Cape Fear
Public Utility Authority
Stewardship. Sustainability. Service.

Fiscal Year 2020 – 2021

ADOPTED BUDGET

CAPE FEAR PUBLIC UTILITY AUTHORITY
RECOMMENDED BUDGET
FISCAL YEAR 2020-2021

Board Members

William A. Norris, Chair
Wesley P. Corder, Vice Chair
Deans Hackney, Secretary
Jennifer Adams, Treasurer
Jonathan Barfield, Jr., New Hanover County Commissioner
Hollis B. Briggs, Jr.
Jessica Cannon, M.D.
Kevin O'Grady, City of Wilmington Councilman
Charles Rivenbark, City of Wilmington Councilman
Larry Sneeden
Rob Zapple, New Hanover County Commissioner

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

William A. Norris

Chairman

Appointed by the City of Wilmington

Seated in 2013

Term ends in 2021

Committees: Executive & Finance

Wesley P. Corder

Vice-Chair

Jointly appointed by City of Wilmington and New Hanover County

Seated in 2017

Term ends 2023

Committee: Executive, Finance & Communications

Deans Hackney

Secretary

Appointed by City of Wilmington

Seated in 2018

Term ends 2022

Committee: Executive, Finance & Human Resources

Jessica Cannon, M.D.

Member

Appointed by City of Wilmington

Seated in 2019

Term ends 2023

Committees: Long Range Planning & Sustainability

Kevin O'Grady

Councilman

Appointed by City of Wilmington

Seated in 2014

Term ends 2022

Committee: Human Resources & Communications

Charles Rivenbark

Councilman

Appointed by City of Wilmington

Seated in 2010

Term ends in 2021

Committees: Long Range Planning

Jennifer Adams

Treasurer

Appointed by New Hanover County

Seated in 2016

Term ends in 2022

Committees: Executive, Finance & Sustainability

Jonathan Barfield, Jr.

Commissioner

Appointed by New Hanover County

Seated in 2019

Term ends 2020

Committees: Communications & Human Resources

Hollis Briggs, Jr.

Member

Appointed by New Hanover County

Seated in 2019

Term ends in 2022

Committees: Long Range Planning

Larry Sneeden

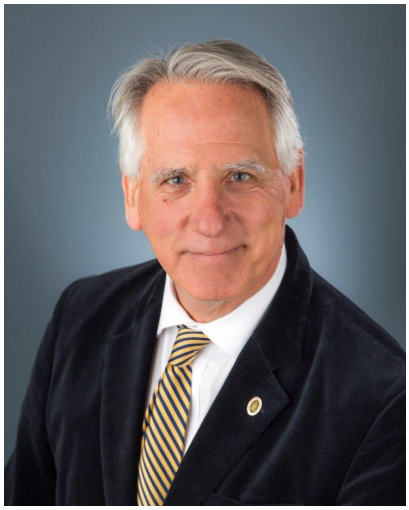
Member

Appointed by New Hanover County

Seated in 2012

Term ends in 2023

Committees: Long Range Planning



Rob Zapple

Commissioner

Appointed by New Hanover County

Seated in 2019

Term ends in 2020

Committees: Finance, Long Range Planning & Sustainability

Donna S. Pope

Clerk to the Board

GOVERNMENT FINANCE OFFICERS ASSOCIATION

Distinguished Budget Presentation Award

PRESENTED TO

Cape Fear Public Utility Authority

North Carolina

For the Fiscal Year Beginning

July 1, 2019

Christopher P. Morrill

Executive Director

TABLE OF CONTENTS

TABLE OF CONTENTS

SUPPLEMENTAL & STATISTICAL INFORMATION

BUDGET GUIDE

This document contains Cape Fear Public Utility Authority's Fiscal Year 2020-2021 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 2020-2021 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.

Capital Budget – This section details the Authority's FY 2020-2021 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 2020-2021 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 2020-2021 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 13th year of service, 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. With the Authority's human and financial resources focused on 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 20-21:

- The rehabilitation and replacement of aging 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 10-year Capital Improvement 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.
- Commitment to sustainable capital funding – CFPUA's debt limit and long-term capital funding needs imply that $18 million of capital investment must be funded through current-year water and wastewater rate revenue collections each year.
- In June 2017, the issue of water quality became the focus of our community when per- and polyfluoroalkyl substances (PFAS) were discovered in the drinking water and in the Cape Fear River—the largest source of drinking water for our region. Cape Fear Public Utility Authority has taken legal action, continued to monitor and track levels of these compounds, and is currently undertaking a $43.0 million treatment upgrade at the Sweeney Water Treatment Plant to more effectively remove PFAS and other emerging contaminants. As of April 30, 2020, the Authority has spent $16.8 million related to emerging contaminants. These expenditures 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 $607,000 in state grants, all of these costs were funded with rate revenues.

- COVID-19 poses several potential challenges from a financial perspective including additional expenditures, decreased revenues due to stay-at-home orders and mandated business closures, and adverse effects to cash flow due to customers' inability to pay and mandated suspensions of late fees and shut-offs. Forecasted expenditures and revenue assumptions included in the FY 20-21 operating budget do not include any provision for potential adverse financial effects related to COVID-19. CFPUA has already begun the process of applying for federal assistance to reimburse expenditures related to COVID-19. CFPUA cash reserve policy mandates that a minimum of $50 million be held in undesignated fund balance. This reserve balance is deliberately designed to insulate CFPUA from revenue shortfalls and unanticipated increases in expenditures. To the extent that COVID-19 adversely affects our finances, the unrestricted fund balance is available to ensure that services continue to be delivered.

OPERATING BUDGET

The total Fiscal Year 2020-2021 operating budget is approximately $90.0 million. As a foundation for the FY 20-21 budget process, key goals and assumptions are identified and highlighted below:

- Fiscal Year 2020-2021 budgeted operating expenditures (excluding salaries and benefits and debt service appropriations) are based on known costs or projections of likely costs derived from historical data adjusted for known or likely changes. Budgeted operating expenditures for FY 20-21 are approximately $1.7 million less than operating expenditures in the adopted FY 19-20 budget. The reduction is mainly due to the disposal of biosolids. In previous years, CFPUA contracted with a single vendor for biosolids processing, transportation, and disposal. CFPUA has terminated the contract and now processes biosolids in-house and entered into separate contracts for biosolids transportation and disposal resulting in substantial cost savings.
- Budgeted salaries include 4 additional full-time equivalent (FTE) positions to keep with system growth and maintenance. Budgeted salaries also include equity adjustments for various positions, a 1.5% cost-of-living adjustment, and 2.5% merit increases.
- Benefits were budgeted with a composite 4% increase in health premiums, respectively, effective January 1, 2021 and an increase in the Local Government Employee Retirement System employer contribution rate from 8.95% to 10.15% of covered payroll.
- Appropriations to fully fund $18.0 million in pay-as-you-go capital funding – CFPUA's annual pay-as-you-go funding target. This target is aligned with long-term system needs and debt limitations.
- Debt service requirements (principal and interest on outstanding debt) in FY 20-21 are $25.7 million which includes amount related to the issuance of revenue bonds in FY 19-20 to fund surface water treatment enhancements and CFPUA's share of the cost to replace the surface water transmission main.

CAPITAL BUDGET

The total of the 10-Year CIP is $229 million. New projects appropriated in FY 20-21 total $25.5 million less approximately $3.4 million in reappropriations for a total of $22.1 million in net new appropriations. The FY 20-21 capital budget includes $8.0 million to rehabilitate and replace CFPUA's twin 24-inch surface water transmission mains; $1.5 million for design of a 3 MGD capacity expansion for the Richardson Water

Treatment Plant; $2.5 million to supply treated surface water in the Ogden Corridor to reduce the burden on the groundwater system; and $3.9 million to upgrade capacity at the Mott's Creek pump station.

The 10-Year CIP is reevaluated each year. This 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 using one or more of the following criteria:

- Compliance with regulatory requirements.
- Efficiency leading to future operating or capital savings.
- Capacity increases necessary for current and 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 customers and ensuring the financial sustainability of the organization.

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, 2019. The Authority has received this prestigious award for seven years. 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 20-21 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 our customers. We have established a clear and transparent track record of responsibly employing our funding for the betterment of our customers, and I am confident we will continue on this path in FY 20-21.

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. Recently, the Authority entered into a three-year bulk purchase agreement that provides the Town of Wrightsville Beach additional available drinking water during tourist season up to 45 million gallons per year. New Hanover County's population is approximately 235,000 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 70,564 customer accounts, an increase of 930 compared to the previous year. Also, an additional 5,208 locations have services available (vacant lots). The Authority recently entered into a three-year bulk purchase agreement providing the Town of Wrightsville Beach additional drinking water during tourist season. The water system has 1,142 miles of distribution lines on June 30, 2019. The Authority also keeps eleven wells on standby to supplement the water supply during emergencies or peak demand periods. Metered water consumption for the fiscal year June 30, 2019 increased 4.85% 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 most of the Authority's service area. The SWTP has a rated capacity of 35 MGD. Average production during the fiscal year ended June 30, 2019 was 15.45 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 5.5 million gallons of storage in four elevated tanks. The LCFWSA and CFPUA 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 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 disinfection, fluoridation, 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, 2019 of 2.74 MGD. The distribution system provides water service to customers and includes 2.8 million gallons of covered ground storage and 2.1 million gallons of elevated storage in four elevated tanks. In addition, the Authority operates one smaller groundwater system, Monterey Heights, providing groundwater directly to customers from five 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, 2019 was 0.762 MGD.

The Wastewater System

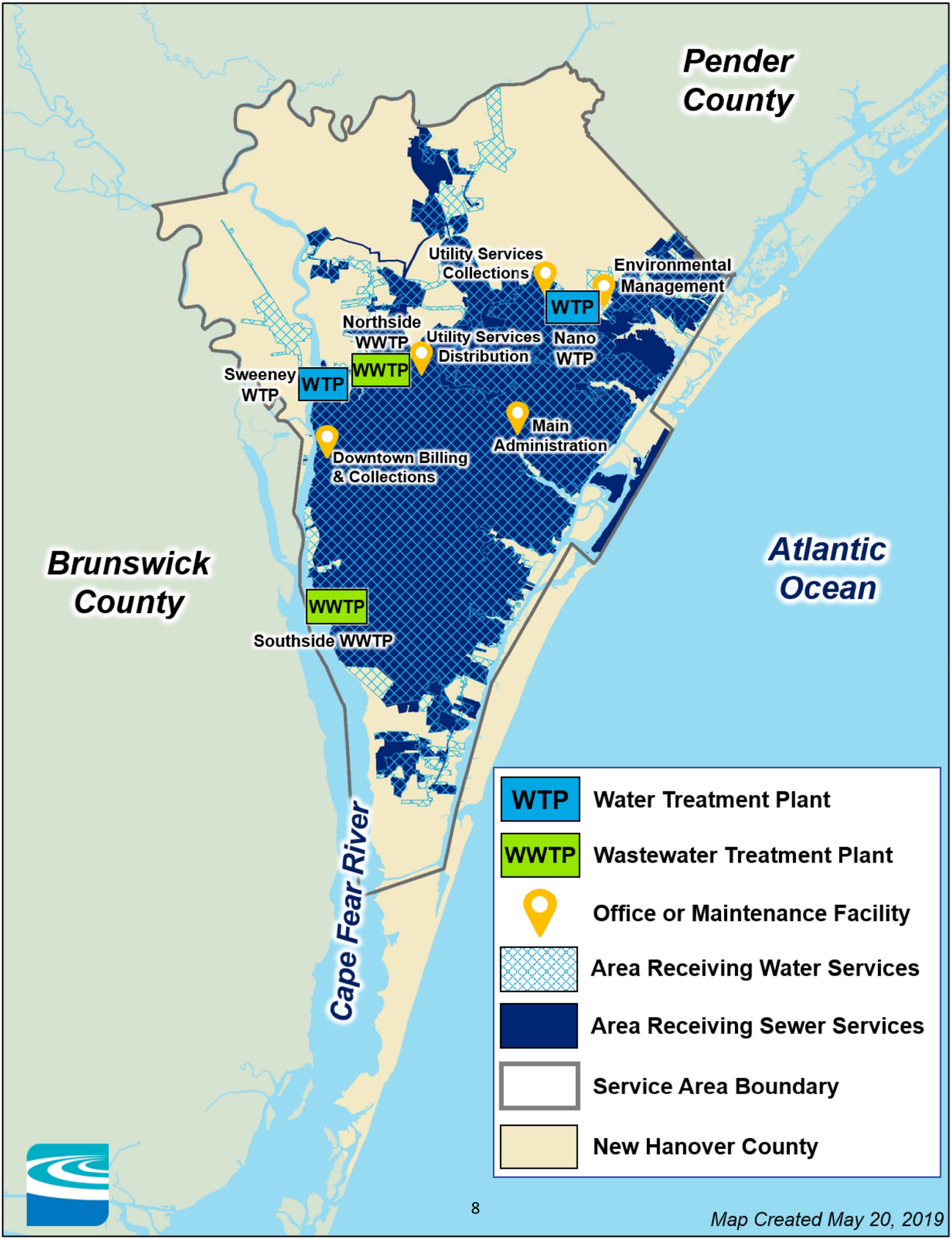
There are 70,000 wastewater accounts, an increase of 865 compared to the previous year. Also, an additional 4,116 locations have services available (vacant lots). The Authority also provides wholesale wastewater treatment services to the Town of Wrightsville Beach and provides wastewater services to a portion of Pender County. The Authority's collection system consists of approximately 912 miles of gravity lines, 22,134 manholes, 147 pump stations and 144 miles of pressurized sewage force main. Wastewater consumption, based on metered water (excluding irrigation) for the fiscal year June 30, 2019 increased 1.68% 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, 2019, the combined average daily flows were 17.4 MGD of the combined 28.0 MGD permitted. 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, six 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 nitrogen (TKN), fluoride, certain metals, and organics. All 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.

Additional information regarding the Authority's service area and operating statistics are located in the supplemental and statistical section of this document.



Map Created May 20, 2019

Cape Fear Public Utility Authority

Strategic Plan 2019

Mission Statement

"We are a customer-centric organization that delivers high-quality water services."

Vision

Supporting our community's quality of life through the responsible use and care of water.

Values

Excellence, transparency, education, and collaboration

Goals

Goal One: Understand and respond to the community's current and future needs.

Strategies:

1.1. Understand, anticipate, and respond to our customers and our community's needs in a professional, prompt, and efficient manner.

1.2. Maintain a stable financial position that balances rates, affordability, the environment, and the organization's long-term capital and operating needs.

1.3. Identify partnerships, develop alliances, and encourage participation with both public and private community stakeholders.

1.4. Recruit and retain a well-qualified and motivated workforce that reflects the diversity of the community we serve.

1.5. Develop and communicate CFPUA service standards to ensure we operate a responsive and cost-effective collection, treatment, and distribution system.

Goal Two: Championing a positive customer service culture.

Strategies:

2.1. Remain committed to a vision of customer service delivery that understands our community's needs, increases our partnership, and ensures that our customers get the right help and support – while enjoying a consistent, positive experience.

2.2. Promote customer self-reliance through a range of online services that can be easily accessed from any device; and support those who need individual service.

2.3. Develop process improvement initiatives that are cost-effective, compliant, and address the needs of our customers and the organization.

2.4. Provide and promote a framework to keep customers informed and up-to-date using their preferred communication method.

Goal Three: Providing exemplary leadership in protecting natural resources.

Strategies:

3.1. Consistently maintain and operate the utility, and all its human and physical assets, in a manner that optimizes the care and use of water and other natural resources.

3.2. Build a culture of sustainability by creating new energy-reducing goals and challenging existing ones.

3.3. Comply and many times surpass federal, state, county, city, and industry standards.

3.4. Continue and enhance community education around current programming, environmental stewardship, and CFPUA's role in protecting the environment.

3.5. Advocate for water quality protection and related issues.

3.6. Explore the use of highly-treated waste water for potable or other non-potable applications.

Goal Four: Cultivating community ownership and advancing relationships.

Strategies:

4.1. Develop and share compelling content to deepen CFPUA's relationship with customers and inspire positive engagement.

4.2. Partner with the community and media to carry a credible brand message to CFPUA's customers and to a broader audience.

4.3. Shift organizational messaging from CFPUA as an organization to focus on the people who provide water service.

Goal Five: Fostering an engaged and forward-thinking workforce.

Strategies:

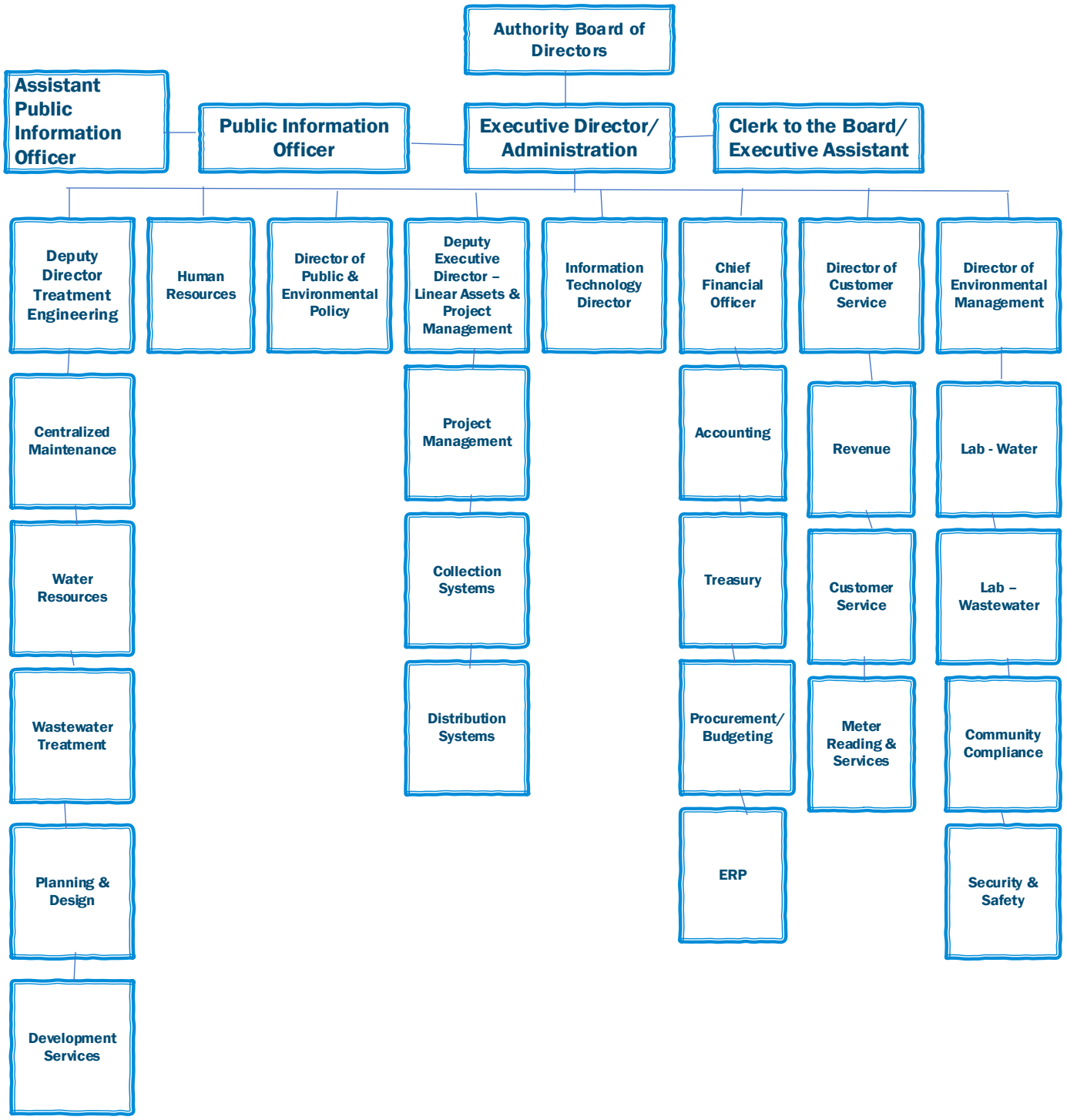
5.1. Adopt state-of-the-art tools, systems, and processes that prepare CFPUA for future technological advancements.

