improved inter-departmental communication, enterprise-wide sharing of information, and operational efficiencies.

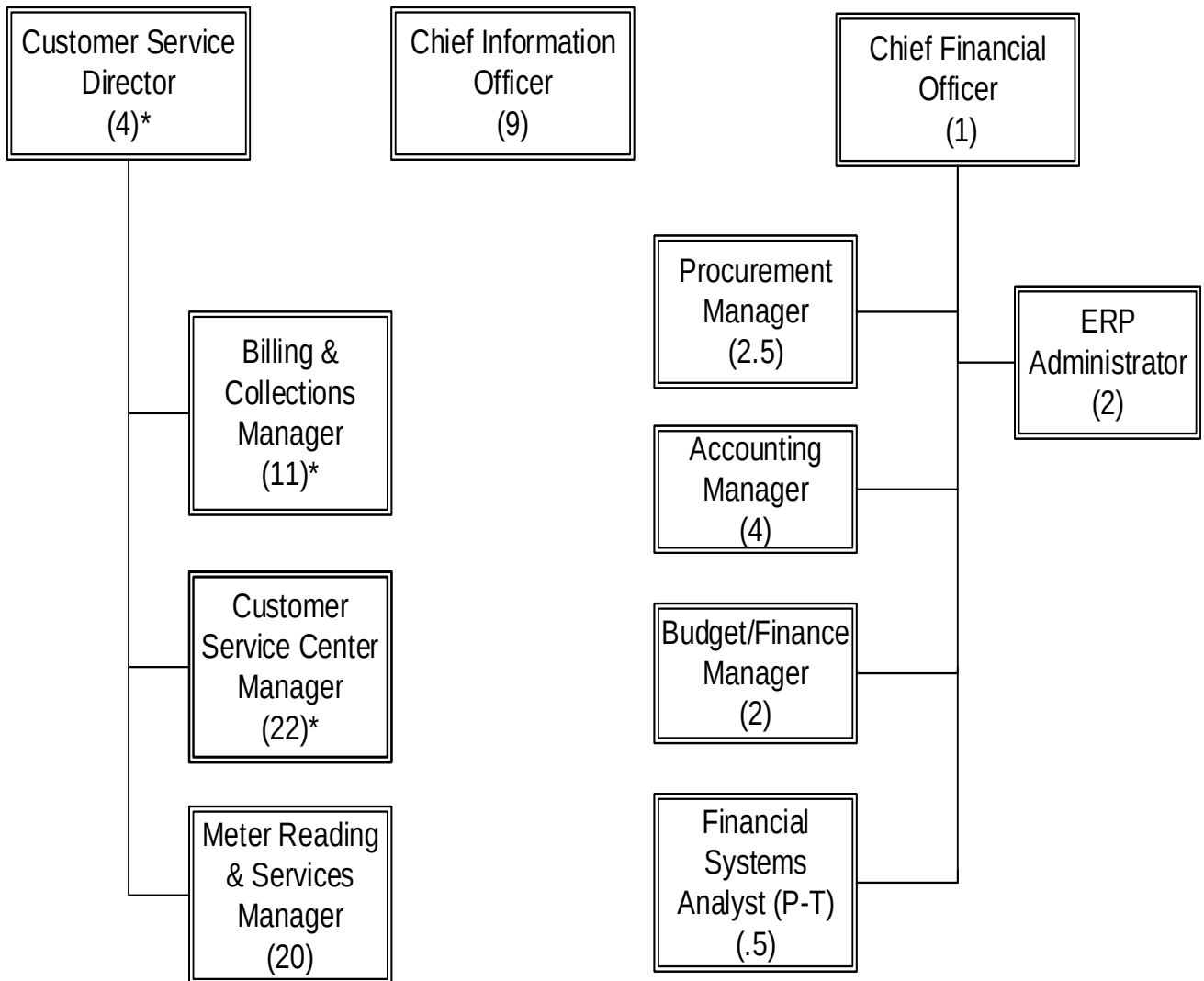
Strategy 3.D – Recruit and retain a well-qualified and motivated workforce. Provide opportunities for individual growth, and with that, organizational improvement.

ADMINISTRATION DIRECT REPORTS





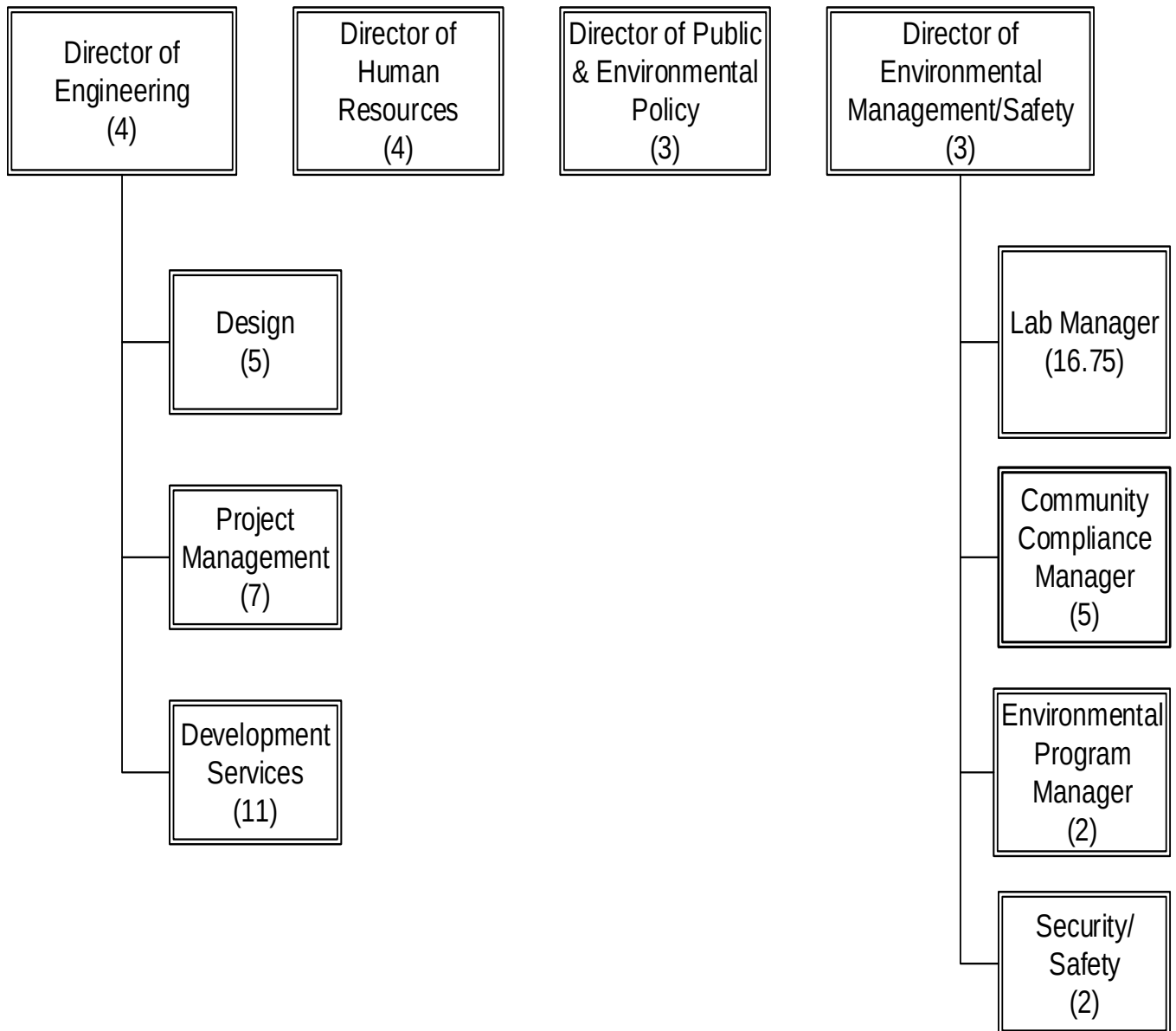
FINANCE, ERP,
CUSTOMER SERVICE
DIRECT REPORTS



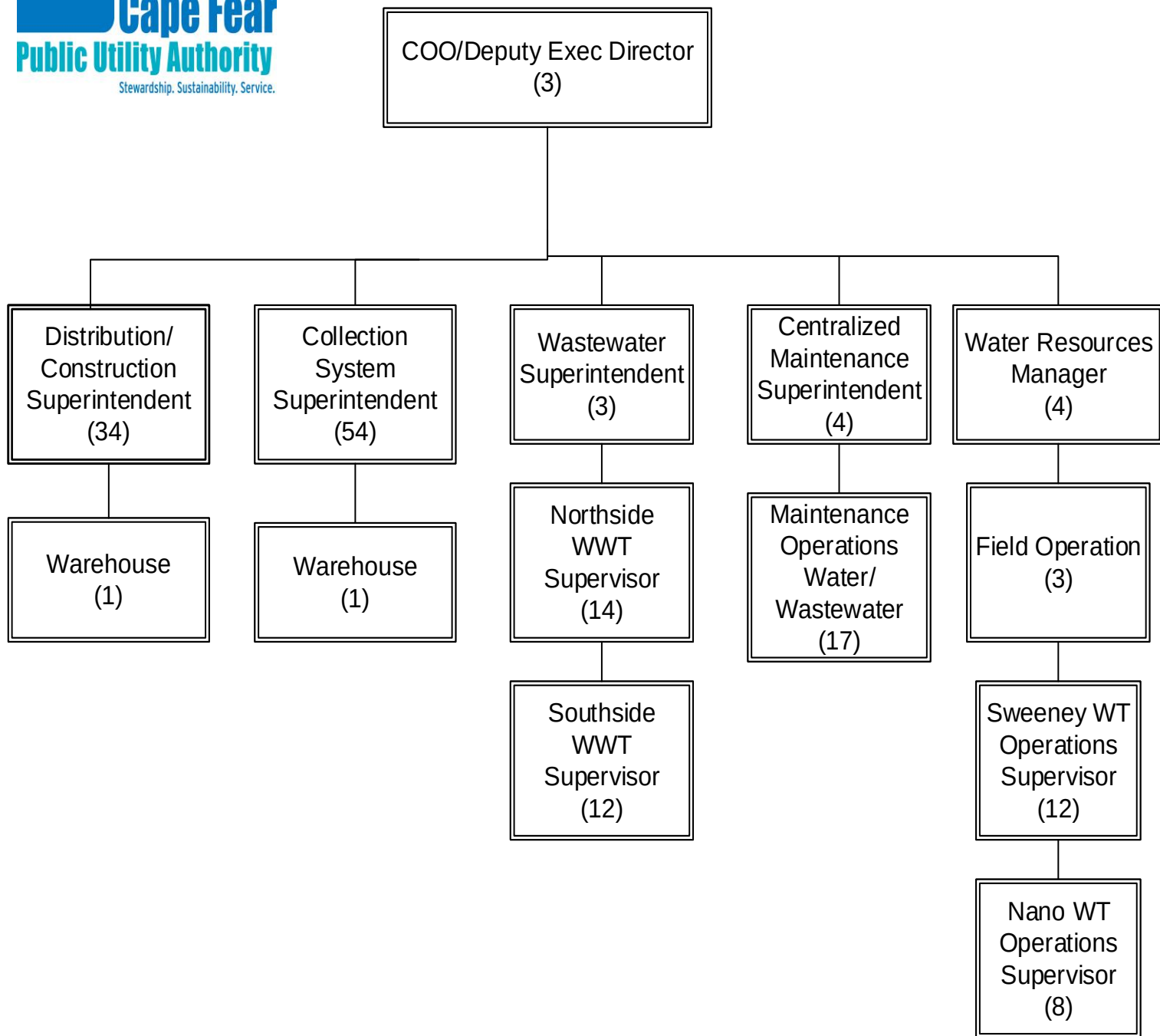
*Includes 3 Back Fill
positions for ERP



ENGINEERING, HUMAN RESOURCES,
ENVIRONMENTAL MANAGEMENT,
PUBLIC POLICY
DIRECT REPORTS



OPERATIONS
DIRECT REPORTS



FINANCIAL STRUCTURE

Fund Description, Fund Structure and Basis of Accounting

The Authority uses fund accounting to account for its financial resources and report the results of its operations. In fund accounting, accounts are organized on the basis of funds, each of which is considered an independent fiscal entity with a separate set of self-balancing accounts consisting of assets, liabilities, fund balance, revenues and expenditures. The establishment of discrete funds helps to ensure that public monies are only spent for approved purposes as established by budget ordinances and other actions of the Board, laws and regulations, contracts and other agreements.

For budgetary accounting and reporting, the Authority uses two funds: the Operating Fund and the Capital Projects Fund. Though not required, two funds are maintained mainly because of differences in how budgets are adopted and controlled. The annual budget is adopted as required by NC General Statute 159-8 for the Operating Fund. The annual budget ordinance establishes appropriations and estimated revenues for a single fiscal year. Expenditures in the Operating Fund include salaries and benefits for the Authority's employees, system maintenance, and other administrative costs. Revenues to fund these costs include charges for water and wastewater service, system development charges, investment earnings, and other miscellaneous revenues.

On the other hand, budgets related to the activity accounted for in the Capital Projects Fund are established by the adoption of capital project ordinances in accordance with NC General Statute 159-13.2. Capital project ordinances provide for budgeted expenditures and funding sources for those expenditures over the life of capital projects, rather than for a single fiscal year. The Capital Projects Fund accounts for system-wide, water, and wastewater capital projects that are appropriated in the capital budget. Funding sources include transfers from the Operating Fund, proceeds from the issuance of debt obligations, grant revenues, and contributions from third parties through cost-sharing agreements.

For financial reporting in accordance with generally accepted accounting principles, the Authority is considered a special-purpose government engaged exclusively in business-type activities. This means that the Authority reports both its operating and capital activities together in the basic financial statements on the full-accrual basis of accounting similar to a private business.

The Authority uses the modified accrual basis of accounting for budgetary purposes as required by NC General Statute 159-26(c). The modified accrual basis of accounting takes a short-term perspective and is intended to provide information to help the public determine whether a government was able to meet its financial obligations in the current year with available financial resources. For financial reporting in accordance with generally accepted accounting principles, the Authority uses the accrual basis of accounting. The accrual basis of accounting takes a longer-term perspective and doesn't just account for a government's current year obligations and financial resources, but accounts for all economic resources and liabilities. For example, capital costs for water and wastewater infrastructure under the accrual basis of accounting are capitalized as assets and expensed over the estimated useful life because these costs represent economic resources that have a future service capacity. However, under the modified accrual basis of accounting, these costs are not capitalized as assets since newly constructed infrastructure isn't a financial resource that's available to fund short-term liabilities. Rather, these costs are expensed when paid.

BUDGET PROCESS

This section outlines the process and procedures that guide the preparation and management of the Authority's annual budget. The Authority follows guidelines established in board-adopted policies.

Preparation of the annual budget begins approximately eight months prior to the start of each fiscal year with the development of the budget calendar. The budget calendar provides the projected dates and items that must be completed to meet the mandatory budget adoption as required by NC General Statute 159-8. The calendar is updated and revised as the budget process progresses and is a primary communication tool of the budget process. The Authority's budget calendar must adhere to the following requirements detailed in NC General Statute 159-8.

Before

April 30 Each department head shall transmit to the budget officer the budget requests and revenue estimates for their department for the budget year.

No Later Than

June 1 The budget together with the budget message shall be submitted to the governing board. The public hearing on the budget should be scheduled at this time.

No Later Than

July 1 The governing board shall adopt a budget ordinance.

The Finance Department holds a Budget Kick-off Meeting to communicate the instructions for the annual budget process, to help ensure the budget is prepared in a manner consistent with Authority policies, and review items that may be new for the budget year. The departments are provided with budget instructions, forms and training material needed to prepare budget requests for the upcoming budget year.

Other highlights of the Authority's Finance and Accounting Policies Budget Policy include:

- The Authority operates under an annual budget with a fiscal year period of July 1 through June 30.
- The Authority operates under an annual balanced budget ordinance in which the sum of estimated net revenues and appropriated fund balances are equal to the authorized expenditures.
- The budget shall include only estimated revenues reasonably expected to be realized in the budget year.
- Legally available fund balance (Appropriated Fund Balance) can be used in balancing the annual budget when sufficient funds are available.
- Except as restricted by law, the Authority Board may amend the budget ordinance, according to board-adopted policies, at any time after the ordinance's adoption, so long as the ordinance continues to satisfy the requirements of North Carolina General Statutes 159-8 and 159-13.

The following procedures are used to amend the budget as provided policy:

BUDGET PROCESS

- Transfers of budget authority among expenditure line items within the same department require Department Head, or designee, approval.
- Transfers of budget authority among appropriation lines in the Budget Ordinances require approval of the Chief Financial Officer and must be reported to the Board at the meeting subsequent to such transfer. These transfers must be recorded in the meeting minutes.
- Changes to the appropriation levels provided for in the Budget Ordinances may only be made by the Board through an adopted budget ordinance.

BUDGET CALENDAR

Day/Date/Time	Event	Group
September 2017 – December 2017	Multi Departmental CIP Team Develops Draft FY19 CIP and Ten-Year CIP	Multi Departmental CIP Team
Wednesday, January 3, 2018 2:00 pm IT Conference Room	Regular Finance Committee Meeting - Budget Calendar	Finance Committee
Wednesday, January 10, 2018 9:00 am NHC-Harrell Room	Regular Board Meeting - Budget Calendar	Authority Board
Thursday, January 18, 2018 1:00 - 2:00 pm IT Conference Room	Budget Kickoff Meeting	CFPUA Staff
Thursday, January 18, 2018 2:00 - 3:00 pm IT Conference Room	Budget Training Sessions as Needed - Budget Forms Available to Departments	CFPUA Staff
Thursday, January 25, 2018	FY19 CIP Draft Budget to LRPC	Engineering/LRPC
Thursday, February 1, 2018	Publish System Development Charge on CFPUA website for Public Comment	
Wednesday, February 7, 2018 9:00 am IT Conference Room	Regular Finance Committee Meeting	Finance Committee
Wednesday, February 14, 2018 Following Regular Board Meeting	Regular Board Meeting - FY19 CIP Board Workshop	Engineering/Authority Board
Friday, February 9, 2018	Employee Group and Business Insurance Estimates Due	Human Resources/Finance
Friday, February 16, 2018	New Position Requests due to HR	CFPUA Staff
Monday, February 19, 2018	Departmental Budgets Submitted to Finance by 5:00 pm Fee Schedule Review Submitted to Finance by 5:00 pm	CFPUA Staff CFPUA Staff
Wednesday, February 28, 2018	Performance Evaluations Due to HR	Human Resources
Thursday, March 1, 2018	Departmental Budget Reviews	ED/Finance
Wednesday, March 7, 2018 9:00 am IT Conference Room	Regular Finance Committee Meeting	Finance Committee
Wednesday, March 14, 2018 9:00 am NHC-Harrell Room	Regular Board Meeting	Authority Board
Monday, March 19, 2018	End of Public Comment Period for the System Development Charge	
Thursday, March 22, 2018	FY19 CIP Approval by LRPC	Engineering/LRPC
Wednesday, April 4, 2018 9:00 am IT Conference Room	Regular Finance Committee Meeting - Preliminary Rate Review - Preliminary Budget Review - Review SDC Calculation	Finance Committee
Wednesday, April 11, 2018 9:00 am NHC-Harrell Room	Regular Board Meeting/Public Hearing - Preliminary Rate Review - Public Hearing on SDC Calculation and Adoption of SDCs (if no revisions are needed) - Preliminary Budget Review - FY19 CIP Recommended for Approval	Authority Board
Wednesday, April 18, 2018 9:00 am IT Conference Room	Bi-monthly Finance Committee Meeting (OPTIONAL) - Preliminary Rate Review Continued - Preliminary Budget Review Continued	Finance Committee
Friday, April 20, 2018	Recommended Budget Completed	CFPUA Staff

BUDGET CALENDAR

Day/Date/Time	Event	Group
Wednesday, May 2, 2018 9:00 am IT Conference Room	Regular Finance Committee Meeting - Recommended Budget Submitted - Review Revised System Development Charge (if necessary)	Finance Committee
Wednesday, May 9, 2018 9:00 am NHC-Harrell Room	Regular Board Meeting - Recommended Budget Submitted - Review and Approve Revised System Development Charge (if necessary)	Authority Board
Wednesday, May 9, 2018 IT Conference Room (following Regular Board meeting)	Budget Workshop (including rates) - OPTIONAL	Authority Board
Wednesday, June 6, 2018 9:00 am IT Conference Room	Regular Finance Committee Meeting - Recommendation of Budget Adoption Submitted (including rates)	Finance Committee
Wednesday, June 13, 2018 9:00 am NHC-Harrell Room	Regular Board Meeting/Public Hearing - Budget Adoption (including rates)	Authority Board

FINANCIAL POLICIES

Policies that affect the Authority's long-term financial sustainability are adopted by the Board. These policies are periodically reviewed. These policies are summarized below.

Adopted Budget

- The Adopted Budget and Budget Ordinance for the Authority is the basis for the financial plan for the fiscal year. The budget is prepared and presented in conformity with the North Carolina Local Government Budget and Fiscal Control Act under NC General Statute 159-8. The Authority operates under an annual balanced budget ordinance in which the sum of estimated net revenues and appropriated fund balances are equal to the authorized expenditures. Refer to the Budget Process for detailed information on the adopted budget.
- Operating appropriations lapse at the end of each fiscal year and are controlled at the department and expenditure category level. Capital appropriations do not lapse at the end of each fiscal year and are controlled at the project level.

Debt Management

- The Authority issues debt under the guidance of the Local Government Commission, a division of the State of North Carolina. Debt is issued in accordance with North Carolina General Statutes 162A.
- The Authority generally limits debt issuance to only those projects that are high-dollar, emergency-related, or growth oriented.
- Debt may not be issued if such issuance would cause the ratio of outstanding debt to the value of capital assets to exceed 45%, consistent with target debt coverage and expected long-term borrowing costs.

Unrestricted Fund Balance and One-time Revenues

- The Authority periodically evaluates the targeted level of unrestricted fund balance that is needed to maintain sufficient liquidity for working capital needs and to provide for a reserve for unanticipated expenditures and/or revenue shortfalls that is tailored to the specific business risks relevant to the Authority's operations. The Authority's current unrestricted fund balance target is \$50 million.
- The Authority is precluded from using "one-time" revenues, including operating surpluses generated in prior years, to fund recurring expenditures. After the end of each fiscal year, operating surpluses are identified and designated through Board action for the early retirement of debt, the accumulation of capital reserves, the payment of post-retirement healthcare benefits, or to remain as unrestricted fund balance available to fund future non-recurring expenditures.

Revenues

FINANCIAL POLICIES

The Authority sets rates and charges in accordance with North Carolina General Statute 162A-9. Water and wastewater rates consist of fixed and volumetric charges. Fixed charges are based on the greater of the debt service for the year or 35% of the operating budget. Volumetric charges are established to fund all operating costs less the estimated fixed charges, system development charges, and other revenues.

Investments

- The Authority is empowered to invest in types of securities in accordance with North Carolina General Statute 159-30 (c).
- The Authority prepares detailed cash flow forecasts to maximize the amount and maturity of investments to optimize investment returns.
- The State Treasurer of North Carolina enforces strict standards of financial stability for each depository that collateralizes public deposits under the pooling method. The State Treasurer enforces standards of minimum capitalization for all pooling method financial institutions. The Authority relies on the State Treasurer to monitor those financial institutions. The Authority analyzes the financial soundness of any other financial institution used by the Authority. The Authority complies with the provisions of G.S. 159-31 when designating official depositories and verifying that deposits are properly collateralized.
- The investment portfolio shall be properly diversified in order to minimize risks brought on by economic and market changes. To achieve this diversification:
 - No more than 25% of the Authority's total investment portfolio shall be invested in a single security type.
 - The Authority will not invest in securities maturing more than five years from date of purchase and the weighted average maturity of the portfolio shall never exceed one year.

Long-term Financial Planning

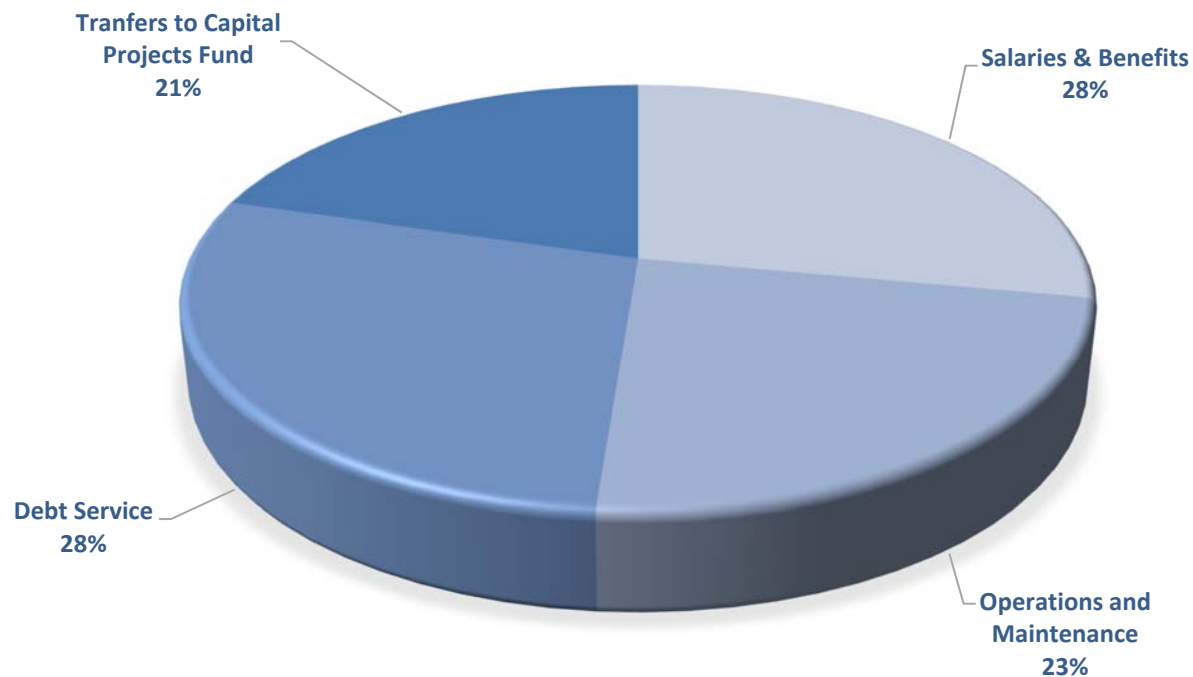
In order to plan and demonstrate the Authority's long-term operational and financial sustainability, the Authority is required to annually prepare a long-term financial plan which incorporates long-term capital expenditure plans and projected operating costs constrained by the Authority's debt and revenue policies. The long-term financial plan is an iterative, multi-departmental process that seeks to balance efficient and effective service delivery, sufficient capital investment, the Authority's financial health, and rate affordability.

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EXPENDITURE SUMMARY

The Authority's operating budget covers the cost to operate the system each year including water and wastewater treatment, water distribution, wastewater collection, system maintenance, environmental management, engineering, customer service, and administration. Appropriations in the operating budget are made on an annual basis meaning that budget authority lapses at the end of each fiscal year. This contrasts with the capital budget in which specific project appropriations continue through the life of the project, which may span multiple budget years. The information below summarizes the major expenditure categories and some of the key factors and assumptions driving the FY18-19 operating budget.

Fiscal Year 2018-2019 Expenditures by Type

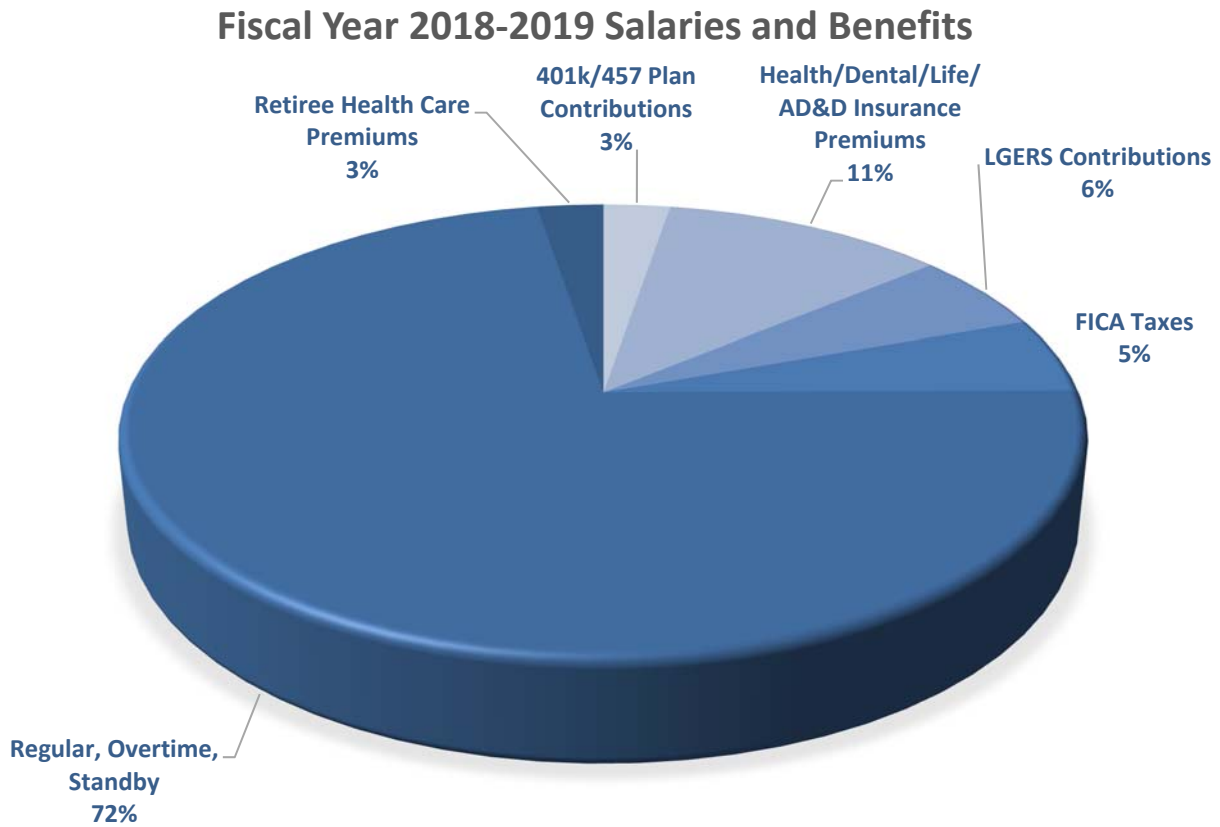


Salaries and Benefits

Approximately 28% of the Authority's operating budget is comprised of salaries and benefits costs related to the Authority's employees and retirees. The FY 18-19 budget includes appropriations to fund salaries and benefits for 313.75 full-time equivalent positions, which is 7.25 more full-time equivalent positions than were appropriated in the FY 17-18 adopted budget. Salaries are budgeted with equity increases for various positions, a 1.5% market cost-of-living adjustment, and 2.5% merit increases. Appropriations for benefits incorporate a composite 4% increase in North Carolina state health plan premiums (effective January 1, 2019) and an increase in employer contributions to the North Carolina Local Government

EXPENDITURE SUMMARY

Employees Retirement System from 7.50% to 7.75% (effective July 1, 2017). The following chart details the composition of budgeted salaries and benefits costs for FY 18-19.

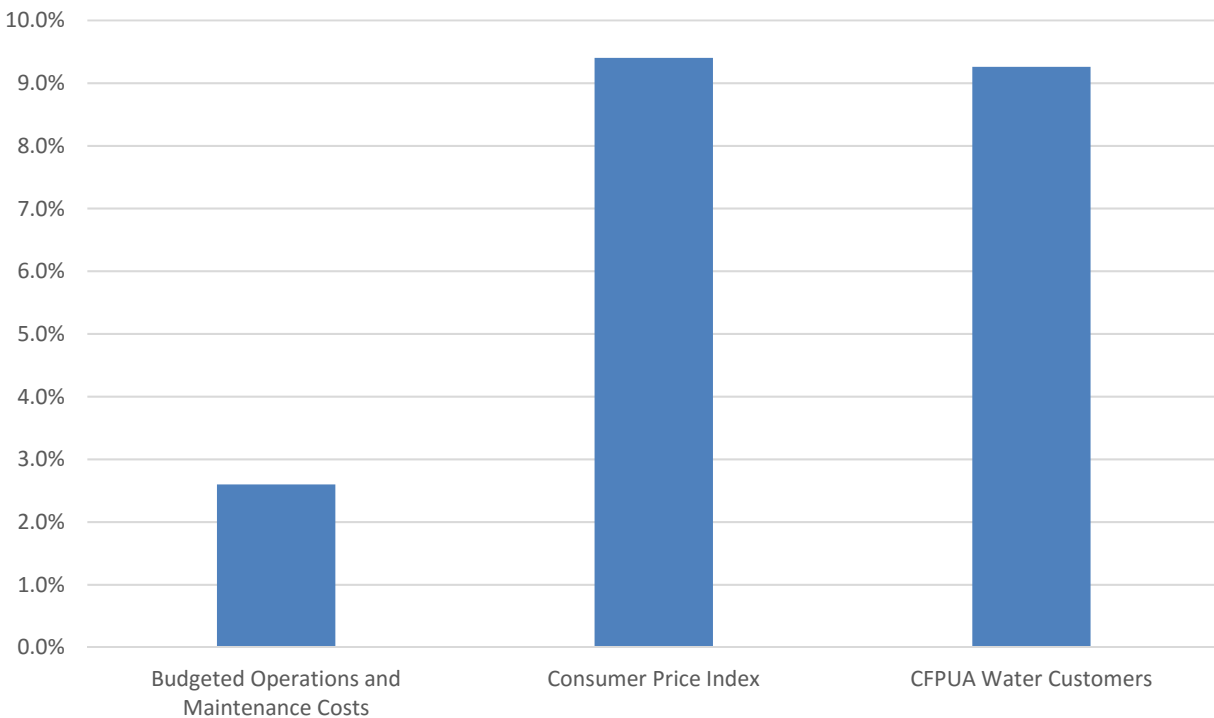


Operations and Maintenance

These costs include all direct, non-capital costs to operate the water and wastewater systems including water and wastewater treatment, water distribution, wastewater collection, engineering, customer service, environmental management and testing, and administrative costs. The FY 18-19 budget continues the Authority's commitment to delivering the highest quality services at the lowest practical cost. The graph below demonstrates the growth in operating and maintenance costs prior to the creation of the Authority compared to percentage changes in customers and the consumer price index over the same time span.

EXPENDITURE SUMMARY

Growth in Operations & Maintenance Costs Compared to Growth in Customers and Consumer Price Index Since Inception



Source: Bureau of Labor Statistics for Consumer Price Index Data

Debt Service

The Authority is empowered to issue revenue bonds to fund its capital program. Pursuant to the interlocal agreement transferring the City of Wilmington's and New Hanover County's water and wastewater system to the Authority, the Authority assumed responsibility for the related debt. All the debt transferred from the City has been retired, while the 2012 Limited Obligation Bonds assumed from the County remain outstanding.

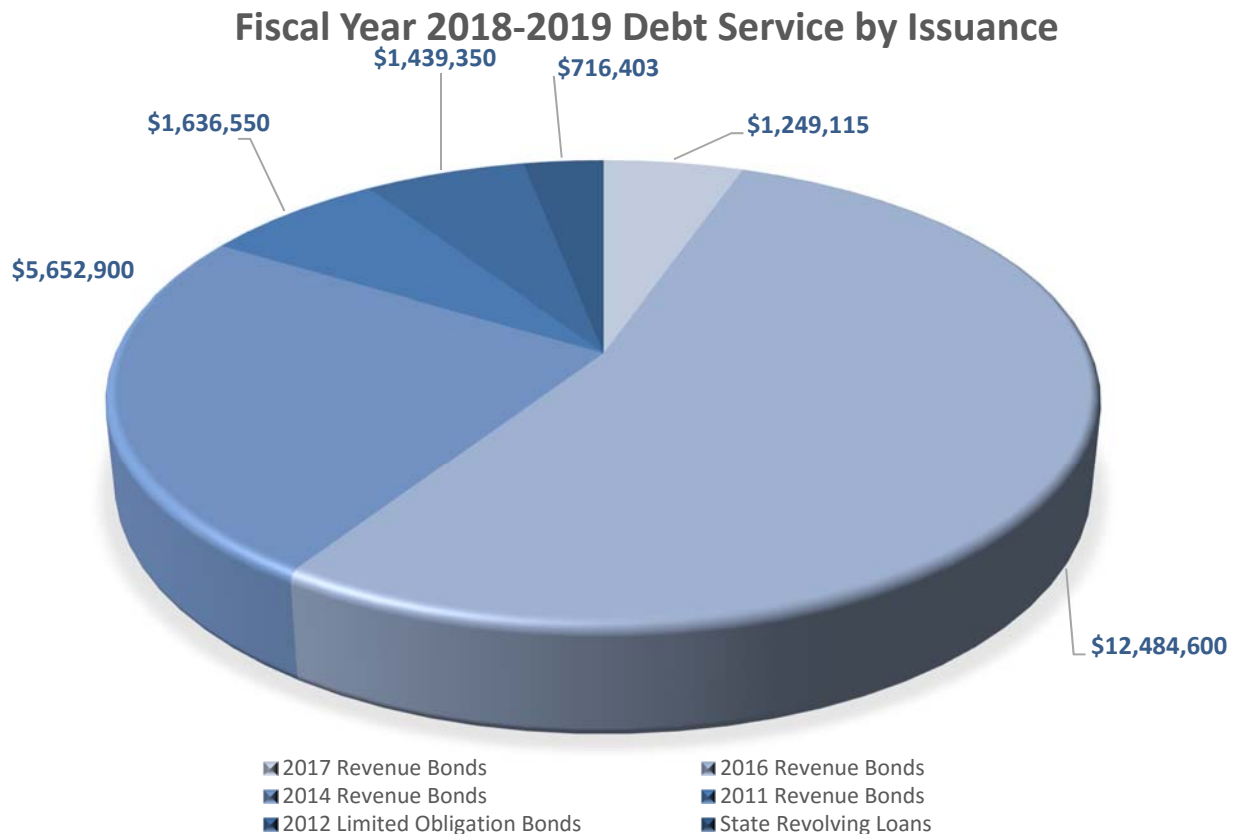
The Authority is required to structure its rates to maintain coverage at 1.2 times the annual debt service requirement; however, the Authority's policy is to maintain coverage of at least 1.6 times the annual debt service requirement. In addition, in accordance with policy, the Authority does not issue debt if the issuance of such debt would cause the Authority's debt balance to exceed 45% of the Authority's capital asset balance. The Authority does not plan to issue debt in FY 18-19 and is projecting to achieve a coverage ratio of 1.69 times the FY 18-19 debt service requirement and maintain outstanding debt balances at 36.1% of capital assets. The Authority maintains credit ratings of AA+ and Aa2 from Standard & Poor's and Moody's, respectively. Both ratings are one level below the highest possible ratings.