5.2. Establish best practices around a culture of talent management and employee development to ensure employees are trained and ready to advance.

5.3. Implement leadership and communication best practices to grow employee morale, engagement, and productivity.

5.4. Acquire and implement technologies and tools that allow for enhanced interdepartmental collaboration, enterprise-wide sharing of information, and operational efficiencies.

Cape Fear Public Utility Authority



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 based on 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.

CFPUA uses a modified zero-based budgeting approach to develop its annual operating budget. Budget development is centralized to ensure that line item estimates are consistent among departments and consistent with assumed consumption and other factors upon which revenue estimates are based. Only significant line items are forecasted at a detailed level in order to reduce the overall administrative burden. A recommended operating budget is developed by management that considers the estimated cost to maintain current service levels for the next budget year (a continuation budget) and a recommended number of expansions to current service levels (the expansion budget). Although the operating budget is developed at a department and line item level, the operating budget is controlled at the department and category level. The categories in the operating budget include salaries and benefits, operating, capital outlay, debt service, and pay-as-you-go capital funding. Controlling the budget by department and category, rather than by line item, gives departments budgetary flexibility during the budget year.

The continuation budget is the estimated cost of maintaining existing, authorized levels of recurring service without major structural changes. The continuation budget is developed for each department as follows:

1. Salaries and benefits line items for the continuation budget consist of two pieces: 1) cost estimates related to existing staff levels and 2) cost estimates related to approved new staff needed to maintain existing service levels (e.g. new staff needed to carry out a service currently provided but additional staff are needed due to customer growth). New position requests are submitted by each department and considered by the management team. Estimates are then developed for currently authorized positions and approved new positions that include any approved merit and cost-of-living increases and estimated increases for health, dental, life insurance, retirement, and other benefits.

2. For line items in the operating category, Finance staff determine which departmental line items are significant based on dollar amount. Finance collaborates with departmental staff to develop cost estimates for individually significant budget line items. Non-significant line items are forecasted based on historical averages. Afterwards, significant and non-significant line items are combined for each department and submitted to each department head for review. Adjustments are made to individual non-significant line items when needed.

3. Each department submits requests for capital outlay included in the operating budget. These requests generally include small pumps and other equipment with a useful life greater than one year that aren't covered by the capital budget.

4. The debt service category includes scheduled maturities of principal and interest payments. Pay-as-you-go capital funding is set at the level necessary to maintain the level of annual capital investment needed to support CFPUA's capital improvement plan and the debt limitation established in policy.

The expansion budget is the estimated incremental cost of major structural changes to existing service levels including new programs, studies, and pilot projects. Expansion budget requests are submitted to Finance. Management evaluates and prioritizes these requests. A number of service level decision packages are developed that combine the continuation operating budget and various expansion budget requests. Management considers these decision packages subject to estimated funding and organizational priorities and develops a recommended operating budget to present to the Finance Committee and the Board.

The development of the capital budget involves a risk-based prioritization process based on asset management best practices that results in the 10-Year Capital Improvement Plan. This plan is reviewed by the Finance Department to identify funding sources and ensure that the plan is consistent with CFPUA's financial policies and that key financial metrics will continue to be achieved. The proposed 10-Year Capital Improvement plan is reviewed by the Long-Range Planning Committee, Finance Committee, and the full Board in February through May. Changes are made based on these deliberations.

After discussions over several months, the Board adopts the operating and capital budget ordinances upon recommendation of the Finance Committee in June.

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 for by policy:

- 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 2019 – December 2019	Multi Departmental CIP Team Develops Draft FY21 CIP and Ten-Year CIP	Multi Departmental CIP Team
Wednesday, January 15, 2020	Departmental non-recurring maintenance requests due to Centralized Maintenance	
Thursday, January 30, 2020	FY21 CIP Draft Budget to LRPC	Engineering/LRPC
Friday, January 31, 2020	Departmental Estimates of Significant Continuing Budget Operating Items due to Finance	
Wednesday, February 5, 2020 9:00 am IT Conference Room	Regular Finance Committee Meeting - Review SDC Calculation	Finance Committee
Wednesday, February 12, 2020 Following Regular Board Meeting	Regular Board Meeting - Review SDC Calculation	Engineering/Authority Board
Friday, February 7, 2020	New Position/Reclassification Requests due to HR Employee Group and Business Insurance Estimates Due Expansion Budget Requests due to Finance	CFPUA Staff
Friday, February 21, 2020	Comments on Continuation Budget operating items due from departments Meeting to finalize new position/reclassification requests for the Continuation Budget	
Friday, February 28, 2020	Performance Evaluations Due to HR	Human Resources
Monday, March 2, 2020	Publish System Development Charge on CFPUA website for Public Comment	
Wednesday, March 4, 2020 9:00 am IT Conference Room	Regular Finance Committee Meeting	Finance Committee
Wednesday, March 11, 2020 9:00 am NHC-Harrell Room	Regular Board Meeting	Authority Board
Friday, March 13, 2020	Preliminary Budget Recommendation Meeting	Department Heads
Thursday, March 26,2020	FY21 CIP Approval by LRPC	Engineering/LRPC
Wednesday, April 1, 2020 9:00 am IT Conference Room	Regular Finance Committee Meeting Preliminary Recommended Budget Review	Finance Committee
Wednesday, April 8, 2020 9:00 am NHC-Harrell Room	Regular Board Meeting/Public Hearing - Preliminary Recommended Budget Review - Public Hearing on SDC Calculation and Adoption of SDCs (if no revisions are needed) - Preliminary Budget Review - FY21 CIP Recommended for Approval	Authority Board
Wednesday, April 15, 2020 9:00 am IT Conference Room	Bi-monthly Finance Committee Meeting (OPTIONAL) - Preliminary Rate Review Continued - Preliminary Budget Review Continued	Finance Committee

BUDGET CALENDAR

Day/Date/Time	Event	Group
Friday, April 24, 2020	Recommended Budget Completed	CFPUA Staff
Thursday, April 30, 2020	End of public comment period for proposed system development charges	
Wednesday, May 6, 2020 9:00 am IT Conference Room	Regular Finance Committee Meeting - Recommended Budget Submitted	Finance Committee
Wednesday, May 13, 2020 9:00 am NHC-Harrell Room	Regular Board Meeting - Recommended Budget Submitted	Authority Board
Wednesday, June 3, 2020 9:00 am IT Conference Room	Regular Finance Committee Meeting - Recommendation of Budget Adoption Submitted (including rates)	Finance Committee
Wednesday, June 10, 2020 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.

FINANCIAL POLICIES

Revenues

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 annual debt service requirements 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.

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 fiscal years. The FY 20-21 operating budget is $89,979,681, an increase of 5.2% compared to the adopted FY 19-20 operating budget. The information below summarizes the major expenditure categories and some of the key factors and assumptions driving the FY 20-21 operating budget.

Salaries and Benefits

Salaries and benefits costs related to the Authority's employees and retirees budgeted for FY 20-21 are approximately $25.8 million, which makes up 29% of the Authority's operating budget. The following chart details the Authority's staffing trends over the upcoming budget year and the previous two years. The FY 20-21 budget authorizes a total of 324.75 full-time equivalent (FTE) positions, an increase of 4 FTEs from the current staffing levels.

Authorized Full-time Equivalent Positions by Fiscal Year

	FY 18-19	FY 19-20	FY 20-21
Administration	3.00	4.00	**4.00**
Finance	12.00	12.00	**12.00**
Human Resources	4.00	4.00	**4.00**
Public & Environmental Policy	3.00	3.00	**3.00**
Information Technology	9.00	9.00	**9.00**
Treatment & Engineering Services:			
Administration			
Engineering	27.00	27.00	**27.00**
Centralized Maintenance	21.00	21.00	**22.00**
Water Treatment	27.00	27.00	**28.00**
Wastewater Treatment	29.00	32.00	**32.00**
Linear Assets & Project Management			
Administration	3.00	4.00	**4.00**
Utility Services	90.00	91.00	**93.00**
Project Management			
Environmental Management/Safety	28.75	29.75	**29.75**
Customer Service/Meter Services	57.00	57.00	**57.00**
Total	313.75	320.75	**324.75**

EXPENDITURE SUMMARY

The following table details the change in individual salary and benefits line items compared to the adopted FY 19-20 operating budget.

	FY20 Adopted	FY21 Adopted	Increase/ (Decrease)	%Difference
Regular Salaries & Wages	$ 16,953,124	$ 17,722,587	$ 769,463	4.5%
Health/Dental Insurance	3,042,277	3,158,283	$ 116,006	3.8%
LGERS Pension Contribution	1,584,670	1,878,103	$ 293,433	18.5%
FICA - Social Security	1,059,852	1,109,449	$ 49,597	4.7%
Overtime	660,837	673,700	$ 12,863	1.9%
401k Matching Contribution	649,922	669,089	$ 19,167	2.9%
FICA - Medicare	247,888	259,494	$ 11,606	4.7%
Standby	164,520	212,200	$ 47,680	29.0%
Life/AD&D Insurance	40,840	44,300	$ 3,460	8.5%
Long-term Disability	22,458	23,768	$ 1,310	5.8%
License/Certification Incentives	10,400	-	$ (10,400)	-100.0%
Premium Pay	5,000	-	$ (5,000)	-100.0%
Miscellaneous	4,800	4,800	$ -	0.0%
Total	$ 24,446,588	$ 25,755,773	$ 1,309,185	5.4%

Regular salaries and wages increased by 4.5% due to the following:

- The addition of 4 new FTE positions
    - Water Control Operator (1 FTE) in the Field Services division to keep up with scheduled well maintenance on three recently added emergency wells and two new production wells for the Monterey Heights system.
    - Facilities Specialist (1 FTE) – Two of the existing Facilities Specialist positions are being reclassified to perform instrumentation work in-house that was formerly done under contract. The new Facilities Specialist is needed to ensure that the level of maintenance continues to be performed.
    - An additional pump station crew consisting of a Pump Station Foreman (1 FTE) and a Pump Station Operator (1 FTE) to keep up with required maintenance on 10 recently added pump stations and upgrades to existing pump stations that require more complex maintenance.
- A 1% cost-of-living and 3% merit increases for certain employees
- A parity adjustment for laboratory staff designed to address turnover
- Reclassifications of certain positions totaling $41,645

The increases in regular salaries and wages and overtime resulted in commensurate increases in amounts budgeted for FICA taxes and 401(k) matching contributions. In addition to the increases in regular salaries and wages and overtime, required employer contributions to the North Carolina Local Government Employees Retirement System increased from 8.95% to 10.15% of covered payroll resulting in an overall

increase of 18.5% compared to the FY 19-20 adopted budget. Budgeted expenditures for health and dental benefits increased 3.8% from the prior year's adopted budget due largely to a composite 4% increase in North Carolina state health plan premiums for active employees (effective January 1, 2021).

Operations and Maintenance

Operations and maintenance 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. Operations and maintenance budgeted for FY 20-21 total approximately $20.5 million, a decrease of 7.7% from the FY 19-20 adopted budget.

The table below details changes in budgeted operating expenditures by department.

	FY20 Adopted	FY21 Adopted	Increase/ (Decrease)	%Difference
Authority Board	$ 24,299	$ 21,344	$ (2,955)	-12.2%
Administration	645,807	532,498	(113,309)	-17.5%
Finance	145,159	152,449	7,290	5.0%
Human Resources	152,452	132,148	(20,304)	-13.3%
Public & Environmental Policy	32,196	25,764	(6,432)	-20.0%
Information Technology	2,065,407	2,209,224	143,817	7.0%
Treatment & Engineering Services:				
Administration	76,494	44,968	(31,526)	-41.2%
Engineering	68,126	98,636	30,510	44.8%
Centralized Maintenance	1,496,040	1,985,219	489,179	32.7%
Water Treatment	5,276,200	4,974,819	(301,381)	-5.7%
Wastewater Treatment	4,050,942	2,521,943	(1,528,999)	-37.7%
Linear Assets & Project Management				
Administration	19,762	16,230	(3,532)	-17.9%
Utility Services	4,145,129	4,055,348	(89,781)	-2.2%
Project Management	18,298	16,260	(2,038)	-11.1%
Environmental Management/Safety	820,229	719,862	(100,367)	-12.2%
Customer Service/Meter Services	1,093,338	956,849	(136,489)	-12.5%
Non-departmental	2,052,774	2,013,788	(38,986)	-1.9%
	$ 22,182,652	$ 20,477,349	$ (1,705,303)	-7.7%

Significant increases and decreases in operations and maintenance expenditures from the FY 19-20 adopted budget by department are as follows:

- Wastewater Treatment – The $1.5 million decrease is largely due to the manner in which biosolids from water and wastewater treatment are processed and disposed. For the FY 19-20 budget, it was assumed that biosolids would be processed and transported to a land fill

by the same contractor that had processed and land applied biosolids in previous years. The additional costs of landfilling this material was approximately $1.5 million. During FY 19-20 CFPUA terminated this contract and began processing biosolids in house and contracting with a carrier to transport to the land fill at a cost that approximated the cost of processing and land application by the former contractor.

- Centralized Maintenance – The $489,179 increase is due to moving appropriations for work that is done by Centralized Maintenance from the benefitting departments to Centralized Maintenance. This work includes standard facilities maintenance such as painting, floor recoating, and other repairs and maintenance.
- Water Treatment – The $301,381 decrease is mainly due to expected decreases for contracted instrumentation and tank maintenance. For FY 20-21 instrumentation will be provided in-house and tank maintenance will be paid for with capital funding. Also, some maintenance expenditures were moved to Centralized Maintenance.
- Information Technology – The $143,817 increase is due to increases in software licensing for the new ERP system.
- Customer Service – In FY 19-20, Customer Service's budget included amounts for security camera upgrades and reconfiguration of office space. Similar amounts are not included in the FY 20-21 budget.
- Administration – The $113,309 decrease is due mainly to a decrease in anticipated legal fees.

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 debt management policies are designed to maintain coverage of at least 1.8 times the annual debt service requirement. In addition, this policy provides that the Authority cannot 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.

EXPENDITURE SUMMARY

The following chart compares the budgeted debt service in FY 20-21 to the FY 19-20 adopted budget:

	FY 19-20 Adopted	FY 20-21 Adopted	Increase/ (Decrease)	%Difference
Water and Sewer Rate Revenue Bonds	$ 19,568,765	$ 23,050,500	$ 3,481,735	17.8%
Debt Assumed from New Hanover County	1,383,450	1,328,150	$ (55,300)	-4.0%
State Revolving Loans	1,473,267	1,367,907	$ (105,360)	-7.2%
Total	$ 22,425,482	$ 25,746,557	$ 3,321,075	14.8%

The debt service appropriation for the FY 20-21 budget is $25.7million, an increase of 14.8% compared to the FY 19-20 adopted budget. The increase is mainly attributable to new debt service related to the Authority's 2019A Water and Sewer Revenue and Refunding Bonds which included a new money component of $58.4 million to fund treatment upgrades to the Sweeney Water Treatment Plant to remove per- and polyfluoroalkyl substances and the Authority's share of the new raw water transmission main from Lock & Dam 1 to Brunswick County's water treatment plant. Principal and interest payments for FY 20-21 total $13.4 and $12.3 million, respectively.

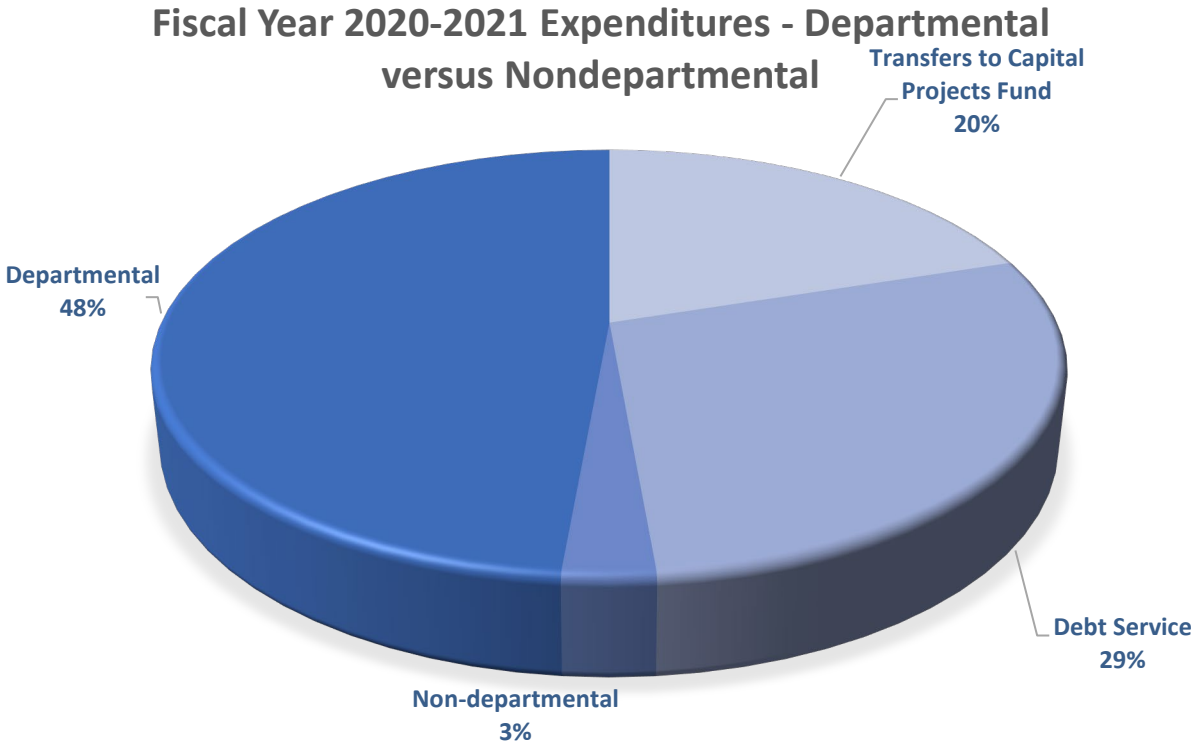
The Authority does not plan to issue any new debt during FY 20-21; however, the Authority has been approved to receive Drinking Water and Clean Water State Revolving loans to fund an $8 million project to rehabilitate the Authority's twin 24-inch raw water transmission mains from Brunswick County's water treatment plant to the Sweeney Water Treatment Plant and a $7.85 million project to fund the replacement of the Pump Station #14 force main. The Authority is also applying for Clean Water State Revolving Loan funding of approximately $4 million to fund the upgrades to Pump Station #69. Debt service payments for these loans will begin when these projects are completed. None of these projects will be completed during FY 20-21.

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. The FY 20-21 operating budget includes $18 million in pay-as-you-go capital funding. The $18 million in annual pay-as-you-go capital funding is the amount that is needed each year to both support the Authority's long-term capital needs while also complying with the Authority's debt limit over the long term.

DEPARTMENTAL SUMMARIES

As the chart below shows, 48% of the FY 20-21 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 department such as expenditures for rent and insurance.



AUTHORITY BOARD

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 20-21 is $60,103 or .07% of the total FY 20-21 operating budget. Of the total departmental budget, $38,759 (or 64.5%) is budgeted to pay monthly stipends for the Board's 11 members. The remaining $21,344 (or 35.5%) is budgeted for various expenditures including costs to broadcast Board meetings, advertise public hearings, and cell phone and tablet stipends.