EXPENDITURE SUMMARY

The following chart details the debt service requirements to maturity related to the Authority's outstanding debt:

Issue Name	Principal	Interest	Total	Coupon	Maturity
2017 Revenue Bonds	\$ 32,890,000	\$ 11,848,283	\$ 44,738,283	3.03%	2037
2016 Revenue Bonds	141,590,000	55,516,388	\$ 197,106,388	1.75% - 5.00%	2035
2014 Revenue Bonds	55,500,000	24,732,125	\$ 80,232,125	.20% - 5.00%	2040
2011 Revenue Bonds	5,335,000	504,575	\$ 5,839,575	4.00% - 5.00%	2021
2012 Limited Obligation Bonds	9,795,000	2,228,125	\$ 12,023,125	2.50% - 4.34%	2028
State Revolving Loans	18,720,142	2,833,320	\$ 21,553,462	2.00% - 2.46%	2039
Total	\$ 263,830,142	\$ 97,662,816	\$ 361,492,958		

The debt service appropriation for the FY 18-19 budget of \$23.2 million includes amounts to pay principal and interest on the Authority's outstanding debt obligations. FY 18-19 principal payments total \$12.7 million and interest payments total \$10.5 million. The following graph details the composition of FY 18-19 budgeted debt service by issuance.



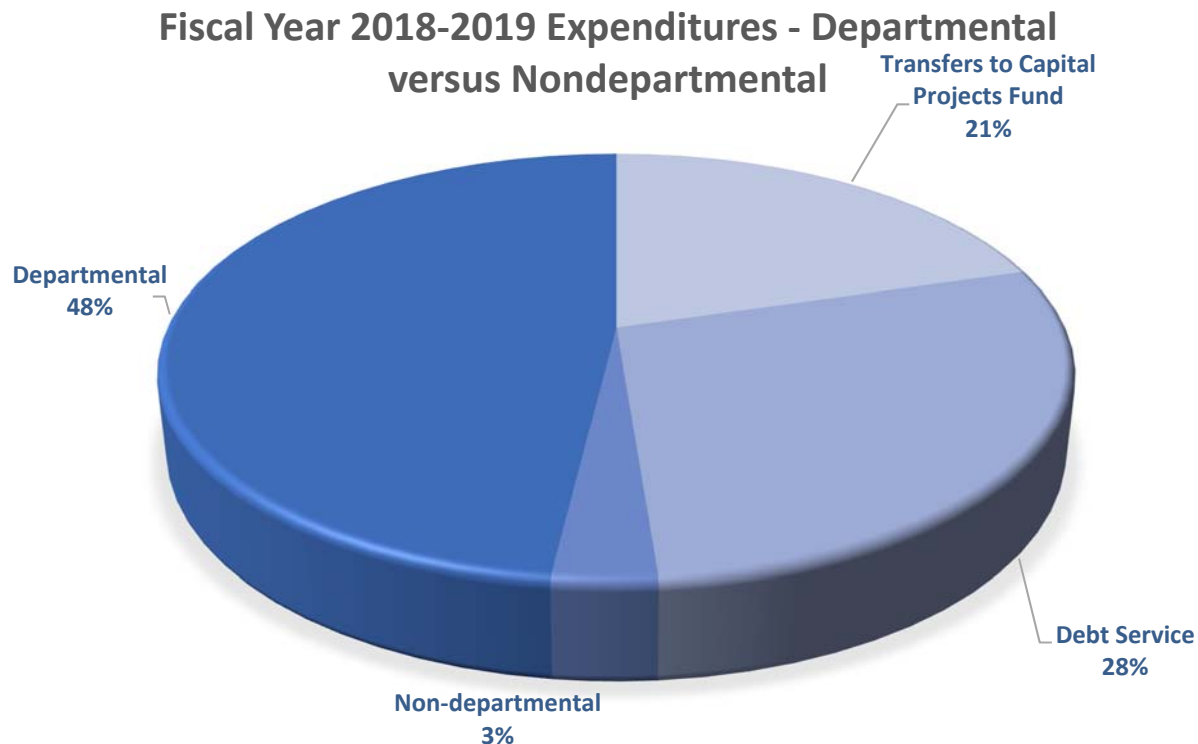
EXPENDITURE SUMMARY

Transfers to Capital Projects Fund

In addition to proceeds from the issuance of debt, transfers of current year revenues to the capital projects fund is the other major source of funding for the Authority's capital program. With the adoption of the Authority's debt management policy, these transfers will gradually increase over the coming years until the Authority's average, recurring capital expenditures are fully funded from transfers. The appropriation in FY18-19 of \$16.7 million, a 12.0% increase over the transfers appropriated in FY 17-18, reflects the implementation of this policy.

DEPARTMENTAL SUMMARIES

As the chart below shows, 48% of the FY 18-19 budget is controlled by the Authority's various departments including salaries and benefits and operational costs to execute the Strategic Plan. The remaining 52% are not controlled by individual departments and include transfers to the capital projects fund, debt service, and various overhead expenditures that aren't attributable to a specific departmental such as expenditures for rent and insurance.



The following chart details the Authority's staffing trends over the upcoming budget year and the previous two years. The FY 18-19 budget authorizes a total of 313.75 full-time equivalent (FTE) positions, an increase of 7.25 FTEs from the FY 17-18 adopted budget. Three of these additional FTEs were added during FY 17-18 and include the addition of 3 customer service representatives to handle additional call volumes and to achieve targeted performance related to call hold and resolution times. The other 4.25 FTEs authorized as part of the FY 18-19 budget include 2 FTEs in Information Technology to provide increased customer service to Authority's various departments related to helpdesk and application/server maintenance; 1 FTE in Utility Services to optimize staffing levels for water and sewer main repairs; 1 FTE in Water Treatment to enhance and maintain the Authority's emergency well sites; and .25 FTE in Environmental Management for laboratory technician services. In addition, the Public & Environmental Policy department was created mid-year FY 17-18. All 3 FTEs in this department were transferred from the Administration, Utility Services, and Environmental Management departments.

DEPARTMENTAL SUMMARIES

	<u>FY17</u>	<u>FY18</u>	<u>FY19</u>
Administration	4.0	4.0	3.0
Finance	12.0	12.0	12.0
Public & Environmental Policy	-	-	3.0
Human Resources	5.0	4.0	4.0
Information Technology	6.0	7.0	9.0
Engineering	27.0	27.0	27.0
Operations - Administration	7.0	3.0	3.0
Operations - Centralized Maintenance	17.0	21.0	21.0
Operations - Utility Services	90.0	90.0	90.0
Operations - Wastewater Treatment	28.0	29.0	29.0
Operations - Water Treatment	25.0	26.0	27.0
Environmental Management/Safety	28.5	29.5	28.75
Customer Service/Meters	54.0	54.0	57.0
Total	303.5	306.5	313.75

Note: Three FTE were added mid-year FY 17-18 in Customer Service.

AUTHORITY BOARD

Board Chair, Michael C. Brown, III

The Cape Fear Public Utility Authority Board consists of eleven members. The City of Wilmington and New Hanover County appoint five members each; two of those appointments come from their respective governing boards. The eleventh member is jointly appointed. The Board is responsible for, among other things, adopting the annual budget, setting water and sewer rates, making policy decisions, managing the Executive Director, and contracting with the Authority's Legal Counsel.

The Authority Board budget for FY 18-19 is \$64,710, or .08% of the total FY 18-19 operating budget. Of the total departmental budget, \$38,759 (or 60.0%) is budgeted to pay monthly stipends for the Board's 11 members. The remaining \$25,951 (or 40.0%) is budgeted for various expenditures including costs to broadcast Board meetings, advertise public hearings, and cell phone and tablet stipends.

ADMINISTRATION

Executive Director, James R. Flechtner, P.E.

The Administration Department consists of the Executive Director, the Chief Communications Officer, and the Clerk to the Board. The Executive Director serves at the pleasure of the Board and is responsible for executing the Board's strategic vision, policies, and objectives. The Chief Communications Officer is

DEPARTMENTAL SUMMARIES

responsible for keeping customers and other key stakeholders, including the news media, informed about CFPUA's activities and issues affecting customers and the region. They also support departments with outreach to customers affected by scheduled construction projects or by providing emergency response assistance.

The Administration Department budget for FY 18-19 is \$1,156,590, or 1.41% of the total FY 18-19 operating budget. Of the total departmental budget, \$432,163 (or 37.4%) is budgeted to pay salaries and benefits for the department's 3 full-time equivalent positions. The remaining \$724,427 (or 62.6%) is budgeted for various expenditures including \$622,000 for legal costs including those related to GenX litigation.

DEPARTMENTAL OBJECTIVES AND PERFORMANCE METRICS					
Domain	Departmental Objective	Strategic Goal	Performance Metric	Targeted Performance	Current/Prior Year Performance
Communications	Maintain an effective, user-friendly website	1.C	“Bounce rate” - Percentage of website visitors who enter the site and then leave rather than continue to view other pages within the same site	55%	Current Year: Not previously tracked
					Prior Year: Not previously tracked
	Strategies/Initiatives to Achieve Targeted Performance: Solicit and incorporate input from internal and external website users to optimize accessibility and user experience				
	Position the organization as a partner with the community through outreach and engagement	1.C, 1.D	Number of Notify Me! subscriptions as percentage of customer accounts	10%	Current Year: Not previously tracked
					Prior Year: Not previously tracked
			Click rates for internal communications	25%	Current Year: Not previously tracked
					Prior Year: Not previously tracked
			12-month rolling media sentiment ratio	1:1	Current Year: .12:1
				Prior Year: Not previously tracked	

DEPARTMENTAL SUMMARIES

DEPARTMENTAL OBJECTIVES AND PERFORMANCE METRICS					
Domain	Departmental Objective	Strategic Goal	Performance Metric	Targeted Performance	Current/Prior Year Performance
	Strategies/Initiatives to Achieve Targeted Performance: - Increase opportunities for customers subscribe to Notify Me! (e.g. when customers sign up new service, at the bottom of each news flash post, etc.) - Continue building relationships with media outlets to publicize organizational and community successes				
	Complete public information requests in a timely manner	1.C	Average number of weeks to complete public information requests	4	Current Year: Not previously tracked
					Prior Year: Not previously tracked
	Strategies/Initiatives to Achieve Targeted Performance: - Develop policies and procedures for receiving and completing public records requests - Train staff on these policies				

FINANCE

Chief Financial Officer, John McLean, CPA

The Finance Department is responsible for the following:

- developing and recommending financial policies that facilitate the fiscal sustainability of the organization and developing and executing budgets and financial plans in accordance with these policies including rate development, debt issuance, and the investment of public funds;
- supporting organization-wide operations through the timely, accurate payment of vendors, employees, and other parties; managing the procurement of goods and services; budget management; and enterprise resource planning system support;
- communicating financial information to stakeholders including customers, the Board, credit rating agencies, the development community, and governmental partners.

The Finance Department budget for FY 18-19 is \$1,223,692, or 1.50% of the total FY 18-19 operating budget. Of the total departmental budget, \$1,071,960 (or 87.6%) is budgeted to pay salaries and benefits for the department's 12 full-time equivalent positions. The remaining \$151,732 (or 12.4%) is budgeted for various expenditures including the cost of the annual financial audit, financial advisors/consultants, and professional development.

DEPARTMENTAL SUMMARIES

DEPARTMENTAL OBJECTIVES AND PERFORMANCE METRICS					
Domain	Departmental Objective	Strategic Goal	Performance Metric	Targeted Performance	Current/Prior Year Performance
Accounts Payable	Optimize the timing of vendor payments to delay cash outflows while avoiding business interruption due to late payment	3.C	3-month rolling dollar-weighted average absolute value of variance between optimal invoice payment date and actual invoice payment date in days	3	Current Year: Not previously tracked
					Prior Year: Not previously tracked
					Strategies/Initiatives to Achieve Targeted Performance: - Train staff organization-wide on the importance of submitting invoices timely - Utilize bank draft where appropriate recognizing the potential for less control over daily cash flow and processing payment prior to CFPUA review
Payroll	Minimize payroll error corrections	3.C	2-month rolling average number of error corrections per payroll run	4	Current Year: Not previously tracked
					Prior Year: Not previously tracked
					Strategies/Initiatives to Achieve Targeted Performance: Draft, train, and implement specific procedures that coordinates the timing of communicating employee benefit changes to benefit providers and entry of those changes in the payroll system
Procurement	Provide water/sewer services at the lowest practicable cost	2.B	12-month rolling average number of bids per bid request	3	Current Year: Not previously tracked
					Prior Year: Not previously tracked
			12-month rolling dollar-weighted average contract award value as a percentage of median contract bid amount	85%	Current Year: Not previously tracked
					Prior Year: Not previously tracked
			Strategies/Initiatives to Achieve Targeted Performance: - Develop and implement strategies to maximize the number of bidders for goods and services - Participate in cooperative purchasing pools when appropriate		
	Provide for efficient operations by minimizing the	3.C	12-month rolling average number of days to award	45	Current Year: Not previously tracked

DEPARTMENTAL SUMMARIES

DEPARTMENTAL OBJECTIVES AND PERFORMANCE METRICS					
Domain	Departmental Objective	Strategic Goal	Performance Metric	Targeted Performance	Current/Prior Year Performance
	number of days from bid to award				Prior Year: Not previously tracked
	Strategies/Initiatives to Achieve Targeted Performance: Provide training on bid checklists and procedures				
Financial Reporting	Timely and efficient production of financial reports to internal and external stakeholders including the CAFR, monthly Board financials, and departmental budget reports.	3.C	12-month rolling number of financial reports submitted after scheduled deadlines	0	Current Year: 3
					Prior Year: Not previously tracked
	Strategies/Initiatives to Achieve Targeted Performance: - Leverage technology to automate the production of customized financial reports - Develop financial reporting procedures and provide appropriate training to staff				
Investment Management	Efficiently use ratepayer funds to offset potential rate increases by maximizing investment yields	2.B	Idle cash as a percentage of total cash and investments	16%	Current Year: 11.6%
			Dollar-weighted rate of return as a % of NCCMT Term yield	105%	Prior Year: 9.4%
					Current Year: 94.7%
					Prior Year: Not previously tracked
	Strategies/Initiatives to Achieve Targeted Performance: Perform accurate daily cash flow forecasts to minimize idle cash and maximize investment maturities				

HUMAN RESOURCES

Director of Human Resources, Denise Matroni

The Human Resources Department provides quality service and support in employment, employee relations, benefits, compensation, health and safety, and training to the employees so that they can best serve the needs of the customers of Cape Fear Public Utility Authority.

The Human Resources Department budget for FY 18-19 is \$553,180 or .68% of the total FY 18-19 operating budget. Of the total departmental budget, \$423,163 (or 76.5%) is budgeted to pay salaries and benefits

DEPARTMENTAL SUMMARIES

for the department's 4 full-time equivalent positions. The remaining \$129,375 (or 23.5%) is budgeted for various expenditures including costs related to insurance brokerage services for employee benefits, worker's compensation claims administration, organizational training, employee recognition and education assistance, and advertisement of position vacancies.

DEPARTMENTAL OBJECTIVES AND PERFORMANCE METRICS					
Domain	Departmental Objective	Strategic Goal	Performance Metric	Targeted Performance	Current/Prior Year Performance
Recruitment	Optimize the advertising sources and dollars for candidate pools.	3.D	Rolling average advertising costs per applicant	<\$15	Current Year: \$10.40
					Prior Year: \$6.49
	Strategies/Initiatives to Achieve Targeted Performance: - Seek out high option advertising packages at reasonable or no cost. - Increase visibility of CFPUA work teams and projects to pique more interest by candidates to work here. - Implementing Applicant tracking system will allow data to be collected on applicants by recruitment sources.				
	Improve retention of employees within the first year.	3.D	Turnover rate	<5%	Current Year: 1.27%
					Prior Year: 1.07%
	Improve the applicant selection process through timely response to candidates.	3.D	12-month rolling average number of positions filled within 60 days of position closing as a percentage of total position openings	75%	Current Year: Not previously tracked
					Prior Year: Not previously tracked
	Strategies/Initiatives to Achieve Targeted Performance: - Require all members of selection committees to complete Behavior Based Interviewing Training. - Develop onboarding/mentor program for new employees to transition them into the workforce to reduce turnover during probationary period. - Implementing Applicant tracking system will allow data to be collected on recruitment selection.				
Compensation & Classification	Optimize the pay policy to pay employees at a competitive rate.	3.B	Number of pay grades where the average salary is at or above the first quartile	5	Current Year: 5
					Prior Year: 5
	Strategies/Initiatives to Achieve Targeted Performance: - Review 10% of positions annually to identify pay inequities. - Placement of new hires, promotions and reclassifications fairly in the pay range based on experience, education, internal equity and market conditions. - Verify CFPUA ranges to comparable entities for market equity.				

DEPARTMENTAL SUMMARIES

PUBLIC & ENVIRONMENTAL POLICY

Director, Lindsey Hallock

The Public and Environmental Policy Department consists of the Director, the Public and Environmental Policy Specialist and the Environmental Data Analyst. The mission of the Public and Environmental Policy Department is to ensure that CFPUA contributes to the long-term sustainability of Wilmington and New Hanover County. The department helps create strategic environmental and public policy goals, and assists other departments in implementing and maintaining programs to meet them.

The department provides white papers, regulatory research, data analysis and educational materials to help the organization monitor and improve its environmental and public policy initiatives. The department also conducts external outreach to customers, environmental groups, research organizations and local government, ensuring that CFPUA has stakeholder input and local expertise looped into our policies and programs.

The Public & Environmental Policy Department budget for FY 18-19 is \$283,723, or .35% of the total FY 18-19 operating budget. Of the total departmental budget, \$267,021 (or 94.1%) is budgeted to pay salaries and benefits for the department's 3 full-time equivalent positions. The remaining \$16,702 (or 5.9%) is budgeted for various expenditures including software licenses and training, printing for special educational materials, and various computer hardware.

DEPARTMENTAL OBJECTIVES AND PERFORMANCE METRICS					
Domain	Departmental Objective	Strategic Goal	Performance Metric	Targeted Performance	Current/Prior Year Performance
Data Analysis	Produce accurate compliance maps for the Environmental Management Department in a timely and efficient manner.	3.C	12-month rolling average number of revisions to compliance maps	<2	Current Year: Not previously tracked
					Prior Year: Not previously tracked
					Strategies/Initiatives to Achieve Targeted Performance: - Create standardized template of questions to ensure full understanding of what each map needs. - Create standardized data collection protocol for each map.
Community Outreach	Attend and participate in meetings of stakeholders and	1.D	12-month rolling average meetings participated in per month	2	Current Year: Not previously tracked

DEPARTMENTAL SUMMARIES

DEPARTMENTAL OBJECTIVES AND PERFORMANCE METRICS					
Domain	Departmental Objective	Strategic Goal	Performance Metric	Targeted Performance	Current/Prior Year Performance
	local community organizations to build partnerships and share information between CFPUA and the community				Prior Year: Not previously tracked
	Strategies/Initiatives to Achieve Targeted Performance: - Reach out to groups in the community to learn meeting schedules - Pitch presentations and educational opportunities to schools, civic groups, etc.				
Policy Implementation	Produce policy papers on CFPUA environmental/public policy programs to monitor organization's policy progress	1.A	12-month rolling number of policy papers	10	Current Year: Not previously tracked
					Prior Year: Not previously tracked
	Strategies/Initiatives to Achieve Targeted Performance - Identify top environmental programs to be highlighted and work with other departments to set goals and recommendations for them. - Collect data to measure and quantify program success.				

INFORMATION TECHNOLOGY

Chief Information Officer, Cord Ellison

The Information Technology Department is responsible for the connectivity of eight facilities, as well as the SCADA network that consists of over 250 outlying sites. It also supports and maintains all Authority servers, personal computers (PC's), network equipment, and telephone systems. In addition, the Information Technology Department is responsible for the Authority's technology security, the website, closed-circuit television (CCTV), and network security across the organization.

The Information Technology Department budget for FY 18-19 is \$2,411,030, or 2.95% of the total FY 18-19 operating budget. Of the total departmental budget, \$824,194 (or 34.2%) is budgeted to pay salaries and benefits for the department's 9 full-time equivalent positions. The remaining \$1,586,836 (or 65.8%) is budgeted for various expenditures including the cost of software licenses, scheduled replacement of computers, data connection services, regular maintenance on the Authority's SCADA system, and costs related to customer service call center enhancements including virtual hold, web chat, and call recording.

DEPARTMENTAL SUMMARIES

DEPARTMENTAL OBJECTIVES AND PERFORMANCE METRICS					
Domain	Departmental Objective	Strategic Goal	Performance Metric	Targeted Performance	Current/Prior Year Performance
Network/Server Maintenance	Maintain IT infrastructure in an effective and timely manner to minimize downtime	3.C	12-month rolling up-time ratio	99.9%	Current Year: Not previously tracked
					Prior Year: Not previously tracked
	Strategies/Initiatives to Achieve Targeted Performance: Continue to assess risks to the organization's network and invest in redundancy and new technology as appropriate to address those risks				
Helpdesk/Work Orders	Minimize resolution time for break/fix work orders	1.C, 3.C	Monthly percentage of break/fix work orders completed within 24 hours	95%	Current Year: Not previously tracked
					Prior Year: Not previously tracked
	Strategies/Initiatives to Achieve Targeted Performance: - Right-size IT staff to the volume of work orders - Continue regularly replace hardware devices				

ENGINEERING

Director of Engineering, Carel Vandermeiden, P.E.

The Administration Division is responsible for the overall management of the Engineering Department and for ensuring that department functions are aligned to meet the Authority's strategic objectives. The Department comprise five divisions: Administration, Asset Management, Planning and Design, Project Management and Development Services.

The Engineering Department budget for FY 18-19 is \$2,703,945, or 3.31% of the total FY 18-19 operating budget. Of the total departmental budget, \$2,479,988 (or 91.7%) is budgeted to pay salaries and benefits for the department's 27 full-time equivalent positions. The remaining \$223,957 (or 8.3%) is budgeted for various expenditures including the cost of updating the Authority's construction specifications, the service area's Water Master Plan, and the Authority's asset management database.

DEPARTMENTAL SUMMARIES

DEPARTMENTAL OBJECTIVES AND PERFORMANCE METRICS					
Domain	Departmental Objective	Strategic Goal	Performance Metric	Targeted Performance	Current/Prior Year Performance
Asset Management	Minimize corrective maintenance efforts due to asset failure	2.C	Rolling 12-month ratio of preventative maintenance efforts to corrective maintenance efforts	6:1	Current Year: 5.1:1
					Prior Year: Not previously tracked
	Strategies/Initiatives to Achieve Targeted Performance: Implement efforts to ensure completeness of asset inventory and data quality of asset data including age and condition				
Planning & Design	Provide timely research and response to customer requests for water and sewer master plans	1.C	12-month rolling average percentage of responses to customer requests provided within 10 business days	90%	Current Year: 90%
					Prior Year: 89.5%
	Strategies/Initiatives to Achieve Targeted Performance: - Coordinate responses with water and sewer Master Plans and subject matter experts - Maintain a readily accessible archive of previous Master Planning responses to avoid duplication				
Development Services	Provide timely review of plans submitted for new development	1.C	12-month percentage of plan reviews completed within 20 business days	90%	Current Year: 100%
					Prior Year: 99%
	Strategies/Initiatives to Achieve Targeted Performance: - Update design guidance documents to communicate plan submittal expectations to developers - Train developers on plan submittal expectations				
	Provide timely review of building permit applications	1.C	12-month rolling percentage of building permits reviewed within 10 business days	90%	Current Year: 100%
					Prior Year: 100%
	Strategies/Initiatives to Achieve Targeted Performance: - Collaborate with the County to implement new building permit processing software to improve user interface, coordination of multi-agency review, and accuracy performance tracking - Train additional staff to participate with building permit review software				
Perform timely Certificate of Occupancy inspections on all buildings connected to CFPWA water and sewer	1.C	12-month rolling percentage of inspections completed within 2 business days	90%	Current Year: 90%	
				Prior Year: Not previously tracked	

DEPARTMENTAL SUMMARIES

DEPARTMENTAL OBJECTIVES AND PERFORMANCE METRICS					
Domain	Departmental Objective	Strategic Goal	Performance Metric	Targeted Performance	Current/Prior Year Performance
	Strategies/Initiatives to Achieve Targeted Performance: Improve communications and checklists describing inspection procedures and expectations to ensure standardized and predictable inspections				
Project Management	Deploy appropriations for capital investment in the water and wastewater system in a timely manner	2.C	Dollar-weighted average time elapsed between appropriation and project completion in years	3	Current Year: Not previously tracked
					Prior Year: Not previously tracked
					Strategies/Initiatives to Achieve Targeted Performance: - Leverage technology to track project life cycle - Structure consultant contracts to include project milestones - Schedule projects with a three-year life cycle for design, permitting, bidding, and construction - Work with other departments for timely execution of capital projects managed outside of Engineering

OPERATIONS – ADMINISTRATION

Chief Operations Officer, Frank C. Styers, P.E.

The Operations Department is committed to delivering essential water and wastewater services to our customers in an efficient and environmentally responsible manner. Divisions include water treatment, wastewater treatment, utility services distribution and construction, utility services collections operations and maintenance, and centralized maintenance. The department is responsible for regulatory compliance of the various utility systems and providing outstanding water and sewer service to our customers. The Department continues its efforts to minimize sanitary sewer overflows (SSOs), improve water quality, and improve response to critical events that can damage infrastructure or the environment.

The Operations - Administration budget for FY 18-19 is \$373,620, or .46% of the total FY 18-19 operating budget. Of the total departmental budget, \$359,648 (or 96.3%) is budgeted to pay salaries and benefits for the department's 3 full-time equivalent positions. The remaining \$13,972 (or 3.7%) is budgeted for various expenditures including cell phone stipends, dues and subscriptions, and office supplies.

DEPARTMENTAL SUMMARIES

OPERATIONS – CENTRALIZED MAINTENANCE

Maintenance Superintendent, Kevin Boyett

The Centralized Maintenance Division is responsible for maintenance activities associated with the water and wastewater treatment plants, well sites, buildings and other facilities, as well as fleet management. Efforts to consolidate maintenance resources have proven beneficial. Centralized Maintenance is continuing to evaluate strategies to become more efficient by moving towards a more predictive approach to maintenance. The Authority's Computerized Maintenance and Management System (CMMS) has proven to be a key component in this transition and will continue to prove effective.

The Operations – Centralized Maintenance budget for FY 18-19 is \$2,796,844, or 3.42% of the total FY 18-19 operating budget. Of the total division budget, \$1,384,152 (or 49.5%) is budgeted to pay salaries and benefits for the division's 21 full-time equivalent positions. The remaining \$1,412,692 (or 50.5%) is budgeted for various expenditures including contracted services for fleet and equipment maintenance, landscaping, and materials costs for various plant and facilities maintenance.

DEPARTMENTAL OBJECTIVES AND PERFORMANCE METRICS					
Domain	Departmental Objective	Strategic Goal	Performance Metric	Targeted Performance	Current/Prior Year Performance
Plant/Facilities Maintenance	Maintain plant/facilities in an effective and timely manner to minimize downtime	1.C	12-month rolling number of preventative maintenance work orders as a percentage of total work orders	60%	Current Year: 57.0%
					Prior Year: 53.7%
			12-month rolling average number of days to complete plant/facilities work orders	15	Current Year: 14.22
					Prior Year: 13.20
	Strategies/Initiatives to Achieve Targeted Performance: - Continue to perform regular inspections and condition assessments of facilities - Continue to leverage available technology to execute a risk-based schedule for preventative maintenance - Ensure that maintenance staff has the best available resources to efficiently perform work orders				
Fleet Maintenance	Ensure regular and timely maintenance	1.C	6-month rolling average work order life for scheduled	15	Current Year: 19.36

DEPARTMENTAL SUMMARIES

DEPARTMENTAL OBJECTIVES AND PERFORMANCE METRICS					
Domain	Departmental Objective	Strategic Goal	Performance Metric	Targeted Performance	Current/Prior Year Performance
	of fleet to minimize downtime		fleet maintenance in days		Prior Year: 24.31
	Strategies/Initiatives to Achieve Targeted Performance: - Train staff on the importance regular vehicle maintenance - Continue to leverage available technology to notify employees of scheduled maintenance and supervisors of past due maintenance.				

OPERATIONS – UTILITY SERVICES

Superintendent, Robert P. Daughtry and Jim Tayson

Operations – Utility Services consists of the Collection System Operations and Maintenance Division and the Construction and Water Distribution Division. The Collection System Operations and Maintenance Division maintains the collection systems through regular inspection and cleaning of gravity lines, maintains outfalls, and operates and maintains 148 pump stations. These duties help reduce the frequency and volume of sanitary sewer overflows (SSOs). The Construction and Water Distribution Division repairs breaks to lines, performs locate services, and ensures water quality through regular line flushing.

The Operations – Utility Services budget for FY 18-19 is \$9,389,317, or 11.48% of the total FY 18-19 operating budget. Of the total division budget, \$5,806,732 (or 61.8%) is budgeted to pay salaries and benefits for the division's 90 full-time equivalent positions. The remaining \$3,582,585 (or 38.2%) is budgeted for various expenditures including contracted service for odor and corrosion control and root control, pump replacement, electricity for pump stations, fuel for service vehicles and generators, materials costs for line and pump station repairs, maintenance costs for CCTV inspection equipment, and contracted surveying and clearing services for right-of-way maintenance.

DEPARTMENTAL OBJECTIVES AND PERFORMANCE METRICS					
Domain	Departmental Objective	Strategic Goal	Performance Metric	Targeted Performance	Current/Prior Year Performance
Water Quality	Optimize levels of residual chlorine to ensure water quality	1.A	12-month rolling percentage of routine distribution sampling events where additional corrective flushing is required	10%	Current Year: Not previously tracked
					Prior Year: Not previously tracked
	Strategies/Initiatives to Achieve Targeted Performance: Minimize oversized lines				

DEPARTMENTAL SUMMARIES

DEPARTMENTAL OBJECTIVES AND PERFORMANCE METRICS					
Domain	Departmental Objective	Strategic Goal	Performance Metric	Targeted Performance	Current/Prior Year Performance
	- Optimize scheduled flushing - Replace broken valves on regular basis				
	Minimize the number of water quality complaints	1.C	12-month rolling number of complaints per thousand customer accounts	3	Current Year: 4.16
					Prior Year: 5.14
	Strategies/Initiatives to Achieve Targeted Performance: - Minimize complaints through scheduled system-wide flushing - Improve customer water quality education - Replace broken valves on regular basis				
Locate Services	Minimize time to complete locate work orders	1.C	Average time to complete locate work orders per month (in minutes)	30	Current Year: 28.4
			Ratio of completed locates to new locates (rolling 12-months)	1:1	Prior Year: 24.3
					Current Year: Not previously tracked
					Prior Year: Not previously tracked
Strategies/Initiatives to Achieve Targeted Performance: - Leverage technology to efficiently locate CFPWA infrastructure - Ensure infrastructure is documented in GIS - Optimize daily locate assignments to minimize travel time between sequential locates					
Collections System Maintenance	Minimize the number of sanitary sewer overflows through continuous maintenance	1.A	12-month rolling number of miles of gravity sewer mains CCTV'd	25.5	Current Year: 62.94
					Prior Year: 53.88
			12-month rolling number of miles of gravity mains cleaned	87	Current Year: 132.02
					Prior Year: 107.87
Strategies/Initiatives to Achieve Targeted Performance: Leverage the latest technologies to efficiently conduct inspections and maintenance					

DEPARTMENTAL SUMMARIES

DEPARTMENTAL OBJECTIVES AND PERFORMANCE METRICS					
Domain	Departmental Objective	Strategic Goal	Performance Metric	Targeted Performance	Current/Prior Year Performance
Easement/Outfall Maintenance	Minimize the number of sanitary sewer overflows by reducing response times through inspections and clearing of easements and right of ways to insure proper access is available.	1.A	12-month rolling number of miles of outfall easements cleared	18.75	Current Year: 20.49
					Prior Year: 9.95
					Strategies/Initiatives to Achieve Targeted Performance: - Continue to perform regular easement/outfall inspections - Continue to perform a risk-based schedule for clearing and maintaining easements/outfalls - Leverage the latest technologies to efficiently conduct inspections and maintenance
Pump Station Maintenance	Minimize the number of sanitary sewer overflows through weekly inspections and preventive maintenance, combined with remote monitoring to insure timely response and corrective maintenance.	1.A	Number of weekly pump station inspections completed as percentage of total scheduled inspections	100%	Current Year: 100%
					Prior Year: 100%
					Strategies/Initiatives to Achieve Targeted Performance: Leverage the latest technologies to efficiently conduct inspections and maintenance

OPERATIONS – WATER TREATMENT

Water Resources Manager, John F. Malone

The Water Treatment Division processes source water from the Cape Fear River and confined aquifers to distribute clean, treated drinking water through three different systems within New Hanover County. A staff of state-certified treatment operators and a team of skilled maintenance technicians keep all facilities operational 24 hours per day, seven days per week to ensure that a supply of safe drinking water is available for customers of the Authority.

The Operations – Water Treatment budget for FY 18-19 is \$7,163,778, or 8.76% of the total FY 18-19 operating budget. Of the total division budget, \$1,866,351 (or 26.1%) is budgeted to pay salaries and benefits for the division's 27 full-time equivalent positions. The remaining \$5,297,427 (or 73.9%) is

DEPARTMENTAL SUMMARIES

budgeted for various expenditures including electricity and chemicals used in the treatment process, the purchase of raw water, residuals disposal, maintenance and instrumentation contracts, plant maintenance, and equipment replacement.

DEPARTMENTAL OBJECTIVES AND PERFORMANCE METRICS					
Domain	Departmental Objective	Strategic Goal	Performance Metric	Targeted Performance	Current/Prior Year Performance
Water Treatment	Ensure that treated water complies with all regulatory requirements	1.A	Monthly number of individual compliance measurements outside permit limits as a percentage of total compliance measurements	0%	Current Year: 0%
					Prior Year: 0%
	Strategies/Initiatives to Achieve Targeted Performance: - Continuously monitor process data to optimize processes and achieve desired levels - Regularly inspect and maintain equipment				
	Optimize plant processes to minimize turbidity	1.A	Monthly percentage of turbidity tests that are at or below .1 NTU target	95%	Current Year: 100%
					Prior Year: 100%
	Strategies/Initiatives to Achieve Targeted Performance: - Continuously monitor process data to optimize processes and achieve desired levels - Regularly inspect and maintain equipment				

OPERATIONS – WASTEWATER TREATMENT

Wastewater Treatment Superintendent, Milton Vann

The Wastewater Treatment Division manages the operation and maintenance of the Authority's two wastewater treatment plants (WWTPs): Northside (NSWWTP) and Southside (SSWWTP). The Walnut Hills WWTP ceased operation on June 30, 2016 with tributary flow redirected to the NSWWTP. These facilities have received diligent operation and maintenance attention, exhibited exemplary regulatory permit compliance, and observed strict compliance with the approved budget.

The Staff has participated in many Cape Fear Public Utility Authority program initiatives including: asset management, SCADA master planning, centralized maintenance, contingency emergency generator connection provisions and treatment chemical bidding and award. The Staff has maintained high training and certification standards, including operator, backflow prevention, and pesticide application certifications.

DEPARTMENTAL SUMMARIES

A significant accomplishment was realized with the procurement of contracted residuals management services. This contract covers various aspects of CFPUA's residuals management program from January 1, 2017 through December 31, 2019 with two possible one-year renewal options extending the contract period to December 31, 2021.

The Operations – Wastewater Treatment budget for FY 18-19 is \$4,304,456, or 5.27% of the total FY 18-19 operating budget. Of the total division budget, \$1,912,516 (or 44.4%) is budgeted to pay salaries and benefits for the division's 29 full-time equivalent positions. The remaining \$2,391,940 (or 55.6%) is budgeted for various expenditures including electricity and chemicals used in the treatment process, the disposal of wastewater residuals, plant maintenance, and equipment replacement.

DEPARTMENTAL OBJECTIVES AND PERFORMANCE METRICS					
Domain	Departmental Objective	Strategic Goal	Performance Metric	Targeted Performance	Current/Prior Year Performance
Wastewater Treatment	Ensure that discharged wastewater complies with permit requirements	1.A	Monthly number of individual compliance measurements above permit limits as a percentage of total compliance measurements	0%	Current Year: .005%
					Prior Year: .02%
	Optimize pollutant removal to levels above compliance requirements to minimize the impact on the environment	1.A	Monthly percentage of BOD loading removed above allowable pollutant loading	Northside/Southside: 85%/80%	Current Year: 91%/77%
					Prior Year: 73%/78%
		1.A	Monthly percentage of TSS loading removed above allowable pollutant loading	Northside/Southside: 98%/85%	Current Year: 100%/87%
					Prior Year: 99.5%85%
		1.A	Monthly percentage of ammonia loading removed above allowable pollutant loading	Northside Only: 95%	Current Year: 94%
					Prior Year: 96%
Strategies/Initiatives to Achieve Targeted Performance:					
- Continuously monitor process data to optimize processes and achieve desired removal - Regularly inspect and maintain equipment					

DEPARTMENTAL SUMMARIES

ENVIRONMENTAL MANAGEMENT/SAFETY

Environmental Management Director, Beth Eckert

The Environmental and Safety Management Department supports the core mission of the Authority through operational and administrative activities of five divisions: Laboratory Services, Community Compliance, Emergency Response and Security Management, Environmental Management, and Safety Management.

- Laboratory Services provides critical operational and compliance lab data daily to support operation of both the water and wastewater systems.
- Community Compliance ensures proper implementation of the Sewer Use and Cross Connection control ordinances to help prevent treatment disruptions at the wastewater treatment plants and eliminate sanitary sewer overflows. The oversight of the cross-connection program helps ensure protection of public health and drinking water quality by minimizing system vulnerabilities that could allow system contamination.
- Emergency Response and Security Management works with staff in each department and other agencies to identify system threats and vulnerabilities and to develop and implement plans and training opportunities to mitigate and respond to risk.
- Environmental Management supports compliance efforts and activities to drive continual improvement and environmental stewardship. This area works with staff and other environmental agencies to formalize processes and programs, ensure training and perform compliance audits and identify opportunities for improvement. Safety Management works with staff and OSHA to ensure safe work practices meet or exceed safety requirements. These programs ensure staff are performing their work safely.

The Environmental Management/Safety Department budget for FY 18-19 is \$2,723,121, or 3.33% of the total FY 18-19 operating budget. Of the total departmental budget, \$2,078,776 (or 76.3%) is budgeted to pay salaries and benefits for the department's 28.75 full-time equivalent positions. The remaining \$644,345 (or 27.3%) is budgeted for various expenditures including the cost of chemicals and supplies for in-house lab testing, third party lab testing services, maintenance agreements on lab equipment, and employee safety training.

DEPARTMENTAL OBJECTIVES AND PERFORMANCE METRICS

Domain	Departmental Objective	Strategic Goal	Performance Metric	Targeted Performance	Current/Prior Year Performance
Laboratory Services	Provide accurate and timely data to fully support the safe and	2.C	3-month rolling number of lab tests requiring	0%	Current Year: 0%

DEPARTMENTAL SUMMARIES

DEPARTMENTAL OBJECTIVES AND PERFORMANCE METRICS					
Domain	Departmental Objective	Strategic Goal	Performance Metric	Targeted Performance	Current/Prior Year Performance
	optimal treatment of water and wastewater provided to our customers		qualification as a percentage of total lab tests		Prior Year: Not previously tracked
			3-month rolling number of samples completed on schedule as a percentage of total scheduled samples	100%	Current Year: 100%
					Prior Year: 100%
	Strategies/Initiatives to Achieve Targeted Performance: - Ensure proper training of all laboratory staff in sampling procedures - Leverage technology to efficiently plan sampling routes - Maintain dialogue with the regulatory bodies to ensure proper number of sampling sites - Further research laboratory information management systems that will help manage the lab data and reporting more effectively and perform a business case evaluation to determine if it is beneficial for an organization of our size and complexity to include in next year's budget.				
	Community Compliance	Minimize threats to ensure system integrity to control costs, protect system assets, and minimize the impact of the sewer system on the environment including local streams by reducing the amount of fats, oils, grease (FOG) discharged to the sewer system	2.C	12-month rolling number of food service establishments that are compliant with FOG ordinance requirements as a percentage of total food service establishments	99%
				Prior Year: 99%	
				12-month rolling ratio of proactive FOG community events to reactive FOG outreach events	3:1
Strategies/Initiatives to Achieve Targeted Performance: - Inspect all food service establishments annually - Follow-up in a timely manner on any non-compliant events during inspections - Take appropriate enforcement to protect the wastewater system - Work with operations to target areas where high amounts of FOG is discharged and identify the best method to communicate and educate the public in these areas - Increase the level of community outreach regarding benefits to the region on FOG reduction					
	Ensure the protection of the water system from cross contamination events	2.C	Rolling 12-month number of backflow preventers in compliance with	85%	Current Year: 80%

DEPARTMENTAL SUMMARIES

DEPARTMENTAL OBJECTIVES AND PERFORMANCE METRICS					
Domain	Departmental Objective	Strategic Goal	Performance Metric	Targeted Performance	Current/Prior Year Performance
			testing requirements as a percentage of total backflow preventers		Prior Year: 80%
Strategies/Initiatives to Achieve Targeted Performance: - Work with operations, engineering and New Hanover County inspections to ensure backflow requirements are identified and addressed when properties are developed and /or redeveloped. - Ensure all reminder letters go out at least 60 days prior to due to customers of testing requirements - Investigate ways to improve data management to improve internal and external communications					
Safety Management	Minimize the number of workplace accidents	1.B	12-month rolling number of reportable accidents	0	Current Year: 22
					Prior Year: 19
					Strategies/Initiatives to Achieve Targeted Performance: - Meet bi-monthly with department directors of each area to discuss procedure development and progress within each area - Perform a gap analysis of each area for safety items and work with each area to develop a plan and timeline to resolve each gap - Improve training efforts on the benefits to staff and CFPUA on the process which encourages more buy-in and drives a positive safety culture change - Regularly communicate progress and accomplishments at monthly joint staff meeting
Emergency Response & Security Management	Optimize the resiliency of the organization and its ability to respond to unplanned events	2.C	NIMS training completion rate	90%	Current Year: 79%
					Prior Year: Not previously tracked
			Percentage of total staff that participated in at least one emergency exercise or drill during the fiscal year	75%	Current Year: Not previously tracked
					Prior Year: Not previously tracked
			Strategies/Initiatives to Achieve Targeted Performance: - Work with new hires and each department director to schedule training opportunities and staff attendance - Work with local stakeholders and NIMS instructors along with the local community college to provide more training opportunities. - Ensure table top exercises and training of staff on emergency situations occurs at least twice a year - Continue working with the department of homeland security to identify potential threats and opportunities for improvement		

DEPARTMENTAL SUMMARIES

DEPARTMENTAL OBJECTIVES AND PERFORMANCE METRICS					
Domain	Departmental Objective	Strategic Goal	Performance Metric	Targeted Performance	Current/Prior Year Performance
	- Maintain membership in Water ISAC - Engage staff in identifying vulnerabilities.				
Environmental Management	Expand the scope of the Environmental Management System to fully support and drive an overall continual improvement culture with respect to environmental management	1.A	Percentage of organization that is fully operating within the ISO 14001 framework	75%	Current Year: 32%
					Prior Year: 32%
					Strategies/Initiatives to Achieve Targeted Performance: - Continue to educate departments on the EMS and its benefits - Work with each group to fill the gaps in procedure development - Work with each group to customize as much as possible the elements of the EMS to promote and drive continual improvement, environmental stewardship, and communication among various areas.

CUSTOMER SERVICE

Customer Service Director, Kristi Irick

The Customer Service Department is responsible for customer service related functions including reading and maintaining meter services, billing customer accounts, addressing customer concerns and collecting on customer accounts. In addition, Customer Service bills for miscellaneous receivables and processes payments for service through multiple payment channels. There are two customer service locations and a call center staffed to address customer inquiries in an efficient and timely manner. The Department's objective is to provide an exceptional customer experience by meeting our customers' needs through timely response, effective service and managed financial costs.

The Customer Service Department budget for FY 18-19 is \$4,163,730, or 5.09% of the total FY 18-19 operating budget. Of the total departmental budget, \$3,318,813 (or 79.7%) is budgeted to pay salaries and benefits for the department's 57 full-time equivalent positions. The remaining \$844,917 (or 20.3%) is budgeted for various expenditures including contracted services for utility bill printing and mailing, materials to repair/replace water meters, licenses for automatic meter reading software, fuel for meter reading vehicles, fees to third-party collections agencies, and annual fees for the interactive voice response system.

DEPARTMENTAL SUMMARIES

DEPARTMENTAL OBJECTIVES AND PERFORMANCE METRICS					
Domain	Departmental Objective	Strategic Goal	Performance Metric	Targeted Performance	Current/Prior Year Performance
Administration	Process leak adjustments timely	1.C	2-month rolling average days to process leak adjustments	14	Current Year: Not previously tracked
					Prior Year: Not previously tracked
					Strategies/Initiatives to Achieve Targeted Performance: Provide timely response to customer requests for adjustment consideration
Billing	Produce accurate and timely bills	3.C	3-month rolling number of cancel/rebills as a percentage of total bills	96%	Current Year: 98.5%
					Prior Year: 99.2%
			Percentage of accounts billed outside billing schedule	5%	Current Year: 2.4%
					Prior Year: 3.3%
					Strategies/Initiatives to Achieve Targeted Performance: - Review and complete exception reports - Leverage technology to have fixed, recurring bill schedules and to define billed consumption exception rules to prevent inaccurate billing statements
Customer Service	Resolve customer inquiries efficiently and effectively	1.C	Monthly call abandon rate	10%	Current Year: 23.12%
					Prior Year: 14.30%
			Monthly average hold time	5	Current Year: 5.1
					Prior Year: Not previously tracked
			Monthly average talk time in minutes	5	Current Year: 5.35
					Prior Year: 5.17
					Strategies/Initiatives to Achieve Targeted Performance: - Optimize website navigation to maximize customer self-service - Right-size customer service staffing and size/ number of communication channels to the volume of customer inquiries - Enhance training/coaching efforts for customer service staff

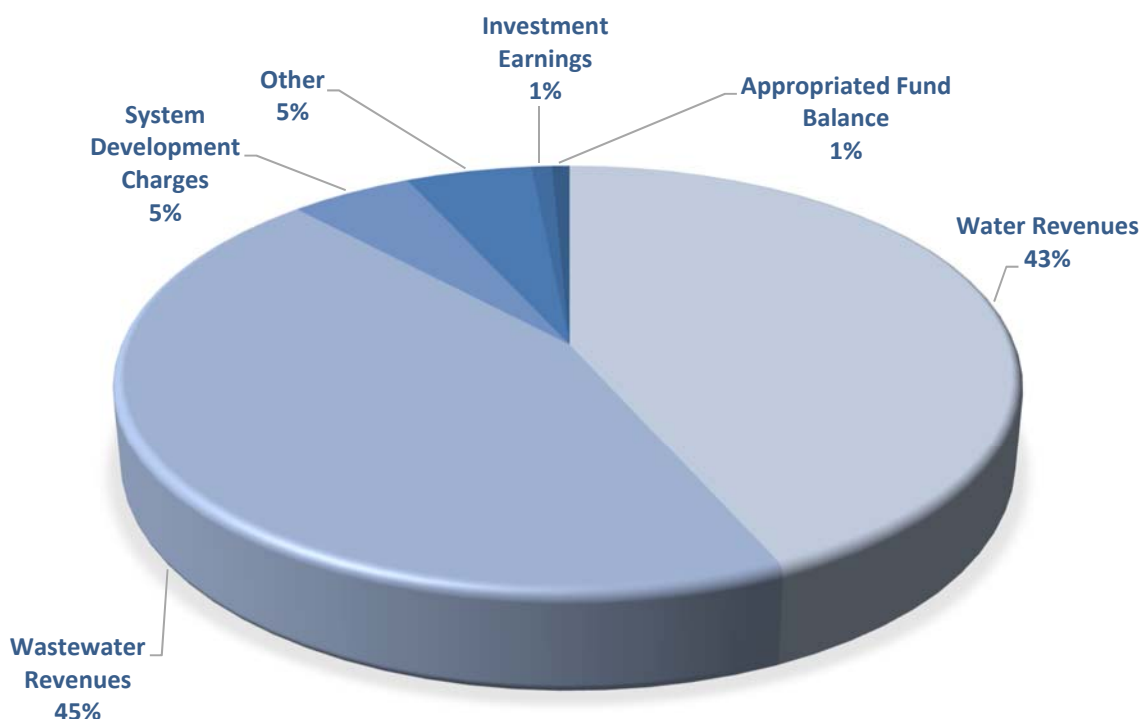
DEPARTMENTAL SUMMARIES

DEPARTMENTAL OBJECTIVES AND PERFORMANCE METRICS					
Domain	Departmental Objective	Strategic Goal	Performance Metric	Targeted Performance	Current/Prior Year Performance
	Leverage technology such as virtual hold				
	Accurately apply payments to customer accounts	1.C	Monthly number of payment corrections as percentage of total payments processed	<.05%	Current Year: Not previously tracked
					Prior Year: Not previously tracked
	Strategies/Initiatives to Achieve Targeted Performance: Ensure information provided is correct so that payments are not misapplied or incorrectly coded				
Collections	Minimize delinquent balances	2.A	Dollar amount of utility billing receivables that are greater than 90 days delinquent as a percentage of the total dollar value of utility billing receivables	<35%	Current Year: 31.3%
					Prior Year: 28.2%
	Strategies/Initiatives to Achieve Targeted Performance: - Review and make recommendations to existing ordinance and policies to maximize collection tools/recourse - Expand payment channels/technologies available to customers				
Meter Services	Produce accurate and timely meter readings	1.C, 2.A	Monthly number of meter re-reads where there was a discrepancy as a percentage of total reads	99.7%	Current Year: 99.73%
					Prior Year: 99.55%
	Strategies/Initiatives to Achieve Targeted Performance: Leverage automatic meter reading technology to collect timely meter readings				
	Minimize the time to complete meter services work orders	1.C, 2.B	18-month rolling average number of days to complete stuck/damaged meter work orders	60	Current Year: 42.6
					Prior Year: 22.7
			2-month rolling average number of days to complete new meter set work orders	7	Current Year: 6.25
					Prior Year: Not previously tracked
	Strategies/Initiatives to Achieve Targeted Performance: - Leverage reporting functionality in available software to minimize billing exceptions. - Prioritization of work completed in compliance with standard operating procedures.				

REVENUE SUMMARY

The Authority sets rates, fees and charges with oversight, supervision, or direction from the Board. The Authority's operations, capital improvement program and debt payments are funded almost entirely through rates, fees and other charges for these water and wastewater services, with occasional grants from the state or federal governments and contributions from the City, the County or other entities.

Fiscal Year 2018-2019 Revenues by Type



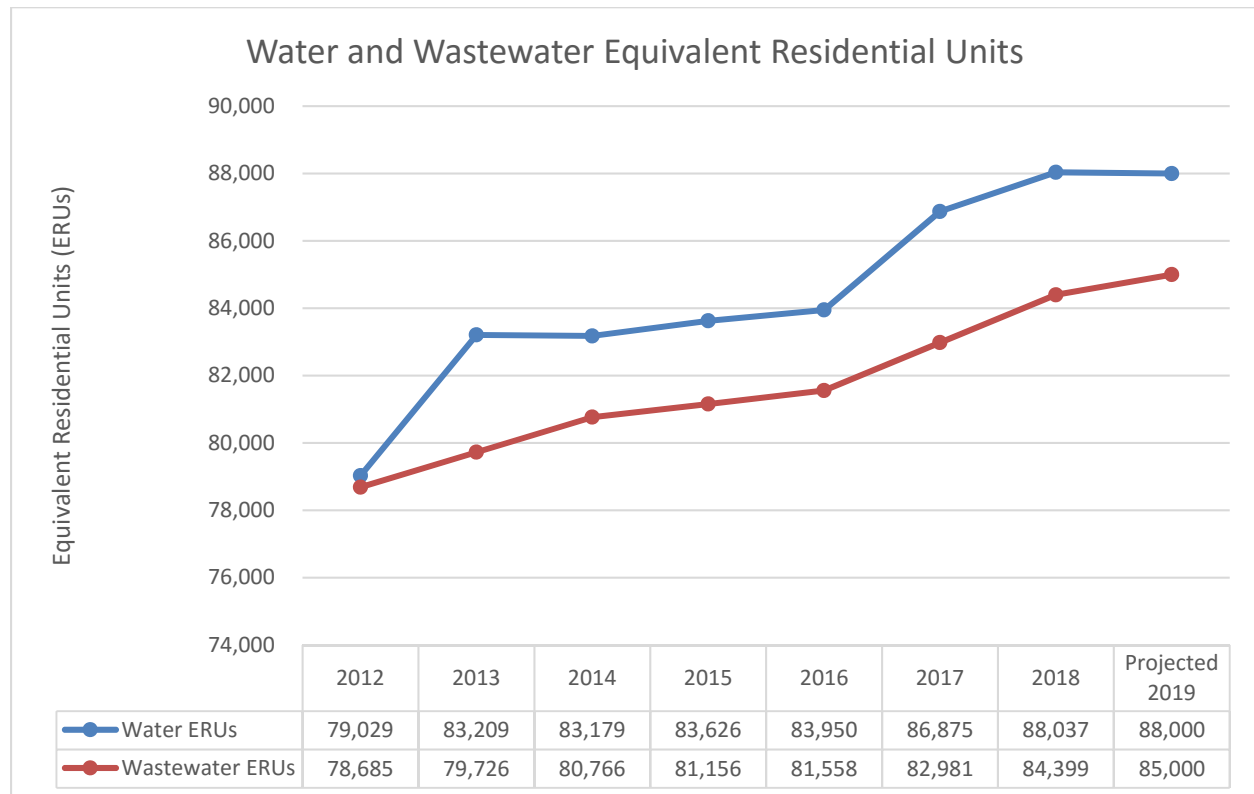
Water and Wastewater Revenues

Most of the Authority's revenues (88%) are generated by charges for water and wastewater service. As shown above, in FY 18-19, 43% of total budgeted revenue is anticipated from water services and 45% of total budgeted revenue is anticipated from wastewater services. The existing water and wastewater rates consist of 1) fixed meter charges that designate the minimum amount a customer will pay regardless of consumption and 2) volumetric charges per 1,000 gallons based upon the amount of metered water flow. Water rate revenues are anticipated to total \$35.4 million (\$14.5 million – fixed and \$20.9 million – volumetric) while wastewater revenues are anticipated to total \$36.5 million (\$14.8 million – fixed and \$21.7 million – volumetric).

REVENUE SUMMARY

Water and wastewater fixed charges are developed to recover the greater of debt service allocable to water and wastewater or 35% of the operating budget allocable to water and wastewater. This policy exists for two reasons: 1) to guarantee that sufficient amounts are available to pay debt service irrespective of consumption and 2) in periods in which annual debt service requirements are declining, to ensure that the Authority's revenues are insulated from significant decreases in water and wastewater consumption.

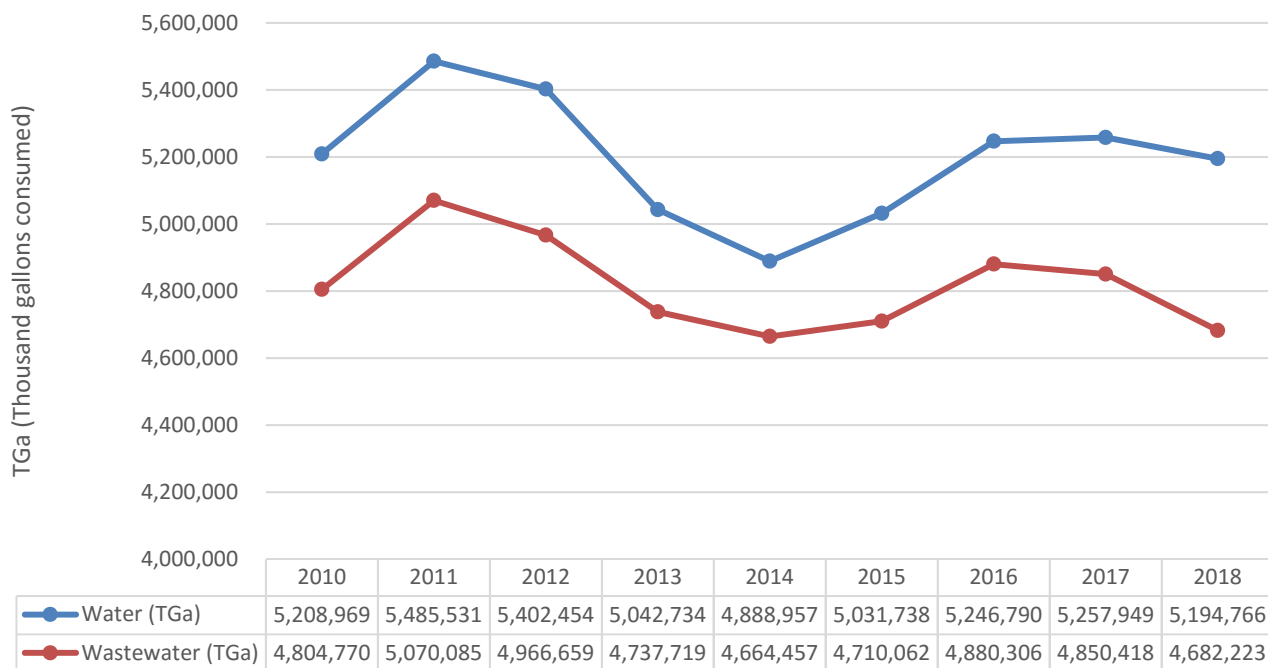
The fixed meter charges are incremented such that customers with larger water meter sizes pay a higher fixed charge. Fixed meter charges are calculated based on the number of equivalent residential units (ERUs), which expresses the number of accounts as if each customer were a residential customer. ERUs assumed for the FY 18-19 budget are based on recent actual counts. The graph below depicts the actual ERUs since FY 11-12 and the projected ERUs for FY 18-19 for water and wastewater.



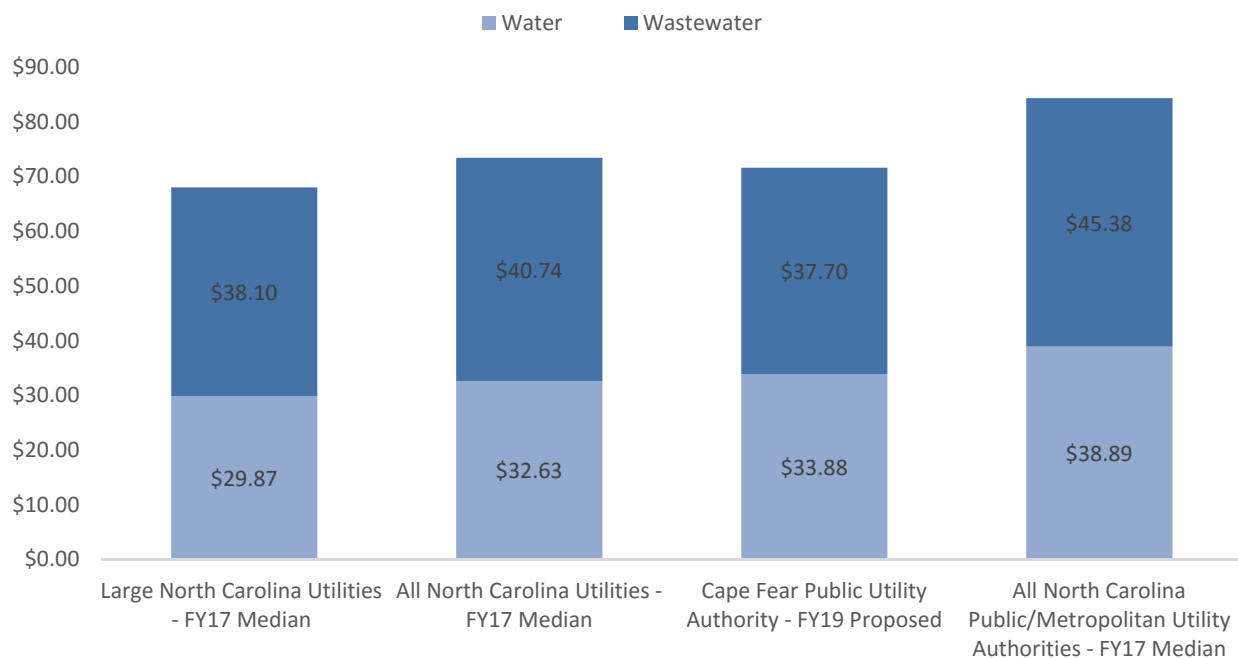
The volumetric charge utilizes a uniform rate structure such that the rate per 1,000 gallons remains constant for all levels of consumption. Volumetric charges are developed to recover operating costs allocated to water and wastewater, respectively, that aren't recovered from fixed charges and other revenues. The remaining allocated cost pools for water and wastewater are divided by projected water and wastewater consumption. Consumption projections for FY 18-19 are equal to actual FY 17-18 consumption projected through the end of fiscal year. The graph on the following page depicts the actual calendar year consumption since 2010.

REVENUE SUMMARY

Water and Wastewater Consumption by Fiscal Year



Median Monthly Residential Water and Sewer Bill



Source: Environmental Finance Center, *Water and Wastewater Rates and Rate Structures in North Carolina, 2017*

REVENUE SUMMARY

The table below compares the FY18-19 fixed and volumetric charges for water and wastewater to the rates in effect for FY 17-18.

	FY 18-19	FY 17-18	\$ Difference	% Difference
Water:				
Fixed	\$27.56	\$26.67	\$0.89	3.3%
Volumetric	\$4.02	\$3.85	\$0.17	4.4%
Wastewater:				
Fixed	\$29.10	\$29.10	-	-
Volumetric	\$4.63	\$4.58	\$0.05	1.1%

Assuming monthly consumption of 5,000 gallons, a residential customer will pay \$71.58 per month (\$143.16 every two months) in FY 18-19. The graph on the previous page compares the Authority's monthly residential water and wastewater bills to those of other North Carolina public water and wastewater utilities in effect for FY 16-17. Although the Authority bills customers every two months, monthly bill amounts were calculated for purposes of comparability.

The peer groups for bill comparison include all North Carolina public water and wastewater utilities, large North Carolina public water and wastewater utilities (defined as those utilities with more than 25,000 customer accounts), and all North Carolina public/metropolitan public utility authorities. The median monthly bills for the peer groups are based on rates in effect for FY 16-17. The amounts presented for the Authority are based on rates for FY 18-19. The Authority's average monthly residential bill compares favorably to the median bills for each of the peer groups. The total monthly residential bill is lower than the median bills for all North Carolina public utilities and the North Carolina public/metropolitan utility authorities and 5.3% higher than the median bill for large North Carolina Utilities. The Authority's monthly residential wastewater bill is lower than the median monthly residential wastewater bills for each peer group, while the Authority's monthly residential water bill is higher than the median bill for all peer groups except for all North Carolina Public/Metropolitan Utility Authorities.

System Development Charges

The system development charge is the upfront contribution that a new customer pays to buy into infrastructure that will benefit the new customer that has been paid for with past rate collections. Rate payer equity is calculated by reducing the depreciated value of infrastructure by amounts that were not paid by past rate payers including the outstanding balance of debt issued to acquire or construct the infrastructure, conveyed infrastructure, grant funding, and cash contributions from developers and governmental entities. Rate payer equity is then allocated between water and wastewater in proportion to cumulative capital investment in the water and wastewater systems. These allocations are then divided by the number of equivalent residential units projected for water and sewer for the upcoming fiscal year.

REVENUE SUMMARY

The system development charges are applied based on the size of the water meter for the new connection and are scaled for larger connection sizes. System development charges for FY 18-19 are \$1,830 and \$1,800 for water and wastewater, respectively. System development charges are anticipated to comprise 5% of the Authority's operating revenues for FY 17-18.

Other Charges for Service

Other charges for service account for 5% of total budgeted revenues. Other charges include penalties and late fees, application and premise visit fees, meter fees and tap fees. Budgeted amounts are based on historical averages adjusted for current trends.

Investment Earnings

Investment earnings are budgeted at \$700,000 in FY 18-19 which is approximately 1% of total budgeted revenue. Maintaining investment earnings at levels experienced in previous fiscal years will be a challenge as available cash and investment balances are spent down to fund the capital program in accordance with the Authority's recently adopted liquidity and reserve policy. Staff is planning to implement procedures to forecast cash flows to maximize the dollars that can be invested in longer-term, higher-yielding investments that comply with State laws to ensure safety and liquidity.

Appropriated Fund Balance

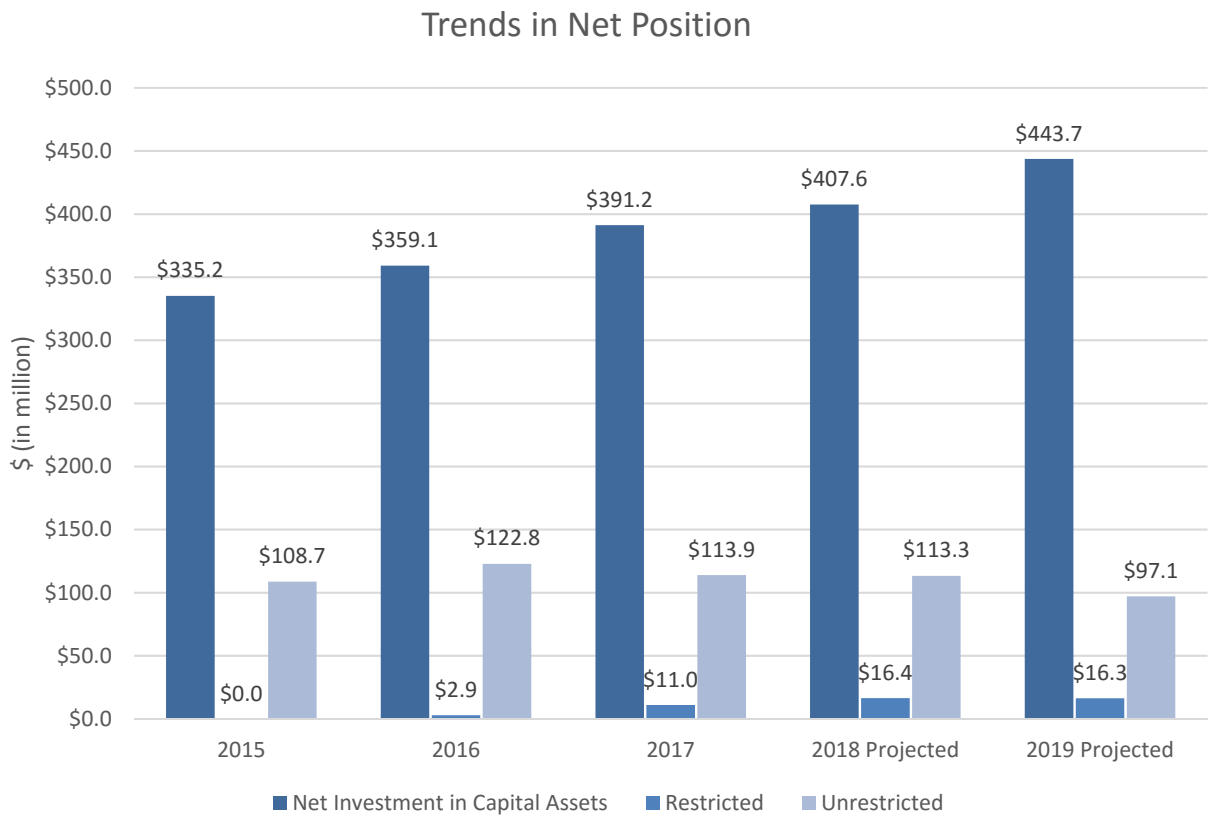
Upon inception of the Authority, the City of Wilmington and New Hanover County transferred funds that were explicitly designated for funding post-employment health insurance benefits to legacy employees. The FY 18-19 Budget includes an estimated use of \$600,000 of appropriated fund balance to fund appropriations related to the provision of retiree health insurance benefits.

PROJECTED CHANGES IN NET POSITION

The Authority is a stand-alone enterprise in which the cost of service is recovered exclusively through customer rates and charges. Consequently, the most meaningful measure of financial position for the Authority's operations is equity, or net position. This measure represents the extent to which the Authority's assets and deferred outflows of resources exceed its liabilities and deferred inflows of resources on the full accrual basis of accounting similar to a private company.

Net position is composed of three components: 1) net investment in capital assets, 2) restricted net position, and 3) unrestricted net position. Net position in capital assets is the depreciated historical cost of system assets less the outstanding balance of debt used to acquire/construct those assets. Consequently, these amounts are not available to meet the Authority's ongoing obligations. Restricted net position consists of those resources that are restricted through law or by outside parties for a particular purpose. The Authority's remaining net position is unrestricted and can be used to satisfy the Authority's ongoing obligations including debt service, normal operating expenses, and for the acquisition of capital assets.

The following bar chart shows the components of the Authority's net position since FY 14-15 and projected through FY 18-19.



PROJECTED CHANGES IN NET POSITION

The main driver of the Authority's net position is the way in which the Authority's capital program is funded. Funding capital improvements with revenues increases net position, while funding capital improvements with debt has no effect on net position. These changes are reflected in changes to the net investment in capital assets. As the chart demonstrates, the Authority's net investment in capital assets is projected to increase to \$443.7 million by the end of FY 18-19. This increase is due to funding capital improvements with rates collected in the current year and unrestricted net position while the related debt balance is projected to decrease as scheduled principal payments are made with no new planned issuance. The Authority's restricted net position increased from \$2.9 million in FY 15-16 to \$11.0 million in FY 16-17 as resources were accumulated with a trustee equal to $\frac{1}{6}$ th of the Authority's next interest payment and $\frac{1}{12}$ th of the Authority's next principal payment on its outstanding revenue bonds. Restricted net position is projected to increase by \$5.2 million which is equal to the FY 16-17 operating surplus that was officially designated as a capital reserve for the Southside Wastewater Treatment Plant Capacity Upgrade project that is scheduled to start in FY 34-35. Unrestricted net position is projected to decrease to \$97.1 million by the end of FY 18-19. This decrease is a consequence of the Authority's debt policies. As debt is limited and less of the capital improvement program is funded with debt, rates will be gradually increased through FY 22-23 to fund \$18 million in capital expenditures per year. In the meantime, unrestricted resources will gradually be spent down to targeted levels to fund the Authority's capital improvement program.