DEPARTMENTAL SUMMARIES

ADMINISTRATION

The Administration Department consists of the Executive Director, Public Information Officer, Assistant Public Information Officer, and 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 Public Information Officer and Assistant Public Information Officer are 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 20-21 is $1,120,726, or 1.25% of the total FY 20-21 operating budget. Of the total departmental budget, $588,228 (or 52.5%) is budgeted to pay salaries and benefits for the department's 4 full-time equivalent positions. The remaining $532,498 (or 47.5%) is budgeted for various expenditures including $500,000 for legal costs including those related to PFAS.

FINANCE

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 20-21 is $1,327,609 or 1.48% of the total FY 20-21 operating budget. Of the total departmental budget, $1,175,160 (or 88.5%) is budgeted to pay salaries and benefits for the department's 12 full-time equivalent positions. The remaining $152,449 (or 11.5%) is budgeted for various expenditures including the cost of the annual financial audit, financial advisors/consultants, and professional development.

HUMAN RESOURCES

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 20-21 is $699,244 or .78% of the total FY 20-21 operating budget. Of the total departmental budget, $567,096 (or 81.1%) is budgeted to pay salaries and benefits for the department's 4 full-time equivalent positions. The remaining $132,148 (or 18.9%) 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.

PUBLIC & ENVIRONMENTAL POLICY

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 20-21 is 340,060, or .38% of the total FY 20-21 operating budget. Of the total departmental budget, $314,296 (or 92.4%) is budgeted to pay salaries and benefits for the department's 3 full-time equivalent positions. The remaining $25,764 (or 7.6%) is budgeted for various expenditures including software licenses and training, printing for special educational materials, and various computer hardware.

INFORMATION TECHNOLOGY

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 20-21 is $3,146,220, or 3.50% of the total FY 20-21 operating budget. Of the total departmental budget, $936,996 (or 29.8%) is budgeted to pay salaries and benefits for the department's 9 full-time equivalent positions. The remaining $2,209,224 (or 70.2%) 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 transition to new ERP software.

TREATMENT/ENGINEERING

The Treatment/Engineering Department is comprised of Water and Wastewater Treatment, Centralized Maintenance and Engineering. Overall, the total departmental budget for FY 20-21 is $17,715,484 or 20% of the total FY 20-21 operating budget.

TREATMENT/ENGINEERING - ENGINEERING

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 is comprised of three divisions: Administration, Planning and Design, and Development Services.

The Engineering Department budget for FY 20-21 is $2,284,228, or 2.54% of the total FY 20-21 operating budget. Of the total departmental budget, $2,140,624 (or 93.7%) is budgeted to pay salaries and benefits for the department's 21 full-time equivalent positions. The remaining $143,604 (or 6.3%) is budgeted for various expenditures including the cost of updates to the Authority's construction specifications and CIP database maintenance.

TREATMENT/ENGINEERING – CENTRALIZED MAINTENANCE

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 Centralized Maintenance budget for FY 20-21 is $3,547,632, or 3.94% of the total FY 20-21 operating budget. Of the total division budget, $1,562,413 (or 44.0%) is budgeted to pay salaries and benefits for the division's 22 full-time equivalent positions. The remaining $1,985,219 (or 56.0%) is budgeted for various expenditures including contracted services for fleet and equipment maintenance, landscaping, and materials costs for various plant and facilities maintenance.

TREATMENT/ENGINEERING – WATER TREATMENT

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 Water Treatment budget for FY 20-21 is $7,157,982, or 7.96% of the total FY 20-21 operating budget. Of the total division budget, $2,183,163 (or 30.5%) is budgeted to pay salaries and benefits for the division's 28 full-time equivalent positions. The remaining $4,974,819 (or 69.5%) is 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.

TREATMENT/ENGINEERING – WASTEWATER TREATMENT

The Wastewater Treatment Division manages the operation and maintenance of the Authority's two wastewater treatment plants (WWTPs): Northside (NSWWTP) and Southside (SSWWTP). 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.

The Wastewater Treatment budget for FY 20-21 is $4,725,642 or 5.25% of the total FY 20-21 operating budget. Of the total division budget, $2,203,699 (or 46.6%) is budgeted to pay salaries and benefits for the division's 32 full-time equivalent positions. The remaining $2,521,943 (or 53.4%) is budgeted for various expenditures including electricity and chemicals used in the treatment process, the disposal of wastewater residuals, plant maintenance, and equipment replacement.

LINEAR ASSETS & PROJECT MANAGEMENT

The Linear Assets and Project Management Department is comprised of Administration, Project Management, Distribution and Collections. Overall, the total departmental budget for FY 20-21 is $11,681,444 or 13% of the total FY 20-21 operating budget.

DEPARTMENTAL SUMMARIES

LINEAR ASSETS & PROEJCT MANAGMENT– ADMINISTRATION

The Administration Division is responsible for overseeing the project management, distribution and collections divisions and providing administrative support.

The Administration budget for FY 20-21 is $565,074, or .63% of the total FY 20-21 operating budget. Of the total departmental budget, $548,844 (or 97.1%) is budgeted to pay salaries and benefits for the department's 4 full-time equivalent positions. The remaining $16,230 (or 2.9%) is budgeted for various expenditures including cell phone stipends, dues and subscriptions, and office supplies.

LINEAR ASSETS & PROEJCT MANAGMENT– PROJECT MANAGEMENT

The Project Management Division is responsible for overseeing numerous capital improvement projects. Staff assist with programming long-term CIP budgets, oversee planning and design work, and manage construction phase activities. The primary role of the Project Management Division is executing the Capital Improvement Program.

The Project Management budget for FY 20-21 is $632,112, or .70% of the total FY 20-21 operating budget. Of the total departmental budget, $615,852 (or 97.4%) is budgeted to pay salaries and benefits for the department's 4 full-time equivalent positions. The remaining $16,260 (or 2.6%) is budgeted for various expenditures including cell phone stipends, dues and subscriptions, training, and office supplies.

LINEAR ASSETS & PROJECT MANAGMENT – DISTRIBUTION

The Distribution Division repairs breaks to water and sewer lines, performs locate services, and ensures water quality through regular line flushing.

The Distribution budget for FY 20-21 is $3,698,819 or 4.11% of the total FY 20-21 operating budget. Of the total division budget, $2,623,999 (or 70.9%) is budgeted to pay salaries and benefits for the division's 36 full-time equivalent positions. The remaining $1,074,820 (or 29.1%) is budgeted for various expenditures including contracted services for asphalt and concrete repair, fuel for service vehicles, and construction materials for water and sewer repairs.

LINEAR ASSETS & PROJECT MANAGMENT – COLLECTIONS

The Collections Division maintains the collection systems through regular inspection and cleaning of gravity lines, maintains outfalls, and operates and maintains 150 pump stations. These duties help reduce the frequency and volume of sanitary sewer overflows (SSOs).

Collections Divisions budget for FY 20-21 is $6,785,439, or 7.54% of the total FY 20-21 operating budget. Of the total division budget, $3,804,911 (or 56.1%) is budgeted to pay salaries and benefits for the division's 57 full-time equivalent positions. The remaining $2,980,528 (or 43.9%) 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.

ENVIRONMENTAL MANAGEMENT/SAFETY

The Environmental and Safety Management Department supports the core mission of the Authority through operational and administrative activities of five divisions: Laboratory Services for Water, Laboratory Services for Wastewater, Community Compliance, Emergency Response and Security and Safety Management, and Environmental 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 20-21 is $3,156,863 or 3.51% of the total FY 20-21 operating budget. Of the total departmental budget, $2,437,001 (or 77.2%) is budgeted to pay salaries and benefits for the department's 29.75 full-time equivalent positions. The remaining $719,862 (or 22.8%) 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 SUMMARIES

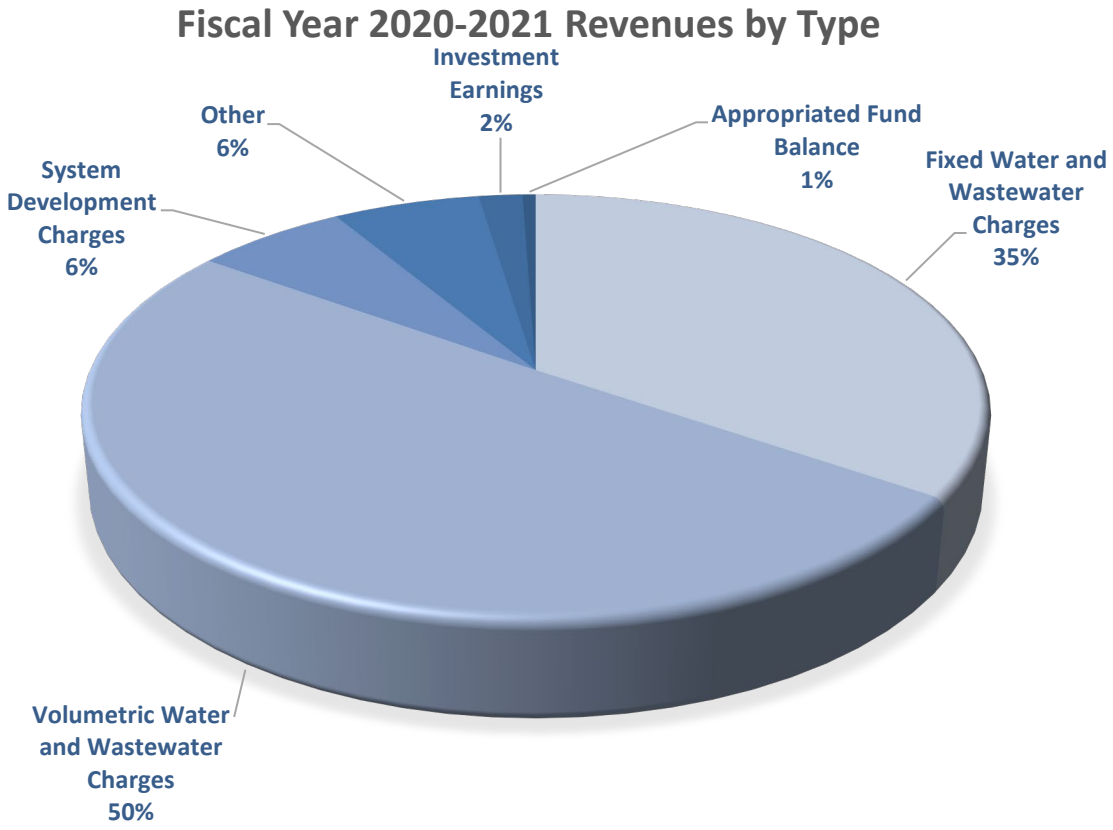
CUSTOMER SERVICE

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 20-21 is $4,471,581, or 4.97% of the total FY 20-21 operating budget. Of the total departmental budget, $3,514,732 (or 78.6%) is budgeted to pay salaries and benefits for the department's 57.5 full-time equivalent positions. The remaining $956,849 (or 21.4%) 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.

REVENUE SUMMARY

The Authority sets rates, fees and charges with oversight, supervision, and approval from the Board. The Authority's operations, capital improvement program and debt payments are funded almost entirely through rates, fees and other charges for water and wastewater services, with occasional grants from the state or federal government and contributions from the City of Wilmington, New Hanover County or other governmental and nongovernmental entities.



Water and Wastewater Fixed and Volumetric Charges

Most of the Authority's revenues (85%) are generated from rate revenues for water and wastewater service. Rates are composed of fixed and volumetric portions. Fixed charges represent the minimum amount a customer will pay regardless of usage. The volumetric component charges a cost per 1,000 gallons of usage. As shown above, in FY 20-21, 50% of total budgeted revenue are from volumetric charges and 35% of total budgeted revenue are from fixed charges. Fixed charges are estimated to total $31.1 million ($15.4 million from water and $15.7 million from wastewater), a 3.9% increase from the FY 19-20 adopted budget. Volumetric revenues are anticipated to total $45.3million ($22.2million from water and $23.1 million from wastewater), a 3.3% increase from the FY 19-20 adopted budget. The increases in budgeted fixed and volumetric charges do not include increases to rates. Rather, the increases are

attributable to increases in the number of equivalent residential units and usage per equivalent residential unit compared to the FY 19-20 adopted budget.

Water and wastewater fixed charges are developed to recover the greater of debt service due during the year or 35% of the operating budget. This policy exists for two reasons: 1) to guarantee that sufficient amounts are available to pay debt service irrespective of usage 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 usage.

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 active accounts as if each customer were a residential customer. ERUs assumed for the FY 20-21 budget are based on current actual ERUs inflated by a growth factor based on recent experience. The table below compares the ERU assumptions and fixed charge revenues in the FY 19-20 and FY 20-21 budgets.

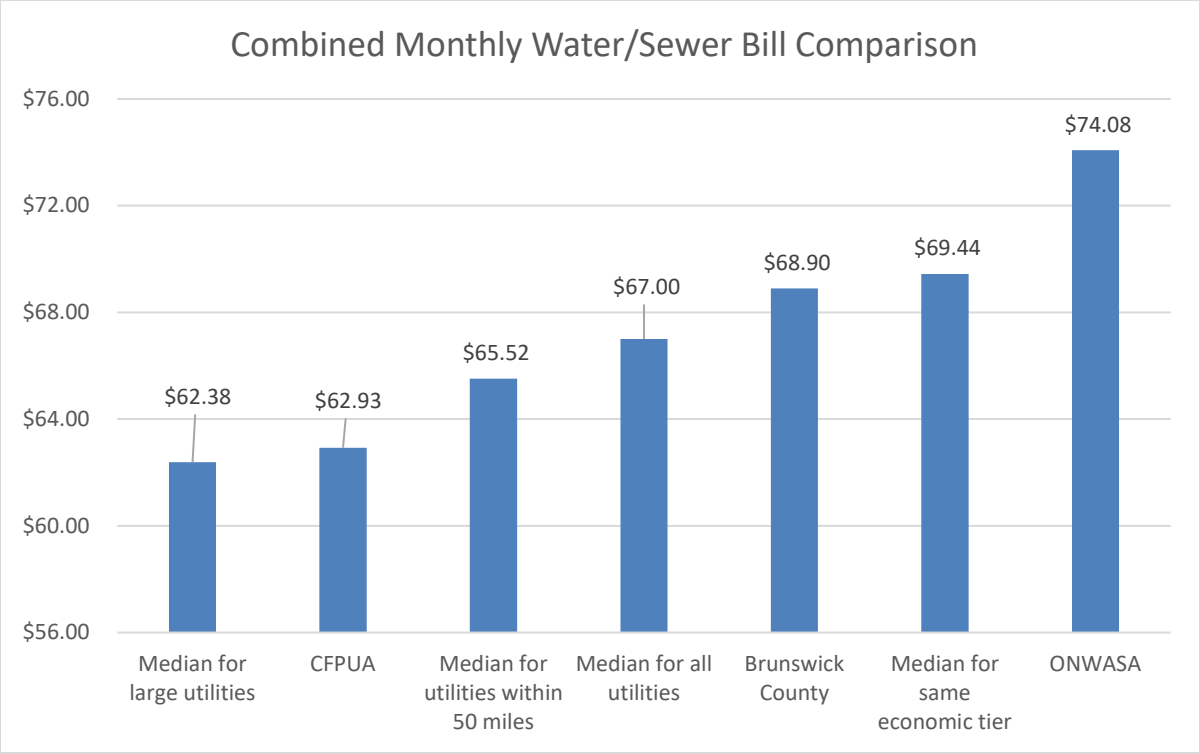
	FY20 Adopted	FY21 Adopted	Increase/ (Decrease)	% Difference
Assumed ERUs - Water	89,700	93,300	3,600	4.0%
Bimonthly Fixed Water Charge	$ 27.56	$ 27.56	$ -	0.0%
Total Fixed Charges Water	$ 14,832,792	$ 15,428,089	$ 595,297	4.0%
Assumed ERUs - Wastewater	86,500	89,760	3,260	3.8%
Bimonthly Fixed Wastewater Charge	$ 29.10	$ 29.10	$ -	0.0%
Total Fixed Charges Wastewater	$ 15,102,900	$ 15,672,096	$ 569,196	3.8%
Total Fixed Charges	**$ 29,935,692**	**$ 31,100,185**	**$ 1,164,493**	**3.9%**

The volumetric charge utilizes a uniform rate structure such that the rate per 1,000 gallons remains constant for all levels of usage. 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 usage. Usage projections for FY 20-21 are equal to actual FY 19-20 usage projected through the end of fiscal year. The table below compares the usage assumptions and volumetric charge revenues in the FY 19-20 and FY 20-21 budgets.

REVENUE SUMMARY

	FY20 Adopted	FY21 Adopted	Increase/ (Decrease)	% Difference
Assumed Annual Usage - Water (TGal)	5,375,646	5,531,757	156,111	2.9%
Assumed Annual Usage per ERU - Water	59.93	59.29	(0.64)	-1.1%
Volumetric Charge - Water	$ 4.02	$ 4.02	$ -	0.0%
Total Volumetric Charges - Water	$ 21,610,097	$ 22,237,665	$ 627,568	2.9%
Assumed Annual Usage - Wastewater (Tgal)	4,812,134	4,989,758	177,624	3.7%
Assumed Annual Usage per ERU - Wastewater	55.63	55.59	(0.04)	-0.1%
Volumetric Charge - Wastewater	$ 4.63	$ 4.63	$ -	0.0%
Total Volumetric Charges - Wastewater	$ 22,280,179	$ 23,102,581	$ 822,402	3.7%
Total Volumetric Charges	**$ 43,890,276**	**$ 45,340,246**	**$ 1,449,970**	**3.3%**

The Authority's water and wastewater rates remain at or below the median rates within North Carolina. Assuming monthly usage of 4,000 gallons, a residential customer will pay $62.93 per month ($125.86 every two months) in FY 20-21. The bar graph below compares CFPUA's monthly combined water and sewer bill to the median combined bills of all North Carolina utilities, all large North Carolina utilities, all North Carolina utilities within the same economic tier, and all North Carolina utilities within 50 miles of CFPUA. The combined bills for Brunswick County and Onslow Water and Sewer Authority (ONWASA) are also included. These two utilities are CFPUA's most direct peers in terms of topography, size, and income level.



Source: Environmental Finance Center, *North Carolina Utilities Dashboard*

It should be noted that the monthly combined bill for each peer is based on rates in effect for FY 19-20. The amounts presented for the Authority are based on rates for FY 20-21. Therefore, any rate increases that are effective for FY21 are not included in the peers' monthly bills.

System Development Charges

The system development charge (SDC) 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. The SDC calculation consists of two parts: 1) quantifying the value of infrastructure paid for by current and past rate payers that will benefit new customers (i.e. rate payer equity) and 2) allocating rate payer equity to existing and new customers. 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.

The table below presents the adopted SDCs (for 5/8" meters) for FY 19-20 and FY 20-21:

	FY 19-20 Adopted	FY 20-21 Adopted	Increase/ (Decrease)	% Difference
System Development Charge - Water	$ 1,880	$ 1,920	$ 40	2.1%
System Development Charge - Wastewater	$ 1,930	$ 2,070	$ 140	7.3%

The increases in the adopted SDCs are a direct result of the adoption of revisions to the Authority's debt management policy. These revisions have increased the proportion of cumulative capital investments that are funded on a pay-as-you-go basis and consequently increased rate payer equity. Estimated total SDC revenues are derived by multiplying the SDCs by the number of new customers (on an ERU basis) that are expected to be assessed the SDC during the year. Total SDC revenues are estimated to be $5,785,500, which assumes 1,450 new ERUs will be assessed SDCs for both water and wastewater. This assumed level of ERUs is consistent with recent trends over the last three fiscal years. All leading indicators such as the level of plan reviews and inspections suggest that this level of growth should continue during FY 20-21.