**CAPE FEAR PUBLIC UTILITY AUTHORITY
FY 18-19**

OPERATING BUDGET SUMMARY

(Budgetary Basis)

	CFPUA FY 15-16	CFPUA FY 15-16	CFPUA FY 16-17	CFPUA FY 16-17	CFPUA FY 17-18	CFPUA FY 17-18 Amendments & Transfers	CFPUA FY 17-18	CFPUA FY 17-18	CFPUA FY 17-18	CFPUA FY 18-19
	Adjusted Budget	Actual	Adjusted Budget	Actual	Adopted Budget		Adjusted Budget	Projected	Adopted Budget	
APPROPRIATIONS										
Operating Expenditures	\$ 37,091,146	\$ 33,777,917	\$ 36,969,097	\$ 34,326,392	\$ 37,152,403	\$ 915,682	\$ 38,068,085	\$ 33,607,070	\$ 39,311,736	
Non-Departmental	2,398,500	2,140,026	2,328,260	2,313,084	2,491,903	(46,324)	2,445,579	2,432,122	2,568,810	
Contingency	472,000	-	953,000	-	675,000	(606,640)	68,360	-	-	
Debt Service & Issuance Costs	35,619,793	34,092,560	24,950,053	24,022,711	24,292,749	79,382	24,372,131	24,372,131	23,178,918	
Payment to Refunded Bond Escrow Agent	187,785,880	187,785,880	-	-	-	33,960,000	33,960,000	32,729,050	-	
Transfer to Capital Projects	16,233,854	16,233,854	16,430,910	16,430,910	14,906,616	5,159,998	20,066,614	20,066,614	16,695,665	
Total Appropriations	279,601,173	274,030,237	81,631,320	77,093,097	79,518,671	39,462,098	118,980,769	113,206,987	81,755,129	
REVENUES & OTHER FINANCING SOURCES										
Water Revenues	\$ 30,887,000	\$ 31,830,526	\$ 31,063,342	\$ 29,625,368	\$ 33,791,230	\$ -	\$ 33,791,230	\$ 33,791,230	\$ 35,434,638	
Wastewater Revenues	33,637,000	34,833,445	34,053,524	32,918,776	35,986,641	-	35,986,641	35,986,641	36,519,691	
System Development Charges	5,545,400	6,068,284	3,600,000	6,277,464	4,000,000	62,000	4,062,000	4,941,647	4,200,000	
Investment Earnings	2,794,710	3,267,763	434,000	652,859	700,000	20,000	4,520,800	4,931,319	4,300,800	
Operating Grants	-	-	-	220,254	-	-	700,000	1,120,544	700,000	
Appropriated Fund Balance	17,895,818	-	6,257,754	-	540,000	5,180,098	5,720,098	-	600,000	
Sale of Capital Assets	90,521	172,740	-	92,023	-	-	-	70,956	-	
Proceeds from Debt Issuance	183,750,224	183,000,224	690,000	-	-	34,200,000	34,200,000	32,890,000	-	
Other Revenues	5,000,500	5,996,643	5,532,700	6,844,728	4,500,800	-	-	-	-	
Total Revenues	\$ 279,601,173	\$ 265,169,624	\$ 81,631,320	\$ 76,631,471	\$ 79,518,671	\$ 39,462,098	\$ 118,980,769	\$ 113,732,337	\$ 81,755,129	
Revenues Over/(Under) Appropriations	\$ -	\$ (8,860,613)	\$ -	\$ (461,626)	\$ -	\$ -	\$ -	\$ 525,350	\$ -	

CAPE FEAR PUBLIC UTILITY AUTHORITY
FY 18-19

STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE										
(Budgetary Basis)										
	CFPUA FY 15-16	CFPUA FY 15-16	CFPUA FY 15-16	CFPUA FY 16-17	CFPUA FY 17-18	CFPUA FY 17-18 Amendments & Transfers	CFPUA FY 17-18 Adjusted Budget	CFPUA FY 15-16 Projected	CFPUA FY 18-19 Adopted Budget	
	Adjusted Budget	Actual	Adjusted Budget	Actual	Adopted Budget					
REVENUES AND OTHER FINANCING SOURCES										
Operating Revenues										
Water Revenues	\$ 30,887,000	\$ 31,830,526	\$ 31,063,342	\$ 29,625,368	\$ 33,791,230	\$ -	\$ 33,791,230	\$ 33,791,230	\$ 35,434,638	
Wastewater Revenues	33,637,000	34,833,445	34,053,524	32,918,776	35,986,641	-	35,986,641	35,986,641	36,519,691	
Investment Earnings	2,794,710	3,267,763	434,000	652,859	700,000	-	700,000	1,120,544	700,000	
System Development Charges	5,545,400	6,068,284	3,600,000	6,277,464	4,000,000	62,000	4,062,000	4,941,647	4,200,000	
Other Revenues	5,000,500	5,996,643	5,532,700	7,064,982	4,500,800	20,000	4,520,800	4,931,319	4,300,800	
Total Revenues	77,864,610	81,996,661	74,683,566	76,539,449	78,978,671	82,000	79,060,671	80,771,381	81,155,129	
Other Financing Sources										
Sale of Capital Assets	90,521	172,740	-	92,023	-	-	-	70,956	-	
Proceeds from Debt Issuance	183,750,224	183,000,224	690,000	-	-	34,200,000	34,200,000	32,890,000	-	
Appropriated Fund Balance	17,895,818	-	6,257,754	-	540,000	5,180,098	5,720,098	-	600,000	
Total Other Financing Sources	201,736,563	183,172,964	6,947,754	92,023	540,000	39,380,098	39,920,098	32,960,956	600,000	
Total Revenues and Other Financing Sources	\$ 279,601,173	\$ 265,169,625	\$ 81,631,320	\$ 76,631,472	\$ 79,518,671	\$ 39,462,098	\$ 118,980,769	\$ 113,732,337	\$ 81,755,129	
EXPENDITURES AND OTHER FINANCING USES										
Operating Expenditures										
Authority Board	\$ 66,543	\$ 57,731	\$ 66,106	\$ 59,766	\$ 62,371	\$ -	\$ 62,371	\$ 53,624	\$ 64,710	
Administration	881,105	749,142	857,121	809,194	739,980	382,982	1,122,962	1,096,053	1,156,590	
Finance	1,180,270	1,022,547	1,097,280	1,064,078	1,138,109	58,800	1,196,909	1,086,822	1,223,692	
Human Resources	667,023	620,185	659,207	621,402	527,814	5,565	533,379	485,718	553,180	
Public & Environmental Policy	-	-	-	-	-	80,955	80,955	21,400	283,723	
Information Technology	1,538,466	1,486,683	1,654,523	1,640,136	1,871,163	8,455	1,879,618	1,789,100	2,411,030	
Engineering	2,373,530	2,165,691	2,321,163	2,287,267	2,708,826	3,000	2,711,826	2,455,816	2,703,945	
Operations - Centralized Maintenance	2,329,842	2,225,301	2,464,404	2,377,817	2,685,692	141,721	2,827,413	2,680,820	2,796,844	
Operations - Administration	400,711	385,411	348,649	336,718	362,002	5,000	367,002	339,790	373,620	
Operations - Water Treatment	6,615,116	6,335,572	6,834,163	6,388,620	7,009,233	192,459	7,201,692	5,898,367	7,163,778	
Operations - Wastewater Treatment	4,072,554	3,856,059	3,937,545	3,791,695	4,077,199	(86,247)	3,990,952	3,449,608	4,304,456	
Operations - Utility Services	9,650,585	8,239,042	9,902,694	8,662,732	9,241,363	(1,733)	9,239,630	8,113,418	9,389,317	
Environment Management	2,323,644	2,189,349	2,367,914	2,255,303	2,665,826	72,301	2,738,127	2,545,803	2,723,121	
Customer Service	3,667,368	3,327,976	3,958,046	3,619,731	4,062,825	52,424	4,115,249	3,590,731	4,163,730	
Damage Claims	59,550	3,468	50,000	(370)	-	-	-	-	-	
Outside Partnerships	82,839	78,490	76,650	69,196	-	-	-	-	-	
Non-Capital Construction	285,000	164,663	298,500	293,107	-	-	-	-	-	
Fines and Penalties	26,000	-	25,132	-	-	-	-	-	-	
Nondepartmental	2,398,500	2,140,026	2,328,260	2,313,084	2,491,903	(46,324)	2,445,579	2,432,122	2,568,810	
Litigation Settlement	871,000	870,609	50,000	50,000	-	-	-	-	-	
Contingency-Operating	472,000	-	953,000	-	675,000	(606,640)	68,360	-	-	

CAPE FEAR PUBLIC UTILITY AUTHORITY
FY 18-19

STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCE									
(Budgetary Basis)									
	CFPUA FY 15-16	CFPUA FY 15-16	CFPUA FY 15-16	CFPUA FY 16-17	CFPUA FY 17-18	CFPUA FY 17-18 Amendments & Transfers	CFPUA FY 17-18 Adjusted Budget	CFPUA FY 15-16 Projected	CFPUA FY 18-19 Adopted Budget
	Adjusted Budget	Actual	Adjusted Budget	Actual	Adopted Budget				
Total Operating Expenditures Before Debt Service	39,961,646	35,917,945	40,250,357	36,639,476	40,319,306	262,718	40,582,024	36,039,192	41,880,546
Debt Service	35,619,793	34,092,560	24,950,053	24,022,711	24,292,749	79,382	24,372,131	24,372,131	23,178,918
Other Financing Uses									
Payment to Refunded Bond Escrow Agent	187,785,880	187,785,880	-	-	-	33,960,000	33,960,000	32,729,050	-
Transfers to Capital Project Funds	16,233,854	16,233,854	16,430,910	16,430,910	14,906,616	5,159,998	20,066,614	20,066,614	16,695,665
Total Other Financing Uses	204,019,734	204,019,734	16,430,910	16,430,910	14,906,616	39,119,998	54,026,614	52,795,664	16,695,665
Total Expenditures and Other Financing Uses	\$ 279,601,173	\$ 274,030,239	\$ 81,631,320	\$ 77,093,097	\$ 79,518,671	\$ 39,462,098	\$ 118,980,769	\$ 113,206,987	\$ 81,755,129
Revenues and Other Sources Over									
Expenditures and Other Financing Uses	-	(8,860,614)	-	(461,625)	-	-	-	525,350	-

**CAPE FEAR PUBLIC UTILITY AUTHORITY
FY 18-19**

EXPENDITURES SUMMARY BY DEPARTMENT AND CATEGORY										
	CFPUA FY 15-16	CFPUA FY 15-16	CFPUA FY 16-17	CFPUA FY 16-17	CFPUA FY 17-18	CFPUA FY 17-18	CFPUA FY 17-18	CFPUA FY 17-18	CFPUA FY 18-19	
	Adjusted Budget	Actual	Adjusted Budget	Actual	Adopted Budget	Amendments & Transfers	Adjusted Budget	Projected	Adopted Budget	% Change - FY19 Budget/FY18 Adopted Budget
EXPENDITURES BY DEPARTMENT										
Authority Board	\$ 66,543	\$ 57,731	\$ 66,106	\$ 59,766	\$ 62,371	\$ -	\$ 62,371	\$ 53,624	\$ 64,710	3.75%
Administration	881,105	749,142	857,121	809,194	739,980	382,982	1,122,962	1,096,053	1,156,590	56.30%
Finance	1,180,270	1,022,547	1,097,280	1,064,078	1,138,109	58,800	1,196,909	1,086,822	1,223,692	7.52%
Human Resources	667,023	620,185	659,207	621,402	527,814	5,565	533,379	485,718	553,180	4.81%
Public & Environmental Policy	-	-	-	-	-	80,955	80,955	21,400	283,723	100.00%
Information Technology	1,538,466	1,486,683	1,654,523	1,640,136	1,871,163	8,455	1,879,618	1,789,100	2,411,030	28.85%
Engineering	2,373,530	2,165,691	2,321,163	2,287,267	2,708,826	3,000	2,711,826	2,455,816	2,703,945	-0.18%
Operations - Centralized Maintenance	2,329,842	2,225,301	2,464,404	2,377,817	2,685,692	141,721	2,827,413	2,680,820	2,796,844	4.14%
Operations - Administration	400,711	385,411	348,649	336,718	362,002	5,000	367,002	339,790	373,620	3.21%
Operations - Water Treatment	6,615,116	6,335,572	6,834,163	6,388,620	7,009,233	192,459	7,201,692	5,898,367	7,163,778	2.20%
Operations - Wastewater Treatment	4,072,554	3,856,059	3,937,545	3,791,695	4,077,199	(86,247)	3,990,952	3,449,608	4,304,456	5.57%
Operations - Utility Services	9,650,585	8,239,042	9,902,694	8,662,732	9,241,363	(1,733)	9,239,630	8,113,418	9,389,317	1.60%
Environment Management	2,323,644	2,189,349	2,367,914	2,255,303	2,665,826	72,301	2,738,127	2,545,803	2,723,121	2.15%
Customer Service	3,667,368	3,327,976	3,958,046	3,619,731	4,062,825	52,424	4,115,249	3,590,731	4,163,730	2.48%
Damage Claims	59,550	3,468	50,000	(370)	-	-	-	-	-	0.00%
Outside Partnerships	82,839	78,490	76,650	69,196	-	-	-	-	-	0.00%
Non-Capital Construction	285,000	164,663	298,500	293,107	-	-	-	-	-	0.00%
Fines and Penalties	26,000	-	25,132	-	-	-	-	-	-	0.00%
Nondepartmental	2,398,500	2,140,026	2,328,260	2,313,084	2,491,903	(46,324)	2,445,579	2,432,122	2,568,810	3.09%
Debt Service, Net	35,619,793	34,092,560	24,950,053	24,022,711	24,292,749	79,382	24,372,131	24,372,131	23,178,918	-4.59%
Payment to Refunded Bond Escrow Agent	187,785,880	187,785,880	-	-	-	33,960,000	33,960,000	32,729,050	-	0.00%
Litigation Settlement	871,000	870,609	50,000	50,000	-	-	-	-	-	0.00%
Contingency-Operating	472,000	-	953,000	-	675,000	(606,640)	68,360	-	-	-100.00%
Transfers to Capital Projects	16,233,854	16,233,854	16,430,910	16,430,910	14,906,616	5,159,998	20,066,614	20,066,614	16,695,665	12.00%
TOTAL	\$ 279,601,173	\$ 274,030,239	\$ 81,631,320	\$ 77,093,097	\$ 79,518,671	\$ 39,462,098	\$ 118,980,769	\$ 113,206,987	\$ 81,755,129	2.81%
EXPENDITURES BY CATEGORY										
Salaries & Benefits	\$ 20,194,067	\$ 18,843,801	\$ 19,860,705	\$ 19,171,589	\$ 21,420,446	\$ (373,936)	\$ 21,046,510	\$ 19,095,010	\$ 22,864,878	6.74%
Operating	15,196,705	13,583,135	16,049,112	14,232,082	15,731,957	1,193,974	16,925,931	14,476,013	16,446,858	4.54%
Capital Outlay	375,985	233,753	558,998	510,788	-	95,644	95,644	36,047	-	0.00%
Damage Claims	59,550	3,468	50,000	(370)	-	-	-	-	-	0.00%
Outside Partnerships	82,839	78,490	76,650	69,196	-	-	-	-	-	0.00%
Non-Capital Construction	285,000	164,663	298,500	293,107	-	-	-	-	-	0.00%
Fines and Penalties	26,000	-	25,132	-	-	-	-	-	-	0.00%
Nondepartmental	2,398,500	2,140,026	2,328,260	2,313,084	2,491,903	(46,324)	2,445,579	2,432,122	2,568,810	3.09%
Debt Service, Net	35,619,793	34,092,560	24,950,053	24,022,711	24,292,749	79,382	24,372,131	24,372,131	23,178,918	-4.59%
Payment to Refunded Bond Escrow Agent	187,785,880	187,785,880	-	-	-	33,960,000	33,960,000	32,729,050	-	0.00%
Litigation Settlement	871,000	870,609	50,000	50,000	-	-	-	-	-	0.00%
Contingency-Operating	472,000	-	953,000	-	675,000	(606,640)	68,360	-	-	-100.00%
Transfers to Capital Projects	16,233,854	16,233,854	16,430,910	16,430,910	14,906,616	5,159,998	20,066,614	20,066,614	16,695,665	12.00%
TOTAL	\$ 279,601,173	\$ 274,030,239	\$ 81,631,320	\$ 77,093,097	\$ 79,518,671	\$ 39,462,098	\$ 118,980,769	\$ 113,206,987	\$ 81,755,129	2.81%

**CAPE FEAR PUBLIC UTILITY AUTHORITY
FY 18-19**

EXPENDITURES DETAIL BY DEPARTMENT											
	CFPUA FY 15-16	CFPUA FY 15-16	CFPUA FY 16-17	CFPUA FY 16-17	CFPUA FY 17-18	CFPUA FY 17-18	CFPUA FY 17-18	CFPUA FY 17-18	CFPUA FY 17-18	CFPUA FY 18-19	
	Adjusted Budget	Actual	Adjusted Budget	Actual	Adopted Budget	Amendments & Transfers	Adjusted Budget	Projected	Adopted Budget	% Change - FY19 Budget/FY18 Adopted Budget	
Authority Board											
Salaries & Benefits	\$ 42,645	\$ 41,614	\$ 44,108	\$ 43,460	\$ 42,635	\$ -	42,635	\$ 40,514	\$ 38,759	-9.09%	
Operating	23,898	16,117	21,998	16,306	19,736	-	19,736	13,110	25,951	31.49%	
Total Authority Board	66,543	57,731	66,106	59,766	62,371	-	62,371	53,624	64,710	3.75%	
Administration											
Salaries & Benefits	591,705	553,356	505,860	491,721	519,780	(58,802)	460,978	434,069	432,163	-16.86%	
Operating	289,400	195,786	351,261	317,473	220,200	441,784	661,984	661,984	724,427	228.99%	
Total Administration	881,105	749,142	857,121	809,194	739,980	382,982	1,122,962	1,096,053	1,156,590	56.30%	
Finance											
Salaries & Benefits	1,137,350	990,431	1,032,080	1,012,118	1,057,277	(4,000)	1,053,277	965,568	1,071,960	1.39%	
Operating	42,920	32,115	65,200	51,960	80,832	62,800	143,632	121,254	151,732	87.71%	
Total Finance	1,180,270	1,022,547	1,097,280	1,064,078	1,138,109	58,800	1,196,909	1,086,822	1,223,692	7.52%	
Human Resources											
Salaries & Benefits	470,970	460,228	516,647	494,603	407,288	2,025	409,313	382,555	423,805	4.06%	
Operating	196,053	159,957	142,560	126,799	120,526	3,540	124,066	103,163	129,375	7.34%	
Total Human Resources	667,023	620,185	659,207	621,402	527,814	5,565	533,379	485,718	553,180	4.81%	
Public & Environmental Policy											
Salaries & Benefits	-	-	-	-	-	80,739	80,739	21,261	267,021	100.00%	
Operating	-	-	-	-	-	216	216	139	16,702	100.00%	
Total Public & Environmental Policy	-	-	-	-	-	80,955	80,955	21,400	283,723	100.00%	
Information Technology											
Salaries & Benefits	520,626	512,123	560,798	554,630	674,803	(8,000)	666,803	623,889	824,194	22.14%	
Operating	1,017,840	974,561	1,093,725	1,085,506	1,196,360	5,584	1,201,944	1,154,340	1,586,836	32.64%	
Capital Outlay	-	-	-	-	-	10,871	10,871	10,871	-	0.00%	
Total Information Technology	1,538,466	1,486,683	1,654,523	1,640,136	1,871,163	8,455	1,879,618	1,789,100	2,411,030	28.85%	
Engineering											
Salaries & Benefits	2,262,912	2,066,880	2,191,212	2,167,147	2,376,529	(25,000)	2,351,529	2,212,339	2,479,988	4.35%	
Operating	110,618	98,812	121,451	111,667	332,297	28,000	360,297	243,477	223,957	-32.60%	
Capital Outlay	-	-	8,500	8,453	-	-	-	-	-	0.00%	
Total Engineering	2,373,530	2,165,691	2,321,163	2,287,267	2,708,826	3,000	2,711,826	2,455,816	2,703,945	-0.18%	
Operations - Centralized Maintenance											
Salaries & Benefits	1,185,064	1,142,035	1,331,670	1,285,858	1,373,646	-	1,373,646	1,244,657	1,384,152	0.76%	
Operating	1,036,071	1,011,897	1,118,310	1,077,536	1,312,046	124,117	1,436,163	1,436,163	1,412,692	7.67%	

**CAPE FEAR PUBLIC UTILITY AUTHORITY
FY 18-19**

EXPENDITURES DETAIL BY DEPARTMENT										
	CFPUA FY 15-16	CFPUA FY 15-16	CFPUA FY 16-17	CFPUA FY 16-17	CFPUA FY 17-18	CFPUA FY 17-18	CFPUA FY 17-18	CFPUA FY 17-18	CFPUA FY 18-19	
	Adjusted Budget	Actual	Adjusted Budget	Actual	Adopted Budget	Amendments & Transfers	Adjusted Budget	Projected	Adopted Budget	% Change - FY19 Budget/FY18 Adopted Budget
Capital Outlay	108,707	71,369	14,424	14,423	-	17,604	17,604	-	-	0.00%
Total Operations - Centralized Maintenance	2,329,842	2,225,301	2,464,404	2,377,817	2,685,692	141,721	2,827,413	2,680,820	2,796,844	4.14%
Operations - Administration										
Salaries & Benefits	383,813	380,697	332,416	322,654	346,084	-	346,084	320,695	359,648	3.92%
Operating	16,898	4,714	16,233	14,064	15,918	5,000	20,918	19,095	13,972	-12.23%
Total Operations - Administration	400,711	385,411	348,649	336,718	362,002	5,000	367,002	339,790	373,620	3.21%
Operations - Water Treatment										
Salaries & Benefits	1,627,525	1,520,688	1,699,821	1,605,378	1,830,309	(69,340)	1,760,969	1,542,362	1,866,351	1.97%
Operating	4,898,469	4,757,867	5,066,096	4,716,466	5,178,924	250,111	5,429,035	4,344,317	5,297,427	2.29%
Capital Outlay	89,122	57,017	68,246	66,776	-	11,688	11,688	11,688	-	0.00%
Total Operations - Water Treatment	6,615,116	6,335,572	6,834,163	6,388,620	7,009,233	192,459	7,201,692	5,898,367	7,163,778	2.20%
Operations - Wastewater Treatment										
Salaries & Benefits	\$ 1,926,118	\$ 1,794,788	\$ 1,740,978	\$ 1,711,644	\$ 1,894,801	\$ (71,821)	\$ 1,822,980	\$ 1,709,392	\$ 1,912,516	0.93%
Operating	2,137,683	2,054,178	2,196,567	2,080,051	2,182,398	(26,490)	2,155,908	1,740,216	2,391,940	9.60%
Capital Outlay	8,753	7,093	-	-	-	12,064	12,064	-	-	0.00%
Total Operations - Wastewater Treatment	4,072,554	3,856,059	3,937,545	3,791,695	4,077,199	(86,247)	3,990,952	3,449,608	4,304,456	5.57%
Operations - Utility Services										
Salaries & Benefits	5,396,994	5,045,195	5,315,576	5,099,477	5,711,954	(156,078)	5,555,876	5,019,776	5,806,732	1.66%
Operating	4,112,491	3,123,757	4,213,221	3,230,947	3,529,409	110,928	3,640,337	3,080,154	3,582,585	1.51%
Capital Outlay	141,100	70,090	373,897	332,308	-	43,417	43,417	13,488	-	0.00%
Total Operations - Utility Services	9,650,585	8,239,042	9,902,694	8,662,732	9,241,363	(1,733)	9,239,630	8,113,418	9,389,317	1.60%
Environment Management										
Salaries & Benefits	1,861,936	1,784,851	1,801,568	1,742,888	2,094,509	(96,659)	1,997,850	1,805,526	2,078,776	-0.75%
Operating	443,063	385,971	495,928	446,989	571,317	168,960	740,277	740,277	644,345	12.78%
Capital Outlay	18,645	18,526	70,418	65,426	-	-	-	-	-	0.00%
Total Environment Management	2,323,644	2,189,349	2,367,914	2,255,303	2,665,826	72,301	2,738,127	2,545,803	2,723,121	2.15%
Customer Service										
Salaries & Benefits	2,786,409	2,550,914	2,787,971	2,640,012	3,090,831	33,000	3,123,831	2,772,407	3,318,813	7.38%
Operating	871,301	767,404	1,146,562	956,317	971,994	19,424	991,418	818,324	844,917	-13.07%
Capital Outlay	9,658	9,658	23,513	23,402	-	-	-	-	-	0.00%
Total Customer Service	3,667,368	3,327,976	3,958,046	3,619,731	4,062,825	52,424	4,115,249	3,590,731	4,163,730	2.48%
Damage Claims	59,550	3,468	50,000	(370)	-	-	-	-	-	0.00%

**CAPE FEAR PUBLIC UTILITY AUTHORITY
FY 18-19**

EXPENDITURES DETAIL BY DEPARTMENT										
	CFPUA FY 15-16	CFPUA FY 15-16	CFPUA FY 16-17	CFPUA FY 16-17	CFPUA FY 17-18	CFPUA FY 17-18	CFPUA FY 17-18	CFPUA FY 17-18	CFPUA FY 18-19	
	Adjusted Budget	Actual	Adjusted Budget	Actual	Adopted Budget	Amendments & Transfers	Adjusted Budget	Projected	Adopted Budget	% Change - FY19 Budget/FY18 Adopted Budget
Outside Partnerships	82,839	78,490	76,650	69,196	-	-	-	-	-	0.00%
Non-Capital Construction	285,000	164,663	298,500	293,107	-	-	-	-	-	0.00%
Fine and Penalties	26,000	-	25,132	-	-	-	-	-	-	0.00%
TOTAL OPERATING EXPENDITURES	36,220,146	32,907,310	36,919,097	34,276,392	37,152,403	915,682	38,068,085	33,607,070	39,311,736	5.81%
Nondepartmental	2,398,500	2,140,026	2,328,260	2,313,084	2,491,903	(46,324)	2,445,579	2,432,122	2,568,810	3.09%
Debt Service, Net	35,619,793	34,092,560	24,950,053	24,022,711	24,292,749	79,382	24,372,131	24,372,131	23,178,918	-4.59%
Payment to Refunded Bond Escrow Agent	187,785,880	187,785,880	-	-	-	33,960,000	33,960,000	32,729,050	-	0.00%
Litigation Settlement	871,000	870,609	50,000	50,000	-	-	-	-	-	0.00%
Contingency-Operating	472,000	-	953,000	-	675,000	(606,640)	68,360	-	-	-100.00%
Transfers to Capital Projects	16,233,854	16,233,854	16,430,910	16,430,910	14,906,616	5,159,998	20,066,614	20,066,614	16,695,665	12.00%
TOTAL EXPENDITURES	\$ 279,601,173	\$ 274,030,239	\$ 81,631,320	\$ 77,093,097	\$ 79,518,671	\$ 39,462,098	\$ 118,980,769	\$ 113,206,987	\$ 81,755,129	2.81%

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CAPITAL BUDGET

Capital improvements are necessary for rehabilitation, replacement, and acquisition of infrastructure and to provide safe, reliable, high-quality water and wastewater services. Capital improvements are budgeted through project ordinances that appropriate funds to be used over the life of the project, which may span several budget years. This contrasts with the Authority's operating budget appropriations which lapse at the end of each budget year. Capital budgets are developed by first preparing initial business cases to evaluate capital projects in terms of risk (defined as the product of the consequence of failure and the likelihood of failure) and whether the projects are necessary for compliance with regulatory requirements, improve efficiency, increase capacity, or are necessary to accommodate growth. Projects are prioritized based on risk and these other criteria.

The capital budgeting process is also governed by certain financial limitations. Except for grants and capital contributions, the Authority's capital projects are funded through either annual operating revenue (pay-as-you-go funded) or with proceeds from the issuance of debt (debt funded). In accordance with policy, debt is generally limited to high-dollar and growth-oriented projects. Debt cannot be issued if such issuance would cause the Authority's debt-to-capitalization ratio to exceed 45%. These debt limitations mean that most other capital expenditures are funded on a pay-as-you-go basis. The Authority develops its capital budgets to provide that pay-as-you-go funded capital expenditures approximate a pre-determined target. Since pay-as-you-go funding comes from water and wastewater revenues, establishing an annual pay-as-you-go funded capital expenditure target reduces rate volatility and keeps rates affordable by reducing long-term debt and associated costs. The current amount of \$18 million was determined based on the size of the system, current condition of the system, expectations of construction and materials costs, and rate affordability benchmarks.

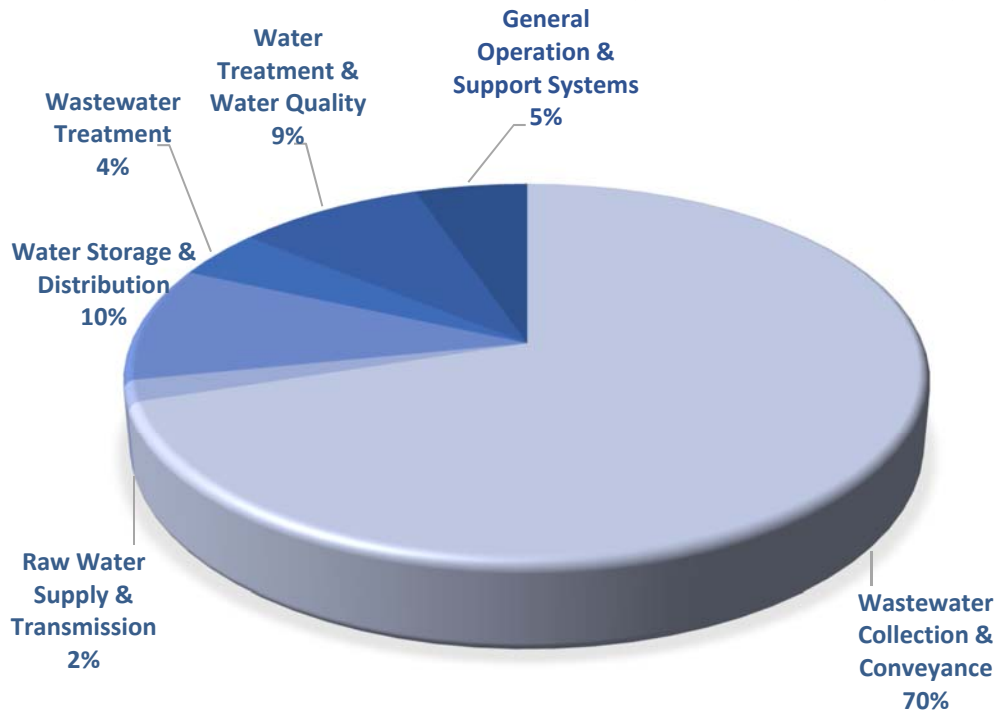
An important aspect of capital budgeting is the effect that budgeted projects have on the annual operating budget. As previously mentioned, most of the Authority's capital expenditures are debt funded or pay-as-you-go funded. Both funding methods impact the annual operating budget. Under the pay-as-you-go method, customers are charged through rates to fund capital costs. Pay-as-you-go funding is appropriated as a transfer to the capital fund in the annual operating budget. Under the debt funding method, customers are charged through rates to cover debt service costs related to debt issued to fund capital costs. Debt service costs are appropriated in the annual operating budget. Appropriations for transfers to the capital projects fund and debt service for FY 18-19 are \$16.7 million and \$23.2 million, respectively. Combined, these appropriations comprise 49% of the FY 18-19 operating budget.

The FY 18-19 capital budget totals \$54.9 million. The majority (75.8%) of the FY 18-19 capital budget is focused on rehabilitating or replacing existing infrastructure. Notable projects include the interim rehabilitation of gravity sewer lines, pump station 10 replacement, various pump station and force main replacement and rehabilitation projects, and designing upgrades to the Sweeney plant to remove GenX and other emerging contaminants. Another 14.7% of the FY 18-19 capital budget is programmed for system expansion with the remainder (9.5%) programmed for improving efficiency. Notable expansion projects include the extension of water to the northern part of the service area and capacity upgrades to pump station 36.

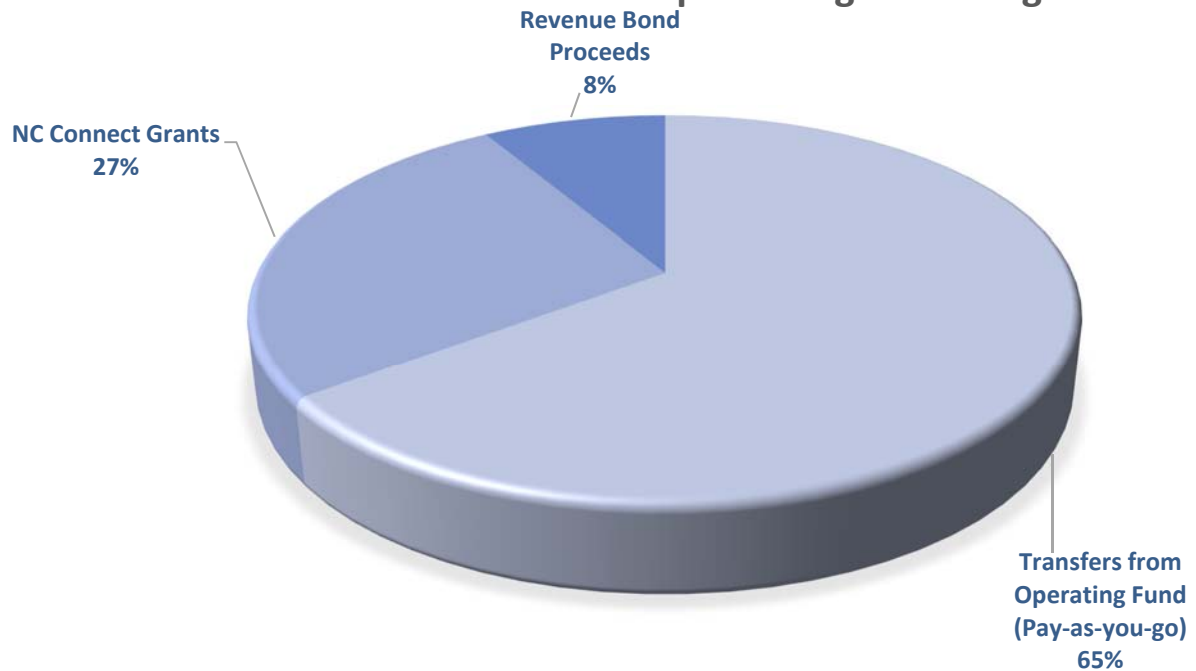
The pie charts on the following page detail project appropriations by type and the funding sources incorporated in the FY 18-19 capital budget.

CAPITAL BUDGET

Fiscal Year 2018-2019 Capital Budget by Type



Fiscal Year 2018-2019 Capital Budget Funding Sources



Risk Before						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	4	3	2	1	0	35
4 - Likely	6	9	12	15	18	20
3 - Possible	8	16	24	32	40	45
2 - Doubtful	1	2	3	4	5	10
1 - Very Unlikely	1	2	3	4	5	5
Total Risk	1 - Negligible	2 - Minor	3 - Moderate	4 - Significant	5 - Severe	

Risk After						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	4	3	2	1	0	35
4 - Likely	6	9	12	15	18	20
3 - Possible	8	16	24	32	40	45
2 - Doubtful	1	2	3	4	5	10
1 - Very Unlikely	1	2	3	4	5	5
Total Risk	1 - Negligible	2 - Minor	3 - Moderate	4 - Significant	5 - Severe	

REFERENCE NUMBER	Find It, Fix It Methodology Sewer Collection Rehabilitation (AMP)	17S394
4		
Project Type:	Rehab or Replace Assets	
Project Area:	Wastewater Collection	
Summary: Areas of our collection system are beyond their designed life-cycle. Utilizing asset management principles, including risk mitigation and remaining useful life, assets are determined to be rehabbed or replaced. Potential projects include eliminating infiltration and inflow tributary to Southside WWTP; manhole rehab along Laney Outfall; manhole rehab at Pump Stations 34 and 35; and rehabilitation or replacement of pipe which is over 40 years old and has a work order history or condition assessment that indicates failures or costly maintenance requirements. CFPUA has approximately 870 miles of gravity sewer. It is estimated that 229 miles or 26% is over 40 years old, with 100 miles or 11% in the City which is over 70 years old.		
<u>Project Drivers and Benefits:</u> • COMPLIANCE 50%: Required for compliance with additional benefits. • EFFICIENCY 25%: Increase in efficiency with substantial other benefits. • CAPACITY 25%: Some increase in capacity with substantial other benefits. • GROWTH 0%: No direct Impact on customer growth.		
Total Estimated Cost	\$52,000,000	
Budgeted FY 2014-2018	Requested FY 2019	Future Budget Needs
\$9,000,000	\$1,500,000	\$41,500,000

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%



Risk Before						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	4	3	2	1	0	0
4 - Likely	3	2	1	0	0	0
3 - Possible	2	1	0	0	0	0
2 - Unlikely	1	0	0	0	0	0
1 - Very Unlikely	0	0	0	0	0	0
0 - Not at all	0	0	0	0	0	0
CORRESPONDENCE						

Risk After						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	4	3	2	1	0	0
4 - Likely	3	2	1	0	0	0
3 - Possible	2	1	0	0	0	0
2 - Unlikely	1	0	0	0	0	0
1 - Very Unlikely	0	0	0	0	0	0
0 - Not at all	0	0	0	0	0	0
CORRESPONDENCE						

REFERENCE NUMBER	IT SCADA (PS Upgrades)		16S344
10			
Project Type:	Rehab or Replace Assets		
Project Area:	Other		
Summary: This project is to fund systematic replacement of existing SCADA Remote Terminal Units (RTU's) at the Authority's 142 pump stations. After ongoing replacements using current funding, approximately 115 existing RTU's will remain that are over 20-years old. Parts for these units are no longer available in the marketplace for repairs. In addition, these replacements are needed to convert to wireless Ethernet communication. \$250,000 in FY 19 will upgrade approximately 25 RTU panels.			
<u>Project Drivers and Benefits:</u> • COMPLIANCE 75%: Required for compliance with some other beneficial considerations. • EFFICIENCY 25%: Increase in efficiency with substantial other benefits. • CAPACITY 0%: No direct Impact on capacity. • GROWTH 0%: No direct Impact on customer growth.			
Total Estimated Cost		\$2,250,000	
Budgeted FY 2014-2018		Requested FY 2019	Future Budget Needs
\$750,000		\$250,000	\$1,250,000

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%



Risk Before						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	4	3	2	1	0	35
4 - Likely	0	0	12	12	0	24
3 - Possible	0	0	0	12	12	24
2 - Unlikely	0	0	0	0	0	0
1 - Very Unlikely	0	0	0	0	0	0
0 - Not at all	0	0	0	0	0	0
CORROSION RISK						

Risk After						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	4	3	2	1	0	35
4 - Likely	0	0	12	12	0	24
3 - Possible	0	0	0	12	12	24
2 - Unlikely	0	0	0	0	0	0
1 - Very Unlikely	0	0	0	0	0	0
0 - Not at all	0	0	0	0	0	0
CORROSION RISK						

REFERENCE NUMBER	Comprehensive Meter Replacement Program		16W215
22			
Project Type:	Rehab or Replace Assets		
Project Area:	Water Distribution		
Summary: CFPUA has approximately 63,000 small meters (5/8" – typical residential) and 3,900 midsize meter (1", 1,1/2", and 2") The meter population is a mixture of radio read, touch/probe read, and manual read type. Billing is conducted bi-monthly, with a total of 221 routes and 9 meter readers. A majority of CFPUA’s meters are approaching the end of their useful life, meaning a reduction in reading accuracy. CFPUA recognized the need to initiate a Meter Replacement Program to replace these aged meters and institute a consistent and efficient meter reading method.			
<u>Project Drivers and Benefits:</u> • COMPLIANCE 0%: No direct impact on compliance. • EFFICIENCY 100%: Increases efficiency with no other benefits. • CAPACITY 0%: No direct Impact on capacity. • GROWTH 0%: No direct Impact on customer growth.			
Total Estimated Cost		\$19,080,000	
Budgeted FY 2014-2018		Requested FY 2019	Future Budget Needs
\$15,780,000		\$2,500,000	\$800,000

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%



Risk Before						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	4	3	2	1	0	1
4 - Likely	3	2	1	0	1	0
3 - Possible	2	1	0	1	0	1
2 - Unlikely	1	0	1	0	1	0
1 - Rarely Likely	0	1	0	1	0	1
0 - Not Likely	1	0	1	0	1	0
CORROSION						

Risk After						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	4	3	2	1	0	1
4 - Likely	3	2	1	0	1	0
3 - Possible	2	1	0	1	0	1
2 - Unlikely	1	0	1	0	1	0
1 - Rarely Likely	0	1	0	1	0	1
0 - Not Likely	1	0	1	0	1	0
CORROSION						

REFERENCE NUMBER	Rehabilitation of Sewer Infrastructure Matching with City Streets		17S395
23			
Project Type:	Rehab or Replace Assets		
Project Area:	Wastewater Collection		
Summary: When the City of Wilmington initiates street repaving or stormwater projects there are opportunities for replacement of CFPWA sewer infrastructure as a part of the City's project. These funds are programmed to fund design and construction of Authority infrastructure rehab or replacement under contracts managed by the City as set forth by future Interlocal Agreements. Brick streets, repaving and streetscape projects are prime examples where the cost to the public and traffic disruptions can be reduced by concurrently addressing sewer infrastructure improvements. See also a matching project for water infrastructure.			
<u>Project Drivers and Benefits:</u> • COMPLIANCE 50%: Required for compliance with additional benefits. • EFFICIENCY 25%: Increase in efficiency with substantial other benefits. • CAPACITY 25%: Some increase in capacity with substantial other benefits. • GROWTH 0%: No direct Impact on customer growth.			
Total Estimated Cost		\$7,200,000	
Budgeted FY 2014-2018		Requested FY 2019	Future Budget Needs
\$800,000		\$600,000	\$5,400,000

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%



Risk Before						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	4	3	2	1	0	1
4 - Likely	3	2	1	0	1	0
3 - Possible	2	1	0	1	0	1
2 - Unlikely	1	0	1	0	1	0
1 - Very Unlikely	0	1	0	1	0	1
0 - Not at all	1 - Negligible	2 - Minor	3 - Moderate	4 - Significant	5 - Severe	
CORROCORADVICE						

Risk After						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	4	3	2	1	0	1
4 - Likely	3	2	1	0	1	0
3 - Possible	2	1	0	1	0	1
2 - Unlikely	1	0	1	0	1	0
1 - Very Unlikely	0	1	0	1	0	1
0 - Not at all	1 - Negligible	2 - Minor	3 - Moderate	4 - Significant	5 - Severe	
CORROCORADVICE						

REFERENCE NUMBER	IT Virtual Desktop Migration		16A008
28			
Project Type:	Enhancement		
Project Area:	Other		
Summary: As the Authority looks to replace its antiquated PC's, the IT Division will be moving towards a virtual desktop solution. Desktop PC's will be allowed to run to failure to maximize the investment. Server resources are shared among virtual desktops to ensure that all resources are being utilized and not wasted. Desktop PC's will be replaced with a thin client which is less costly than a desktop. This solution allows for centralized management of the user's desktop. This solution has multiple levels of redundancy and can be securely accessed remotely from any location with Internet access which meets the Information Technology Division's Business Continuity plan.			
<u>Project Drivers and Benefits:</u>			
• COMPLIANCE 50%: Required for compliance with additional benefits.			
• EFFICIENCY 50%: Increase in efficiency with additional benefits.			
• CAPACITY 0%: No direct Impact on capacity.			
• GROWTH 0%: No direct Impact on customer growth.			
Total Estimated Cost		\$520,000	
Budgeted FY 2014-2018		Requested FY 2019	Future Budget Needs
\$240,000		\$140,000	\$140,000

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%



Risk Before

RISK ASSIGNMENT MATRIX

L I M I T E D D E	2-Min Urgent	5	20	20	20	20	20	20
	4-Min Urgent	5	5	10	10	10	10	10
	2-Hour Urgent	5	10	5	10	10	10	10
	2-Min Urgent	5	5	5	5	5	5	5
	2-Min Urgent	5	5	5	5	5	5	5
	Fast-Rel	1-Min/Urgent	2-Min	3-Min/Urgent	4-Min/Urgent	5-Min		

CONSIDER

Risk After

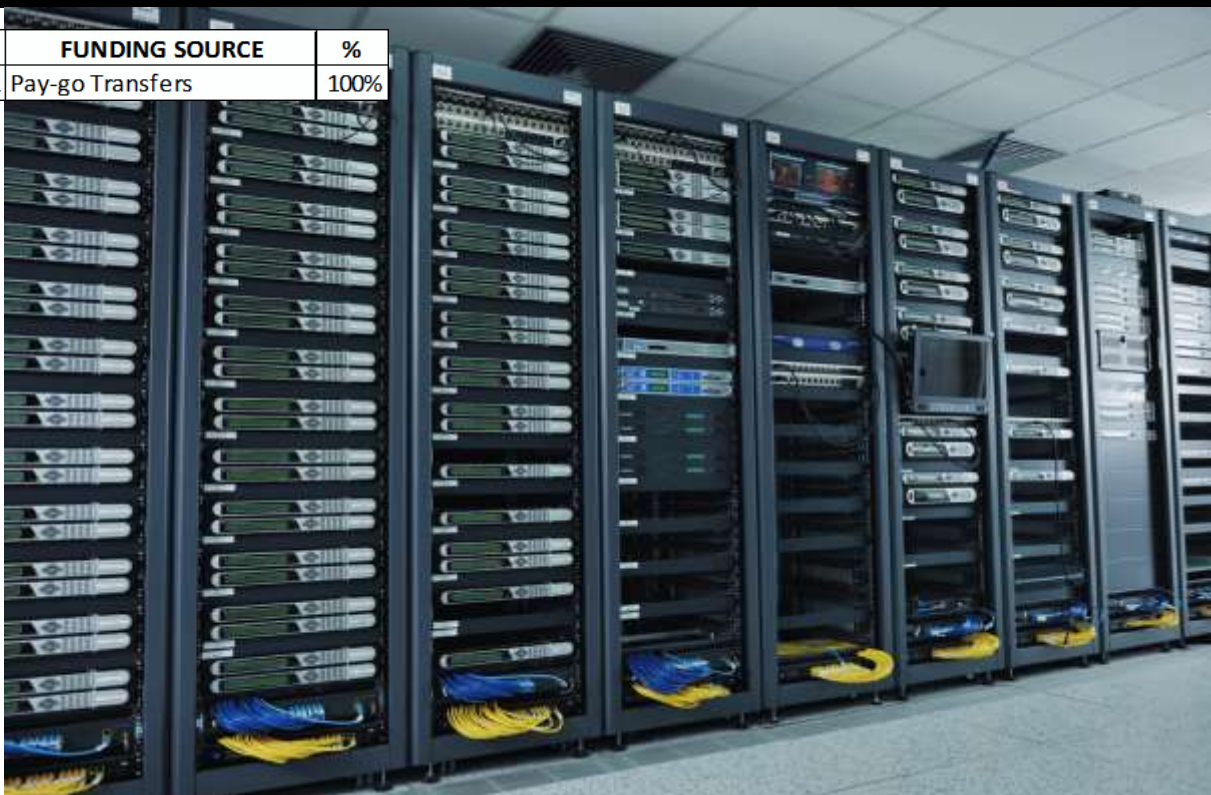
RISK ADJUSTMENT MATRIX

	1. Very Low	2. Low	3. Moderate	4. Significant	5. Severe
1. Very Low	1	2	3	4	5
2. Low	2	3	4	5	6
3. Moderate	3	4	5	6	7
4. Significant	4	5	6	7	8
5. Severe	5	6	7	8	9

CONSIDER

REFERENCE NUMBER	Information Technology Networking Infrastructure Replacement	16A007
30		
Project Type:	Rehab or Replace Assets	
Project Area:	Other	
Summary: In 2008 the Information Technology Division purchased various electronics (Firewalls, Switches, Routers) to connect the Administrative building and the other CFPUA facilities to one another. These devices provide intelligent routing and segmenting for various (Data, Voice, SCADA) applications, security from outside networks, Internet access, and virus protection for the Authority. This project replaces that equipment in a prioritized manner across multiple years. Some equipment will be replaced only after it fails or is obsolete to extract maximum value and service life.		
<u>Project Drivers and Benefits:</u> • COMPLIANCE 25%: Some enhancement to compliance with substantial other benefits. • EFFICIENCY 75%: Significant increase in efficiency with some other beneficial considerations. • CAPACITY 0%: No direct Impact on capacity. • GROWTH 0%: No direct Impact on customer growth.		
Total Estimated Cost	\$1,364,000	
Budgeted FY 2014-2018	Requested FY 2019	Future Budget Needs
\$364,000	\$100,000	\$900,000

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%



Risk Before						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	4	3	2	1	0	1
4 - Likely	3	2	1	0	1	0
3 - Possible	2	1	0	1	0	1
2 - Unlikely	1	0	1	0	1	0
1 - Very Unlikely	0	1	0	1	0	1
0 - Not Possible	1	0	1	0	1	0
CORRO GADANCE						

Risk After						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	4	3	2	1	0	1
4 - Likely	3	2	1	0	1	0
3 - Possible	2	1	0	1	0	1
2 - Unlikely	1	0	1	0	1	0
1 - Very Unlikely	0	1	0	1	0	1
0 - Not Possible	1	0	1	0	1	0
CORRO GADANCE						

REFERENCE NUMBER	Motor Fleet Capital		17A013
34			
Project Type:	Rehab or Replace Assets		
Project Area:	Other		
Summary: CFPUA developed a long term model for motor fleet replacements based on predetermined criteria. Each of these vehicles will be evaluated based on maintenance records and past history. Replacement of those that can be extended in life cost effectively will be deferred. Fleet capital costs are an ongoing major capital expense. By setting aside regular appropriations of capital each year, the Authority is better financially prepared to prevent unplanned funding demands due to motor fleet expenses, without adequate resources.			
<u>Project Drivers and Benefits:</u> • COMPLIANCE 25%: Some enhancement to compliance with substantial other benefits. • EFFICIENCY 75%: Significant increase in efficiency with some other beneficial considerations. • CAPACITY 0%: No direct Impact on capacity. • GROWTH 0%: No direct Impact on customer growth.			
Total Estimated Cost		\$7,900,000	
Budgeted FY 2014-2018		Requested FY 2019	Future Budget Needs
\$1,900,000		\$600,000	\$5,400,000

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%

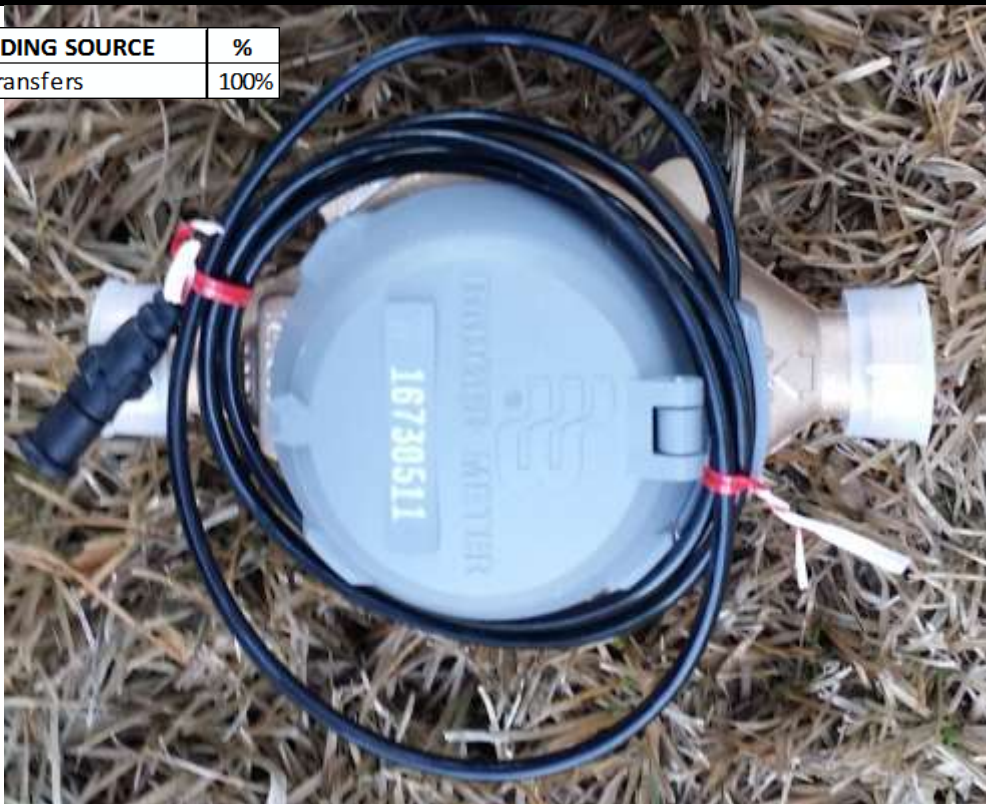


This Project Is Not
Risk Driven



REFERENCE NUMBER	Water Meters for New Customers		17W247
36			
Project Type:	Expansion		
Project Area:	Water Distribution		
Summary: Provides water meters for new customers added by development or other new connections. A sufficient number of water meters must be kept in inventory to meet the needs of new customers.			
<u>Project Drivers and Benefits:</u>			
• COMPLIANCE 0%: No direct impact on compliance. • EFFICIENCY 25%: Increase in efficiency with substantial other benefits. • CAPACITY 25%: Some increase in capacity with substantial other benefits. • GROWTH 50%: Increase customer growth with additional benefits.			
Total Estimated Cost		\$3,150,000	
Budgeted FY 2014-2018		Requested FY 2019	Future Budget Needs
\$500,000		\$250,000	\$2,250,000

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%



This Project Is Not
Risk Driven



REFERENCE NUMBER	Collection System - Standard Developer Agreements		17S399
38			
Project Type:	Expansion		
Project Area:	Wastewater Collection		
Summary: Annual funds allocated to standard developer agreements. Provides cost sharing opportunities with private developers, decreasing overall cost of infrastructure and provides opportunities to increase customer base.			
<u>Project Drivers and Benefits:</u>			
• COMPLIANCE 0%: No direct impact on compliance. • EFFICIENCY 25%: Increase in efficiency with substantial other benefits. • CAPACITY 25%: Some increase in capacity with substantial other benefits. • GROWTH 50%: Increase customer growth with additional benefits.			
Total Estimated Cost		\$2,150,000	
Budgeted FY 2014-2018	Requested FY 2019	Future Budget Needs	
\$650,000	\$150,000	\$1,350,000	

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%



This Project Is Not
Risk Driven



REFERENCE NUMBER	Distribution System - Standard Developer Agreements		17W248
39			
Project Type:	Expansion		
Project Area:	Water Distribution		
Summary: Annual funds allocated to standard developer agreements. Provides cost sharing opportunities with private developers, decreasing overall cost of infrastructure and provides opportunities to increase customer base.			
<u>Project Drivers and Benefits:</u>			
• COMPLIANCE 0%: No direct impact on compliance. • EFFICIENCY 25%: Increase in efficiency with substantial other benefits. • CAPACITY 25%: Some increase in capacity with substantial other benefits. • GROWTH 50%: Increase customer growth with additional benefits.			
Total Estimated Cost		\$2,150,000	
Budgeted FY 2014-2018		Requested FY 2019	Future Budget Needs
\$650,000		\$150,000	\$1,350,000

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%

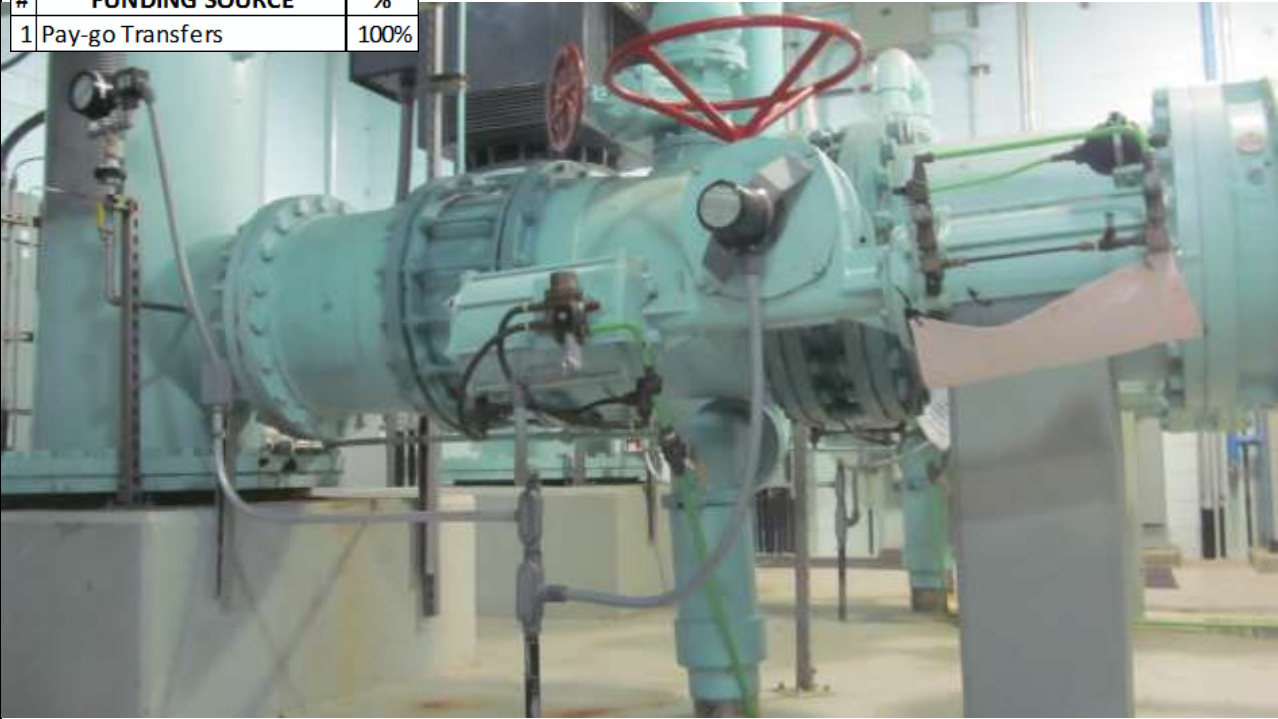


Risk Before						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	4	3	2	1	0	1
4 - Likely	6	9	12	15	18	21
3 - Possible	8	12	16	20	24	28
2 - Unlikely	10	15	20	25	30	35
1 - Very Unlikely	12	18	24	30	36	42
0 - Not Possible	14	21	28	35	42	49
CORROSION RISK						

Risk After						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	4	3	2	1	0	1
4 - Likely	6	9	12	15	18	21
3 - Possible	8	12	16	20	24	28
2 - Unlikely	10	15	20	25	30	35
1 - Very Unlikely	12	18	24	30	36	42
0 - Not Possible	14	21	28	35	42	49
CORROSION RISK						

REFERENCE NUMBER	OPS Large Equipment Purchases (Pumps, Plant Equipment, HVAC)	17A012
40		
Project Type:	Rehab or Replace Assets	
Project Area:	Other	
Summary: This project funds replacement of large equipment such as HVAC, pumps and other equipment replacements large enough to be a capital project for any facility arising due to unplanned but non-emergency system failures that occur during the year.		
<u>Project Drivers and Benefits:</u> • COMPLIANCE 50%: Required for compliance with additional benefits. • EFFICIENCY 50%: Increase in efficiency with additional benefits. • CAPACITY 0%: No direct Impact on capacity. • GROWTH 0%: No direct Impact on customer growth.		
Total Estimated Cost	\$5,280,000	
Budgeted FY 2014-2018	Requested FY 2019	Future Budget Needs
\$280,000	\$500,000	\$4,500,000

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%



Risk Before						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	4	3	2	1	0	-1
4 - Likely	0	0	0	0	0	0
3 - Possible	0	0	0	0	0	0
2 - Doubtful	0	0	0	0	0	0
1 - Very Doubtful	0	0	0	0	0	0
0 - Not at all	0	0	0	0	0	0
CORROSION						

Risk After						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	4	3	2	1	0	-1
4 - Likely	0	0	0	0	0	0
3 - Possible	0	0	0	0	0	0
2 - Doubtful	0	0	0	0	0	0
1 - Very Doubtful	0	0	0	0	0	0
0 - Not at all	0	0	0	0	0	0
CORROSION						

REFERENCE NUMBER	Elevated Tank Rehabilitation and Coatings		18W002
53			
Project Type:	Rehab or Replace Assets		
Project Area:	Water Distribution		
Summary: Elevated tanks require renewal of engineered coatings periodically in order to extend the tank's useful life. Rehabilitation and replacement of tank appurtenances and structures is also required to extend life cycle. FY-18 provided funding for rehabilitation of the Porter's Neck Elevated Tank and Wild Dunes, Porter's Neck Ground Tank. FY-19 funding is for rehabilitating an additional storage tank.			
<u>Project Drivers and Benefits:</u> • COMPLIANCE 50%: Required for compliance with additional benefits. • EFFICIENCY 50%: Increase in efficiency with additional benefits. • CAPACITY 0%: No direct Impact on capacity. • GROWTH 0%: No direct Impact on customer growth.			
Total Estimated Cost		\$5,500,000	
Budgeted FY 2014-2018		Requested FY 2019	Future Budget Needs
\$500,000		\$500,000	\$4,500,000

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%



Risk Before						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	4	3	2	1	0	35
4 - Likely	3	2	1	0	0	20
3 - Possible	2	1	0	0	0	10
2 - Unlikely	1	0	0	0	0	5
1 - Very Unlikely	0	0	0	0	0	5
0 - Not at all	0	0	0	0	0	0
CORROSION						

Risk After						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	4	3	2	1	0	35
4 - Likely	3	2	1	0	0	20
3 - Possible	2	1	0	0	0	10
2 - Unlikely	1	0	0	0	0	5
1 - Very Unlikely	0	0	0	0	0	5
0 - Not at all	0	0	0	0	0	0
CORROSION						

REFERENCE NUMBER	PS - 34 Hewlett's Creek Redirect to Northside WWTP through NEI Northern Route	18S001
68		
Project Type:	Rehab or Replace Assets	
Project Area:	Wastewater Collection	
Summary: Southside Wastewater Treatment plant has limited capacity and efforts continue to divert flow to the Northside WWTP where possible. In order to extend the time until the new construction at the Southside WWTP is required, this project will address the movement of the PS 34 basin to Northside Treatment Plant. This will include pumping PS 34 up the NEI to PS 35 and adding a gravity connection to the wet well of PS 35, allowing a re-pump to Northside.		
<u>Project Drivers and Benefits:</u>		
• COMPLIANCE 50%: Required for compliance with additional benefits. • EFFICIENCY 0%: No direct Impact on efficiency. • CAPACITY 50%: Increase in capacity with additional benefits. • GROWTH 0%: No direct Impact on customer growth.		
Total Estimated Cost		\$1,650,000
Budgeted FY 2014-2018	Requested FY 2019	Future Budget Needs
\$150,000	\$1,500,000	\$0

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%



Risk Before						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	4	3	2	1	0	1
4 - Likely	3	2	1	0	0	0
3 - Possible	2	1	0	0	0	0
2 - Unlikely	1	0	0	0	0	0
1 - Rarely Likely	0	0	0	0	0	0
0 - Not Likely	0	0	0	0	0	0
CORROSION						

Risk After						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	4	3	2	1	0	1
4 - Likely	3	2	1	0	0	0
3 - Possible	2	1	0	0	0	0
2 - Unlikely	1	0	0	0	0	0
1 - Rarely Likely	0	0	0	0	0	0
0 - Not Likely	0	0	0	0	0	0
CORROSION						

REFERENCE NUMBER	Southside WWTP - Disinfection Project		17S409
88			
Project Type:	Rehab or Replace Assets		
Project Area:	Wastewater Treatment		
Summary: This project will replace chlorine gas with an alternative and safer disinfectant. Safety benefit to employees and the general public as well as introducing an improvement already planned for needed improvements to the facility. FY-18 provided design funding for this project. This funding will be for construction.			
<u>Project Drivers and Benefits:</u> • COMPLIANCE 50%: Required for compliance with additional benefits. • EFFICIENCY 50%: Increase in efficiency with additional benefits. • CAPACITY 0%: No direct Impact on capacity. • GROWTH 0%: No direct Impact on customer growth.			
Total Estimated Cost		\$2,450,000	
Budgeted FY 2014-2018		Requested FY 2019	Future Budget Needs
\$425,000		\$2,100,000	\$0

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%



Risk Before

RISK ADJUSTMENT MATRIX

5 - Very Likely	5	20	20	20	30
4 - Likely	4	9	12	12	20
3 - Possible	3	9	9	12	20
2 - Unlikely	2	9	9	9	20
1 - Very Unlikely	1	2	3	4	5
Frequency	1 - Negligible	2 - Minor	3 - Moderate	4 - Significant	5 - Severe

CROSS-GUIDANCE

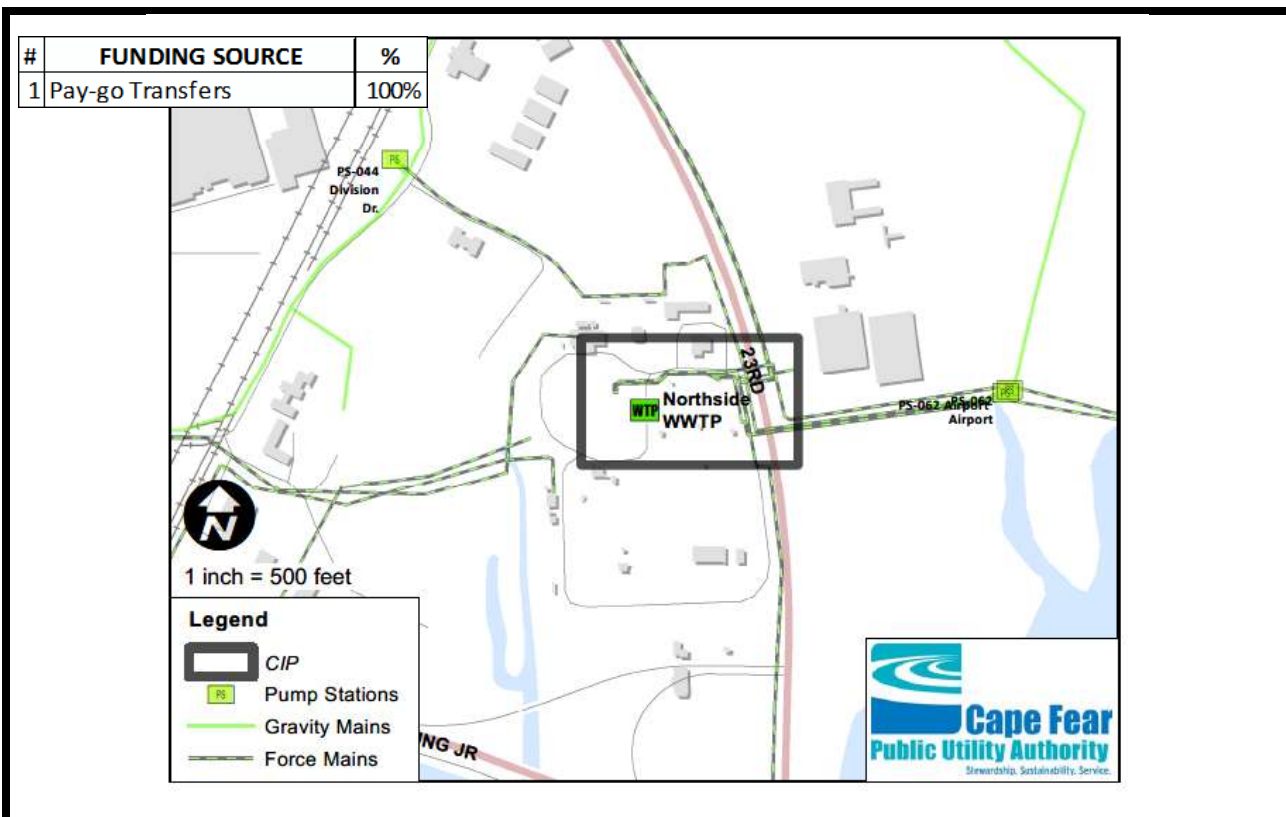
Risk After

RISK ADJUSTMENT MATRIX

5 - Very Likely	5	20	20	20	30
4 - Likely	4	9	12	12	20
3 - Possible	3	9	9	12	20
2 - Unlikely	2	9	9	9	20
1 - Very Unlikely	1	2	3	4	5
Frequency	1 - Negligible	2 - Minor	3 - Moderate	4 - Significant	5 - Severe

CROSS-GUIDANCE

REFERENCE NUMBER	Northside WWTP - Enhancements and Upgrades		
90			
Project Type:	Enhancement		
Project Area:	Wastewater Treatment		
Summary: Critical process components need enhancements.			
<u>Project Drivers and Benefits:</u>			
• COMPLIANCE 25%: Some enhancement to compliance with substantial other benefits.			
• EFFICIENCY 75%: Significant increase in efficiency with some other beneficial considerations.			
• CAPACITY 0%: No direct Impact on capacity.			
• GROWTH 0%: No direct Impact on customer growth.			
Total Estimated Cost		\$1,850,000	
Budgeted FY 2014-2018		Requested FY 2019	Future Budget Needs
\$0		\$100,000	\$1,750,000



Risk Before						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	5	20	20	20	20	1
4 - Likely	4	9	12	12	12	2
3 - Possible	3	5	6	12	12	3
2 - Unlikely	2	3	3	6	12	4
1 - Very Unlikely	1	2	3	3	3	5
1 - Negligible	1	1	1	1	1	6
CORRO GADVICE						

Risk After						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	5	20	20	20	20	1
4 - Likely	4	9	12	12	12	2
3 - Possible	3	5	6	12	12	3
2 - Unlikely	2	3	3	6	12	4
1 - Very Unlikely	1	2	3	3	3	5
1 - Negligible	1	1	1	1	1	6
CORRO GADVICE						

REFERENCE NUMBER	EMD HVAC and Power Supply		16W213
91			
Project Type:	Rehab or Replace Assets		
Project Area:	Other		
Summary: The EMD Facility and Richardson Plant have a shared power supply. Due to regular maintenance of the generator at the plant, the EMD facility experiences routine power bumps causing equipment to restart. This causes interferences with laboratory work and additional wear and tear to the equipment. The HVAC system has also been experiencing failures and volatility in both temperature and humidity.			
<u>Project Drivers and Benefits:</u> • COMPLIANCE 25%: Some enhancement to compliance with substantial other benefits. • EFFICIENCY 75%: Significant increase in efficiency with some other beneficial considerations. • CAPACITY 0%: No direct Impact on capacity. • GROWTH 0%: No direct Impact on customer growth.			
Total Estimated Cost		\$860,000	
Budgeted FY 2014-2018		Requested FY 2019	Future Budget Needs
\$650,000		\$260,000	\$0

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%



Risk After						
RISK ADJUSTMENT MATRIX						
5 Very Likely	4	3	2	1	0	1
4 Likely	9	6	3	2	1	0
3 Possible	6	3	2	1	0	0
2 Doubtful	3	2	1	0	0	0
1 Rarely Likely	2	1	0	0	0	0
0 Not at All	1	0	0	0	0	0
CORROSION						

Risk After						
RISK ADJUSTMENT MATRIX						
5 Very Likely	4	3	2	1	0	1
4 Likely	9	6	3	2	1	0
3 Possible	6	3	2	1	0	0
2 Doubtful	3	2	1	0	0	0
1 Rarely Likely	2	1	0	0	0	0
0 Not at All	1	0	0	0	0	0
CORROSION						

REFERENCE NUMBER	Sweeney WTP Boiler Replacement		
99			
Project Type:	Rehab or Replace Assets		
Project Area:	Water Treatment		
Summary: The Sweeney Water Treatment Plant Diesel Fired Boiler and HVAC controls are beyond their useful life. In the past four years maintenance costs have been extremely high to keep the boiler running and the environmental controls are only partially functional. The system was originally sized to service a larger plant area and the most recent expansions provided alternate heating and cooling systems for the new plant areas; the boiler and controls only service the older portion of the remaining plant and operator control room, and support dehumidification for the operations lab and main electrical room. The control system is obsolete and parts procurement and support is difficult; control software is no longer functional for control only partial monitoring. It is recommended to fund a PER to determine appropriate sizing.			
<u>Project Drivers and Benefits:</u>			
• COMPLIANCE 100%: Required for compliance with no other benefits.			
• EFFICIENCY 0%: No direct Impact on efficiency.			
• CAPACITY 0%: No direct Impact on capacity.			
• GROWTH 0%: No direct Impact on customer growth.			
Total Estimated Cost		\$150,000	
Budgeted FY 2014-2018		Requested FY 2019	Future Budget Needs
\$0		\$150,000	\$0

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%

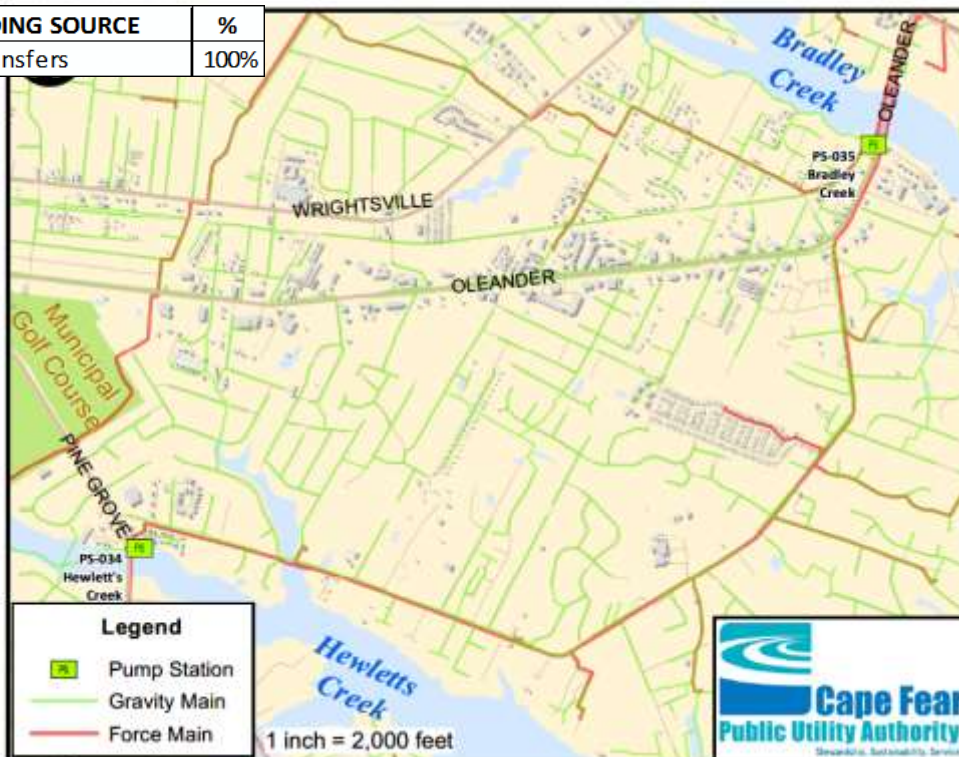


This Project Is Not
Risk Driven



REFERENCE NUMBER	PS - 34 and PS - 35 Aesthetic Improvements		
105			
Project Type:	Enhancement		
Project Area:	Wastewater Collection		
Summary: Pump Stations 34 and 35 are in highly visible areas. Their current appearance detracts from the aesthetics of the area. Improvements will be made to the allow these stations blend into the area more seamlessly.			
<u>Project Drivers and Benefits:</u> • COMPLIANCE 0%: No direct impact on compliance. • EFFICIENCY 100%: Increases efficiency with no other benefits. • CAPACITY 0%: No direct Impact on capacity. • GROWTH 0%: No direct Impact on customer growth.			
Total Estimated Cost		\$300,000	
Budgeted FY 2014-2018		Requested FY 2019	Future Budget Needs
\$0		\$300,000	\$0

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%



Risk Before						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	5	20	20	20	20	20
4 - Likely	4	8	12	12	12	12
3 - Possible	3	3	6	12	12	12
2 - Unlikely	2	3	3	6	6	12
1 - Very Unlikely	1	2	3	3	3	3
1 - Very Low	1	1	1	1	1	1
CORRO GARDENCE						

Risk After						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	5	20	20	20	20	20
4 - Likely	4	8	12	12	12	12
3 - Possible	3	3	6	12	12	12
2 - Unlikely	2	3	3	6	6	12
1 - Very Unlikely	1	2	3	3	3	3
1 - Very Low	1	1	1	1	1	1
CORRO GARDENCE						

REFERENCE NUMBER	Generator Rehab and Replacement Program (AMP)		18A001
110			
Project Type:	Rehab or Replace Assets		
Project Area:	Other		
Summary: CFPUA owns approximately 150 standby generators that are critical for the reliable operation of its wastewater pumping stations and well sites. This project is to systemically replace aging generators. For FY 18 the following generators will be replaced or rehabilitated: Sewer Pump Stations 20, 34, 44, 134, 150 and Water Well A.			
<u>Project Drivers and Benefits:</u> • COMPLIANCE 75%: Required for compliance with some other beneficial considerations. • EFFICIENCY 25%: Increase in efficiency with substantial other benefits. • CAPACITY 0%: No direct Impact on capacity. • GROWTH 0%: No direct Impact on customer growth.			
Total Estimated Cost		\$2,000,000	
Budgeted FY 2014-2018		Requested FY 2019	Future Budget Needs
\$200,000		\$200,000	\$1,800,000

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%

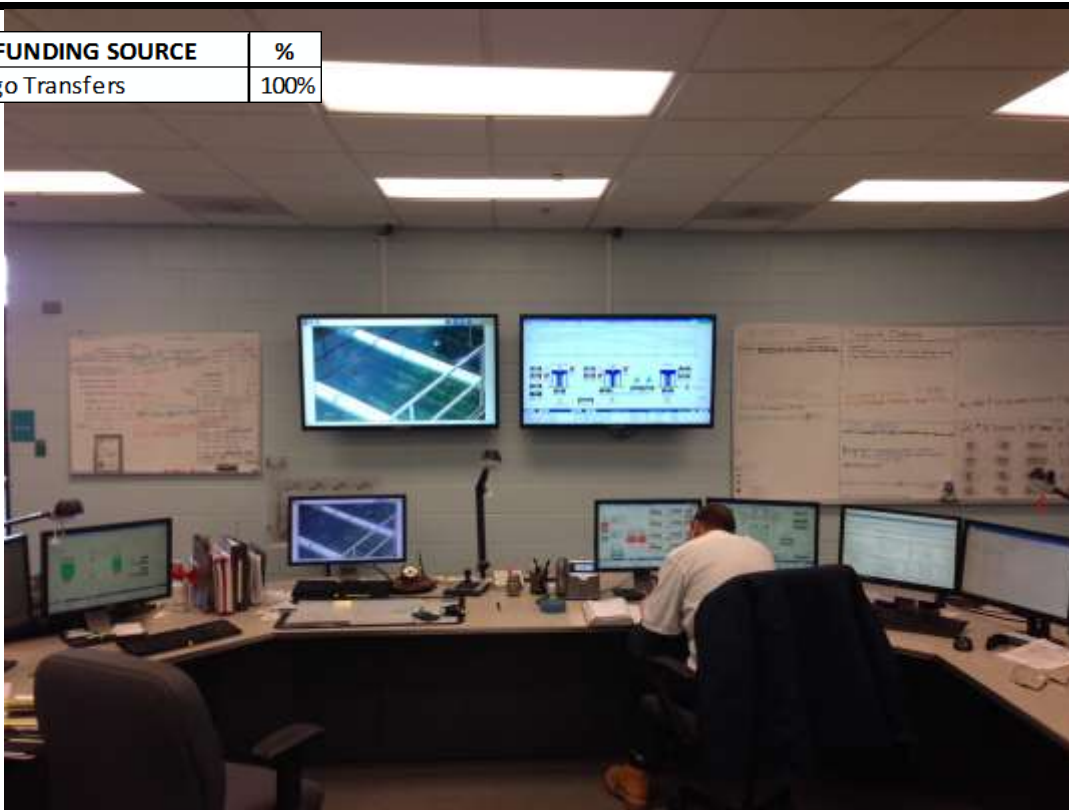


Risk Before						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	5	20	20	20	20	1
4 - Likely	4	9	12	12	12	2
3 - Possible	3	9	9	12	12	3
2 - Unlikely	2	9	9	9	9	3
1 - Very Unlikely	1	2	3	4	5	5
1 - Very Unlikely	1	2	3	4	5	5
CORROGATION						

Risk After						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	5	20	20	20	20	1
4 - Likely	4	9	12	12	12	2
3 - Possible	3	9	9	12	12	3
2 - Unlikely	2	9	9	9	9	3
1 - Very Unlikely	1	2	3	4	5	5
1 - Very Unlikely	1	2	3	4	5	5
CORROGATION						