Other Charges for Service

Other charges for service account for 6% 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. Other charges for FY 20-21 are $5.6 million, an increase of approximately $.3 million from the FY 19-20 budget.

Investment Earnings

Investment earnings are budgeted at $1.7 million in FY 20-21, a decrease of approximately 12.8% from the FY 19-20 adopted budgeted. The decrease is attributable to two factors:

1. Investable funds are forecasted to decrease as available cash and investment balances are spent down to fund the capital program in accordance with the Authority's liquidity and reserve policies, and
2. Returns on fixed income securities have declined in the last year due to expansionary monetary policy actions taken by the Federal Reserve and overall market uncertainty.

Estimated investment earnings for FY 20-21 are based on a projected weighted average of available invested fund balance during the year and a 0.8% return on investments.

Appropriated Fund Balance

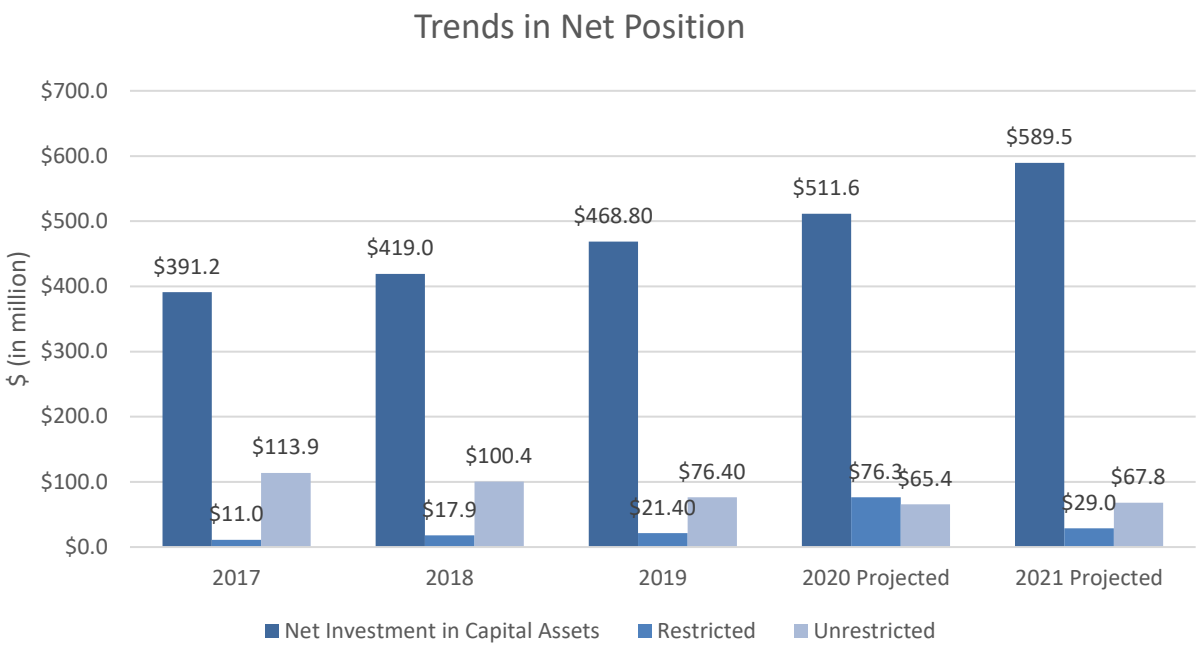
Upon inception of the Authority, the City of Wilmington and New Hanover County transferred funds that were explicitly designated for funding post-employment health insurance benefits to legacy employees. The FY 20-21 budget includes an estimated use of $500,000 of appropriated fund balance to fund appropriations 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 net position. Net position 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 16-17 and projected through FY 20-21.



The chart illustrates two main trends in the Authority's net position: a gradual increase in net investment in capital assets and a gradual decrease in unrestricted net position. Both trends are driven by the Authority's debt policy. Beginning in FY 17-18, the Authority began gradually increasing water and wastewater rates to increase pay-as-you-go funding for capital improvements. The increases to rates were a direct consequence of implementing revisions to the Authority's debt policy, which included the

implementation of an explicit debt limit. As rates are gradually increased, unrestricted net position is available to be spent down to optimal levels to fully fund the Authority's capital improvement plan. Funding capital improvements more and more with current year revenues increases the net investment in capital assets component of net position over time. Funding capital improvements from existing reserves results in a decrease to unrestricted net position.

As a result, the Authority's net investment in capital assets is projected to increase to $589.5 million and the Authority's unrestricted net position is projected to decrease to $67.8 million by the end of FY 20-21. The Authority's restricted net position includes amounts restricted for debt service, amounts restricted by the Board for capital reserves, and unspent bond proceeds. Amounts restricted for debt service are equal to 1/6th of the Authority's next interest payment and 1/12th of the Authority's next principal payment on its outstanding revenue bonds. Capital reserves are non-recurring revenues including operating surpluses that are restricted by the Board for capital projects that otherwise would have been funded with debt. Currently restricted bond proceeds that currently restricted for upgrades to the Sweeney Water Treatment Plant for the removal of PFAS and the Authority's share of the cost to construct the new raw water transmission main are projected to be spent as of the end of FY 20-21. Restricted net position is projected to increase to $29.0 million due to increased debt service requirements attributable to the planned issuance of revenue bonds during FY 20-21.

Operating Budget Summary

	2018 Adjusted Budget	2018 Actual	2019 Adjusted Budget	2019 Actual	2020 Adopted Budget	2020 Amendments & Transfers	2020 Adjusted Budget	2021 Adopted Budget
APPROPRIATIONS								
Salaries & Benefits	$21,461,510.00	$20,780,009.05	$22,770,878.00	$22,348,150.48	$24,446,588.00	$107,000.00	$24,553,588.00	$25,755,773.00
Operating Expenditures	19,138,654.00	17,473,823.36	20,577,928.00	19,707,096.49	22,182,652.00	(650,161.00)	21,532,491.00	20,477,349.00
Contingency	1,063.00	-	11,080.00	-	-	30,340.00	30,340.00	-
Debt Service & Issuance Costs	24,297,928.00	24,200,635.91	23,187,418.00	23,178,918.34	22,425,482.00	(228,930.00)	22,196,552.00	25,746,559.00
Payment to Refunded Bond Escrow Agent	33,960,000.00	32,729,049.60	-	-	-	48,105,675.00	48,105,675.00	-
Transfers to Capital Projects Funds	20,066,614.00	20,066,614.00	18,064,466.00	18,064,466.00	16,500,000.00	1,500,000.00	18,000,000.00	18,000,000.00
Total Appropriations	**$ 118,925,769.00**	**$ 115,250,131.92**	**$ 84,611,770.00**	**$ 83,298,631.31**	**$ 85,554,722.00**	**$ 48,863,924.00**	**$ 134,418,646.00**	**$ 89,979,681.00**
REVENUES								
Fixed Charges Revenues	$ 28,221,790.00	$ 29,055,359.80	$ 29,392,680.00	$ 29,997,568.16	$ 29,935,692.00	-	$ 29,935,692.00	$ 31,100,184.00
Volumetric Charges	41,501,081.00	41,666,247.79	42,561,649.00	44,274,588.34	43,890,276.00	-	43,890,276.00	45,340,244.00
System Development Charges	4,062,000.00	6,014,920.21	4,200,000.00	5,222,170.62	4,000,000.00	-	4,000,000.00	5,785,500.00
Investment Earnings	700,000.00	1,570,176.96	1,540,000.00	2,213,571.04	1,902,000.00	-	1,902,000.00	1,657,650.00
Operating Grants	20,000.00	1,703,206.25	1,500,000.00	1,407,833.59	-	-	-	-
Appropriated Fund Balance	5,720,098.00	-	694,910.00	-	500,000.00	89,319.00	589,319.00	500,000.00
Sale of Capital Assets	-	152,212.80	127,930.00	155,105.94	384,000.00	-	384,000.00	-
Debt Proceeds	34,200,000.00	32,890,000.00	-	-	-	48,774,605.00	48,774,605.00	-
Other Revenues	4,500,800.00	5,509,048.41	4,594,601.00	5,459,912.80	4,942,754.00	-	4,942,754.00	5,596,103.00
Total Revenues	**$ 118,925,769.00**	**$ 118,561,172.22**	**$ 84,611,770.00**	**$ 88,730,750.49**	**$ 85,554,722.00**	**$ 48,863,924.00**	**$ 134,418,646.00**	**$ 89,979,681.00**
Revenues Over/(Under) Appropriations	**-**	**$ 3,311,040.30**	**-**	**$ 5,432,119.18**	**-**	**-**	**-**	**-**

Statement of Revenues, Expenditures & Changes in Fund Balance

	2018 Adjusted Budget	2018 Actual	2019 Adjusted Budget	2019 Actual	2020 Adopted Budget	2020 Amendments & Transfers	2020 Adjusted Budget	2021 Adopted Budget
REVENUES								
Water Revenues	$ 33,736,230.00	$ 34,419,838.31	$ 35,434,638.00	$ 36,974,577.85	$ 36,442,889.00	-	$ 36,442,889.00	$ 37,665,751.00
Wastewater Revenues	35,986,641.00	36,301,769.28	36,519,691.00	37,297,578.65	37,383,079.00	-	37,383,079.00	38,774,677.00
Investment Earnings	700,000.00	1,570,176.96	1,540,000.00	2,213,571.04	1,902,000.00	-	1,902,000.00	1,657,650.00
System Development Charges	4,062,000.00	6,014,920.21	4,200,000.00	5,222,170.62	4,000,000.00	-	4,000,000.00	5,785,500.00
Other Revenues	4,520,800.00	7,212,254.66	5,869,601.00	6,641,570.57	4,942,754.00	-	4,942,754.00	5,596,103.00
TOTAL REVENUES	**$ 79,005,671.00**	**$ 85,518,959.42**	**$ 83,563,930.00**	**$ 88,349,468.73**	**$ 84,670,722.00**	**-**	**$ 84,670,722.00**	**$ 89,479,681.00**
EXPENDITURES								
Authority Board	$ 62,371.00	$ 55,678.31	$ 64,710.00	$ 51,922.72	$ 63,058.00	-	$ 63,058.00	$ 60,103.00
Administration	1,229,462.00	1,189,271.70	962,090.00	955,811.82	1,189,981.00	(190,975.00)	999,006.00	1,120,726.00
Finance	1,196,909.00	1,154,182.99	1,223,692.00	1,208,028.35	1,268,232.00	15,000.00	1,283,232.00	1,327,609.00
Human Resources	533,379.00	514,463.11	563,180.00	532,530.12	602,049.00	-	602,049.00	699,244.00
Public & Environmental Policy	81,055.00	74,311.76	318,723.00	305,546.83	304,045.00	-	304,045.00	340,060.00
Information Technology	1,880,458.00	1,847,173.11	2,378,030.00	2,332,814.98	2,972,746.00	(149,815.00)	2,822,931.00	3,146,220.00
Treatment & Engineering Services:								
Administration	507,996.00	491,735.86	548,711.00	539,363.50	602,641.00	147,000.00	749,641.00	772,566.00
Engineering	1,565,631.00	1,531,784.71	1,435,646.00	1,402,591.55	1,439,248.00	-	1,439,248.00	1,511,662.00
Centralized Maintenance	2,872,316.00	2,723,823.72	3,349,627.00	3,268,304.44	2,945,577.00	496,805.00	3,442,382.00	3,547,632.00
Water Treatment	7,175,024.00	6,541,755.92	7,366,999.00	7,000,757.43	7,429,552.00	(126,557.00)	7,302,995.00	7,157,982.00
Wastewater Treatment	4,043,517.00	3,816,740.17	4,993,137.00	4,987,550.19	6,060,426.00	(751,025.00)	5,309,401.00	4,725,642.00
Linear Assets & Project Management:								
Administration	367,002.00	358,527.05	397,620.00	384,710.01	396,515.00	152,000.00	548,515.00	565,074.00
Collections	5,961,486.00	5,514,647.88	6,213,600.00	6,034,927.72	6,653,860.00	83,276.00	6,737,136.00	6,785,439.00
Distribution	3,266,044.00	3,171,428.37	3,443,507.00	3,376,703.58	3,721,443.00	110,114.00	3,831,557.00	3,698,819.00
Project Management	663,959.00	646,901.04	646,588.00	611,144.13	699,007.00	(139,000.00)	560,007.00	632,112.00
Environmental Management	2,722,127.00	2,485,552.87	2,795,406.00	2,678,977.80	3,090,852.00	(3,700.00)	3,087,152.00	3,156,863.00
Customer Service	4,025,849.00	3,827,988.41	4,083,730.00	3,959,694.08	4,637,234.00	(124,962.00)	4,512,272.00	4,471,581.00
Nondepartmental	2,445,579.00	2,307,865.43	2,563,810.00	2,423,867.72	2,552,774.00	(61,322.00)	2,491,452.00	2,513,788.00
Debt Service	24,297,928.00	24,200,635.91	23,187,418.00	23,178,918.34	22,425,482.00	(228,930.00)	22,196,552.00	25,746,559.00
Contingency	1,063.00	-	11,080.00	-	-	30,340.00	30,340.00	-
TOTAL EXPENDITURES	**$ 64,899,155.00**	**$ 62,454,468.32**	**$ 66,547,304.00**	**$ 65,234,165.31**	**$ 69,054,722.00**	**$ (741,751.00)**	**$ 68,312,971.00**	**$ 71,979,681.00**
OTHER FINANCING SOURCES/(USES)								
Sale of Capital Assets	-	$ 152,212.80	$ 127,930.00	$ 155,105.94	$ 384,000.00	-	$ 384,000.00	-
Proceeds from Bonds/Debt	-	-	-	-	-	48,774,605.00	48,774,605.00	-
Proceeds from Refunding Bonds	34,200,000.00	32,890,000.00	-	-	-	-	-	-
Appropriated Fund Balance	5,720,098.00	-	694,910.00	-	500,000.00	89,319.00	589,319.00	500,000.00
Insurance Proceeds	-	-	225,000.00	226,175.82	-	-	-	-
Transfers to Capital Projects	(20,066,614.00)	(20,066,614.00)	(18,064,466.00)	(18,064,466.00)	(16,500,000.00)	(1,500,000.00)	(18,000,000.00)	(18,000,000.00)
Payment to Refunded Bond Escrow Agent	(33,960,000.00)	(32,729,049.60)	-	-	-	(48,105,675.00)	(48,105,675.00)	-
TOTAL OTHER FINANCING SOURCES/(USES)	**$ (14,106,516.00)**	**$ (19,753,450.80)**	**$ (17,016,626.00)**	**$ (17,683,184.24)**	**$ (15,616,000.00)**	**$ (741,751.00)**	**$ (16,357,751.00)**	**$ (17,500,000.00)**
CHANGE IN FUND BALANCE	**-**	**$ 3,311,040.30**	**-**	**$ 5,432,119.18**	**-**	**-**	**-**	**-**

Budget and Actual Expenditures Summarized by Department and Category

	2018 Adjusted Budget	2018 Actual	2019 Adjusted Budget	2019 Actual	2020 Adopted Budget	2020 Amendments & Transfers	2020 Adjusted Budget	2021 Adopted Budget
EXPENDITURES BY DEPARTMENT								
Authority Board	$ 62,371.00	$ 55,678.31	$ 64,710.00	$ 51,922.72	$ 63,058.00	-	$ 63,058.00	$ 60,103.00
Administration	1,229,462.00	1,189,271.70	962,090.00	955,811.82	1,189,981.00	(190,975.00)	999,006.00	1,120,726.00
Finance	1,196,909.00	1,154,182.99	1,223,692.00	1,208,028.35	1,268,232.00	15,000.00	1,283,232.00	1,327,609.00
Human Resources	533,379.00	514,463.11	563,180.00	532,530.12	602,049.00	-	602,049.00	699,244.00
Public & Environmental Policy	81,055.00	74,311.76	318,723.00	305,546.83	304,045.00	-	304,045.00	340,060.00
Information Technology	1,880,458.00	1,847,173.11	2,378,030.00	2,332,814.98	2,972,746.00	(149,815.00)	2,822,931.00	3,146,220.00
Treatment & Engineering Services:								
Administration	507,996.00	491,735.86	548,711.00	539,363.50	602,641.00	147,000.00	749,641.00	772,566.00
Engineering	1,565,631.00	1,531,784.71	1,435,646.00	1,402,591.55	1,439,248.00	-	1,439,248.00	1,511,662.00
Centralized Maintenance	2,872,316.00	2,723,823.72	3,349,627.00	3,268,304.44	2,945,577.00	496,805.00	3,442,382.00	3,547,632.00
Water Treatment	7,175,024.00	6,541,755.92	7,366,999.00	7,000,757.43	7,429,552.00	(126,557.00)	7,302,995.00	7,157,982.00
Wastewater Treatment	4,043,517.00	3,816,740.17	4,993,137.00	4,987,550.19	6,060,426.00	(751,025.00)	5,309,401.00	4,725,642.00
Linear Assets & Project Management:								
Administration	367,002.00	358,527.05	397,620.00	384,710.01	396,515.00	152,000.00	548,515.00	565,074.00
Collections	5,961,486.00	5,514,647.88	6,213,600.00	6,034,927.72	6,653,860.00	83,276.00	6,737,136.00	6,785,439.00
Distribution	3,266,044.00	3,171,428.37	3,443,507.00	3,376,703.58	3,721,443.00	110,114.00	3,831,557.00	3,698,819.00
Project Management	663,959.00	646,901.04	646,588.00	611,144.13	699,007.00	(139,000.00)	560,007.00	632,112.00
Environmental Management	2,722,127.00	2,485,552.87	2,795,406.00	2,678,977.80	3,090,852.00	(3,700.00)	3,087,152.00	3,156,863.00
Customer Service	4,025,849.00	3,827,988.41	4,083,730.00	3,959,694.08	4,637,234.00	(124,962.00)	4,512,272.00	4,471,581.00
Nondepartmental	2,445,579.00	2,307,865.43	2,563,810.00	2,423,867.72	2,552,774.00	(61,322.00)	2,491,452.00	2,513,788.00
Debt Service	24,297,928.00	24,200,635.91	23,187,418.00	23,178,918.34	22,425,482.00	(228,930.00)	22,196,552.00	25,746,559.00
Contingency	1,063.00	-	11,080.00	-	-	30,340.00	30,340.00	-
Transfers to Capital Projects	20,066,614.00	20,066,614.00	18,064,466.00	18,064,466.00	16,500,000.00	1,500,000.00	18,000,000.00	18,000,000.00
Payment to Refunded Bond Escrow Agent	33,960,000.00	32,729,049.60	-	-	-	48,105,675.00	48,105,675.00	-
TOTAL	**$ 118,925,769.00**	**$ 115,250,131.92**	**$ 84,611,770.00**	**$ 83,298,631.31**	**$ 85,554,722.00**	**$ 48,863,924.00**	**$ 134,418,646.00**	**$ 89,979,681.00**
EXPENDITURES BY CATEGORY								
Salaries & Benefits	$ 21,461,510.00	$ 20,780,009.05	$ 22,770,878.00	$ 22,348,150.48	$ 24,446,588.00	$ 107,000.00	$ 24,553,588.00	$ 25,755,773.00
Operating	18,984,837.00	17,365,814.42	20,411,336.00	19,619,155.49	22,007,510.00	(880,630.00)	21,126,880.00	20,228,877.00
Capital Outlay	153,817.00	108,008.94	166,592.00	87,941.00	175,142.00	230,469.00	405,611.00	248,472.00
Contingency	1,063.00	-	11,080.00	-	-	30,340.00	30,340.00	-
Debt Service	24,297,928.00	24,200,635.91	23,187,418.00	23,178,918.34	22,425,482.00	(228,930.00)	22,196,552.00	25,746,559.00
Transfers to Capital Projects	20,066,614.00	20,066,614.00	18,064,466.00	18,064,466.00	16,500,000.00	1,500,000.00	18,000,000.00	18,000,000.00
Payment to Refunded Bond Escrow Agent	33,960,000.00	32,729,049.60	-	-	-	48,105,675.00	48,105,675.00	-
TOTAL	**$ 118,925,769.00**	**$ 115,250,131.92**	**$ 84,611,770.00**	**$ 83,298,631.31**	**$ 85,554,722.00**	**$ 48,863,924.00**	**$ 134,418,646.00**	**$ 89,979,681.00**

Budgeted and Actual Expenditures by Department and Category

	2018 Adjusted Budget	2018 Actual	2019 Adjusted Budget	2019 Actual	2020 Adopted Budget	2020 Amendments & Transfers	2020 Adjusted Budget	2021 Adopted Budget
Authority Board								
Salaries & Benefits	$ 42,635.00	$ 40,968.54	$ 38,759.00	$ 38,338.80	$ 38,759.00	$ -	$ 38,759.00	$ 38,759.00
Operating	19,736.00	14,709.77	25,951.00	13,583.92	24,299.00	-	24,299.00	21,344.00
Total Authority Board	**$ 62,371.00**	**$ 55,678.31**	**$ 64,710.00**	**$ 51,922.72**	**$ 63,058.00**	**$ -**	**$ 63,058.00**	**$ 60,103.00**
Administration								
Salaries & Benefits	$ 460,978.00	$ 450,295.70	$ 432,163.00	$ 429,318.99	$ 544,174.00	$ -	$ 544,174.00	$ 588,228.00
Operating	768,484.00	738,976.00	529,927.00	526,492.83	645,807.00	(190,975.00)	454,832.00	532,498.00
Total Administration	**$ 1,229,462.00**	**$ 1,189,271.70**	**$ 962,090.00**	**$ 955,811.82**	**$ 1,189,981.00**	**$ (190,975.00)**	**$ 999,006.00**	**$ 1,120,726.00**
Finance								
Salaries & Benefits	$ 1,048,277.00	$ 1,015,522.11	$ 1,071,960.00	$ 1,060,842.38	$ 1,123,073.00	$ -	$ 1,123,073.00	$ 1,175,160.00
Operating	148,632.00	138,660.88	151,732.00	147,185.97	145,159.00	15,000.00	160,159.00	152,449.00
Total Finance	**$ 1,196,909.00**	**$ 1,154,182.99**	**$ 1,223,692.00**	**$ 1,208,028.35**	**$ 1,268,232.00**	**$ 15,000.00**	**$ 1,283,232.00**	**$ 1,327,609.00**
Human Resources								
Salaries & Benefits	$ 409,313.00	$ 402,679.86	$ 433,805.00	$ 426,724.37	$ 449,597.00	$ -	$ 449,597.00	$ 567,096.00
Operating	124,066.00	111,783.25	129,375.00	105,805.75	152,452.00	-	152,452.00	132,148.00
Total Human Resources	**$ 533,379.00**	**$ 514,463.11**	**$ 563,180.00**	**$ 532,530.12**	**$ 602,049.00**	**$ -**	**$ 602,049.00**	**$ 699,244.00**
Public & Environmental Policy								
Salaries & Benefits	$ 80,739.00	$ 74,045.62	$ 267,021.00	$ 256,859.51	$ 271,849.00	$ -	$ 271,849.00	$ 314,296.00
Operating	316.00	266.14	36,432.00	33,426.02	32,196.00	(7,660.00)	24,536.00	25,764.00
Capital Outlay	-	-	15,270.00	15,261.30	-	7,660.00	7,660.00	-
Total Public & Environmental Policy	**$ 81,055.00**	**$ 74,311.76**	**$ 318,723.00**	**$ 305,546.83**	**$ 304,045.00**	**$ -**	**$ 304,045.00**	**$ 340,060.00**
Information Technology								
Salaries & Benefits	$ 666,803.00	$ 663,938.16	$ 795,194.00	$ 792,933.29	$ 907,339.00	$ (24,000.00)	$ 883,339.00	$ 936,996.00
Operating	1,202,784.00	1,172,364.45	1,540,199.00	1,539,881.69	2,065,407.00	(151,635.00)	1,913,772.00	2,209,224.00
Capital Outlay	10,871.00	10,870.50	42,637.00	-	-	25,820.00	25,820.00	-
Total Information Technology	**$ 1,880,458.00**	**$ 1,847,173.11**	**$ 2,378,030.00**	**$ 2,332,814.98**	**$ 2,972,746.00**	**$ (149,815.00)**	**$ 2,822,931.00**	**$ 3,146,220.00**
Treatment & Engineering Services								
Administration								
Salaries & Benefits	$ 331,960.00	$ 330,849.21	$ 507,113.00	$ 506,562.64	$ 526,147.00	$ 171,000.00	$ 697,147.00	$ 727,598.00
Operating	176,036.00	160,886.65	41,598.00	32,800.86	76,494.00	(24,000.00)	52,494.00	44,968.00
Total Administration	**$ 507,996.00**	**$ 491,735.86**	**$ 548,711.00**	**$ 539,363.50**	**$ 602,641.00**	**$ 147,000.00**	**$ 749,641.00**	**$ 772,566.00**
Engineering								
Salaries & Benefits	$ 1,398,644.00	$ 1,381,370.13	$ 1,311,982.00	$ 1,304,125.99	$ 1,371,122.00	$ -	$ 1,371,122.00	$ 1,413,026.00
Operating	166,987.00	150,414.58	123,664.00	98,465.56	68,126.00	-	68,126.00	98,636.00
Total Engineering	**$ 1,565,631.00**	**$ 1,531,784.71**	**$ 1,435,646.00**	**$ 1,402,591.55**	**$ 1,439,248.00**	**$ -**	**$ 1,439,248.00**	**$ 1,511,662.00**

	2018 Adjusted Budget	2018 Actual	2019 Adjusted Budget	2019 Actual	2020 Adopted Budget	2020 Amendments & Transfers	2020 Adjusted Budget	2021 Adopted Budget
Centralized Maintenance								
Salaries & Benefits	$ 1,373,646.00	$ 1,301,726.59	$ 1,391,152.00	$ 1,385,667.26	$ 1,449,537.00	-	$ 1,449,537.00	$ 1,562,413.00
Operating	1,481,066.00	1,422,097.13	1,896,871.00	1,841,735.18	1,465,898.00	432,844.00	1,898,742.00	1,801,747.00
Capital Outlay	17,604.00	-	61,604.00	40,902.00	30,142.00	63,961.00	94,103.00	183,472.00
Total Centralized Maintenance	**$ 2,872,316.00**	**$ 2,723,823.72**	**$ 3,349,627.00**	**$ 3,268,304.44**	**$ 2,945,577.00**	**$ 496,805.00**	**$ 3,442,382.00**	**$ 3,547,632.00**
Wastewater Treatment								
Salaries & Benefits	$ 1,853,980.00	$ 1,793,597.19	$ 1,792,516.00	$ 1,785,796.22	$ 2,009,484.00	$ 107,000.00	$ 2,116,484.00	$ 2,203,699.00
Operating	2,161,473.00	2,023,142.98	3,183,040.00	3,169,976.27	3,980,942.00	(788,025.00)	3,192,917.00	2,521,943.00
Capital Outlay	28,064.00	-	17,581.00	31,777.70	70,000.00	(70,000.00)	-	-
Total Wastewater Treatment	**$ 4,043,517.00**	**$ 3,816,740.17**	**$ 4,993,137.00**	**$ 4,987,550.19**	**$ 6,060,426.00**	**$ (751,025.00)**	**$ 5,309,401.00**	**$ 4,725,642.00**
Water Treatment								
Salaries & Benefits	$ 1,760,969.00	$ 1,646,500.44	$ 1,856,851.00	$ 1,771,153.53	$ 2,153,352.00	$ 1,000.00	$ 2,154,352.00	$ 2,183,163.00
Operating	5,388,367.00	4,869,706.01	5,500,694.00	5,229,603.90	5,276,200.00	(213,375.00)	5,062,825.00	4,974,819.00
Capital Outlay	25,688.00	25,549.47	9,454.00	-	-	85,818.00	85,818.00	-
Total Water Treatment	**$ 7,175,024.00**	**$ 6,541,755.92**	**$ 7,366,999.00**	**$ 7,000,757.43**	**$ 7,429,552.00**	**$ (126,557.00)**	**$ 7,302,995.00**	**$ 7,157,982.00**
Liner Assets & Project Management								
Administration								
Salaries & Benefits	$ 346,084.00	$ 340,402.17	$ 383,648.00	$ 376,620.33	$ 376,753.00	$ 152,000.00	$ 528,753.00	$ 548,844.00
Operating	20,918.00	18,124.88	13,972.00	8,089.68	19,762.00	-	19,762.00	16,230.00
Total Administration	**$ 367,002.00**	**$ 358,527.05**	**$ 397,620.00**	**$ 384,710.01**	**$ 396,515.00**	**$ 152,000.00**	**$ 548,515.00**	**$ 565,074.00**
Collections								
Salaries & Benefits	$ 3,239,266.00	$ 3,143,854.86	$ 3,512,135.00	$ 3,472,950.02	$ 3,649,998.00	-	$ 3,649,998.00	$ 3,804,911.00
Operating	2,694,047.00	2,342,620.77	2,701,465.00	2,561,977.70	3,003,862.00	(22,146.00)	2,981,716.00	2,930,528.00
Capital Outlay	28,173.00	28,172.25	-	-	-	105,422.00	105,422.00	50,000.00
Total Collections	**$ 5,961,486.00**	**$ 5,514,647.88**	**$ 6,213,600.00**	**$ 6,034,927.72**	**$ 6,653,860.00**	**$ 83,276.00**	**$ 6,737,136.00**	**$ 6,785,439.00**
Distribution								
Salaries & Benefits	$ 2,244,610.00	$ 2,195,806.05	$ 2,415,097.00	$ 2,402,746.81	$ 2,580,176.00	$ 16,000.00	$ 2,596,176.00	$ 2,623,999.00
Operating	978,017.00	932,205.60	1,028,410.00	973,956.77	1,141,267.00	60,709.00	1,201,976.00	1,059,820.00
Capital Outlay	43,417.00	43,416.72	-	-	-	33,405.00	33,405.00	15,000.00
Total Distribution	**$ 3,266,044.00**	**$ 3,171,428.37**	**$ 3,443,507.00**	**$ 3,376,703.58**	**$ 3,721,443.00**	**$ 110,114.00**	**$ 3,831,557.00**	**$ 3,698,819.00**
Project Management								
Salaries & Benefits	$ 647,325.00	$ 634,260.18	$ 617,893.00	$ 595,515.39	$ 680,709.00	$ (139,000.00)	$ 541,709.00	$ 615,852.00
Operating	16,634.00	12,640.86	28,695.00	15,628.74	18,298.00	-	18,298.00	16,260.00
Total Project Management	**$ 663,959.00**	**$ 646,901.04**	**$ 646,588.00**	**$ 611,144.13**	**$ 699,007.00**	**$ (139,000.00)**	**$ 560,007.00**	**$ 632,112.00**
Environmental Management								
Salaries & Benefits	$ 1,981,850.00	$ 1,915,310.08	$ 2,109,776.00	$ 2,098,120.64	$ 2,270,623.00	-	$ 2,270,623.00	$ 2,437,001.00
Operating	740,277.00	570,242.79	685,630.00	580,857.16	820,229.00	(29,090.00)	791,139.00	719,862.00
Capital Outlay	-	-	-	-	-	25,390.00	25,390.00	-
Total Environmental Management	**$ 2,722,127.00**	**$ 2,485,552.87**	**$ 2,795,406.00**	**$ 2,678,977.80**	**$ 3,090,852.00**	**$ (3,700.00)**	**$ 3,087,152.00**	**$ 3,156,863.00**

	2018 Adjusted Budget	2018 Actual	2019 Adjusted Budget	2019 Actual	2020 Adopted Budget	2020 Amendments & Transfers	2020 Adjusted Budget	2021 Adopted Budget
Customer Service								
Salaries & Benefits	$ 3,034,431.00	$ 2,966,364.52	$ 3,233,813.00	$ 3,179,938.07	$ 3,543,896.00	$ (177,000.00)	$ 3,366,896.00	$ 3,514,732.00
Operating	991,418.00	861,623.89	829,871.00	779,756.01	1,018,338.00	99,045.00	1,117,383.00	956,849.00
Capital Outlay	-	-	20,046.00	-	75,000.00	(47,007.00)	27,993.00	-
Total Customer Service	**$ 4,025,849.00**	**$ 3,827,988.41**	**$ 4,083,730.00**	**$ 3,959,694.08**	**$ 4,637,234.00**	**$ (124,962.00)**	**$ 4,512,272.00**	**$ 4,471,581.00**
Nondepartmental	**$ 2,445,579.00**	**$ 2,307,865.43**	**$ 2,563,810.00**	**$ 2,423,867.72**	**$ 2,552,774.00**	**$ (61,322.00)**	**$ 2,491,452.00**	**$ 2,513,788.00**
Debt Service	**$ 24,297,928.00**	**$ 24,200,635.91**	**$ 23,187,418.00**	**$ 23,178,918.34**	**$ 22,425,482.00**	**$ (228,930.00)**	**$ 22,196,552.00**	**$ 25,746,559.00**
Contingency	**$ 1,063.00**	**-**	**$ 11,080.00**	**-**	**-**	**$ 30,340.00**	**$ 30,340.00**	**-**
Transfers to Capital Projects	**$ 20,066,614.00**	**$ 20,066,614.00**	**$ 18,064,466.00**	**$ 18,064,466.00**	**$ 16,500,000.00**	**$ 1,500,000.00**	**$ 18,000,000.00**	**$ 18,000,000.00**
Payment to Refunded Bond Escrow Agent	**$ 33,960,000.00**	**$ 32,729,049.60**	**-**	**-**	**-**	**$ 48,105,675.00**	**$ 48,105,675.00**	**-**
TOTAL	**$ 118,925,769.00**	**$ 115,250,131.92**	**$ 84,611,770.00**	**$ 83,298,631.31**	**$ 85,554,722.00**	**$ 48,863,924.00**	**$ 134,418,646.00**	**$ 89,979,681.00**

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.

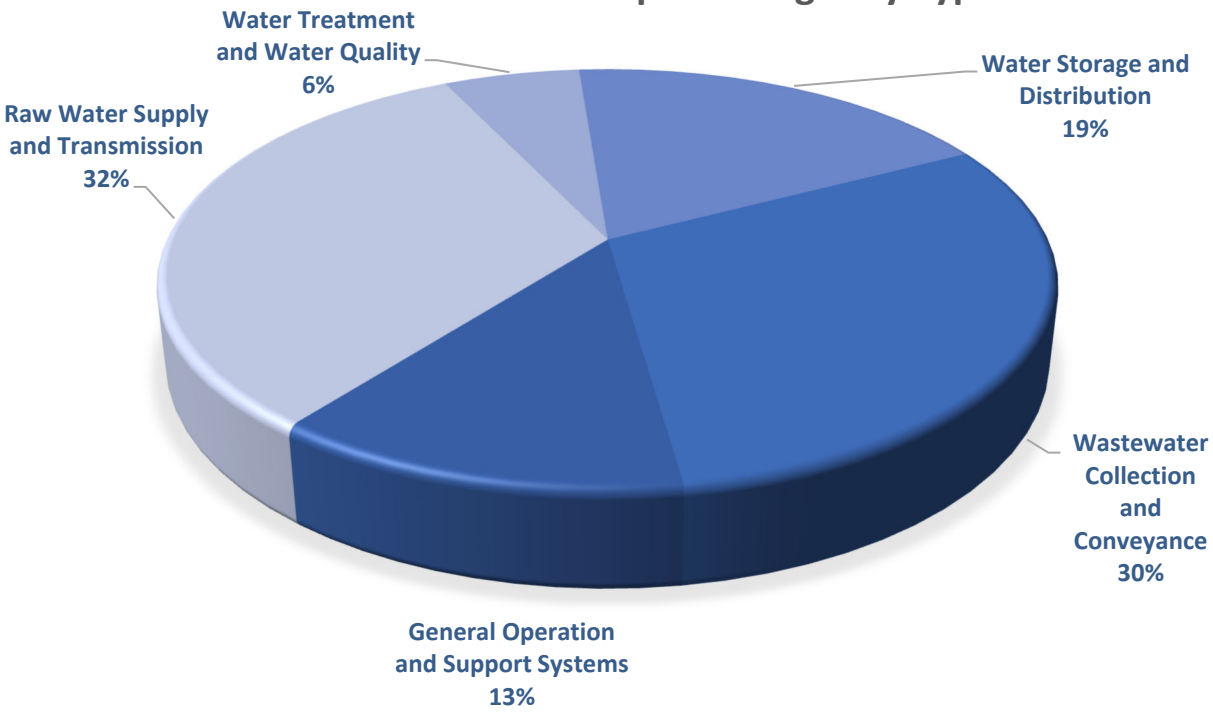
The capital budgeting process is also governed by certain financial limitations. Except for grants and capital contributions, the Authority's capital projects are funded through either annual operating revenue (pay-as-you-go funded) or with proceeds from the issuance of debt (debt funded). In accordance 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 20-21 are $18.0 million and $25.7 million, respectively. Combined, these appropriations comprise 48% of the FY 20-21 operating budget.

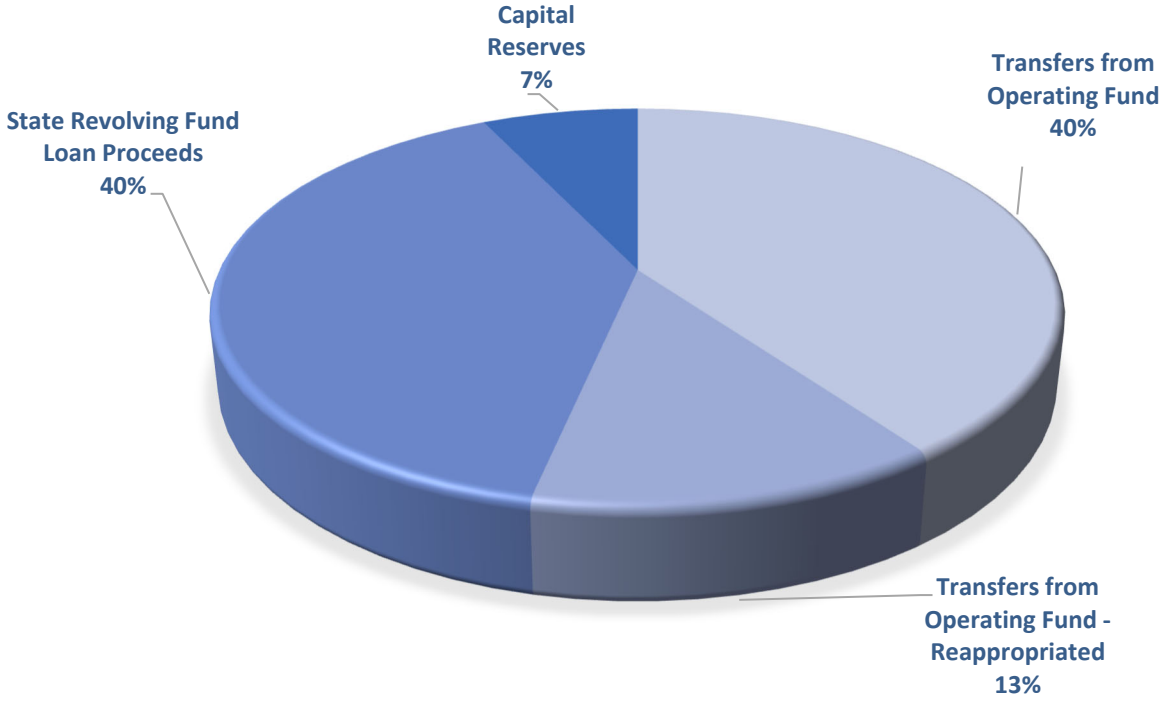
The FY 20-21 capital budget totals $25.5 million. A large portion (32%) of the FY 20-21 capital budget is focused on improving the transmission of the Authority's raw surface water supply including an $8 million project to rehabilitate the Authority's twin 24-inch transmission mains from Brunswick County's water treatment plant to the Sweeney Water Treatment Plant. Another 30% of the FY 20-21 capital budget is programmed for wastewater collection and conveyance including a $3.9 million upgrade to Pump Station #69 and $2 million in wastewater collection system rehabilitation under the Authority's Find It, Fix It program.