REFERENCE NUMBER	IT SCADA (Wonderware)		
114			
Project Type:	Rehab or Replace Assets		
Project Area:	Other		
Summary: The SCADA system at CFPUA’s facilities are becoming obsolete. In light of cyber security demands, standardization, centralized management, and in an effort to reduce future integration costs, an updated system platform migration is recommended. This will upgrade software and hardware as well as provide much needed durability and security throughout the SCADA network. SCADA controls are necessary for compliant and efficient operation of each facility.			
<u>Project Drivers and Benefits:</u>			
• COMPLIANCE 50%: Required for compliance with additional benefits.			
• EFFICIENCY 50%: Increase in efficiency with additional benefits.			
• CAPACITY 0%: No direct Impact on capacity.			
• GROWTH 0%: No direct Impact on customer growth.			
Total Estimated Cost		\$3,000,000	
Budgeted FY 2014-2018		Requested FY 2019	Future Budget Needs
\$0		\$750,000	\$2,250,000

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%



Risk Before						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	4	3	2	1	0	1
4 - Likely	4	3	2	1	0	1
3 - Possible	3	2	1	0	1	1
2 - Unlikely	2	1	0	1	0	1
1 - Very Unlikely	1	0	1	0	0	1
0 - Not at all	0	0	0	0	0	1
CORRO GADVICE						

Risk After						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	4	3	2	1	0	1
4 - Likely	4	3	2	1	0	1
3 - Possible	3	2	1	0	1	1
2 - Unlikely	2	1	0	1	0	1
1 - Very Unlikely	1	0	1	0	0	1
0 - Not at all	0	0	0	0	0	1
CORRO GADVICE						

REFERENCE NUMBER	IT Server Physical Space Expansion and Enhancements		
115			
Project Type:	Rehab or Replace Assets		
Project Area:	Other		
Summary: The current server room at 234 Government Center Drive is insufficient for planned upgrades due to enhanced security and enterprise software. These enhancements are interim until IT can be moved from 235 Government Center Drive to a new facility.			
<u>Project Drivers and Benefits:</u>			
- COMPLIANCE 0%: No direct impact on compliance. - EFFICIENCY 100%: Increases efficiency with no other benefits. - CAPACITY 0%: No direct Impact on capacity. - GROWTH 0%: No direct Impact on customer growth.			
Total Estimated Cost		\$100,000	
Budgeted FY 2014-2018		Requested FY 2019	Future Budget Needs
\$0		\$100,000	\$0

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%



Risk Before						
RISK ASSIGNMENT MATRIX						
5 - Very Likely	4	3	2	1	0	35
4 - Likely	6	9	12	15	18	30
3 - Possible	8	16	24	32	40	30
2 - Doubtful	2	6	10	14	18	20
1 - Very Doubtful	1	2	3	4	5	5
Total Risk	1 - Negligible	2 - Minor	3 - Moderate	4 - Significant	5 - Severe	

Risk After						
RISK ASSIGNMENT MATRIX						
5 - Very Likely	4	3	2	1	0	35
4 - Likely	6	9	12	15	18	30
3 - Possible	8	16	24	32	40	30
2 - Doubtful	2	6	10	14	18	20
1 - Very Doubtful	1	2	3	4	5	5
Total Risk	1 - Negligible	2 - Minor	3 - Moderate	4 - Significant	5 - Severe	

REFERENCE NUMBER	Gravity Sewer Rehab (Burnt Mill Outfall and Major Roads)(50/50 Grant Match)		17S421
116			
Project Type:	Rehab or Replace Assets		
Project Area:	Wastewater Collection		
Summary: This project rehabilitates or replaces existing gravity sewer infrastructure within the Burnt Mill Creek Outfall and under major roads that require significant coordination with NCDOT and work zones. All sewer in the project is over 40 years old and high consequence of failure. CFPWA was approved for 50% grant funding from the State for this project.			
<u>Project Drivers and Benefits:</u> • COMPLIANCE 50%: Required for compliance with additional benefits. • EFFICIENCY 25%: Increase in efficiency with substantial other benefits. • CAPACITY 25%: Some increase in capacity with substantial other benefits. • GROWTH 0%: No direct Impact on customer growth.			
Total Estimated Cost		\$12,269,706	
Budgeted FY 2014-2018		Requested FY 2019	Future Budget Needs
\$1,226,970		\$11,042,736	\$0

#	FUNDING SOURCE	%
1	Pay-go Transfers	50%
3	Grants	50%



Risk Before						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	4	3	2	1	0	1
4 - Likely	6	5	4	3	2	1
3 - Possible	7	6	5	4	3	2
2 - Unlikely	8	7	6	5	4	3
1 - Very Unlikely	9	8	7	6	5	4
0 - Not Possible	10	9	8	7	6	5
CORROSION						

Risk After						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	4	3	2	1	0	1
4 - Likely	6	5	4	3	2	1
3 - Possible	7	6	5	4	3	2
2 - Unlikely	8	7	6	5	4	3
1 - Very Unlikely	9	8	7	6	5	4
0 - Not Possible	10	9	8	7	6	5
CORROSION						

REFERENCE NUMBER	PS 5, 6, 13, 16, 21 and 29 Replace and FM Rehab (50/50 Grant Match)		17S419
117			
Project Type:	Rehab or Replace Assets		
Project Area:	Wastewater Collection		
Summary: This project replaces 6 existing package pump stations that are over 30 years old and approaching the end of their useful service life as well as rehabilitates or replaces their force mains, as necessary. All of the pump stations consist of pre-packaged steel structures that are subject to corrosion and structural failures. The project will replace all of the package pump stations with new stations designed to meet current regulations and standards. The project will evaluate and replace or rehabilitate all or portions of existing force mains, as necessary to extend the life of these assets and reduce the likelihood of sanitary sewer overflows (SSOs) due to force main failures. CFPWA was approved for 50% grant funding from the State for this project.			
<u>Project Drivers and Benefits:</u> • COMPLIANCE 50%: Required for compliance with additional benefits. • EFFICIENCY 25%: Increase in efficiency with substantial other benefits. • CAPACITY 25%: Some increase in capacity with substantial other benefits. • GROWTH 0%: No direct Impact on customer growth.			
Total Estimated Cost		\$8,855,788	
Budgeted FY 2014-2018		Requested FY 2019	Future Budget Needs
\$885,579		\$7,970,209	\$0

#	FUNDING SOURCE	%
1	Pay-go Transfers	50%
3	Grants	50%



Risk Before						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	4	3	2	1	0	35
4 - Likely	6	9	12	15	18	20
3 - Possible	8	12	16	20	24	28
2 - Unlikely	10	15	20	25	30	35
1 - Very Unlikely	12	18	24	30	36	40
0 - Not Possible	14	21	28	35	42	45
CORROSION						

Risk After						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	4	3	2	1	0	35
4 - Likely	6	9	12	15	18	20
3 - Possible	8	12	16	20	24	28
2 - Unlikely	10	15	20	25	30	35
1 - Very Unlikely	12	18	24	30	36	40
0 - Not Possible	14	21	28	35	42	45
CORROSION						

REFERENCE NUMBER	PS - 10 Replacement (50/50 Grant Match)		17S420
118			
Project Type:	Rehab or Replace Assets		
Project Area:	Wastewater Collection		
Summary: PS-010 (Smith Street) is the largest capacity pump station in the CFPWA system and is approximately 47 years old. The station is the primary influent station to the Northside Wastewater Treatment Plant (NSWWTP) for customers within Wilmington's city limits. It was found through the 2007 Wastewater Master Plan Update that the pump station would require improvements to meet future needs. Replacement is needed to accommodate anticipated flow projections for a 20-year window and to increase firm capacity from 10,300 gallons per minute (gpm) to 16,800 gpm. CFPWA was approved for 50% grant funding from the State for this project.			
<u>Project Drivers and Benefits:</u> • COMPLIANCE 50%: Required for compliance with additional benefits. • EFFICIENCY 25%: Increase in efficiency with substantial other benefits. • CAPACITY 25%: Some increase in capacity with substantial other benefits. • GROWTH 0%: No direct Impact on customer growth.			
Total Estimated Cost		\$11,474,500	
Budgeted FY 2014-2018		Requested FY 2019	Future Budget Needs
\$1,147,450		\$10,327,050	\$0

#	FUNDING SOURCE	%
1	Pay-go Transfers	50%
3	Grants	50%



Risk Before

RISK ASSIGNMENT MATRIX

1-Very Likely	1	20	20	20	20
2-Likely	9	9	12	12	12
3-Possible	6	6	6	12	12
4-Unlikely	3	3	3	6	12
5-Rare/Unlikely	1	2	3	6	6
6-Not Risk	1-Not Risk	2-Minor	3-Moderate	4-Significant	5-Severe

CORRO GADGET

Risk Before

RISK ASSIGNMENT MATRIX

3-Very Likely	4	20	20	20	20
2-Likely	3	9	12	12	12
1-Possible	2	6	8	12	10
0-Unlikely	1	3	3	8	11
3-Very Unlikely	1	2	3	4	5

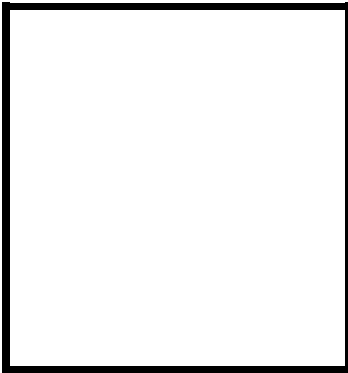
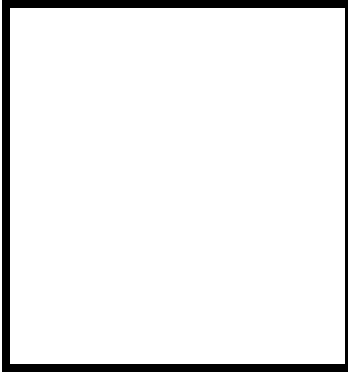
LOW RISK MODERATE RISK HIGH RISK SEVERE RISK

LONGO GARDIA

REFERENCE NUMBER	Production Well Monterey Heights		18W001
121			
Project Type:	Expansion		
Project Area:	Water Treatment		
Summary: The Monterey Heights water system is supplied by 4 groundwater wells. The existing wells are unable to supply adequate water to support new customers from development over the next five years. This new well will add supply for immediate growth needs.			
<u>Project Drivers and Benefits:</u> • COMPLIANCE 25%: Some enhancement to compliance with substantial other benefits. • EFFICIENCY 0%: No direct Impact on efficiency. • CAPACITY 75%: Significant increase in capacity with some other beneficial considerations. • GROWTH 0%: No direct Impact on customer growth.			
Total Estimated Cost		\$1,000,000	
Budgeted FY 2014-2018	Requested FY 2019	Future Budget Needs	
\$100,000	\$1,000,000	\$0	

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%





REFERENCE NUMBER	Sweeney WTP Treatment Enhancements		18W009
123			
Project Type:	Enhancement		
Project Area:	Water Treatment		
Summary: CFPUA is investigating various enhancements to address concerns of emerging contaminants. This project would design and construct improvements to Sweeney Water Treatment Plant and implement the selected treatment method. The FY-19 investment is for the design work and the replacement of the existing filler media.			
<u>Project Drivers and Benefits:</u> • COMPLIANCE 50%: Required for compliance with additional benefits. • EFFICIENCY 50%: Increase in efficiency with additional benefits. • CAPACITY 0%: No direct Impact on capacity. • GROWTH 0%: No direct Impact on customer growth.			
Total Estimated Cost		\$38,700,000	
Budgeted FY 2014-2018		Requested FY 2019	Future Budget Needs
\$880,200		\$4,700,000	\$34,000,000



This Project Is Not
Risk Driven



REFERENCE NUMBER	Northern Water Mains - Cost Recovery Project		
124			
Project Type:	Expansion		
Project Area:	Water Distribution		
Summary: This project provides water capacity for future develop throughout northern New Hanover County by completing a water transmission main loop. The planned water main is approximately 4.5 miles long and extends northward from the newly constructed Kerr Avenue water main to the General Electric campus, then eastward toward the New Hanover County Jail. Without the benefits of this looped main, all development north of I-140 will be constrained by limited water supply.			
<u>Project Drivers and Benefits:</u>			
• COMPLIANCE 0%: No direct impact on compliance. • EFFICIENCY 25%: Increase in efficiency with substantial other benefits. • CAPACITY 75%: Significant increase in capacity with some other beneficial considerations. • GROWTH 25%: Some increase in customer growth with substantial other. Benefits			
Total Estimated Cost		\$3,000,000	
Budgeted FY 2014-2018		Requested FY 2019	Future Budget Needs
\$0		\$2,000,000	\$2,000,000

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%



Risk Before						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	5	20	20	20	20	20
4 - Likely	4	9	12	12	12	12
3 - Possible	3	9	9	12	12	12
2 - Unlikely	2	9	9	9	9	12
1 - Very Unlikely	1	2	3	4	5	5
1 - Negligible	1	2	3	4	5	5
CORROSION						

Risk After						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	5	20	20	20	20	20
4 - Likely	4	9	12	12	12	12
3 - Possible	3	9	9	12	12	12
2 - Unlikely	2	9	9	9	9	12
1 - Very Unlikely	1	2	3	4	5	5
1 - Negligible	1	2	3	4	5	5
CORROSION						

REFERENCE NUMBER	Northside Backup Generator Replacement		
125			
Project Type:	Rehab or Replace Assets		
Project Area:	Wastewater Treatment		
Summary: Northside WWTP currently has two backup generators that (together) provide emergency power to the WWTP. The smaller of the two (1,275 kW) is in need of replacement. This project will evaluate emergency generator requirements, design and construct a new right-sized generator.			
<u>Project Drivers and Benefits:</u> • COMPLIANCE 75%: Required for compliance with some other beneficial considerations. • EFFICIENCY 25%: Increase in efficiency with substantial other benefits. • CAPACITY 0%: No direct Impact on capacity. • GROWTH 0%: No direct Impact on customer growth.			
Total Estimated Cost		\$2,300,000	
Budgeted FY 2014-2018		Requested FY 2019	Future Budget Needs
\$0		\$100,000	\$2,200,000

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%



Risk Before						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	4	3	2	1	0	1
4 - Likely	9	6	3	0	0	0
3 - Possible	6	3	0	0	0	0
2 - Unlikely	3	0	0	0	0	0
1 - Very Unlikely	0	0	0	0	0	0
0 - Not at all	0	0	0	0	0	0
CONSEQUENCE						

Risk After						
RISK ADJUSTMENT MATRIX						
5 - Very Likely	4	3	2	1	0	1
4 - Likely	9	6	3	0	0	0
3 - Possible	6	3	0	0	0	0
2 - Unlikely	3	0	0	0	0	0
1 - Very Unlikely	0	0	0	0	0	0
0 - Not at all	0	0	0	0	0	0
CONSEQUENCE						

REFERENCE NUMBER	Pump Stations Prioritization and Rehab (PS-32 and PS-51 Included)	
126		
Project Type:	Rehab or Replace Assets	
Project Area:	Wastewater Collection	
Summary: CFPUA has sewer pump stations that are known to be approaching the end of their life cycle and in need of rehabilitation or replacement. Through asset management, staff will evaluate these pump stations (PS-32, 41, 47, 51, 61, and 85) for condition and consequence, prioritize/scope for design the rehabilitation or replacement of the highest risk pump stations with poor condition scoring. All pump stations approaching life cycle will be scored and prioritized by an asset management team prior to scoping the design with the consultant.		
<u>Project Drivers and Benefits:</u> • COMPLIANCE 75%: Required for compliance with some other beneficial considerations. • EFFICIENCY 25%: Increase in efficiency with substantial other benefits. • CAPACITY 0%: No direct Impact on capacity. • GROWTH 0%: No direct Impact on customer growth.		
Total Estimated Cost	\$1,100,000	
Budgeted FY 2014-2018	Requested FY 2019	Future Budget Needs
\$0	\$100,000	\$1,000,000

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%



This Project Is Not
Risk Driven



REFERENCE NUMBER	PS - 36 Upgrade Cost Recovery		18S011
127			
Project Type:	Expansion		
Project Area:	Wastewater Collection		
Summary: Pump Station 36 serves a large area around the intersection of Independence Boulevard and Carolina Beach Road, including the Barclay area. Pump Station 36 is out of capacity. The capacity in the pump station cannot be increased without a major project that is beyond the scope of any one development. This project will reconstruct Pump Station 36 to buildout capacity and recover the costs from future benefitting developers.			
<u>Project Drivers and Benefits:</u> • COMPLIANCE 0%: No direct impact on compliance. • EFFICIENCY 25%: Increase in efficiency with substantial other benefits. • CAPACITY 75%: Significant increase in capacity with some other beneficial considerations. • GROWTH 0%: No direct Impact on customer growth.			
Total Estimated Cost		\$4,000,000	
Budgeted FY 2014-2018	Requested FY 2019	Future Budget Needs	
\$300,000	\$4,000,000	\$0	

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%



This Project Is Not
Risk Driven



REFERENCE NUMBER	Forest Creek Outfall Cost Recovery Project		
128			
Project Type:	Expansion		
Project Area:	Wastewater Collection		
Summary: Forest Creek Gravity Sewer Outfall will eliminate a private pump station that receives public sewer from CFPWA customers. Construction of the sewer outfall is beyond scope of any one developer. This project will construct a public sewer outfall that will enable future development with public sewer in the basin. Costs will be partially recovered from future benefitting developers.			
<u>Project Drivers and Benefits:</u>			
• COMPLIANCE 25%: Some enhancement to compliance with substantial other benefits.			
• EFFICIENCY 25%: Increase in efficiency with substantial other benefits.			
• CAPACITY 50%: Increase in capacity with additional benefits.			
• GROWTH 0%: No direct Impact on customer growth.			
Total Estimated Cost		\$500,000	
Budgeted FY 2014-2018		Requested FY 2019	Future Budget Needs
\$0		\$500,000	\$0

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%



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WATER: Projected 10 Year Capital Improvements Plan

Ref. #	FY-2019 to FY-2028 CIP	Funding Source	Current Project #	Amount Budgeted Prior to FY-19	Project Balance Jan 1, 2018	FY-19 to FY-28 Planned	FY-19 Planned	FY-20 Planned	FY-21 Planned	FY-22 Planned	FY-23 Planned	FY-24 Planned	FY-25 Planned	FY-26 Planned	FY-27 Planned	FY-28 Planned
Water Capital Improvement Projects		All dollar amounts are shown in 2019 dollars														
Raw Water Improvements: Surface or Well Sources and Transmission																
45	Construction of New Raw Water Line with LCFWSA ILA	2	17W261	\$1,700,000	\$140,000	\$31,000,000	\$0	\$31,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
96	Rehab of Aerial Raw Water Lines and Pilings	2		\$0	\$0	\$8,000,000	\$0	\$1,000,000	\$3,000,000	\$4,000,000	\$0	\$0	\$0	\$0	\$0	\$0
121	Production Well Monterey Heights	1	18W001	\$100,000	\$100,000	\$1,000,000	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Water Treatment Plant Improvements																
123	Sweeney WTP Treatment Enhancements	2	18W009	\$880,200	\$617,136	\$38,700,000	\$4,700,000	\$34,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
122	Richardson Raw Water Supply, Chemistry and Membranes	1	16W210	\$500,000	\$0	\$3,000,000	\$0	\$0	\$300,000	\$2,700,000	\$0	\$0	\$0	\$0	\$0	\$0
100	Sweeney WTP Ozone Replacement	1	17W241	\$1,686,000	\$1,382,000	\$1,580,000	\$0	\$0	\$1,580,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
99	Sweeney WTP Boiler Replacement	1		\$0	\$0	\$150,000	\$150,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Water Storage Improvements: Elevated, Ground and Aquifer Storage																
53	Elevated Tank Rehabilitation and Coatings	1	18W002	\$500,000	\$500,000	\$5,000,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000
Distribution System Upgrades and Rehabilitation																
22	Comprehensive Meter Replacement Program	1	16W215	\$15,780,000	\$5,607,810	\$3,300,000	\$2,500,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$0
5	Interconnect Monterey Heights Water System to Surface Water	1	17W257	\$2,675,000	\$2,075,710	\$13,000,000	\$0	\$0	\$3,000,000	\$0	\$5,000,000	\$2,000,000	\$3,000,000	\$0	\$0	\$0
27	Find It, Fix It Methodology Water Replace and Rehab (AMP)	1	17W244	\$1,200,000	\$120,000	\$15,200,000	\$0	\$200,000	\$1,000,000	\$1,000,000	\$1,000,000	\$3,000,000	\$1,000,000	\$3,000,000	\$1,000,000	\$4,000,000
24	Rehabilitation of Water Infrastructure Matching with City Streets	1	17W243	\$1,137,234	\$400,000	\$5,400,000	\$0	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000
57	Water Emergency Repair	1	16W223	\$433,845	\$200,000	\$2,000,000	\$0	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$0
94	Water Distribution Main Enhancements	1	18W005	\$100,000	\$98,000	\$1,200,000	\$0	\$300,000	\$0	\$300,000	\$0	\$300,000	\$0	\$300,000	\$0	\$0
18	Water Distribution Sample Stations	1	17W245	\$420,000	\$98,064	\$400,000	\$0	\$200,000	\$0	\$200,000	\$0	\$0	\$0	\$0	\$0	\$0
95	Cross Town Feeder Under Burnt Mill Creek Rehab/Replace	1		\$0	\$0	\$400,000	\$0	\$50,000	\$350,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
130	Water Services Rehabilitation or Replace	1		\$0	\$0	\$3,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,000,000
Water Growth Projects																
36	Water Meters for New Customers	1	17W247	\$500,000	\$383,400	\$2,500,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000
124	Northern Water Mains - Cost Recovery Project	1		\$0	\$0	\$4,000,000	\$2,000,000	\$2,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
39	Distribution System - Standard Developer Agreements	1	17W248	\$650,000	\$178,078	\$1,500,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000
Total Water Capital Improvement Projects				\$28,262,279	\$11,900,198	\$140,330,000	\$11,250,000	\$70,600,000	\$11,080,000	\$10,050,000	\$7,850,000	\$7,150,000	\$5,850,000	\$5,150,000	\$2,850,000	\$8,500,000
Total Wastewater Capital Improvement Projects				\$30,384,999	\$3,855,024	\$108,589,995	\$40,789,995	\$6,700,000	\$3,750,000	\$6,750,000	\$10,150,000	\$8,450,000	\$13,250,000	\$6,250,000	\$6,250,000	\$6,250,000
Total System Wide Capital Improvement Projects				\$4,384,000	\$1,880,657	\$23,240,000	\$2,900,000	\$2,540,000	\$2,400,000	\$2,400,000	\$2,000,000	\$5,400,000	\$1,400,000	\$1,400,000	\$1,400,000	\$1,400,000
Proposed Total Capital Improvement Projects				\$63,031,278	\$17,635,879	\$272,159,995	\$54,939,995	\$79,840,000	\$17,230,000	\$19,200,000	\$20,000,000	\$21,000,000	\$20,500,000	\$12,800,000	\$10,500,000	\$16,150,000
Funding Source																
1	Pay-go Transfers						\$6,550,000	\$4,600,000	\$8,080,000	\$6,050,000	\$7,850,000	\$7,150,000	\$5,850,000	\$5,150,000	\$2,850,000	\$8,500,000
2	Bond Proceeds						\$4,700,000	\$66,000,000	\$3,000,000	\$4,000,000	\$0	\$0	\$0	\$0	\$0	\$0
3	Grants						\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	SRF Loan Proceeds						\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	Contributions from Others						\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	TOTAL WATER						\$11,250,000	\$70,600,000	\$11,080,000	\$10,050,000	\$7,850,000	\$7,150,000	\$5,850,000	\$5,150,000	\$2,850,000	\$8,500,000
Sum of All: Water, Waste Water and System Wide																
1	Pay-go Transfers						\$35,569,998	\$13,840,000	\$14,230,000	\$15,200,000	\$20,000,000	\$21,000,000	\$20,500,000	\$12,800,000	\$10,500,000	\$16,150,000
2	Bond Proceeds						\$4,700,000	\$66,000,000	\$3,000,000	\$4,000,000	\$0	\$0	\$0	\$0	\$0	\$0
3	Grants						\$14,669,998	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	SRF Loan Proceeds						\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	Contributions from Others						\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	TOTAL						\$54,939,995	\$79,840,000	\$17,230,000	\$19,200,000	\$20,000,000	\$21,000,000	\$20,500,000	\$12,800,000	\$10,500,000	\$16,150,000

WASTE WATER: Projected 10 Year Capital Improvements Plan

Ref. #	FY-2019 to FY-2028 CIP	Funding Source	Current Project #	Amount Budgeted Prior to FY-19	Project Balance Jan 1, 2018	FY-19 to FY-28 Planned	FY-19 Planned	FY-20 Planned	FY-21 Planned	FY-22 Planned	FY-23 Planned	FY-24 Planned	FY-25 Planned	FY-26 Planned	FY-27 Planned	FY-28 Planned
Wastewater Capital Improvement Projects		All dollar amounts are shown in 2019 dollars														
Waste Water Treatment Plant Improvements																
131	Southside WWTP - Interim Rehabilitation Phase II	1		\$0	\$0	\$7,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$7,000,000	\$0	\$0	\$0
88	Southside WWTP - Disinfection Project	1	17S409	\$425,000	\$377,800	\$2,100,000	\$2,100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
125	Northside Backup Generator Replacement	1		\$0	\$0	\$2,300,000	\$100,000	\$2,200,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
90	Northside WWTP - Enhancements and Upgrades	1		\$0	\$0	\$1,850,000	\$100,000	\$1,750,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Collection System Rehabilitation/Replacement																
4	Find It, Fix It Methodology Sewer Collection Rehabilitation (AMP)	1	17S394	\$9,000,000	\$0	\$36,000,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000
1	Sewer Emergency Repair	1	17S393	\$15,000,000	\$1,000,000	\$5,000,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000
116	Gravity Sewer Rehab (Burnt Mill Outfall and Major Roads)(50/50 Grant Match)	1, 3	17S421	\$1,226,970	\$68,890	\$11,042,736	\$11,042,736	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
23	Rehabilitation of Sewer Infrastructure Matching with City Streets	1	17S395	\$800,000	\$800,000	\$6,000,000	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000
Pump Station & Forcemain Improvements																
118	PS - 10 Replacement (50/50 Grant Match)	1, 3	17S420	\$1,147,450	\$510,650	\$10,327,050	\$10,327,050	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
117	PS 5, 6, 13, 16, 21 and 29 Replace and FM Rehab (50/50 Grant Match)	1, 3	17S419	\$885,579	\$77	\$7,970,209	\$7,970,209	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
107	PS - 14 Greenfield Lake FM Replacement	1	18S004	\$400,000	\$400,000	\$4,000,000	\$0	\$0	\$0	\$4,000,000	\$0	\$0	\$0	\$0	\$0	\$0
55	PS - 69 Motts Creek Pump Station Upgrade	1	15S307	\$400,000	\$170,350	\$3,900,000	\$0	\$0	\$0	\$0	\$3,900,000	\$0	\$0	\$0	\$0	\$0
68	PS - 34 Hewlett's Creek Redirect to Northside WWTP through NEI Northern Route	1	18S001	\$150,000	\$150,000	\$1,500,000	\$1,500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
126	Pump Stations Prioritization and Rehab (PS-32 and PS-51 Included)	1		\$0	\$0	\$1,100,000	\$100,000	\$0	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0
105	PS - 34 and PS - 35 Aesthetic Improvements	1		\$0	\$0	\$300,000	\$300,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
129	College Road Force Main Capacity in Chair Road Force Main	1		\$0	\$0	\$2,200,000	\$0	\$0	\$0	\$0	\$0	\$2,200,000	\$0	\$0	\$0	\$0
Sewer Growth Projects																
127	PS - 36 Capacity Upgrade Cost Recovery	1	18S011	\$300,000	\$300,000	\$4,000,000	\$4,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
38	Collection System - Standard Developer Agreements	1	17S399	\$650,000	\$77,257	\$1,500,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000
128	Forest Creek Outfall Cost Recovery Project	1		\$0	\$0	\$500,000	\$500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Wastewater Capital Improvement Projects				\$30,384,999	\$3,855,024	\$108,589,995	\$40,789,995	\$6,700,000	\$3,750,000	\$6,750,000	\$10,150,000	\$8,450,000	\$13,250,000	\$6,250,000	\$6,250,000	\$6,250,000
Total Water Capital Improvement Projects				\$28,262,279	\$11,900,198	\$140,330,000	\$11,250,000	\$70,600,000	\$11,080,000	\$10,050,000	\$7,850,000	\$7,150,000	\$5,850,000	\$5,150,000	\$2,850,000	\$8,500,000
Total System Wide Capital Improvement Projects				\$4,384,000	\$1,880,657	\$23,240,000	\$2,900,000	\$2,540,000	\$2,400,000	\$2,400,000	\$2,000,000	\$5,400,000	\$1,400,000	\$1,400,000	\$1,400,000	\$1,400,000
Proposed Total Capital Improvement Projects				\$63,031,278	\$17,635,879	\$272,159,995	\$54,939,995	\$79,840,000	\$17,230,000	\$19,200,000	\$20,000,000	\$21,000,000	\$20,500,000	\$12,800,000	\$10,500,000	\$16,150,000
Funding Source																
1	Pay-go Transfers						\$26,119,998	\$6,700,000	\$3,750,000	\$6,750,000	\$10,150,000	\$8,450,000	\$13,250,000	\$6,250,000	\$6,250,000	\$6,250,000
2	Bond Proceeds						\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	Grants						\$14,669,998	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	SRF Loan Proceeds						\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	Contributions from Others						\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	TOTAL WASTEWATER						\$40,789,995	\$6,700,000	\$3,750,000	\$6,750,000	\$10,150,000	\$8,450,000	\$13,250,000	\$6,250,000	\$6,250,000	\$6,250,000

SYSTEM WIDE: Projected 10 Year Capital Improvements Plan

Ref. #	FY-2019 to FY-2028 CIP	Funding Source	Current Project #	Amount Budgeted Prior to FY-19	Project Balance Jan 1, 2018	FY-19 to FY-28 Planned	FY-19 Planned	FY-20 Planned	FY-21 Planned	FY-22 Planned	FY-23 Planned	FY-24 Planned	FY-25 Planned	FY-26 Planned	FY-27 Planned	FY-28 Planned
System Wide Capital Improvement Projects		All dollar amounts are shown in 2019 dollars														
Systemwide projects for both Water and Wastewater																
34	Motor Fleet Capital	1	17A013	\$1,900,000	\$341,734	\$6,000,000	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000
40	OPS Large Equipment Purchases (Pumps, Plant Equipment, HVAC)	1	17A012	\$280,000	\$783	\$5,000,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000	\$500,000
58	IT and Utility Ops New Ground Water Way Buildings	1		\$0	\$0	\$4,100,000	\$0	\$0	\$0	\$0	\$350,000	\$3,750,000	\$0	\$0	\$0	\$0
114	IT SCADA (Wonderware)	1		\$0	\$0	\$3,000,000	\$750,000	\$750,000	\$750,000	\$750,000	\$0	\$0	\$0	\$0	\$0	\$0
10	IT SCADA (PS Upgrades)	1	16S344	\$750,000	\$564,484	\$1,500,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$0	\$0	\$0	\$0
110	Generator Rehab and Replacement Program (AMP)	1	18A001	\$200,000	\$0	\$2,000,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
30	Information Technology Networking Infrastructure Replacement	1	16A007	\$364,000	\$159,628	\$1,000,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
91	EMD HVAC and Power Supply	1	16W213	\$650,000	\$615,160	\$260,000	\$260,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
28	IT Virtual Desktop Migration	1	16A008	\$240,000	\$198,868	\$280,000	\$140,000	\$140,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
115	IT Server Physical Space Expansion and Enhancements	1		\$0	\$0	\$100,000	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total System Wide Capital Improvement Projects				\$4,384,000	\$1,880,657	\$23,240,000	\$2,900,000	\$2,540,000	\$2,400,000	\$2,400,000	\$2,000,000	\$5,400,000	\$1,400,000	\$1,400,000	\$1,400,000	\$1,400,000
Total Water Capital Improvement Projects				\$28,262,279	\$11,900,198	\$140,330,000	\$11,250,000	\$70,600,000	\$11,080,000	\$10,050,000	\$7,850,000	\$7,150,000	\$5,850,000	\$5,150,000	\$2,850,000	\$8,500,000
Total Wastewater Capital Improvement Projects				\$30,384,999	\$3,855,024	\$108,589,995	\$40,789,995	\$6,700,000	\$3,750,000	\$6,750,000	\$10,150,000	\$8,450,000	\$13,250,000	\$6,250,000	\$6,250,000	\$6,250,000
Proposed Total Capital Improvement Projects				\$77,233,538	\$17,635,879	\$272,159,995	\$54,939,995	\$79,840,000	\$17,230,000	\$19,200,000	\$20,000,000	\$21,000,000	\$20,500,000	\$12,800,000	\$10,500,000	\$16,150,000
Funding Source																
1	Pay-go Transfers						\$2,900,000	\$2,540,000	\$2,400,000	\$2,400,000	\$2,000,000	\$5,400,000	\$1,400,000	\$1,400,000	\$1,400,000	\$1,400,000
2	Bond Proceeds						\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3	Grants						\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4	SRF Loan Proceeds						\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5	Contributions from Others						\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	TOTAL SYSTEM WIDE						\$2,900,000	\$2,540,000	\$2,400,000	\$2,400,000	\$2,000,000	\$5,400,000	\$1,400,000	\$1,400,000	\$1,400,000	\$1,400,000

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LONG-TERM FINANCIAL MANAGEMENT

Consistent with its strategic plan, the Authority seeks to protect the environment, ensure public health and safety, and provide the highest quality services to both new and existing customers while maintaining a stable financial position that balances rates and the organization's long-term capital and operating needs. Balancing these objectives presents both challenges and opportunities. Long-term financial planning is a critical tool in developing strategies to ensure that this balance is maintained. Long-term financial planning is the process of aligning financial capacity with long-term service objectives. Financial planning uses forecasts to provide insight into future financial capacity so that strategies can be developed to achieve long-term sustainability considering service objectives and financial challenges.

The development of the Authority's 20-year financial plan is an iterative, multi-departmental process and ultimately guided by the Authority's adopted policies and key benchmarks. The goal of this process is to ensure that the Authority remains both operationally and financially sustainable while minimizing the impact to ratepayers. With this goal in mind, the Authority's long-term financial plan seeks to optimize the balance among efficient and effective service delivery; strategic capital investment to address the riskiest infrastructure and facilitate growth and economic development; key financial metrics including debt service coverage and liquidity; and rate affordability.

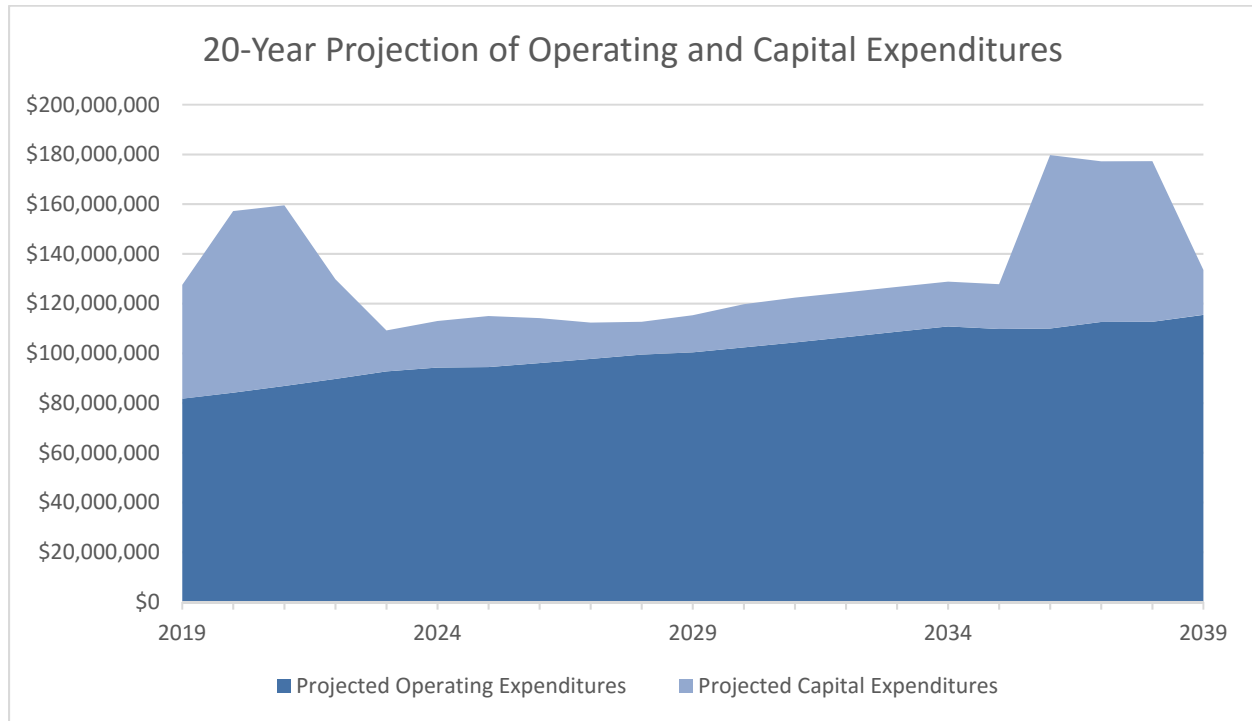
Operational Sustainability

Operational sustainability means that high-quality service will continue to be delivered to customers over the long-term. This notion not only includes providing water and wastewater treatment, distribution, collection, customer service, engineering, and compliance services but also that the Authority makes sufficient, deliberate capital investments to minimize the risk of infrastructure failure and service disruption. The operating expenditure projections incorporated in the Authority's long-term financial plan were developed with the goals of fully funding operating and maintenance costs at current levels plus inflation; retaining and attracting high-quality staff through competitive salaries and benefits; and executing a capital program focused on rehabilitating and replacing aging, high-risk infrastructure and other major projects. The graph on the following page details the operating and capital expenditure projections incorporated in the Authority's long-term financial plan.