The pie charts on the following page detail project appropriations by type and the funding sources incorporated in the FY 20-21 capital budget.

Fiscal Year 2020-2021 Capital Budget by Type



Fiscal Year 2020-2021 Capital Budget Funding Sources



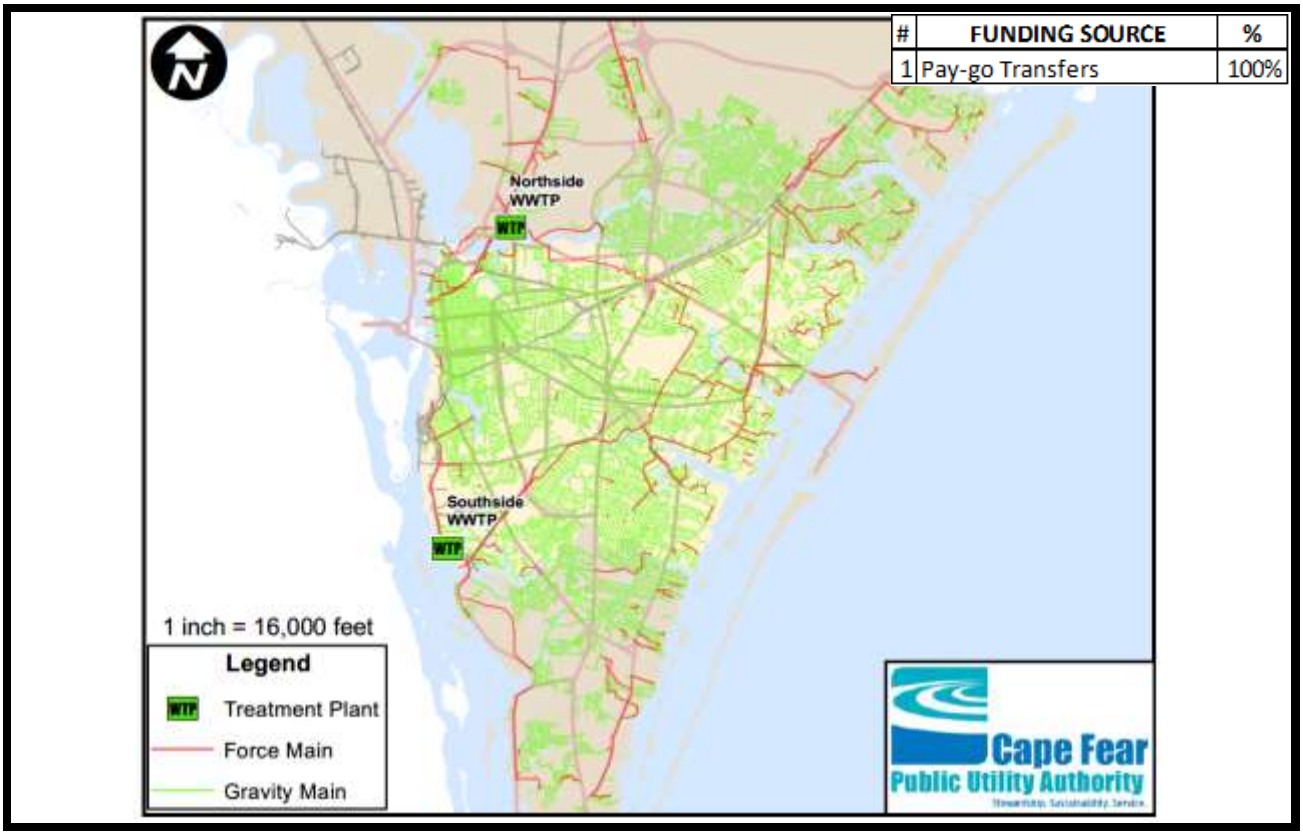
REFERENCE NUMBER	Sewer Emergency Repair	17S393
1		
Project Type:	Rehab or Replace Assets	
Project Area:	Wastewater Collection	

Summary:
This project funds emergency repair of sewer infrastructure if there is a failure prior to programmed replacement or rehabilitation.
Spending on sewer emergency repair in the last 5-years was as follows:
FY-19 - $1,740,486; FY-18 - $2,023,733; FY-17 - $355,211; FY-16 - $773,563; FY 15 - $817,430.

Project Drivers and Benefits:

- 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	$20,500,000	
Budgeted Prior To FY 2021	Requested FY 2021	Future Budget Needs
$15,500,000	$500,000	$4,500,000



Supports Strategic Plan:
1.2. Maintain a stable financial position that balances rates, affordability, the environment, and the organization's long-term capital and operating needs.

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 prioritized to be rehabbed or replaced.

The focus during FY-2021 remains on rehabilitating gravity sewer mains that are over 70 years old in downtown Wilmington and the surrounding vicinity.

CFPUA has approximately 904 miles of gravity sewer. Approximately 111 miles of gravity sewer mains in the City are over 70 years old.

Project Drivers and Benefits:

- 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	$34,500,000	
Budgeted Prior To FY 2021	Requested FY 2021	Future Budget Needs
$10,500,000	$2,000,000	$22,000,000

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%

Supports Strategic Plan:

1.2. Maintain a stable financial position that balances rates, affordability, the environment, and the organization's long-term capital and operating needs.

REFERENCE NUMBER	Water Main and Valve Rehab/Replace (AMP)	17W244
27		
Project Type:	Rehab or Replace Assets	
Project Area:	Water Distribution	

Summary:

Areas of our distribution system are beyond their designed life cycle. Utilizing asset management principles, including risk mitigation and remaining useful life, assets are prioritized to be rehabbed or replaced.

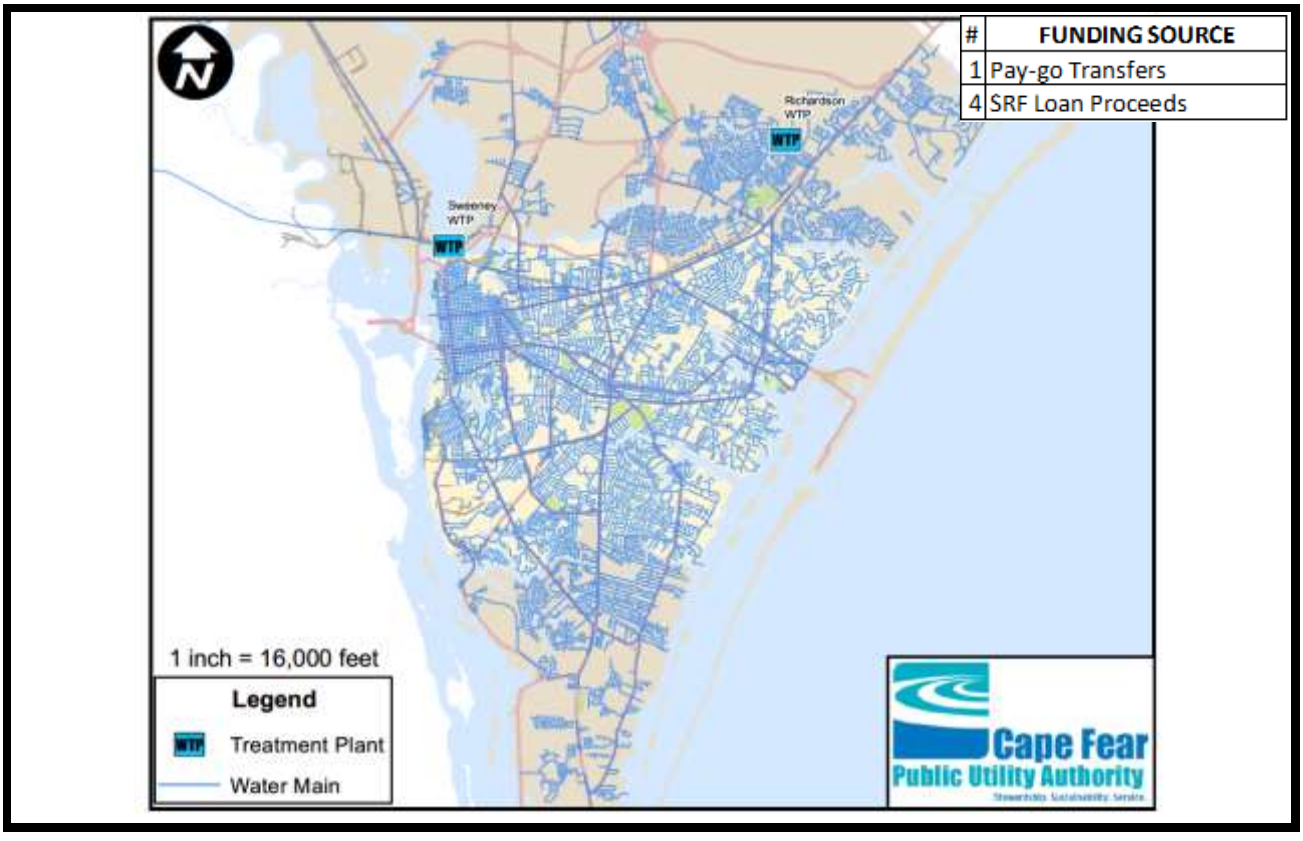
The focus during FY-2021 remains on replacing or rehabilitating water distribution mains and valves that are over 70 years old in downtown Wilmington and the surrounding vicinity. Water services are composed of galvanized pipe and lead goosenecks are being inventoried and replaced in these projects.

CFPUA has approximately 1,144 miles of water distribution mains. Approximately 165 miles of water mains in the City are over 70 years old.

Project Drivers and Benefits:

- 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	$52,700,000	
Budgeted Prior To FY 2021	Requested FY 2021	Future Budget Needs
$1,200,000	$1,000,000	$50,500,000



Supports Strategic Plan:

1.2. Maintain a stable financial position that balances rates, affordability, the environment, and the organization's long-term capital and operating needs.

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.

Project Drivers and Benefits:

- 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	$1,949,284	
Budgeted Prior To FY 2021	Requested FY 2021	Future Budget Needs
$949,284	$100,000	$900,000

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%

Supports Strategic Plan:

5.4. Acquire and implement technologies and tools that allow for enhanced interdepartmental collaboration, enterprise-wide sharing of information, and operational efficiencies.

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 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.

Project Drivers and Benefits:

- 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	$9,126,197	
Budgeted Prior To FY 2021	Requested FY 2021	Future Budget Needs
$3,126,197	$600,000	$5,400,000

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%

Supports Strategic Plan:

1.2. Maintain a stable financial position that balances rates, affordability, the environment, and the organization's long-term capital and operating needs.

This Project Is Not Risk Driven

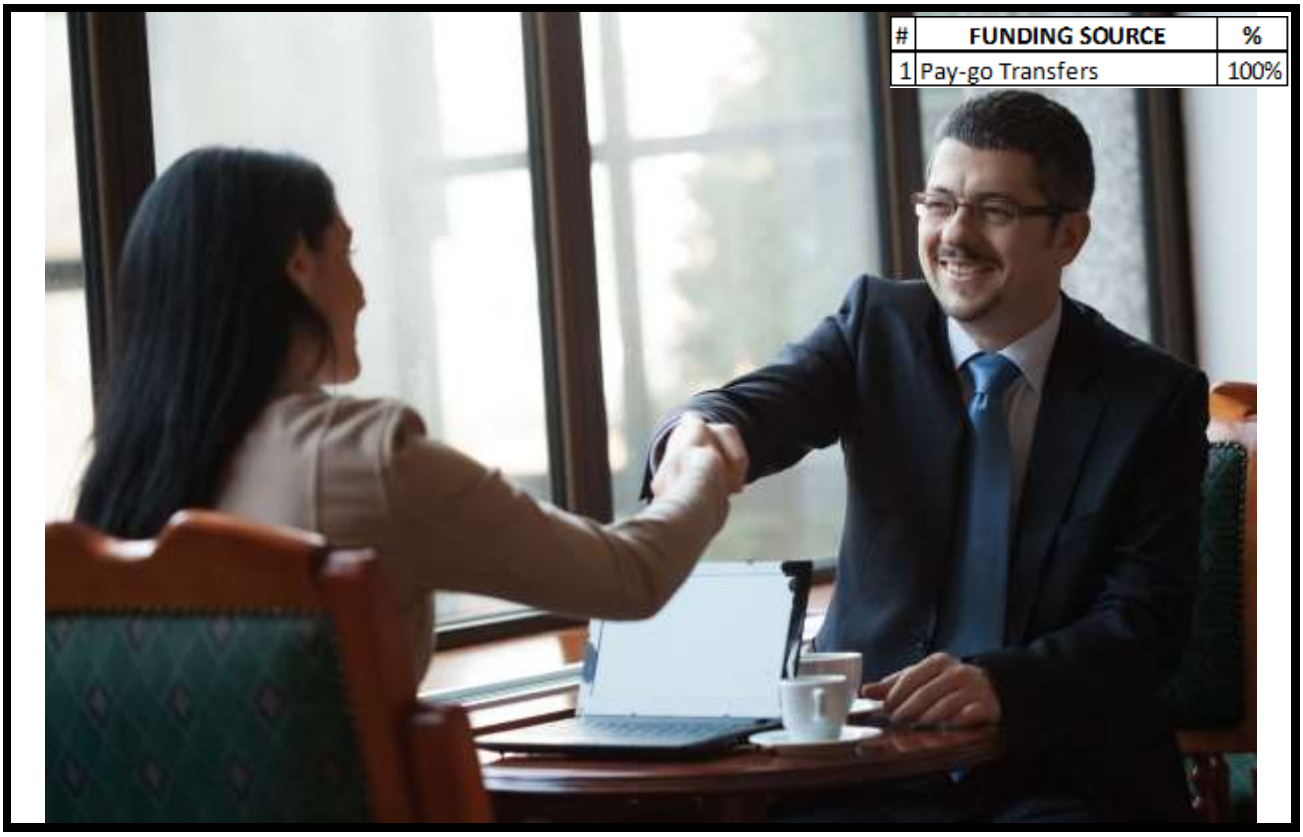
REFERENCE NUMBER	Collection System - Standard Developer Agreements	17S399
38		
Project Type:	Expansion	
Project Area:	Wastewater Collection	

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.

Project Drivers and Benefits:

- 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	$2,300,000	
Budgeted Prior To FY 2021	Requested FY 2021	Future Budget Needs
$800,000	$150,000	$1,350,000



#	FUNDING SOURCE	%
1	Pay-go Transfers	100%

Supports Strategic Plan:
2.3. Develop process improvement initiatives that are cost-effective, compliant, and address the needs of our customers and the organization.

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.

Project Drivers and Benefits:

- 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	$2,300,000	
Budgeted Prior To FY 2021	Requested FY 2021	Future Budget Needs
$800,000	$150,000	$1,350,000

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%

Supports Strategic Plan:
2.3. Develop process improvement initiatives that are cost-effective, compliant, and address the needs of our customers and the organization.

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.

Project Drivers and Benefits:

- 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	$7,249,307	
Budgeted Prior To FY 2021	Requested FY 2021	Future Budget Needs
$2,249,307	$500,000	$4,500,000

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%

Supports Strategic Plan:
1.2. Maintain a stable financial position that balances rates, affordability, the environment, and the organization's long-term capital and operating needs.

REFERENCE NUMBER	PS - 69 Motts Creek Pump Station Upgrade	15S307
55		
Project Type:	Expansion	
Project Area:	Wastewater Collection	

Summary:
Motts Creek Pump Station will need to be upgraded to manage future pumping conditions created by the planned Southside WWTP upgrade. The pump station serves the entire southern region of New Hanover County beginning from the Monkey Junction area. This area is expected to continue growing and developing. Capacity upgrades are needed to serve future demands for sewer.

Project Drivers and Benefits:

- 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	$4,187,250	
Budgeted Prior To FY 2021	Requested FY 2021	Future Budget Needs
$287,250	$3,900,000	$0

#	FUNDING SOURCE	%
4	SRF Loan Proceeds	100%

Supports Strategic Plan:
1.1. Understand, anticipate, and respond to our customers and our community's needs in a professional, prompt, and efficient manner.

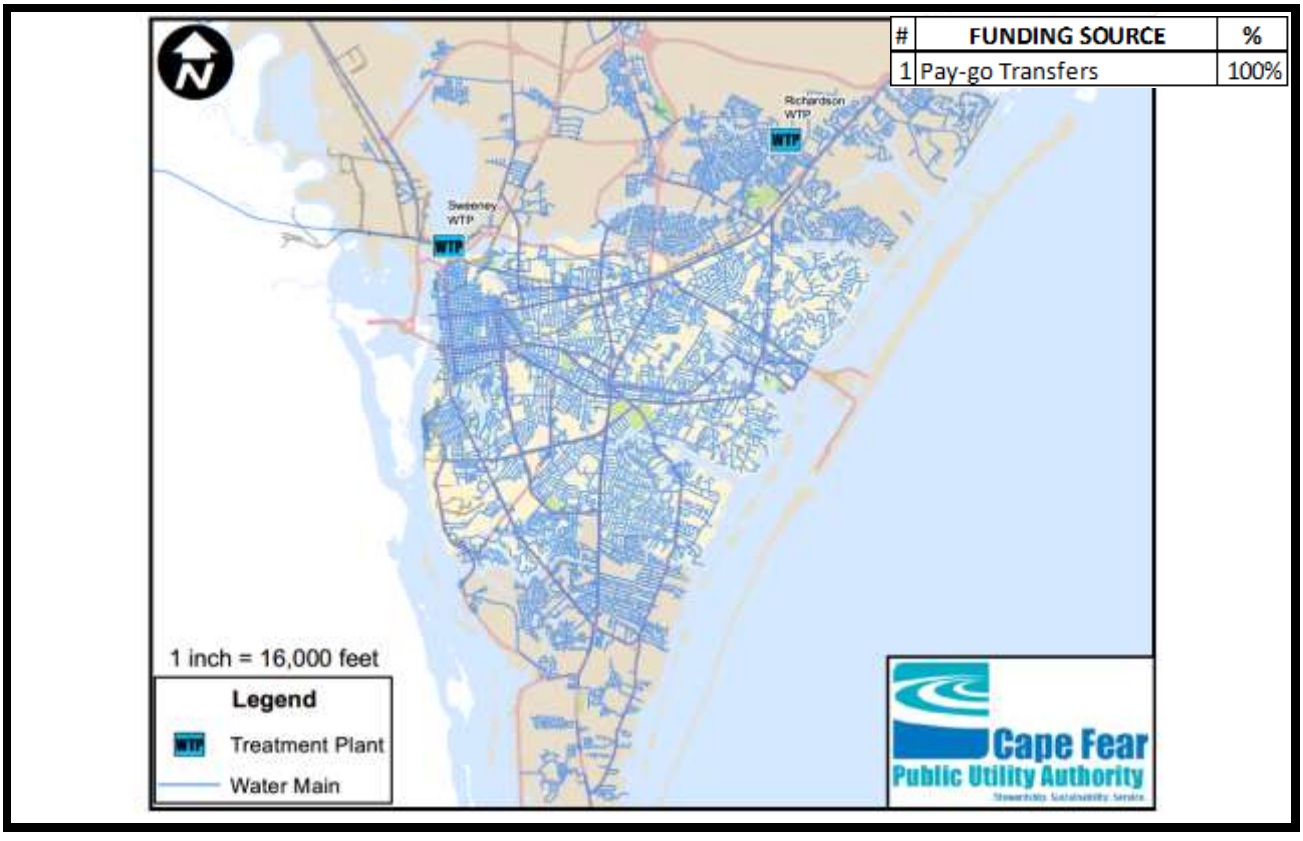
REFERENCE NUMBER	Water Emergency Repair	16W223
57		
Project Type:	Rehab or Replace Assets	
Project Area:	Water Distribution	

Summary:
Funding to address emergency water repair.
Spending on water emergency repair in the last 3 years was as follows:
FY-17 - $2,168,190; FY-18 - $229,083; FY-19 - $1,740,486

Project Drivers and Benefits:

- 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	$2,933,845	
Budgeted Prior To FY 2021	Requested FY 2021	Future Budget Needs
$433,845	$250,000	$2,250,000



Supports Strategic Plan:
3.1. Consistently maintain and operate the utility, and all its human and physical assets, in a manner that optimizes the care and use of water and other natural resources.