Operating expenditures, excluding debt service expenditures, were assumed to grow in accordance with inflationary assumptions. Salaries and benefits (other than health and dental benefits) are assumed to grow at 4% per year to accommodate growth in the workforce tied to customer and system growth and cost-of-living and merit-based increases. Health and dental benefits are assumed to grow at 8%, while all other operating costs are assumed to grow at 2% per year. Debt service expenditures are based on existing amortization schedules for outstanding debt. Debt service related to planned future debt issuance was based on the Authority's historical borrowing rate, maturities on existing debt, and amortized with level payments for principal and interest.

Capital expenditure projections are based on the Authority's Ten Year Capital Improvement Program, which is developed using risk-based analyses to plan the extent and timing of water and wastewater system improvements. Planned project appropriations included in the 10-Year Capital Improvements Program total \$272.2 million with 73% of these appropriations focused on rehabilitation and replacement of existing infrastructure. Notable projects include the construction of a new raw water transmission line, and upgrades to the Sweeney Water Treatment plant to remove GenX and other unregulated compounds.

LONG-TERM FINANCIAL MANAGEMENT



Financial Sustainability

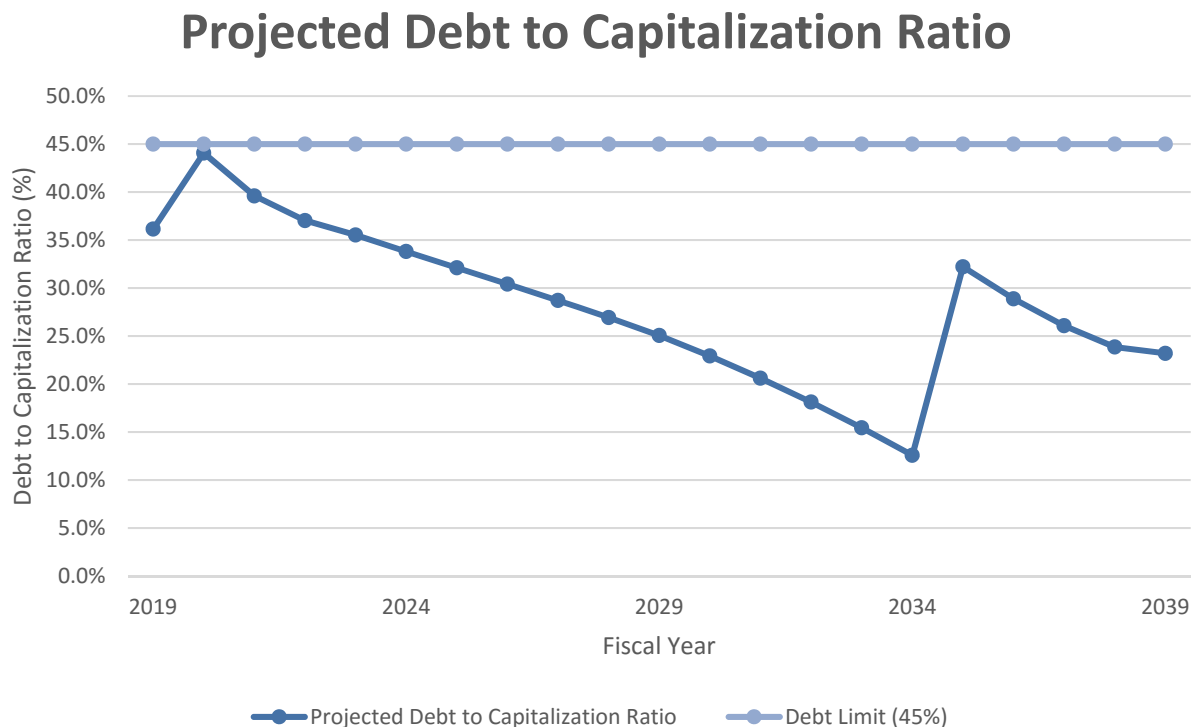
In addition to delivering and executing these services and projects, the Authority's long-term financial plan is focused on achieving the budgetary flexibility resulting from high levels of debt service coverage and liquidity. Further, maintaining debt service coverage and liquidity at high levels is viewed positively by credit markets and helps to ensure that the Authority continues borrowing at low costs.

The Authority's long-term financial plan incorporates the Authority's policy on debt limitations and cash reserve levels. In accordance with these policies, the long-term financial plan includes gradual increases to rates to a structure under which current year rate collections fully fund \$18 million in annual recurring capital expenditures. The Authority is currently planning to complete this transition by FY 22-23. During the transition period the Authority will supplement transfers from the operating fund with available cash reserves to fund capital expenditures. These policies were adopted to produce a resilient financial structure by reducing the proportion of the annual operating budget reserved for mandatory debt service payments, "free up" future borrowing capacity, and achieve robust coverage levels expected of the highest rated water and wastewater utilities.

Debt is a critical capital financing mechanism that provides an immediate funding source and allows for the gradual pay-back of borrowed funds in the future. Debt, however, can be excessive when annual debt service requirements grow to levels that cause rates to increase to unaffordable levels or force cuts to services in the absence of rate increases. The Authority's debt management policy is focused on maintaining the balance between debt funding, rate affordability, and operational sustainability by placing limits on debt issuance.

LONG-TERM FINANCIAL MANAGEMENT

The Authority's debt management policy explicitly limits debt in two ways. First, the policy provides specific attributes that projects should generally have to be candidates for debt funding (e.g. for high-dollar projects where pay-go funding is impractical or for growth-oriented projects in which it makes sense for future rate payers to pay for those improvements). Second, the policy establishes a debt limit expressed in terms of the debt-to-capitalization ratio (debt outstanding as a percentage of the value of capital assets). The Authority may not issue debt if such issuance would cause the debt to capitalization ratio to exceed 45%. Measuring the Authority's debt load using the debt-to-capitalization is an appropriate way to quantify the Authority's debt load because the ratio reflects the Authority's long-term mix of debt and pay-as-you-go funding. The policy debt metric limit of 45% was derived considering the Authority's debt service coverage target and its expectation of long-term borrowing costs.

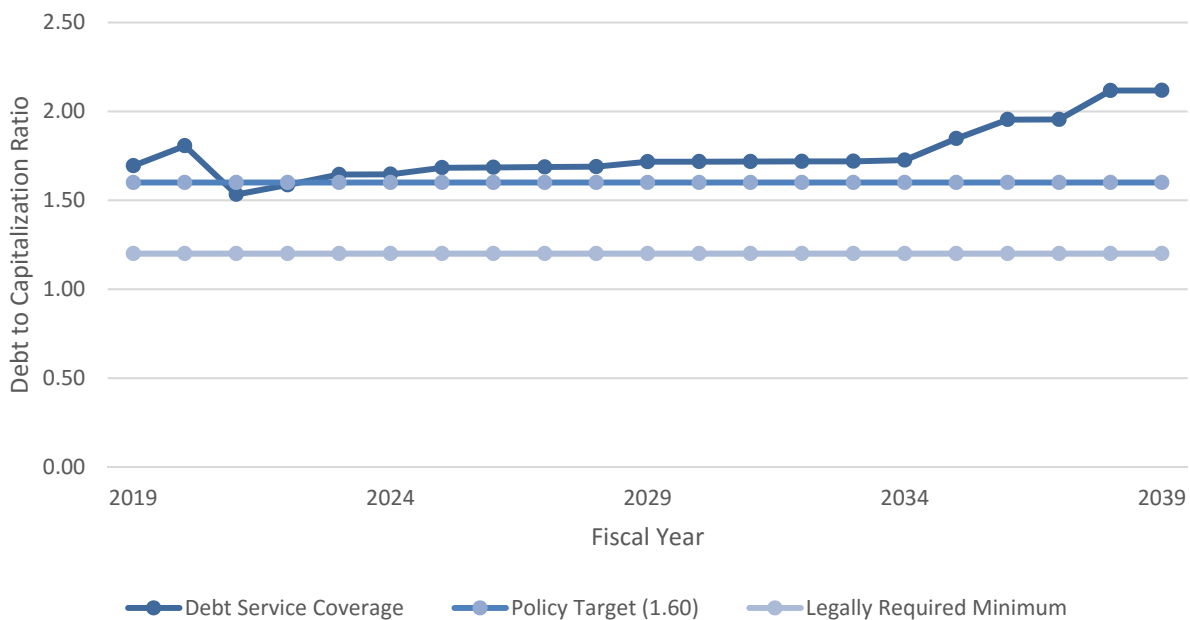


The debt-to-capitalization ratio is projected to increase from 36.1% in FY 18-19 to 44.1% in FY 19-20 due to the projected issuance of debt to fund enhancements to the Sweeney plant for the removal of GenX and other unregulated contaminants, expansion of the Authority's raw water transmission line, and aerial water line rehabilitation. The debt-to-capitalization ratio is projected to decrease through FY 33-34 as no new debt is projected to be issued and projected capital investment outpaces projected depreciation on system assets. The debt-to-capitalization ratio is projected to increase to 32.2% in FY 34-35 due to the planned issuance of debt to fund a capacity upgrade for the Southside Wastewater Treatment Plant.

LONG-TERM FINANCIAL MANAGEMENT

Debt service coverage measures an entity's ability to pay principal and interest on its debt obligations with current year revenues. Debt service coverage more than 1.0 indicates that net operating revenues (revenues minus operating expenses) were greater than the principal and interest due during the period. Financial structures that provide for relatively high debt service coverage ratios are valued by credit markets – the higher the debt service coverage ratio, the more assurance that debt service requirements will be met. The Authority is required to structure its rates so that revenues in any given year are equal to at least 1.2 times of the principal and interest due on its outstanding debt obligations. However, credit markets and raters generally prefer higher debt service coverage ratios. The Authority's debt service coverage target is 1.6.

Projected Debt Service Coverage



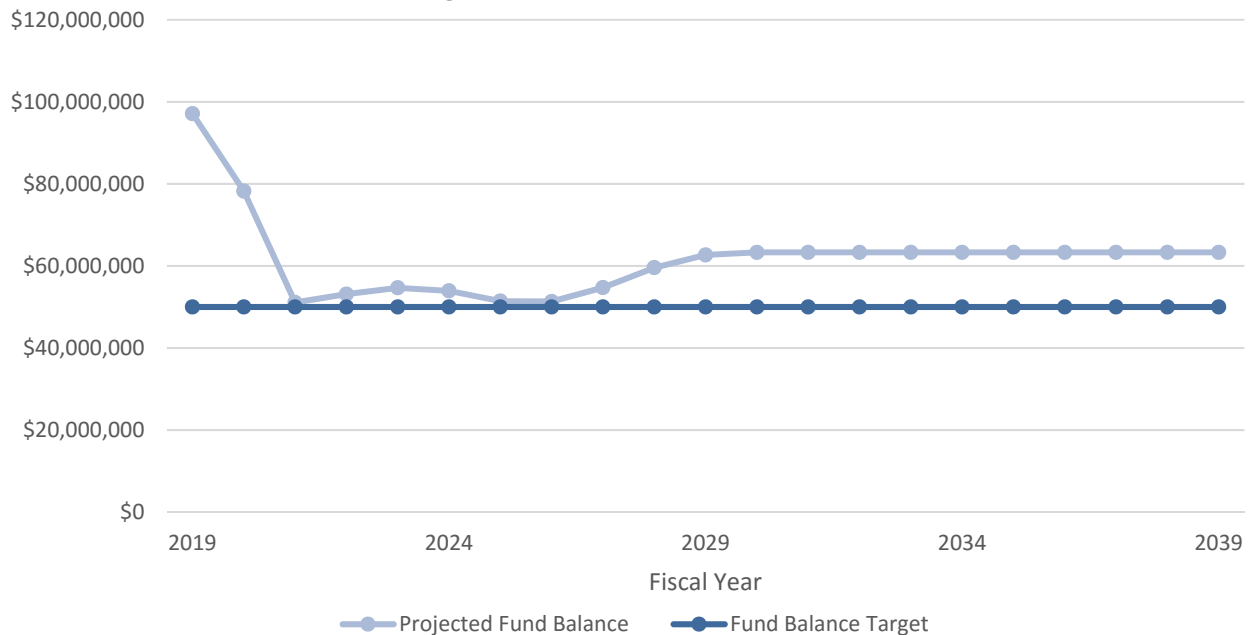
The graph above indicates that coverage is projected to increase to 1.81 in FY 19-20 rapidly due to annual rate increases to fully fund annual recurring capital expenditures; sharply decrease to 1.53 due to projected increases in debt service from debt issuance to fund enhancements to the Sweeney plant for the removal of GenX and other unregulated contaminants, expansion of the Authority's raw water transmission line, and aerial water line rehabilitation; gradually increase due to decreasing debt service on existing debt to 1.73 in FY 33-34; then increase rapidly through FY 38-38 to 2.12 as existing debt is fully retired which outpaces increases in debt service related to the issuance of debt to fund the capacity upgrade for the Southside Wastewater Treatment Plant.

Available fund balance is another key indicator of financial health. The higher the available fund balance, the higher the capacity to absorb periods of declining revenues, unbudgeted expenditures, or both. At the same time, to minimize the impact to rate payers, it's critical that rates are developed and financial

LONG-TERM FINANCIAL MANAGEMENT

resources spent so that fund balance in excess of targeted levels is not accumulated. To ensure this balance, Authority policy requires that a risk-based reserve/fund balance target is periodically determined. The Authority's current unrestricted fund balance target is \$50 million. As previously mentioned, the Authority plans to spend available fund balance to fund capital expenditures from FY 18-19 to FY 21-22 as rates are gradually increased to fully fund annual, recurring capital expenditures.

Projected Fund Balance



The graph above reflects these plans as fund balance is projected to sharply decrease through FY 21-22. Fund balance is projected to stay roughly flat at the \$50 million target through FY 25-26 and then experiences a projected accumulation to around \$60 million.

Rate Affordability

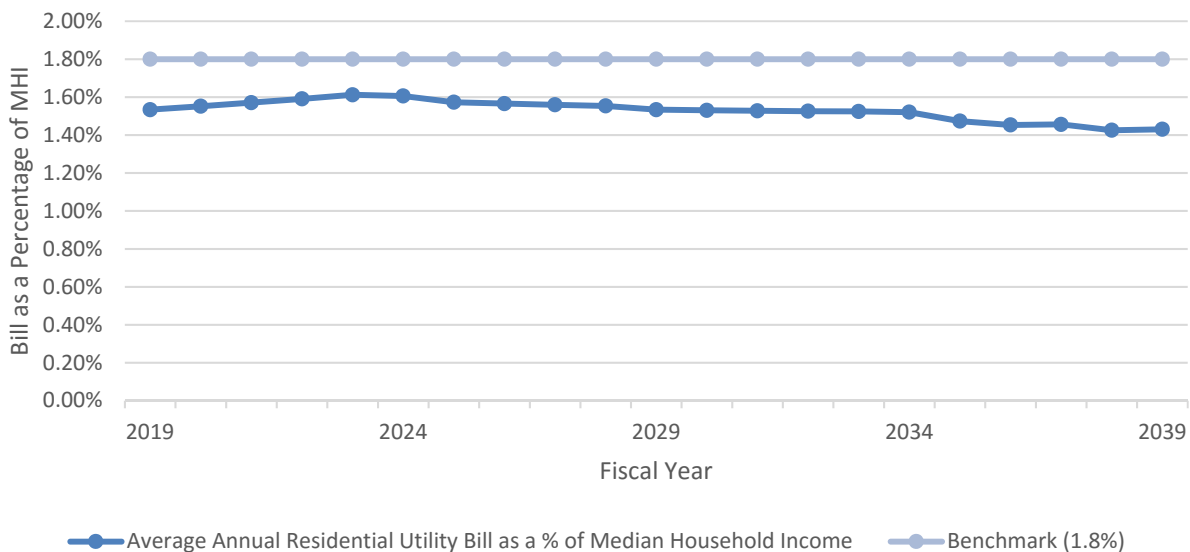
While there's no universal metric of affordability, one common metric is to quantify the average annual residential bill as a percentage of median household income for the service area. The Authority's long-term financial plan includes a projection of residential bimonthly combined water and wastewater bills based on consumption of 8,600 gallons per billing cycle with an assumed .5% increase per year in both consumption and equivalent residential units. Estimated median household income data for calendar year 2017 was used as a base year and is projected to grow by 1% per year.

Over the Authority's 20-year financial planning horizon, annual costs of residential water and wastewater service are projected to approach but remain below the target 1.8% of median household income for the service area. The annual residential utility bill as a percentage of median household income is projected to increase from 1.53% in FY 18-19 to 1.61% in FY 22-23 as rates are projected to not only fund inflation in the operating budget but also generate additional revenues to fully fund annual recurring capital

LONG-TERM FINANCIAL MANAGEMENT

expenditures during that period. From FY 22-23 to FY 33-34 the annual residential utility bill as a percentage of median household income is projected to decrease slightly as annual debt service requirements gradually decrease as no new debt is projected to be issued during that period. The annual residential utility bill as a percentage of median household income is projected to experience a decrease from 1.52% to 1.43% from FY 33-34 to FY 38-39 as existing debt is fully retired which outpaces increases in annual debt service related to the issuance of debt to fund the capacity upgrade for the Southside Wastewater Treatment Plant during that period.

Projected Average Annual Residential Utility Bill as a % Median Household Income



Source: U.S. Census Bureau

Conclusion

Ensuring that the Authority continues to provide high-quality water and wastewater service to its customers, remains in a strong financial position, and minimizes the impact to customers requires a careful balance. Long-term financial planning is an important tool that the Authority uses to maintain this balance in a proactive manner. Guided by financial policies, the Authority's long-term financial plan fully funds operations at current levels plus inflation and funds an aggressive capital program focused on rehabilitating and replacing aging infrastructure. At the same time, target levels of debt, debt service coverage, and liquidity are projected to be attained while keeping the cost of service affordable for customers.

CAPE FEAR PUBLIC UTILITY AUTHORITY
ACRONYMS

TERM	STANDS FOR
AMR	Automatic Meter Reading
APWA	American Public Works Association
ARRA	American Recovery and Reinvestment Act
ASR	Aquifer Storage and Recovery
AWOP	Area Wide Optimization Program
AWWA	American Water Works Association
BOD	Biochemical Oxygen Demand
CAFR	Comprehensive Annual Financial Report
CAMA	Coastal Area Management Act
CBOD	Carbonaceous Biochemical Oxygen Demand
CFPUA	Cape Fear Public Utility Authority
CIP	Capital Improvement Program
CMMS	Computer Maintenance Management System
CMOM	Capacity Management, Operations & Maintenance
COD	Chemical Oxygen Demand
COPS	Certificates of Participation
COW	City of Wilmington
C-PAR	Corrective/Preventative Action Report
CWM	Clean Water Management
CWSRF	Clean Water State Revolving Funds
CY	Calendar Year
DART	Days Away Restricted Transferred
DBP	Disinfection Byproduct
DHS	Department of Homeland Security
DMR	Discharge Monitoring Report
DO	Dissolved Oxygen
DR	Disaster Recovery
DWQ	Division of Water Quality
EDC	Endocrine Disrupting Compound
EDMR	Electronic Discharge Monitoring Report
EEOC	Equal Employment Opportunity Commission
EMS	Environmental Management System
EOC	Emergency Operations Center
EFT	Electronic Funds Transfer
EPA	Environmental Protection Agency
ERT	Encoder Receiver Transmitter

TERM	STANDS FOR
ERP	Enterprise Resource Planning
FEMA	Federal Emergency Management Agency
FOG	Fats, Oils and Grease
FSE	Food Service Establishment
FTE	Full Time Equivalent Positions
FY	Fiscal Year
GAAP	Generally Accepted Accounting Principles
GASB	Government Accounting Standards Board
GC	Gas Chromatograph
GFOA	Government Finance Officers Association
GIS	Geographic Information Systems
GPD	Gallons per day
GPS	Global Positioning System
GS	General Statute
HAZMAT	Hazardous Material
HMI	Human Machine Interface
HVAC	Heating, Ventilation and Air Conditioning
I/I	Infiltration and Inflow
ICP-MS	Inductively Coupled Plasma-Mass Spectrometry
ICS	Incident Command System
ILA	Interlocal Agreement
IRR	Irrigation
ISO	International Organization for Standardization (Greek)
IT	Information Technology
IU	Industrial User
IVR	Interactive Voice Response
KPI	Key Performance Indicator
LCFWSA	Lower Cape Fear Water & Sewer Authority
LCS	Lab Control Samples
LIMS	Laboratory Information Management System
LWSP	Local Water Supply Plan
MDD	Maximum Daily Demand
MDF	Maximum Daily Flow
MGD	Million gallons per day
MOU	Memorandum of Understanding
MSDS	Material Safety Data Sheet

CAPE FEAR PUBLIC UTILITY AUTHORITY
ACRONYMS

TERM	STANDS FOR
NACWA	National Association of Clean Water Agencies
NCDENR	North Carolina Department of Environment & Natural Resources
NCDWQ	North Carolina Division of Water Quality
NCRWA	North Carolina Rural Water Association
NEI	Northeast Interceptor
NHC	New Hanover County
NIMS	National Incident Management System
NOAA	National Oceanic and Atmospheric Administration
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
NTU	Nephelometric Turbidity Units
O & M	Operational & Maintenance
ORC	Operator in Responsible Charge
OSHA	Occupational Safety and Health Administration
PER	Preliminary Engineering Report
pH	Potential of Hydrogen
POSM	Pipeline Observation System Management
POTW	Public Owned Treatment Works
PPCP	Pharmaceuticals and Personal Care Products
PPM	Parts per million
PS	Pump Station
PSA	Protective Security Advisor
PWS	Public Water Supply
QA	Quality Assurance
QC	Quality Control
RFP	Request for Proposal
SBR	Sequencing Batch Reactor
SCADA	Supervisory Control and Data Acquisition
SDC	System Development Charge
SIU	Significant Industrial User
SKN	Soluble Kjeldahl Nitrogen
SNC	Significant Non-Compliant
SOI	Standard Operating Instructions
SOP	Standard Operating Procedures

TERM	STANDS FOR
SSO	Sanitary Sewer Overflow
SUO	Sewer Use Ordinance
TDS	Total Dissolved Solids
TKN	Total Kjeldahl Nitrogen
TMDL	Total Maximum Daily Loads
TOC	Total Organic Carbon
TRC	Technical Review Committee
TSS	Total Suspended Solids
TTHM	Total Trihalomethanes
UNCW	University of North Carolina at Wilmington
USACE	United States Army Corp. of Engineers
USEPA	United States Environmental Protection Agency
VPN	Virtual Private Network
WEA	Water Environment Association
WEF	Water Environment Federation
WERF	Water Environment Research Foundation
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant

CAPE FEAR PUBLIC UTILITY AUTHORITY
RATES AND FEES SCHEDULE FY 17-18

		Rates and Fees Effective 1/1/18	Rates and Fees Effective 7/1/18	Ordinance Reference
1	WATER RATES & FEES			
	Water rates include both a fixed meter charge based on meter size and consumption charge based on metered consumption, billed bi-monthly (every two months).			
A.	Fixed Meter Charge by Meter Size*	Bi-Monthly	Bi-Monthly	
	5/8"	\$ 26.67	\$ 27.56	Sec. 1-97 (1) f
	1" (Single-Family Residential with fire sprinkler system)	\$ 26.67	\$ 27.56	Sec. 1-97 (1) f
	1"	\$ 66.68	\$ 68.90	Sec. 1-97 (1) f
	1 1/2"	\$ 133.35	\$ 137.80	Sec. 1-97 (1) f
	2"	\$ 213.36	\$ 220.48	Sec. 1-97 (1) f
	3"	\$ 400.05	\$ 413.40	Sec. 1-97 (1) f
	4"	\$ 666.75	\$ 689.00	Sec. 1-97 (1) f
	6"	\$ 1,333.50	\$ 1,378.00	Sec. 1-97 (1) f
	8"	\$ 2,133.60	\$ 2,204.80	Sec. 1-97 (1) f
	10"	\$ 3,333.75	\$ 3,445.00	Sec. 1-97 (1) f
	12"	\$ 4,000.50	\$ 4,134.00	Sec. 1-97 (1) f
	* Fixed Meter Charge is not applied to Irrigation Meters if a separate Water Meter exists.			
B.	Consumption Charge (per 1,000 gallons)**	\$ 3.85	\$ 4.02	Sec. 1-97 (1) c
	** Single-Family Residential is serviced by one domestic meter			
C.	Availability Charge for unconnected 5/8" water service; Availability Charge for larger meters based on meter size	\$ 26.67	\$ 27.56	Sec. 1-97 (1) a
D.	Bulk Water Rates			
	Bulk Water Resale Rate (per 1,000 gallons)	\$ 3.09	\$ 3.48	Sec. 1-97 (1) b
	Bulk Reclaimed Water In-Service Area Rate (per 1,000 gallons)	\$ 2.55	\$ 2.55	Sec. 1-97 (1) b
	Bulk Reclaimed Water Deposit In-Service Area Rate ***	\$100 minimum	\$100 minimum	Sec. 1-97 (1) b
	Bulk Reclaimed Water Out-of-Service Area Rate (per 1,000 gallons)	\$ 3.19	\$ 3.19	Sec. 1-97 (1) b
	Bulk Reclaimed Water Deposit Out-of-Service Area Rate***	\$125 minimum	\$125 minimum	Sec. 1-97 (1) b
	*** Greater of 3 months estimated usage or the minimum			
E.	Water Service Connection Fee*			
	Service Line Connection Fee by Service Size			
	1" Service	\$ 1,850.00	\$ 1,850.00	Sec. 1-97 (2) a; Sec. 1-5 c
	2" Service	\$ 2,300.00	\$ 2,300.00	Sec. 1-97 (2) a; Sec. 1-5 c
	Inspection Fee for Developer-Installed Connection	\$ 55.00	\$ 55.00	Sec. 1-97 (2) b; Sec. 1-6 a
	Inspection Fee for Developer-Installed Connection (After hours - Minimum of 2 hours)	\$75/hour	\$75/hour	Sec. 1-97 (2) b; Sec. 1-6 a
F.	Meter Set Fee by Meter Size (includes labor and materials)			
	5/8"	\$ 250.00	\$ 250.00	Sec. 1-97 (2) c; Sec. 1-5 c
	5/8" Split Service	\$ 375.00	\$ 375.00	Sec. 1-97 (2) c; Sec. 1-5 c
	1"	\$ 350.00	\$ 350.00	Sec. 1-97 (2) c; Sec. 1-5 c
	1 1/2"	\$ 1,600.00	\$ 1,600.00	Sec. 1-97 (2) c; Sec. 1-5 c
	2"	\$ 1,800.00	\$ 1,800.00	Sec. 1-97 (2) c; Sec. 1-5 c
G.	System Development Charges			
	Water by Meter Size			Sec. 4-27 (a)
	5/8" (no Water SDC due on a 5/8" irrigation meter)	\$ 1,590.00	\$ 1,830.00	Sec. 1-97 (2) d
	1" (Single-Family Residential with fire sprinkler system)	\$ 1,590.00	\$ 1,830.00	Sec. 1-97 (2) d
	1"	\$ 3,975.00	\$ 4,575.00	Sec. 1-97 (2) d
	1 1/2"	\$ 7,950.00	\$ 9,150.00	Sec. 1-97 (2) d
	2"	\$ 12,720.00	\$ 14,640.00	Sec. 1-97 (2) d
	3"	\$ 23,850.00	\$ 27,450.00	Sec. 1-97 (2) d
	4"	\$ 39,750.00	\$ 45,750.00	Sec. 1-97 (2) d
	6"	\$ 79,500.00	\$ 91,500.00	Sec. 1-97 (2) d
	8"	\$ 127,200.00	\$ 146,400.00	Sec. 1-97 (2) d
	10"	\$ 198,750.00	\$ 228,750.00	Sec. 1-97 (2) d
	Shell Buildings Alternative Fee Calculation - former NHC Water & Sewer District. Fees base on class of use & 15A NCAC O2T.0114 - Design Flow Rates			
	Water Development Charge (minimum \$1,348.00 = 400 gallons)	\$3.37 per gallon	\$3.37 per gallon	Sec. 1-97 (2) d
H.	Special Use of Water			
	Water Rates include both a fixed meter charge as referenced in Section A based on meter size or backflow preventer size, whichever is less, plus consumption charge based on metered consumption as referenced in Section B, billed bi-monthly (every two months).			
	Fixed Meter Charge by Size	Initial Fee	Initial Fee	
	5/8"	\$ 31.00	\$ 31.00	Sec. 1-97 (3) g
	3/4"	\$ 35.00	\$ 35.00	Sec. 1-97 (3) g
	1"	\$ 45.00	\$ 45.00	Sec. 1-97 (3) g
	1 1/2"	\$ 56.00	\$ 56.00	Sec. 1-97 (3) g
	2"	\$ 96.00	\$ 96.00	Sec. 1-97 (3) g
	3"	\$ 165.00	\$ 165.00	Sec. 1-97 (3) g
	4"	\$ 254.00	\$ 254.00	Sec. 1-97 (3) g
	Lost or stolen special use sign	\$ 50.00	\$ 50.00	Sec. 1-97 (3) g
I.	Water Quality Fees			
	Inspection Fees Backflow Assembly			

CAPE FEAR PUBLIC UTILITY AUTHORITY
RATES AND FEES SCHEDULE FY 17-18

		Rates and Fees Effective 1/1/18	Rates and Fees Effective 7/1/18	Ordinance Reference
	Initial inspection	No Charge	No Charge	Sec. 1-97 (2) b
	Subsequent inspections	\$ 55.00	\$ 55.00	Sec. 1-97 (2) b
J. Fire Line Service				
	Fixed Fire Line Charge by Size	Bi-Monthly	Bi-Monthly	
	2"	\$ 20.00	\$ 20.00	Sec. 1-97 (1) e
	4"	\$ 40.00	\$ 40.00	Sec. 1-97 (1) e
	6"	\$ 80.00	\$ 80.00	Sec. 1-97 (1) e
	8"	\$ 140.00	\$ 140.00	Sec. 1-97 (1) e
	10"	\$ 220.00	\$ 220.00	Sec. 1-97 (1) e
	12"	\$ 320.00	\$ 320.00	Sec. 1-97 (1) e
2 SEWER RATES & FEES				
	Sewer rates include both a fixed meter charge based on meter size and consumption charge based on metered consumption, billed bi-monthly (every two months).			
A. Fixed Meter Charge by Meter Size		Bi-Monthly	Bi-Monthly	
	5/8"	\$ 29.10	\$ 29.10	Sec. 1-97 (1) f; Sec. 1-75
	1" (Single-Family Residential with fire sprinkler system)	\$ 29.10	\$ 29.10	Sec. 1-97 (1) f; Sec. 1-75
	1"	\$ 72.75	\$ 72.75	Sec. 1-97 (1) f; Sec. 1-75
	1 1/2"	\$ 145.50	\$ 145.50	Sec. 1-97 (1) f; Sec. 1-75
	2"	\$ 232.80	\$ 232.80	Sec. 1-97 (1) f; Sec. 1-75
	3"	\$ 436.50	\$ 436.50	Sec. 1-97 (1) f; Sec. 1-75
	4"	\$ 727.50	\$ 727.50	Sec. 1-97 (1) f; Sec. 1-75
	6"	\$ 1,455.00	\$ 1,455.00	Sec. 1-97 (1) f; Sec. 1-75
	8"	\$ 2,328.00	\$ 2,328.00	Sec. 1-97 (1) f; Sec. 1-75
	10"	\$ 3,637.50	\$ 3,637.50	Sec. 1-97 (1) f; Sec. 1-75
	12"	\$ 4,365.00	\$ 4,365.00	Sec. 1-97 (1) f; Sec. 1-75
B. Consumption Charge (per 1,000 gallons) See Notes 1,2,3,4		\$ 4.58	\$ 4.63	Sec. 1-97 (1) c; Sec. 1-75
Note 1	Single-Family Residential metered consumption capped at 30,000 gallons per bi-monthly billing			Sec. 1-97 (1) c; Sec. 1-75
Note 2	Single Family Residential non-metered consumption based on the average residential consumption plus the fixed metered charge for a 5/8" meter			Sec. 1-97 (1) g; Sec. 1-75
Note 3	Nonresidential non metered consumption capped at 24,000 gallons per bimonthly billing			Sec. 1-97 (1) g; Sec. 1-75
Note 4	No cap for non-residential metered consumption			Sec. 1-97 (1) c; Sec. 1-75
Note 5	Single-Family Residential is serviced by one domestic meter			
C. Availability Charge for unconnected 5/8" sewer service; Availability Charge for larger meters based on meter size		Bi-Monthly	Bi-Monthly	
		\$ 29.10	\$ 29.10	Sec. 1-97 (1) a
D. Bulk Wastewater Collection and Treatment Rate (per 1,000 gallons)		\$3.32	\$3.34	Sec. 1-97 (1) b
E. Sewer Service Connection Fee				
	Installation Fee by Service Size			
	4" Service	\$ 2,200.00	\$ 2,200.00	Sec. 1-97 (2) a; Sec. 1-5 c
	6" Service	\$ 2,800.00	\$ 2,800.00	Sec. 1-97 (2) a; Sec. 1-5 c
	Inspection Fee for Developer-Installed Connection	\$ 55.00	\$ 55.00	Sec. 1-97 (2) b; Sec. 1-6 a
	Inspection Fee for Developer-Installed Connection (After hours - Minimum of 2 hours)	\$75/hour	\$75/hour	Sec. 1-97 (2) b; Sec. 1-6 a
F. System Development Charges				
	Sewer by Meter Size			Sec. 4-47 (a)
	5/8"	\$ 2,130.00	\$ 1,800.00	Sec. 1-97 (2) d
	1" (Single-Family Residential with fire sprinkler system)	\$ 2,130.00	\$ 1,800.00	Sec. 1-97 (2) d
	1"	\$ 5,325.00	\$ 4,500.00	Sec. 1-97 (2) d
	1 1/2"	\$ 10,650.00	\$ 9,000.00	Sec. 1-97 (2) d
	2"	\$ 17,040.00	\$ 14,400.00	Sec. 1-97 (2) d
	3"	\$ 31,950.00	\$ 27,000.00	Sec. 1-97 (2) d
	4"	\$ 53,250.00	\$ 45,000.00	Sec. 1-97 (2) d
	6"	\$ 106,500.00	\$ 90,000.00	Sec. 1-97 (2) d
	8"	\$ 170,400.00	\$ 144,000.00	Sec. 1-97 (2) d
	10"	\$ 266,250.00	\$ 225,000.00	Sec. 1-97 (2) d
	Unmetered service (sewer only)	\$10/gallon projected flow	\$10/gallon projected flow	Sec. 1-97 (2) d
Shell Buildings Alternative Fee Calculation - former NHC Water & Sewer District. Fees base on class of use & 15A NCAC O2T.0114 - Design Flow Rates				
	Sewer Impact Fee (minimum \$2,103.90 = 300 gallons)	\$7.013 per gallon	\$7.013 per gallon	Sec. 1-97 (2) d
	Sewer Development Charge	\$1.50 per gallon	\$1.50 per gallon	Sec. 1-97 (2) d
G. Development Capacity Fees				
	Chair Road Associates - Regional Lift Station (PS #157) and Northwest Forcemain Improvements	\$5.04 per gpd	\$5.04 per gpd	Per Contract
	Chair Road Associates - Northwest Forcemain Improvements Only	\$3.76 per gpd	\$3.76 per gpd	Per Contract
	Kirkland Sewer Project Capacity Fee	\$2.71 per gpd	\$2.71 per gpd	Per Contract
3 Wastewater Pretreatment				
A. Discharge Permit Applications and Annual Fees:				
	Significant Industrial Users, Industrial Users flow > 15,000 gallons/day			
	Initial and Annual Permit	\$ 750.00	\$ 750.00	Sec. 5-58; Sec. 5-91 (b)