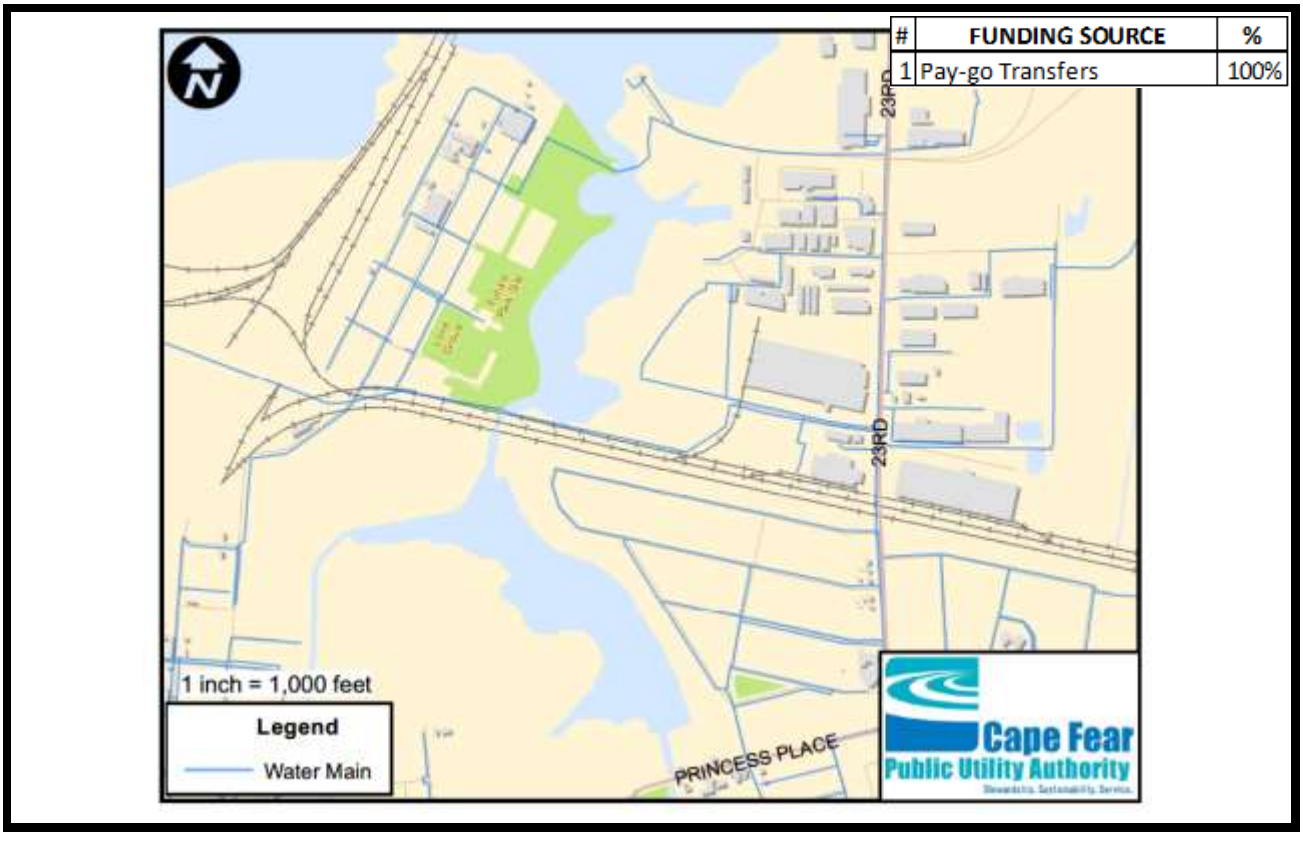
REFERENCE NUMBER	Cross Town Feeder Under Burnt Mill Creek Rehab/Replace	20W003
95		
Project Type:	Rehab or Replace Assets	
Project Area:	Water Distribution	

Summary:
Crosstown feeder is at a shallow depth under Burnt Mill Creek. Pipe is exposed, allowing potential damage and failure. Project will rehab existing line under the creek while constructing a duplicate redundant line at a deeper depth.

Project Drivers and Benefits:

- 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	$500,000	
Budgeted Prior To FY 2021	Requested FY 2021	Future Budget Needs
$150,000	$350,000	$0



Supports Strategic Plan:
3.1. Consistently maintain and operate the utility, and all its human and physical assets, in a manner that optimizes the care and use of water and other natural resources.

REFERENCE NUMBER	Rehabilitate or Replace Twin 24-Inch Raw Water Mains	20W001
96		
Project Type:	Rehab or Replace Assets	
Project Area:	Water Treatment	

Summary:

Two aerial 24-inch diameter raw water mains are set on pilings directly in the flow path of the Lower Cape Fear River and Toomers Creek during flood events, such as experienced in September 2018 during Hurricane Florence. In addition, these mains are parallel to active railroad tracks subject to damage in the event of a rail accident. These mains convey 10 million gallons per day (MGD) of CFPUA's raw water supply. These 24-inch cast iron pipes are above grade on wooden pier supports. The north main was installed in the 1920s and the south main was installed in the 1950s. The cast iron pipe itself was deemed to be structurally sound in 2009. However, failing wooden pilings, leaking lead joints and potential exposure to natural and manmade disasters elevate the risk of failure to a critical level. This project will rehabilitate or replace the most vulnerable portion of the infrastructure.

Project Drivers and Benefits:

- 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	$8,100,000	
Budgeted Prior To FY 2021	Requested FY 2021	Future Budget Needs
$100,000	$8,000,000	$0

#	FUNDING SOURCE	%
4	SRF Loan Proceeds	100%

Supports Strategic Plan:

3.1. Consistently maintain and operate the utility, and all its human and physical assets, in a manner that optimizes the care and use of water and other natural resources.

REFERENCE NUMBER	Generator Rehab and Replacement Program (AMP)	18A001
110		
Project Type:	Rehab or Replace Assets	
Project Area:	Other	

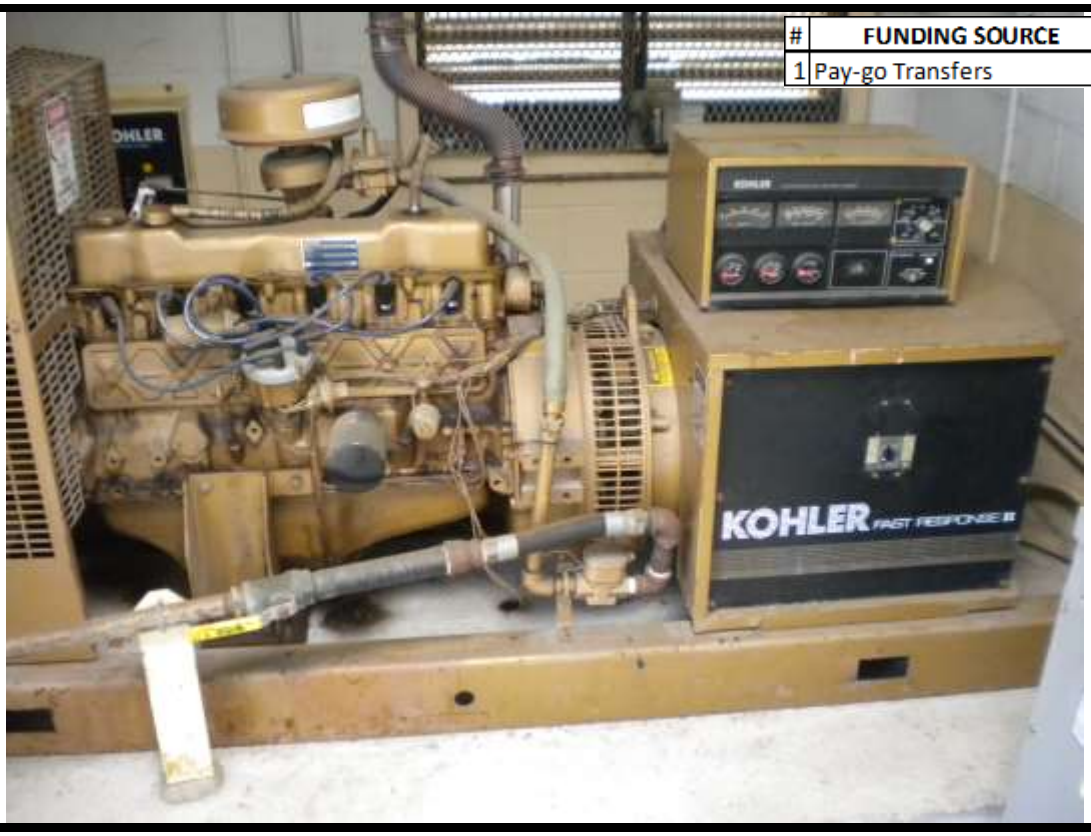
Summary:

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.

Project Drivers and Benefits:

- 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	$5,387,500	
Budgeted Prior To FY 2021	Requested FY 2021	Future Budget Needs
$387,500	$500,000	$4,500,000



#	FUNDING SOURCE	%
1	Pay-go Transfers	100%

Supports Strategic Plan:

3.1. Consistently maintain and operate the utility, and all its human and physical assets, in a manner that optimizes the care and use of water and other natural resources.

REFERENCE NUMBER	IT SCADA and Security	19A001
114		
Project Type:	Rehab or Replace Assets	
Project Area:	Other	

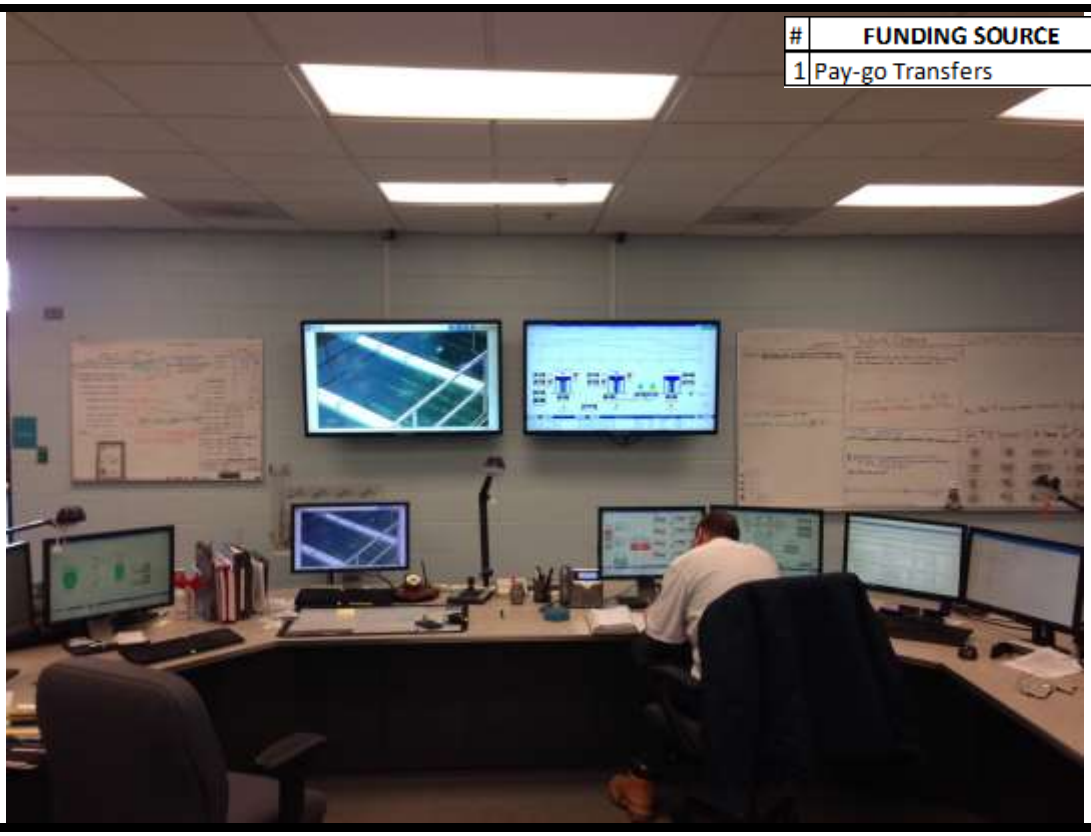
Summary:
The SCADA system at CFPUA's facilities are becoming obsolete. Due to cyber security demands, standardization, centralized management, and to reduce future integration costs, SCADA is being migrated to an updated HMI platform. All hardware has been procured, configured and installed. Purchase and installation of new applications is planned at every plant over the next several years. SCADA controls are necessary for compliant and efficient operation of each facility and protecting the security of those assets is an ongoing effort that requires annual funding.

Project Drivers and Benefits:

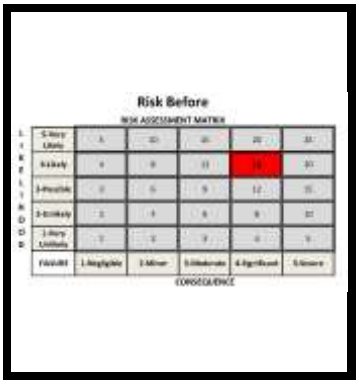
- COMPLIANCE 50%: Required for compliance with additional benefits.
- EFFICIENCY 50%: Increase in efficiency with additional benefits.
- CAPACITY 0%: No direct Impact on capacity.
- GROWTH 0%: No direct Impact on customer growth.

Total Estimated Cost	$7,768,073	
Budgeted Prior To FY 2021	Requested FY 2021	Future Budget Needs
$268,073	$750,000	$6,750,000

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%



Supports Strategic Plan:
5.1. Adopt state-of-the-art tools, systems, and processes that prepare CFPUA for future technological advancements.



REFERENCE NUMBER	Richardson WTP 3 MGD Expansion	16W210
122		
Project Type:	Expansion	
Project Area:	Water Treatment	

Summary:

Favorable economic conditions continue to drive growth and higher density development resulting in more customers needing water. The plant was designed for expansion. This project will increase the capacity from 6 to 9 million gallons per day. This requires expansion of treatment capacity in the existing footprint, 12 additional production wells, and 5 miles of raw water mains from the wells to the plant. This project was formerly named Richardson Raw Water Supply, Chemistry and Membranes. As the need for a capacity increase became clear, the project was renamed due to the expanded scope.

Project Drivers and Benefits:

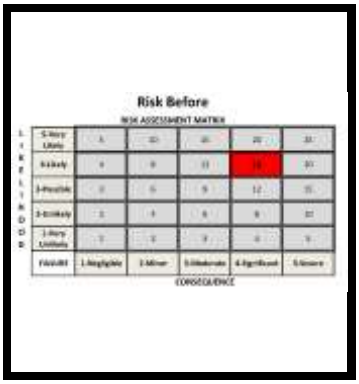
- COMPLIANCE 25%: Some enhancement to compliance with substantial other benefits.
- EFFICIENCY 0%: No direct Impact on efficiency.
- CAPACITY 75%: Significant increase in capacity with some other beneficial considerations.
- GROWTH 0%: No direct Impact on customer growth.

Total Estimated Cost	$23,146,000	
Budgeted Prior To FY 2021	Requested FY 2021	Future Budget Needs
$3,146,000	$1,500,000	$18,500,000

#	FUNDING SOURCE
1	Pay-go Transfers
6	Capital Reserve

Supports Strategic Plan:

1.1. Understand, anticipate, and respond to our customers and our community's needs in a professional, prompt, and efficient manner.



REFERENCE NUMBER	Pump Stations Prioritization and Rehabilitation	19S003
126		
Project Type:	Rehab or Replace Assets	
Project Area:	Wastewater Collection	

Summary:
CFPUA has 17 sewer pump stations that are known to be past 40 years old and in need of rehabilitation or replacement. Through asset management, staff annually evaluates these pump stations for condition and consequence. Designs for PS-32 and PS-51 are being completed in FY-2020 with construction planned with FY-2021 funds.

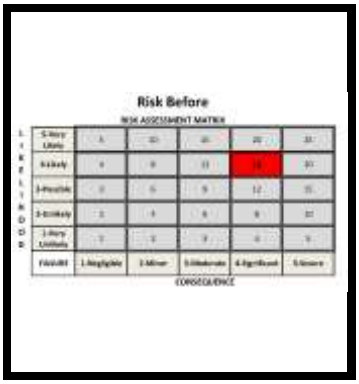
Project Drivers and Benefits:

- 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	$10,165,000	
Budgeted Prior To FY 2021	Requested FY 2021	Future Budget Needs
$165,000	$1,000,000	$9,000,000

#	FUNDING SOURCE
1	Pay-go Transfers
4	SRF Loan Proceeds

Supports Strategic Plan:
3.1. Consistently maintain and operate the utility, and all its human and physical assets, in a manner that optimizes the care and use of water and other natural resources.



REFERENCE NUMBER	Large Water Meter Vault Replacement	17W262
134		
Project Type:	Rehab or Replace Assets	
Project Area:	Water Distribution	

Summary:
Replace or repair large meter vaults or meter vault lids that may pose a hazard to the public and CFPUA personnel because of condition. Currently there are over 50 vaults identified that need work.

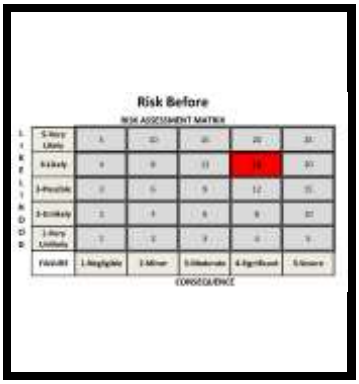
Project Drivers and Benefits:

- 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	$3,285,000	
Budgeted Prior To FY 2021	Requested FY 2021	Future Budget Needs
$285,000	$300,000	$2,700,000

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%

Supports Strategic Plan:
3.3. Comply and many times surpass federal, state, county, city, and industry standards.



REFERENCE NUMBER	Facilities Structural and Roof Assessment and Rehab/Replace (AMP)	20A001
136		
Project Type:	Rehab or Replace Assets	
Project Area:	Other	

Summary:
CFPUA assets include buildings, tanks and other structures made of concrete, steel and other materials approaching end of lifecycle. This project assesses, prioritizes, rehabs or replaces damaged areas of these structures. Roofs and structures that are passed their lifecycle at the Southside Plant are high priorities so that the life of the plant can be extended until the major rehabilitation and capacity upgrade can be completed.

Project Drivers and Benefits:

- 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	$4,300,000	
Budgeted Prior To FY 2021	Requested FY 2021	Future Budget Needs
$100,000	$100,000	$4,100,000

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%

Supports Strategic Plan:
3.1. Consistently maintain and operate the utility, and all its human and physical assets, in a manner that optimizes the care and use of water and other natural resources.