CAPE FEAR PUBLIC UTILITY AUTHORITY
RATES AND FEES SCHEDULE FY 17-18

		Rates and Fees Effective 1/1/18	Rates and Fees Effective 7/1/18	Ordinance Reference
	Modification of Permit (each occurrence)	\$ 200.00	\$ 200.00	Sec. 5-58; Sec. 5-91 (b)
	Restoration of Revoked Permit (each occurrence)	\$ 1,500.00	\$ 1,500.00	Sec. 5-58; Sec. 5-91 (b)
	Monitoring Fee	Individually determined	Individually determined	Sec. 5-58
	Enforcement Cost Recovery	Individually determined	Individually determined	Sec. 1-97 (3) j; Sec. 5-58
B. Other Wastewater Permits				
	Flow Less than 1,000 gallons/day (initial and annual)	\$ 100.00	\$ 100.00	Sec. 5-58; Sec. 5-91 (a)
	Flow Between 1,000 and 7,500 gallons/day (initial and annual)	\$ 200.00	\$ 200.00	Sec. 5-58; Sec. 5-91 (a)
	Flow Between 7,501 and 15,000 gallons/day (initial and annual)	\$ 300.00	\$ 300.00	Sec. 5-58; Sec. 5-91 (a)
	Monitoring Fee	Individually determined	Individually determined	Sec. 5-58
	Food Service Establishment Permit and Annual Inspection Fee (per location)	\$ 100.00	\$ 100.00	Sec. 5-58; Sec. 5-91 (a)
	Grease Interceptor Pumping Variance (each occurrence)	\$ 220.00	\$ 220.00	Sec. 5-58
	Enforcement Cost Recovery	Individually determined	Individually determined	Sec. 1-97 (3) j; Sec. 5-58
	Restoration Fee of Revoked Other Wastewater Permit (each occurrence)	2x permit fee	2x permit fee	Sec. 1-97 (1) d; Sec. 5-58
	Residuals permit application fee (initial and renewals)	\$ 100.00	\$ 100.00	Sec. 5-58
C. Pretreatment Wastewater Treatment Surcharges				
		Monthly	Monthly	
	Surcharge for BOD (per 100 lbs; when BOD>200mg/L and COD < 3x BOD)****	\$ 36.00	\$ 36.00	Sec. 1-97 (1) d; Sec. 5-57
	Surcharge for COD (per 100 lbs; when COD>600mg/L and >=3xBOD)****	\$ 36.00	\$ 36.00	Sec. 1-97 (1) d; Sec. 5-57
	Surcharge for TSS (per 100 lbs; when TSS >200mg/l)	\$ 21.00	\$ 21.00	Sec. 1-97 (1) d; Sec. 5-57
	**** Surcharge is assessed for either BOD or COD, but not both.			
D. Charges for Septage Haulers				
		Monthly	Monthly	
	In-Service Area Rate (per gallon)	\$ 0.1378	\$ 0.1378	Sec. 1-97 (1) b; Sec. 5-33
	Out-of-Service Area Rate (per gallon)	\$ 0.1723	\$ 0.1723	Sec. 1-97 (1) b; Sec. 5-33
	Utility Deposit	\$ 500.00	\$ 500.00	Sec. 1-6
E. Charges for Miscellaneous Hauled Wastewater Fees (subject to applicable surcharges)				
	Short-Term Permit	Monthly	Monthly	
	Per gallon Within Service Area	\$ 0.030	\$ 0.030	Sec. 1-97 (1) b; Sec. 5-33
	Per gallon Out-of-Service Area	\$ 0.060	\$ 0.060	Sec. 1-97 (1) b; Sec. 5-33
	Long-Term Permit			
	One Time System Development Charge In accordance with Fee Schedule and specified in permit.			Sec. 1-97 (2)d; Sec. 5-58
		Monthly	Monthly	
	Long-Term Permit Monthly Consumption Charge (per 1,000 gallons)	\$ 4.58	\$ 4.63	Sec. 1-97 (1) c; Sec. 5-58
	Long-Term Permit Monthly Fixed Meter Charge by Meter Size/Flow:			
	5/8" (Flow between 0-28,800 gpd)	\$ 29.10	\$ 29.10	Sec. 1-97 (1) f; Sec. 5-58
	1" (Flow between 28,801-72,000 gpd)	\$ 72.75	\$ 72.75	Sec. 1-97 (1) f; Sec. 5-58
	1 1/2" (Flow between 72,001-144,000 gpd)	\$ 145.50	\$ 145.50	Sec. 1-97 (1) f; Sec. 5-58
	2" (Flow between 144,001-230,400 gpd)	\$ 232.80	\$ 232.80	Sec. 1-97 (1) f; Sec. 5-58
	3" (Flow between 230,401-460,800 gpd)	\$ 436.50	\$ 436.50	Sec. 1-97 (1) f; Sec. 5-58
	4" (Flow between 460,801-720,000 gpd)	\$ 727.50	\$ 727.50	Sec. 1-97 (1) f; Sec. 5-58
	6" (Flow between 720,001-1,440,000 gpd)	\$ 1,455.00	\$ 1,455.00	Sec. 1-97 (1) f; Sec. 5-58
	8" (Flow between 1,440,001-2,304,000 gpd)	\$ 2,328.00	\$ 2,328.00	Sec. 1-97 (1) f; Sec. 5-58
	10" (Flow between 2,304,001-3,312,000 gpd)	\$ 3,637.50	\$ 3,637.50	Sec. 1-97 (1) f; Sec. 5-58
	12" (Flow > 3,312,001 gpd)	\$ 4,365.00	\$ 4,365.00	Sec. 1-97 (1) f; Sec. 5-58
F. Processing Charge for Haulers of Non-Hazardous Wastewater Treatment Plant (WWTP) Residuals as delivered to a designated CFPWA WWTP (Per Pound Total Solids Dry Weight Basis as Delivered/Received)				
		Monthly	Monthly	
	Unstabilized/Less Than Class B Residuals In-Service Area Rate	\$ 0.8020	\$ 0.8020	Sec. 1-97 (1) b; Sec. 5-33
	Stabilized/Equal to or Better Than Class B Residuals In-Service Area Rate	\$ 0.6015	\$ 0.6015	Sec. 1-97 (1) b; Sec. 5-33
	Unstabilized/Less Than Class B Residuals Out-of-Service Area Rate	\$ 1.0025	\$ 1.0025	Sec. 1-97 (1) b; Sec. 5-33
	Stabilized/Equal to or Better Than Class B Residuals Out-of-Service Area Rate	\$ 0.7519	\$ 0.7519	Sec. 1-97 (1) b; Sec. 5-33
4 Penalties				
A. Tampering Violations				
	Unauthorized non-metered use of water (greater of 30,000 gallons consumption or the highest billed consumption in the past 24 months)	\$110.10 minimum	\$120.60 minimum	Sec. 1-97 (3) m; Sec 1-166 (c)
	Unauthorized non-metered use of sewer (capped at 30,000 gallons consumption)	\$136.80	\$138.90	Sec. 1-97 (3) m; Sec 1-166 (c)
	Cut Lock Fee	\$75.00	\$75.00	Sec. 1-97 (3) f; Sec. 1-166 (c)
	Unauthorized turn on or turn off water supplied by Authority	\$50.00	\$55.00	Sec. 1-9 (g); Sec. 1-9(h)
	Meter Obstruction Fee	\$55.00	\$55.00	Sec. 1-97 (3) q
		Triple the amount of losses and damages sustained by the Authority or \$5000, whichever is greater	Triple the amount of losses and damages sustained by the Authority or \$5000, whichever is greater	
	System Tampering Civil Action Violation, in accordance with N.C.G.S. 14-151(e)			Sec. 1-97 (3) r
	Violation of Cross Connection Control Ordinance	Up to \$1,000/day	Up to \$1,000/day	Sec. 2-10 (j)
B. Backflow Preventer Violations				
	Commercial failure to submit required backflow preventer test report	\$200.00	\$200.00	Sec. 2-10 (d)
	Residential failure to submit required backflow preventer test report	\$100.00	\$100.00	Sec. 2-10 (d)
	Submission of falsified backflow preventer test report	\$200.00	\$200.00	Sec. 2-10 (d)
	First violation of backflow installation requirements	\$250.00	\$250.00	Sec. 2-10 (b)

CAPE FEAR PUBLIC UTILITY AUTHORITY
RATES AND FEES SCHEDULE FY 17-18

		Rates and Fees Effective 1/1/18	Rates and Fees Effective 7/1/18	Ordinance Reference
	Subsequent violation of backflow installation requirements	\$1,000.00	\$1,000.00	Sec. 2-10 (b)
C. Pretreatment Violations				
	Violation of Wastewater Discharge Permit	Up to \$25,000	Up to \$25,000	Sec. 5-189
	Violation of Sewer Use Ordinance	Up to \$25,000	Up to \$25,000	Sec. 5-189
D. Water Emergency Management Ordinance				
	Violation of Water Emergency Management Regulations	Up to \$500/day	Up to \$500/day	Sec. 3-13 (d)
5 Miscellaneous and Other				
A. Service/repair costs				
	Contracted services at actual cost plus 10% administrative fee	Individually determined	Individually determined	Sec. 1-9 (e)
	CFPUA staff and equipment at FEMA reimbursable cost	Individually determined	Individually determined	Sec. 1-9 (e)
B. Other Fees				
	After Hours Fee	Individually determined	Individually determined	Sec. 1-97 (3) a
	Emergency Reconnect Fee	\$ 110.00	\$ 110.00	Sec. 1-97 (3) c
	Late Day Reconnect Fee	\$ 55.00	\$ 55.00	Sec. 1-97 (3) b
	Late Fee	10% of balance; \$25 maximum on Single-Family Residential services	10% of balance; \$25 maximum on Single-Family Residential services	Sec. 1-97 (3) h
	Loan Processing Fee/Deferral Fee	Actual Cost to File	Actual Cost to File	Sec. 1-97 (3) k
	Meter Test	\$ 55.00	\$ 55.00	Sec. 1-97 (3) l; Sec. 1-36; Sec. 1-161
	Large Meter Test (requested by Customer) (Meters 3" and larger)	\$ 150.00	\$ 150.00	Sec. 1-36; Sec. 1-161
	New Service Charge	\$ 55.00	\$ 55.00	Sec. 1-97 (3) d; Sec. 1-6 (a)
	Premise Visit Fee	\$ 55.00	\$ 55.00	Sec. 1-97 (3) p; Sec. 1-15
	Delinquency Fee	\$ 55.00	\$ 55.00	Sec. 1-97 (3)m; Sec. 1-166 (a)
	Reread Fee (requested by Customer)			
	Correct Read	\$ 55.00	\$ 55.00	Sec. 1-97 (3) o
	Incorrect Read (CFPUA error)	No Cost	No Cost	Sec. 1-97 (3) o
	Reconnection Fee (after disconnect)	\$ 55.00	\$ 55.00	Sec. 1-97 (3) n
	Utility Deposit Single-Family Residential (may be adjusted by Customer Service Director based on services provided and prior payment history)	Up to \$200 Determined by Policy	Up to \$200 Determined by Policy	Sec. 1-6
	Utility Deposit Commercial			Sec. 1-6
	Hydrant Meter Deposit for festivals (up to 1 1/2" meter size)	\$ 500.00	\$ 500.00	Sec. 1-97 (3) g
	Hydrant Meter Deposit for festivals (2" and higher meter size)	Actual Cost	Actual Cost	Sec. 1-97 (3) g
	Hydrant Meter Installation & Removal for festivals (per meter)	\$ 55.00	\$ 55.00	Sec. 1-97 (3) g
	Plan Review Fees:			
	Minor Subdivisions - no required NCDEQ water or sewer permits	\$ 120.00	\$ 120.00	Sec. 1-97 (3) l; Sec. 4-3 (a)
	Commercial Plans (multi-family residential/commercial) - no required NCDEQ water and sewer permits	\$ 120.00	\$ 120.00	Sec. 1-97 (3) l; Sec. 4-3 (a)
	Main Extensions/Utility relocation/ROW widening less than 500 Linear Feet	\$ 240.00	\$ 240.00	Sec. 1-97 (3) l; Sec. 4-3 (a)
	Main Extensions/Utility relocation/ROW widening 500-999 Linear Feet	\$ 300.00	\$ 300.00	Sec. 1-97 (3) l; Sec. 4-3 (a)
	Main Extensions/Utility relocation/ROW widening 1,000-4,999 linear feet	\$ 600.00	\$ 600.00	Sec. 1-97 (3) l; Sec. 4-3 (a)
	Main Extensions/Utility relocation/ROW widening 5,000-9,999 linear feet	\$ 850.00	\$ 850.00	Sec. 1-97 (3) l; Sec. 4-3 (a)
	Main Extensions/Utility relocation/ROW widening 10,000 linear feet and greater	\$ 1,400.00	\$ 1,400.00	Sec. 1-97 (3) l; Sec. 4-3 (a)
	Pump Station Review (plus the main extensions fee above)	\$ 350.00	\$ 350.00	Sec. 1-97 (3) l; Sec. 4-3 (a)
	Re-review Fee	\$ 50.00	\$ 50.00	Sec. 1-97 (3) l; Sec. 4-3 (a)
	Water/Sewer Line Acceptance Testing Reinspection	\$55/hour	\$55/hour	Sec. 4-3 (c)
	Water/Sewer Line Acceptance Testing Reinspection - After Hours Fee	\$75/hour	\$75/hour	Sec. 4-3 (c)
	Inspection Fee for Developer-Installed Main Lines (After hours - Minimum of 2 hours)	\$75/hour	\$75/hour	Sec. 1-97 (2) b; Sec. 1-6 (a)
	Demolition Inspection Fee	\$ 55.00	\$ 55.00	Sec. 1-97 (3) s; Sec. 1-6 (a)
	Violation of Extension Policy	\$100, \$200, \$500	\$100, \$200, \$500	Sec. 4-103
	Copy and Printing Fees, including Public Records Request	Actual cost	Actual cost	
	Tank Mounted Equipment Structural Analysis Review Fee	\$ 1,250.00	\$ 1,250.00	Sec. 1-97 (3) t
	Water Tower Lease	Individually determined; \$2,500 minimum	Individually determined; \$2,500 minimum	Set by contract
	Additional Antenna Fee - per antenna exceeding nine antennas	\$ 300.00	\$ 300.00	
	Ground Space Fee - Additional ground space above 400 square feet	\$5.92/square foot	\$5.92/square foot	
C. Miscellaneous Administrative Fees				
	Returned Check Fee (Per event; Closed Account, NSF, Stop Payment of Customer/Vendor issued Check)	\$ 25.00	\$ 25.00	Sec. 1-97 (3) j
	Convenience Fee per transaction; maximum payment amount up to \$500 per transaction.	\$ 3.75	\$ 3.75	
	Dishonored Bank Draft Fee (Per event; Closed Account, NSF, Stop Payment of Customer/Vendor Draft)	\$ 25.00	\$ 25.00	Sec. 1-97 (3) j
	Check Stop Payment Fee (Stop Payment of CFPUA issued Check requested by Customer/Vendor)	\$ 5.00	\$ 5.00	Sec. 1-97 (3) j

Cape Fear Public Utility Authority
Demographic Statistics
Current Fiscal Year and Last Eight Fiscal Years

Fiscal Year Ended June 30	City of Wilmington Population (1)	New Hanover County Population (1)	Median Age (3)	Public School Enrollment (2)	Local Unemployment Rate % (3)	Personal Income (4)	Per Capita Income (4)
2017	117,525	223,483	38	26,096	3.9%	N/A	\$40,487
2016	115,933	220,358	38	25,901	4.8%	N/A	N/A
2015	113,657	216,298	38	26,241	5.6%	N/A	N/A
2014	112,067	213,267	38	25,470	6.1%	N/A	\$40,076
2013	109,922	209,234	38	25,364	9.1%	N/A	\$38,846
2012	108,297	206,189	37.5	25,253	9.3%	\$50,890	\$37,559
2011	106,476	202,667	36.7	23,934	10.1%	\$45,890	\$36,108
2010	102,207	194,054	38.5	23,643	9.4%	\$46,129	\$34,692
2009	101,526	192,235	38	23,614	9.0%	\$44,719	\$34,578

Note: Fiscal year 2009 was the first year of operations for the Authority.

(1) US Census Bureau.

(2) Provided by the NHC Schools Finance Department

(3) North Carolina Department of Commerce

(4) Provided by www.ncworks.gov; data provided for as many years as available.

Cape Fear Public Utility Authority
Principal Water Customers
Current Fiscal Year and Eight Years Ago

2017					2009 ⁽¹⁾				
Ten Largest Users of the Water System Annual Consumption	Thousands of Gallons	% of System	Revenues (\$)	% of Revenues	Ten Largest Users of the Water System Annual Consumption	Thousands of Gallons	% of System	Revenues (\$)	% of Revenues
1 UNC Wilmington	106,046	2.02%	\$ 433,532	1.32%	1 UNC Wilmington	136,483	2.34%	\$ 430,613	1.89%
2 New Hanover Regional Medical Center	61,496	1.17%	272,382	0.83%	2 New Hanover County	63,232	1.08%	232,431	1.02%
3 New Hanover County	43,953	0.84%	228,738	0.69%	3 New Hanover Regional Medical Center	61,473	1.05%	211,318	0.93%
4 LSREF3 Bravo, LLC (Multi-family Complexes)	42,575	0.81%	226,098	0.69%	4 New Hanover County Schools	47,862	0.82%	208,756	0.92%
5 Wilmington Housing Authority	42,086	0.80%	189,660	0.58%	5 Wilmington Housing Authority	40,956	0.70%	137,433	0.60%
6 NHC Board of Education	40,412	0.77%	248,277	0.75%	6 Lake Forest Apartments	30,088	0.52%	97,305	0.43%
7 Lake Forest Apartments	25,620	0.49%	108,427	0.33%	7 College Manor Apartments	23,411	0.40%	80,985	0.36%
8 Tribute Properties	21,422	0.41%	167,560	0.51%	8 Mayfaire Complex	22,955	0.39%	119,091	0.52%
9 College Manor Apartments	18,720	0.36%	98,770	0.30%	9 Tribute Properties	21,463	0.37%	114,526	0.50%
10 State of North Carolina	16,395	0.31%	68,146	0.21%	10 Elementis Chromium	18,971	0.33%	58,243	0.26%
Total Net Consumption / Net Revenue	418,725	7.96%	\$ 2,041,590	6.20%	Total Net Consumption / Net Revenue	466,893	8.00%	\$ 1,690,699	7.42%
Total Annual System Net Consumption / Net Revenue	5,257,949		\$ 32,938,782		Total Annual System Net Consumption / Net Revenue	5,834,129		\$ 22,781,177	

Note: Fiscal year 2009 was the first year of operations for the Authority.

(1) Restated 2009 Top 10 Users to reflect "Net Consumption" and "Net Revenue"

Source: Cape Fear Public Utility Authority Customer Service Department.

Cape Fear Public Utility Authority
Principal Wastewater Customers
Current Fiscal Year and Eight Years Ago

2017					2009 ⁽¹⁾				
Ten Largest Users of the Wastewater System Annual Consumption	Thousands of Gallons	% of System	Revenues (\$)	% of Revenues	Ten Largest Users of the Wastewater System Annual Consumption	Thousands of Gallons	% of System	Revenues (\$)	% of Revenues
1 Town of Wrightsville Beach	184,695	3.81%	\$ 740,843	1.98%	1 Town of Wrightsville Beach	214,743	4.42%	\$ 442,639	2.00%
2 New Hanover Regional Medical Center	59,916	1.24%	325,861	0.87%	2 UNC Wilmington	87,800	1.81%	269,249	1.22%
3 UNC Wilmington	59,903	1.24%	331,656	0.89%	3 New Hanover Regional Medical Center	54,042	1.11%	176,741	0.80%
4 Wilmington Housing Authority	42,056	0.87%	230,420	0.62%	4 New Hanover County Schools	45,665	0.94%	199,592	0.90%
5 LSREF3 Bravo, LLC (Multi-family Complexes)	41,803	0.86%	262,577	0.70%	5 Wilmington Housing Authority	40,652	0.84%	129,175	0.58%
6 New Hanover County	38,875	0.80%	248,449	0.67%	6 New Hanover County	34,744	0.72%	132,783	0.60%
7 New Hanover County Schools	36,182	0.75%	275,359	0.74%	7 Lake Forest Apartments	30,080	0.62%	92,040	0.42%
8 Lake Forest Apartments	25,620	0.53%	133,064	0.36%	8 Mayfaire Complex	25,303	0.52%	125,124	0.57%
9 Tribute Properties	20,746	0.43%	191,054	0.51%	9 Tribute Properties	24,536	0.51%	154,676	0.70%
10 City of Wilmington	19,944	0.41%	198,825	0.53%	10 College Manor Apartments	23,411	0.48%	77,352	0.35%
Total Net Consumption / Net Revenue	529,740	10.94%	\$ 2,938,108	7.87%	Total Net Consumption / Net Revenue	580,975	11.96%	\$ 1,799,371	8.15%
Total Annual System Net Consumption / Net Revenue	4,850,416		\$ 37,336,970		Total Annual System Net Consumption / Net Revenue	4,856,146		\$ 22,089,335	

Note: Fiscal year 2009 was the first year of operations for the Authority.

(1) Restated 2009 Top 10 Users to reflect "Net Consumption" and "Net Revenue"

Source: Cape Fear Public Utility Authority Customer Service Department.

Cape Fear Public Utility Authority
Principal Employers
Current Fiscal Year and Eight Years Ago

2017				2009			
Employers	Employees (1)	Rank	Percentage of Total County Employment	Employers	Employees (3)	Rank	Percentage of Total County Employment
New Hanover Regional Medical Center	6,880	1	5.95%	New Hanover Regional Medical Center	4,890	1	5.10%
New Hanover County Schools	4,300	2	3.72%	New Hanover County Schools	4,130	2	4.30%
GE Hitachi Nuclear Energy and GE Aviation	3,000	3	2.59%	GE Hitachi Nuclear Energy and GE Aviation	3,000	3	3.13%
Wal-Mart Stores	2,387	4	2.06%	University of North Carolina at Wilmington	1,810	4	1.89%
University of North Carolina Wilmington	1,933	5	1.67%	New Hanover County	1,670	5	1.74%
New Hanover County	1,692	6	1.46%	PPD	1,420	6	1.48%
PPD	1,500	7	1.30%	Cape Fear Community College	1,260	7	1.31%
Verizon Wireless	1,354	8	1.17%	City of Wilmington	1,200	8	1.25%
Duke Energy	1,325	9	1.15%	Verizon Wireless	1,200	9	1.25%
City of Wilmington	1,000	10	0.86%	Corning, Inc.	1,000	10	1.04%
			<u>21.93%</u>				<u>22.49%</u>
Total # Employed at June 30 of the respective FY (2)			<u>115,687</u>	Total # Employed at June 30 of the respective FY (2)			<u>95,964</u>

Note: Fiscal year 2009 was the first year of operations for the Authority.

(1) Source: 2017 Book on Business; www.wilmingtonbiz.com

(2) Source: North Carolina Employment Security Commission (2009) and www.ncworks.gov (2017)

(3) Source: New Hanover County CAFR for Fiscal Year Ended June 30, 2009 using the Wilmington Industrial Development, Inc. and NC State Demographics Website.

Cape Fear Public Utility Authority
Operating Statistics
Current Year and Last Eight Fiscal Years

	Fiscal Year								
	2017	2016	2015	2014	2013	2012	2011	2010	2009
Water System									
Number of available service connections ⁽¹⁾	73,118	71,439	70,356	68,794	68,033	67,067	64,602	63,683	62,551
Number of treatment plants - surface water system	1	1	1	1	1	1	1	1	1
Treatment capacity (mgd) - surface water	35.00	35.00	35.00	35.00	35.00	35.00	27.50	27.50	27.50
Average production (mgd) - surface water	14.63	14.35	13.56	13.44	13.20	13.50	13.70	13.30	14.30
Number of groundwater systems	2	3	3	3	3	3	3	3	3
Number of treatment plants - groundwater system	1	1	1	1	1	1	1	1	-
Number of active wells - groundwater system	37	34	36	36	36	36	36	36	36
Treatment capacity (mgd) - groundwater plant	6	6	6	6	6	6	6	6	-
Treatment capacity (mgd) - other groundwater systems	0.90	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Average production (mgd) - groundwater	3.08	3.04	2.94	2.48	2.95	2.95	3.20	3.30	3.10
Miles of water mains	1,113	1,114	1,089	1,041 ⁽²⁾	1,078	1,072	1,070 ⁽²⁾	1,129	1,103
Wastewater System									
Number of available service connections ⁽¹⁾	71,539	69,222	68,246	66,829	66,059	64,529	64,330	63,793	62,296
Number of treatment plants	2	3	3	3	3	3	3	3	3
WPC plant permit (mgd)	28.10	28.10	28.10	22.10	22.10	22.10	22.10	22.10	22.10
Average annual daily flow (mgd)	17.16	18.76	17.48	16.45	16.17	15.10	15.80	16.80	15.60
Number of lift stations	146	142	143	141	141	141	141	142	142
Miles of wastewater gravity mains ⁽²⁾	877	848	844	827 ⁽²⁾	850	840	840 ⁽²⁾	881	877
Miles of wastewater force mains	142	131	131	112	110	104	104	100	100
Number of manholes	22,017	21,221	21,049	20,918	20,300	20,300	20,300	N/A	N/A

Note: Fiscal year 2009 was the first year of operations for the Authority.

Source: Cape Fear Public Utility Authority Records

(1) Data restated to remove irrigation meters associated with domestic meters for the same location.

(2) Based on more accurate information as a result of implementing and improving the accuracy of an asset management system.

Cape Fear Public Utility Authority
Consumption by Customer Group
Current Fiscal Year and Last Eight Fiscal Years

	2017		2016		2015		2014		2013		2012		2011		2010 (1)		2009 (1)	
	Thousand Gallons	% of Consumption	Thousand Gallons	% of Consumption	Thousand Gallons	% of Consumption	Thousand Gallons	% of Consumption	Thousand Gallons	% of Consumption	Thousand Gallons	% of Consumption	Thousand Gallons	% of Consumption	Thousand Gallons	% of Consumption	Thousand Gallons	% of Consumption
Water Customers																		
Residential	3,651,875	69.45%	3,630,541	69.20%	3,461,812	68.80%	3,415,831	69.87%	3,522,531	69.85%	3,806,074	70.45%	3,887,894	70.88%	3,652,988	70.13%	4,152,536	71.18%
Commercial	1,151,382	21.90%	1,128,569	21.51%	1,053,502	20.94%	1,006,253	20.58%	1,026,039	20.35%	1,059,983	19.62%	1,075,703	19.61%	1,032,322	19.82%	1,094,936	18.77%
Industrial	68,109	1.30%	74,645	1.42%	65,334	1.30%	63,349	1.30%	59,116	1.17%	62,267	1.15%	62,278	1.14%	57,719	1.11%	102,707	1.76%
Institutional and Government	386,583	7.35%	413,036	7.87%	451,090	8.96%	403,523	8.25%	435,048	8.63%	474,130	8.78%	459,656	8.38%	465,940	8.94%	483,950	8.30%
Total	5,257,949	100.00%	5,246,790	100.00%	5,031,738	100.00%	4,888,957	100.00%	5,042,734	100.00%	5,402,454	100.00%	5,485,531	100.00%	5,208,969	100.00%	5,834,129	100.00%
Wastewater Customers																		
Residential	3,277,428	67.57%	3,287,280	67.36%	3,171,068	67.33%	3,184,447	68.27%	3,246,521	68.52%	3,424,127	68.94%	3,497,483	68.98%	3,329,608	69.30%	3,543,624	72.97%
Commercial	1,048,627	21.62%	1,019,892	20.90%	956,150	20.30%	922,045	19.77%	923,952	19.50%	941,927	18.96%	957,062	18.88%	842,782	17.54%	869,266	17.90%
Town of Wrightsville Beach	184,695	3.81%	227,370	4.66%	207,905	4.41%	210,681	4.52%	203,370	4.29%	207,561	4.18%	214,479	4.23%	234,303	4.88%	214,743	4.42%
Pender County	11,291	0.23%	10,562	0.22%	10,033	0.21%	9,008	0.19%	10,473	0.22%	11,550	0.23%	16,224	0.32%	13,550	0.28%	14,139	0.29%
Industrial	15,470	0.32%	18,257	0.37%	21,027	0.45%	19,468	0.42%	16,296	0.34%	16,197	0.33%	18,219	0.36%	23,060	0.48%	24,964	0.51%
Institutional and Government	312,907	6.45%	316,946	6.49%	343,878	7.30%	318,809	6.83%	337,107	7.12%	365,297	7.35%	366,618	7.23%	361,467	7.52%	189,410	3.90%
Total ⁽²⁾	4,850,418	100.00%	4,880,306	100.00%	4,710,062	100.00%	4,664,457	100.00%	4,737,719	100.00%	4,966,659	100.00%	5,070,085	100.00%	4,804,770	100.00%	4,856,146	100.00%

Note: Fiscal year 2009 was the first year of operations for the Authority.

Source: Cape Fear Public Utility Authority Customer Service Department.

(1) Prior year data has been updated to reflect adjustments made in the current year.

Water includes domestic and irrigation connections

(2) The Total value for Thousand Gallons listed for Wastewater Customers does not include an estimation for the volumetric value of the Flat Wastewater customer class.

For billing purposes, the calculation of Flat Wastewater charges is based on 24,000 gallons discharged bimonthly. There were an average of approximately 1,530 Flat Wastewater customers in 2015.



Budget Ordinance

Ordinance Making Appropriations For the Fiscal Year Beginning July 1, 2018

LEGISLATIVE INTENT/PURPOSE:

Appropriations and estimated revenues for the Fiscal Year Beginning July 1, 2018.

THEREFORE, BE IT ORDAINED by the Board of the Cape Fear Public Utility Authority:

SECTION I: The following appropriations are hereby made. The following revenues are estimated to be available during the fiscal year to meet these appropriations.

Appropriations

Operating Expenditures	\$39,311,736
Non-Departmental	2,568,810
Debt Service	23,178,918
Transfers to Capital Projects Funds	16,695,665
Total Appropriations	<u>\$81,755,129</u>

Revenues

Wastewater Revenues	\$36,519,691
Water Revenues	35,434,638
Appropriated Fund Balance	600,000
Investment Earnings	700,000
Other Charges for Service	4,300,800
System Development Charges	4,200,000
Total Revenues	<u>\$81,755,129</u>

SECTION II: That appropriations herein authorized shall have the amount of outstanding purchase orders as of June 30, 2018 added to each appropriation as it appears in order to account for the payment against the fiscal year in which it is paid.

SECTION III: Pursuant to NCGS 159-15, the Executive Director is hereby authorized to transfer moneys among appropriations in SECTION I above. Such transfers shall be reported to the Board at the next regular meeting after such transfer has occurred. The transfers shall be entered in the minutes.

SECTION IV: Pursuant to NCGS 159-13.2, the following appropriations are hereby made. Expenditures authorized by these appropriations may occur over multiple fiscal years. The following revenues are estimated to be available in the fiscal year the expenditures occur.

Appropriations

System-Wide Capital Improvement Projects	\$2,900,000
Water Capital Improvement Projects	11,250,000
Wastewater Capital Improvement Projects	40,789,995
Total Appropriations	<u>\$54,939,995</u>

Revenues

Transfers from Operating Fund	\$35,569,997
Bond Proceeds	4,700,000
NC Connect Grant	14,669,998
Total Revenues	<u>\$54,939,995</u>

SECTION V: Pursuant to NCGS 159-15, the Executive Director is hereby authorized to transfer moneys among available appropriations authorized in this and prior project ordinances. Such transfers shall be reported to the Board at the next regular meeting after such transfer has occurred. The transfers shall be entered in the minutes.

Adopted at a regular meeting
On June 13, 2018

ATTEST:

Donna S. Pope
Donna S. Pope, Clerk to the Board



Michael C. Brown
Michael C. Brown, Chairman

CAPE FEAR PUBLIC UTILITY AUTHORITY
GLOSSARY

WORD/CONCEPT	DEFINITION
Account	A basic component of the accounting ledger used to classify financial transactions that are similar in terms of a given frame of reference; such as purpose, object or source.
Accrual Basis	A basis of accounting in which transactions are recognized at the time they are incurred as opposed to when cash is received or spent.
Adopted Budget	The budget document formally approved by the Authority Board. This document sets forth authorized expenditures and the means of financing those expenditures; used interchangeably with the term "Final Budget".
Annualized	Taking charges that occurred mid-year and calculating their cost for a full year for the purpose of preparing an annual budget.
Appropriation	A legal authorization to incur obligations and to make expenditures for specific purposes.
Aquifer	A wet underground layer of water-bearing permeable rock or unconsolidated materials (gravel, sand or silt) from which groundwater can be usefully extracted using a water well.
Asset	Resources owned that has monetary value.
Asset Management	A systematic process of operating, maintaining and upgrading assets cost-effectively.
Audit	An examination of some or all of the following items: documents, records, reports, systems of internal control, accounting procedures, and other evidence, or one or more of the following purposes: (a) determining the propriety, legality and mathematical accuracy of proposed or completed transactions; (b) ascertaining whether all transactions have been recorded; and (c) determining whether transactions are accurately recorded in the accounts and in the statements drawn from in accordance with accepted accounting practices.
Authorized Positions	Employee positions that are authorized in the adopted budget to be filled during the year.
Backflow	A term in plumbing for an unwanted flow of water in the reverse direction. It can be a serious health risk for the contamination of potable water supplies with foul water.
Backflow Prevention Device	A device used to protect water supplies from contamination or pollution.
Balance Sheet	A formal statement of assets, liabilities and fund balance as of a specific date.
Balanced Budget	Refers to a budget in which revenues are equal to expenditures. Thus, neither a budget deficit nor a budget surplus exists.
Benchmarking	The process of comparing one's business processes and performance metrics to industry bests and/or best practices from other industries; often treated as a continuous process in which organizations continually seek to improve their practices.
Collateral	Property acceptable as a security for a loan or other obligation; guaranteed by a security pledged against the performance of an obligation.
Collateralize	To secure (a loan) through the use of collateral.
Compensated Absences	Refers to employees' time off with pay for vacations, holidays and sick days.

CAPE FEAR PUBLIC UTILITY AUTHORITY
GLOSSARY

WORD/CONCEPT	DEFINITION
Comprehensive Annual Financial Report (CAFR)	The official annual financial report of the Authority; summarizes and discloses the financial activity of the Authority.
Computer Maintenance	A CMMS software package maintains a computer database of information.
Contingency	A budgetary reserve set aside for emergencies or unforeseen expenditures not otherwise budgeted.
Corporate Governance	Processes, customers, policies, laws and institutions affecting the way a corporation is directed, administered or controlled.
Debt Coverage Ratio	The ratio of cash available for debt servicing to interest, principal and lease payments. It is a popular benchmark used in the measurement of an entity's ability to produce enough cash to cover its debt payments. The higher this ratio is, the easier it is to obtain a loan.
Debt Management	A formal agreement between the Authority and its' creditors.
Debt Service	The cost of paying principal and interest on borrowed money according to a pre-determined payment schedule.
Department	A basic organizational unit that is functionally unique in its delivery of services; each department can be subdivided into divisions.
Depreciation	Drop in value; a method of allocating the cost of a tangible asset over its useful life.
Disbursement	The expenditure of monies from an account.
Distinguished Budget	A voluntary awards program administered by the Government of Finance.
Effluent	An outflowing of water or gas from a natural body of water, or from a human-made structure.
Encoder Receiver Transmitter (ERT)	Communications modules that fit on electric, gas or water meters. ERT's encode consumption and tamper information from the meters and communicates the data to Itron data collection systems including handheld devices, mobile automatic reading devices and networks.
Encumbrance	A commitment of appropriated funds to purchase an item or service. To encumber funds means to set aside or commit funds for a specified future expenditure.
Enterprise Fund	A government owned fund that sells goods and services to the general public; are common in local government.
Environmental Management System (EMS)	Refers to the management of an organization's environmental programs in a comprehensive, systematic, planned and documented manner. It includes the organizational structure, planning and resources for developing, implementing and maintaining policy for environmental protection.
Environmental Protection Agency (EPA)	The agency of the federal government of the United States charged with protecting human health and the environment by writing and enforcing regulations based on laws passed by Congress.
Expenditure	The payment of funds against appropriations that reduce cash balance; are made for the purpose of acquiring an asset, service or settling a loss.
Feasibility Report	An evaluation and analysis of the potential of a proposed project which is based on extensive investigation and research to support the process of decision making.

CAPE FEAR PUBLIC UTILITY AUTHORITY
GLOSSARY

WORD/CONCEPT	DEFINITION
Fiscal Year	A 12-month period designated as the operating year for accounting and budgeting purposes in an organization.
Fixed Assets	Assets of long-term character that are intended to continue to be held or used; includes land, buildings, machinery, furniture and other equipment.
Full time Equivalent	A position converted to the decimal equivalent of a full-time position .
Fund Accounting	System used by non-profit organizations, particularly governments.
Fund Balance	Difference between assets and liabilities reported in a governmental fund on the modified accrual basis of accounting.
Generally Accepted Accounting Principles (GAAP)	Uniform minimum standards for financial accounting and recording, encompassing the conventions, rules and procedures that define accepted accounting principles.
Goal	A statement of broad direction, purpose or intent; general and timeless.
Government Accounting Standards Board	The accepted standard setting body for establishing accounting and financial reporting principles.
Ground Water	Water located beneath the ground surface in soil pore spaces and in the fractures of rock formations.
Infrastructure	The basis physical and organizational structures needed for the operation of a society of enterprise (1), or the services the facilities necessary for an economy to function (2). It can be generally defined as the set of interconnected structural elements that provide the framework supporting an entire structure of development.
Interest	Cost of using money.
Interest Earnings	Interest earned on cash held in interest bearing deposits and accounts.
National Incident Management System (NIMS)	An emergency management doctrine used nationwide to coordinate emergency preparedness and incident management and response among the public and private sectors.
National Pollutant Discharge Elimination System (NPDES)	Controls water pollution by regulating point sources that discharge pollutants into waters of the United States.
Non-Departmental Accounts	Items of expenditure essential to the operation of the Authority that do not fall within the function of any department.
Operating Budget	The annual budget of an activity stated in terms of Budget Classification Code, functional/sub functional categories and cost accounts. It contains estimates of the total value of resources required for the performance of the operation; used to keep track of maintenance operations, salaries and interest payments.
Operating Expenses	The cost for personnel, materials and equipment required for a department to function.
Operating Revenue	Funds received to pay for on-going operations. It includes rates and fees; used to pay for day-to-day services.
Ordinance	A law made by a municipality or other local authority.
Outfall	The discharge point of a waste stream into a body of water; alternatively it may be the outlet of a river, drain or a sewer where it discharges into the sea, a lake, etc. A wastewater treatment system discharges treated effluent to a water body from an outfall.

**CAPE FEAR PUBLIC UTILITY AUTHORITY
GLOSSARY**

WORD/CONCEPT	DEFINITION
Pay-As-You-Go Basis	AKA “Pay-Go”; a term used to describe a financial policy by which capital outlays or capital projects are financed from current revenues rather than from borrowing.
Performance Measure	Defines data that documents how effectively or efficiently a program is achieving its objectives.
Potable Water	Drinking water.
Procurement	The acquisition of goods or services. It is favorable that the goods or services are appropriate and that they are procured at the best possible cost to meet the needs of the purchaser in terms of quality and quantity, time and location.
Proprietary Fund	An account in which certain (government) transactions are handled. Services that fit into a proprietary fund are grouped by similarities to evaluate their performance.
Revenues	Sources of income financing the operations of the Authority.
Risk Management	The process of identifying, assessing and controlling risks arising from operational factors and making decisions that balance risk costs with mission benefits.
SCADA (Supervisory Control & Data Acquisition)	A computer system that monitors and controls industrial, infrastructure or facility-based processes.
Septage	The material pumped out of a septage tank or onsite sewage facility.
Service	Helping others with a specific need or want.
Stewardship	An ethic that embodies responsible planning and management of resources.
Strategic Plan	A process for determining where an organization is going over the next year or, more typically, 3 to 5 years (long term); some extend their vision to 20 years.
Strategic Vision	Outlines what the organization wants to be, or how it wants the world in which it operates to be. This is a long-term view and concentrates on the future.
Surface Water	Water collecting on the ground or in a stream, river, lake, wetland or ocean; it is related to water collecting as groundwater or atmospheric water.
Sustainability	The long-term maintenance of responsibility, which has environmental, economic and social dimensions, and encompasses the concept of stewardship, the responsible management of resource use.
System Development Charges	Calculated charges to cover the cost of capacity in the Authority’s existing water and wastewater plants and transmission facilities, and the estimated cost of capacity in future treatment plants and facilities that are covered in the 10-year Capital Improvement Plan.