REFERENCE NUMBER	Kings Bluff Pump Station - Northside WWTP Generator Relocate	17W250
137		
Project Type:	Enhancement	
Project Area:	Water Treatment	

Summary:
In FY-2020 funding was programmed to replace a generator at Northside Wastewater Treatment Plant. The generator that was replaced is being inspected, restored and moved to a lower risk location at Kings Bluff Pump Station.

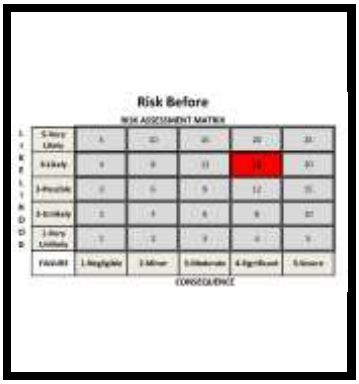
Project Drivers and Benefits:

- 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	$3,168,280	
Budgeted Prior To FY 2021	Requested FY 2021	Future Budget Needs
$2,918,280	$250,000	$0

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%

Supports Strategic Plan:
3.1. Consistently maintain and operate the utility, and all its human and physical assets, in a manner that optimizes the care and use of water and other natural resources.



REFERENCE NUMBER	Ogden Corridor Water Interconnector	
140		
Project Type:	Enhancement	
Project Area:	Water Distribution	

Summary:
The Ogden Corridor Water Interconnector will increase the supply of surface water treated at Sweeney Water Treatment Plant to the distribution in the Middle Sound area and interconnect with the ground water system supplied by Richardson Water Treatment Plant for resiliency during event management and to provide incremental capacity during the upgrade of the Richardson Water Treatment Plant and Well Field.

Project Drivers and Benefits:

- COMPLIANCE 25%: Some enhancement to compliance with substantial other benefits.
- EFFICIENCY 50%: Increase in efficiency with additional benefits.
- CAPACITY 25%: Some increase in capacity with substantial other benefits.
- GROWTH 0%: No direct Impact on customer growth.

Total Estimated Cost	$2,500,000	
Budgeted Prior To FY 2021	Requested FY 2021	Future Budget Needs
$0	$2,500,000	$0

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%

Supports Strategic Plan:
3.1. Consistently maintain and operate the utility, and all its human and physical assets, in a manner that optimizes the care and use of water and other natural resources.

This Project Is Not Risk Driven

REFERENCE NUMBER	Wastewater Master Plan and Wet Weather Model	
146		
Project Type:	Expansion	
Project Area:	Wastewater Collection	

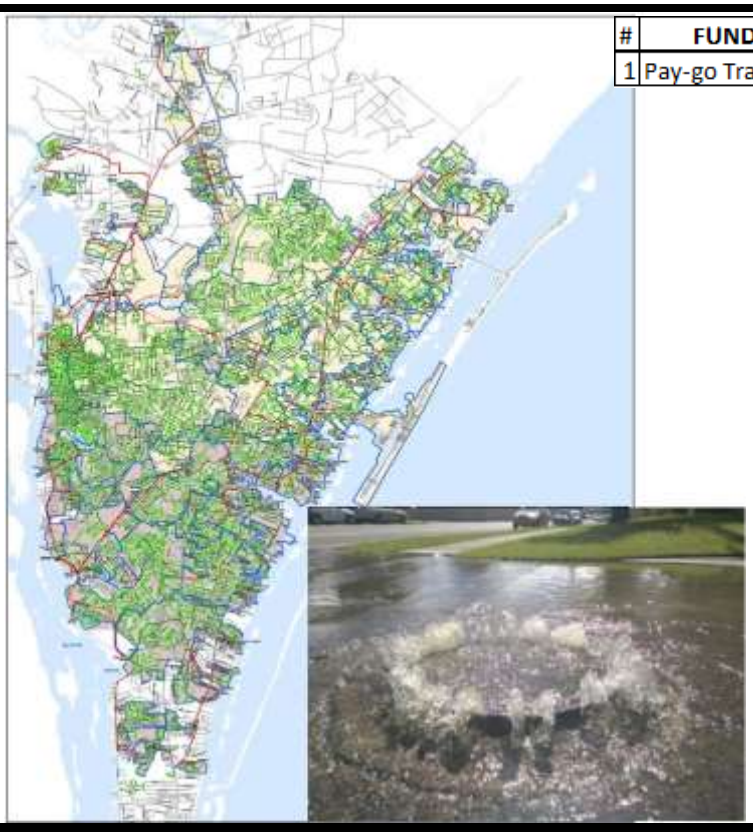
Summary:
The Wastewater Master Plan will evaluate and optimize the investment in the sewer collection system to keep pace with growth. The Wet Weather Model will help to identify areas with infiltration and inflow of clean water into the system. Identifying, then eliminating infiltration and inflow through gravity sewer rehabilitation reduces energy costs and carbon emissions by reducing pumping and treatment energy use.

Project Drivers and Benefits:

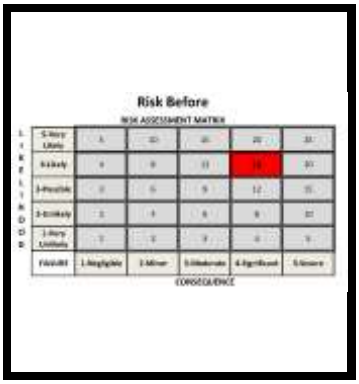
- COMPLIANCE 0%: No direct impact on compliance.
- EFFICIENCY 50%: Increase in efficiency with additional benefits.
- CAPACITY 50%: Increase in capacity with additional benefits.
- GROWTH 0%: No direct Impact on customer growth.

Total Estimated Cost	$200,000	
Budgeted Prior To FY 2021	Requested FY 2021	Future Budget Needs
$0	$200,000	$0

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%



Supports Strategic Plan:
2.3. Develop process improvement initiatives that are cost-effective, compliant, and address the needs of our customers and the organization.



REFERENCE NUMBER	Systemwide CCTV and Security Upgrades	20A002
148		
Project Type:	Enhancement	
Project Area:	Other	

Summary:
CFPUA's facilities rely on CCTV and access systems to protect them from intruders and vandalism. Investing these security upgrades across facilities is necessary.

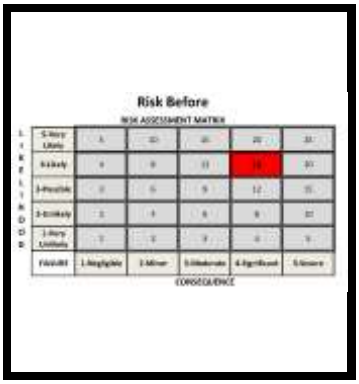
Project Drivers and Benefits:

- 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 Prior To FY 2021	Requested FY 2021	Future Budget Needs
$50,000	$250,000	$0

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%

Supports Strategic Plan:
5.1. Adopt state-of-the-art tools, systems, and processes that prepare CFPUA for future technological advancements.



REFERENCE NUMBER	EMD HVAC Phase 2	16W213
149		
Project Type:	Enhancement	
Project Area:	Other	

Summary:
During an assessment of the Heating, Ventilation, Air Conditioning units that cool the Environmental Management Division building on Groundwater Way, additional problems were encountered. This project will address those issues. HVAC system at the EMD facility has also been experiencing failures and volatility in both temperature and humidity.

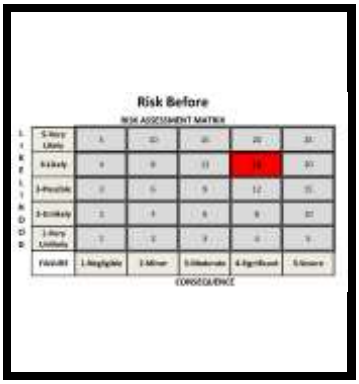
Project Drivers and Benefits:

- 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	$1,380,000	
Budgeted Prior To FY 2021	Requested FY 2021	Future Budget Needs
$910,000	$470,000	$0

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%

Supports Strategic Plan:
3.1. Consistently maintain and operate the utility, and all its human and physical assets, in a manner that optimizes the care and use of water and other natural resources.



REFERENCE NUMBER	Large Meter Replacement Program	
150		
Project Type:	Rehab or Replace Assets	
Project Area:	Water Distribution	

Summary:
CFPUA has approximately 310 large water meters (3-inches or larger). A majority of these meters are approaching the end of their useful life, meaning a reduction in reading accuracy. A previous project replaced meters smaller than 3-inches in diameter. This project addresses the need to properly bill our largest water customers.

Project Drivers and Benefits:

- 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	$2,000,000	
Budgeted Prior To FY 2021	Requested FY 2021	Future Budget Needs
$0	$200,000	$1,800,000

#	FUNDING SOURCE	%
1	Pay-go Transfers	100%

Supports Strategic Plan:
3.1. Consistently maintain and operate the utility, and all its human and physical assets, in a manner that optimizes the care and use of water and other natural resources.

PROJECTED OPERATING BUDGET IMPACTS FROM FY-2021 CIP

Reference Number	Capital Project	Current Project #	Amount Budgeted Prior to FY-21 Budgeted	FY-21 Budgeted	FY-22 to FY-30 Annual Planned	Total Cumulative Project Cost Planned	Estimated Completion Fiscal Year	Quantifiable Annual Operating Budget Impact Expected	Unquantifiable Annual Operating Budget Impact Expected	Annual Operating Budget Impact Comments
All dollar amounts are shown in 2020 dollars. No adjustments are made for projected inflation or deflation.										
1	Sewer Emergency Repair	17S393	$15,500,000	$500,000	$4,500,000	$20,500,000	Annual		Future Operating Budget Decrease	This project rehabilitates existing infrastructure that is at the end of its lifecycle. Long term efficiency gains are expected but cannot yet be quantified.
4	Find It, Fix It Methodology Sewer Collection Rehabilitation (AMP)	17S394	$10,500,000	$2,000,000	$22,000,000	$34,500,000	Annual		Future Operating Budget Decrease	This project rehabilitates existing infrastructure that is at the end of its lifecycle. Long term efficiency gains are expected but cannot yet be quantified.
27	Water Main and Valve Rehab/Replace (AMP)	17W244	$1,200,000	$1,000,000	$50,500,000	$52,700,000	Annual		Future Operating Budget Decrease	This project rehabilitates existing infrastructure that is at the end of its lifecycle. Long term efficiency gains are expected but cannot yet be quantified.
30	Information Technology Networking Infrastructure Replacement	16A007	$949,284	$100,000	$900,000	$1,949,284	Annual		Future Operating Budget Decrease	This project rehabilitates existing infrastructure that is at the end of its lifecycle. Long term efficiency gains are expected but cannot yet be quantified.
34	Motor Fleet Capital	17A013	$3,126,197	$600,000	$5,400,000	$9,126,197	Annual		Future Operating Budget Decrease	The project replaces fleet vehicles past their lifecycle with savings that cannot be quantified without implementation.
38	Collection System - Standard Developer Agreements	17S399	$800,000	$150,000	$1,350,000	$2,300,000	Annual		Future Operating Budget Decrease	Revenues from any new customers expected to be offset by increased operating cost of new infrastructure.
39	Distribution System - Standard Developer Agreements	17W248	$800,000	$150,000	$1,350,000	$2,300,000	Annual		Future Operating Budget Decrease	Revenues from any new customers expected to be offset by increased operating cost of new infrastructure.
40	OPS Large Equipment Purchases (Pumps, Plant Equipment, HVAC)	17A012	$2,249,307	$500,000	$4,500,000	$7,249,307	Annual		Future Operating Budget Decrease	This project rehabilitates existing infrastructure that is at the end of its lifecycle. Long term efficiency gains are expected but cannot yet be quantified.
55	PS - 69 Motts Creek Pump Station Upgrade	15S307	$287,250	$3,900,000	$0	$4,187,250	2021		Future Operating Budget Decrease	Revenues from any new customers expected to be offset by increased operating cost of new infrastructure.
57	Water Emergency Repair	16W223	$433,845	$250,000	$2,250,000	$2,933,845	Annual		Future Operating Budget Decrease	This project rehabilitates existing infrastructure that is at the end of its lifecycle. Long term efficiency gains are expected but cannot yet be quantified.
95	Cross Town Feeder Under Burnt Mill Creek Rehab/Replace	20W003	$150,000	$350,000	$0	$500,000	2022		Future Operating Budget Decrease	This project rehabilitates existing infrastructure that is at the end of its lifecycle. Long term efficiency gains are expected but cannot yet be quantified.
96	Rehabilitate or Replace Twin 24-Inch Raw Water Mains	20W001	$100,000	$8,000,000	$0	$8,100,000	Annual		Future Operating Budget Decrease	This project rehabilitates existing infrastructure that is at the end of its lifecycle. Long term efficiency gains are expected but cannot yet be quantified.
110	Generator Rehab and Replacement Program (AMP)	18A001	$387,500	$500,000	$4,500,000	$5,387,500	Annual		Future Operating Budget Decrease	This project rehabilitates existing infrastructure that is at the end of its lifecycle. Long term efficiency gains are expected but cannot yet be quantified.
114	IT SCADA and Security	19A001	$268,073	$750,000	$6,750,000	$7,768,073	2023		Future Operating Budget Decrease	The project enables process improvements that lead to efficiencies that cannot be quantified without implementation.
122	Richardson WTP 3 MGD Expansion	16W210	$3,146,000	$1,500,000	$18,500,000	$23,146,000	2024		Future Operating Budget Decrease	Revenues from any new customers expected to be offset by increased operating cost of new infrastructure.
126	Pump Stations Prioritization and Rehabilitation	19S003	$165,000	$1,000,000	$9,000,000	$10,165,000	2023		Future Operating Budget Decrease	This project rehabilitates existing infrastructure that is at the end of its lifecycle. Long term efficiency gains are expected but cannot yet be quantified.
134	Large Water Meter Vault Replacement	17W262	$285,000	$300,000	$2,700,000	$3,285,000	2026		Future Operating Budget Decrease	This project rehabilitates existing infrastructure that is at the end of its lifecycle. Long term efficiency gains are expected but cannot yet be quantified.
136	Facilities Structural and Roof Assessment and Rehab/Replace (AMP)	20A001	$100,000	$100,000	$4,100,000	$4,300,000	2030		Future Operating Budget Decrease	This project rehabilitates existing infrastructure that is at the end of its lifecycle. Long term efficiency gains are expected but cannot yet be quantified.
137	Kings Bluff Pump Station - Northside WWTP Generator Relocate	17W250	$2,918,280	$250,000	$0	$3,168,280	2021		Future Operating Budget Decrease	This project rehabilitates existing infrastructure that is at the end of its lifecycle. Long term efficiency gains are expected but cannot yet be quantified.
140	Ogden Corridor Water Interconnector		$0	$2,500,000	$0	$2,500,000	2021		Future Operating Budget Decrease	The project eliminates the operating costs of a well distribution system which leads to efficiencies that cannot be quantified without implementation.
146	Wastewater Master Plan and Wet Weather Model		$0	$200,000	$0	$200,000	2022		Future Operating Budget Decrease	The project enables process improvements that lead to efficiencies that cannot be quantified without implementation.

Reference Number	Capital Project	Current Project #	Amount Budgeted Prior to FY-21 Budgeted	FY-21 Budgeted	FY-22 to FY-30 Annual Planned	Total Cumulative Project Cost Planned	Estimated Completion Fiscal Year	Quantifiable Annual Operating Budget Impact Expected	Unquantifiable Annual Operating Budget Impact Expected	Annual Operating Budget Impact Comments
148	Systemwide CCTV and Security Upgrades	20A002	$50,000	$250,000	$0	$300,000	2022		Future Operating Budget Decrease	The project enables process improvements that lead to efficiencies that cannot be quantified without implementation.
149	EMD HVAC Phase 2	16W213	$910,000	$470,000	$0	$1,380,000	2021		Future Operating Budget Decrease	This project rehabilitates existing infrastructure that is at the end of its lifecycle. Long term efficiency gains are expected but cannot yet be quantified.
150	Large Meter Replacement Program		$0	$200,000	$1,800,000	$2,000,000	Annual		Future Operating Budget Decrease	This project replaces meters that are past their lifecycle. Metered water revenues may increase but cannot be quantified without implementation.
	TOTAL CAPITAL IMPROVEMENT PROJECTS		**$44,325,736**	**$25,520,000**	**$140,100,000**	**$209,950,000**				

WATER: Projected 10 Year Capital Improvements Plan

Ref. #	FY-2021 to FY-2030 CIP	Funding Source	Current Project #	Amount Budgeted Prior to FY-21	Project Balance Feb 1, 2020	FY-21 to FY-30 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	FY-29 Planned	FY-30 Planned
Water Capital Improvement Projects							*All dollar amounts are shown in 2020 dollars*									
Raw Water Improvements: Surface or Well Sources and Transmission																
96	Rehabilitate or Replace Twin 24-Inch Raw Water Mains	4	20W001	$100,000	$100	$8,000,000	$8,000,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
137	Kings Bluff Pump Station - Northside WWTP Generator Relocate	1	17W250	$2,918,280	$4,388	$250,000	$250,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
Water Treatment Plant Improvements																
132	Sweeney WTP Filters 1-4 Rehabilitation	1		$0	$0	$200,000	$0	$0	$200,000	$0	$0	$0	$0	$0	$0	$0
100	Sweeney WTP Ozone Replacement	1	17W241	$1,879,552	$0	$1,580,000	$0	$1,580,000	$0	$0	$0	$0	$0	$0	$0	$0
133	Sweeney Generators #1 and #2 Replacement	1		$0	$0	$4,000,000	$0	$0	$0	$0	$0	$0	$4,000,000	$0	$0	$0
138	Groundwater Well Rehabilitation	1	18W001	$1,070,000	$20,217	$900,000	$0	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000
139	Richardson Concentrate Treatment	1		$0	$0	$3,000,000	$0	$0	$3,000,000	$0	$0	$0	$0	$0	$0	$0
122	Richardson WTP 3 MGD Expansion	1,6	16W210	$3,146,000	$2,319,893	$20,000,000	$1,500,000	$8,500,000	$10,000,000	$0	$0	$0	$0	$0	$0	$0
Water Storage Improvements: Elevated, Ground and Aquifer Storage																
53	Elevated Tank Rehabilitation and Coatings	1	18W002	$1,000,000	$84,460	$5,000,000	$0	$1,000,000	$0	$1,000,000	$0	$1,000,000	$0	$1,000,000	$0	$1,000,000
Distribution System Upgrades and Rehabilitation																
150	Large Meter Replacement Program	1		$0	$0	$2,000,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000	$200,000
134	Large Water Meter Vault Replacement	1	17W262	$285,000	$40,469	$3,000,000	$300,000	$300,000	$300,000	$300,000	$300,000	$300,000	$300,000	$300,000	$300,000	$300,000
5	Interconnect Monterey Heights Water System to Surface Water	1	17W257	$2,675,000	$97,014	$3,000,000	$0	$0	$3,000,000	$0	$0	$0	$0	$0	$0	$0
140	Ogden Corridor Water Interconnector	1		$0	$0	$2,500,000	$2,500,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
27	Water Main and Valve Rehab/Replace (AMP)	1,4	17W244	$1,200,000	$25,000	$51,500,000	$1,000,000	$1,000,000	$1,000,000	$5,500,000	$5,500,000	$5,500,000	$8,000,000	$8,000,000	$8,000,000	$8,000,000
24	Rehabilitation of Water Infrastructure Matching with City Streets	1	17W243	$1,137,234	$85,587	$4,900,000	$0	$100,000	$600,000	$600,000	$600,000	$600,000	$600,000	$600,000	$600,000	$600,000
57	Water Emergency Repair	1	16W223	$433,845	$214,689	$2,500,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000	$250,000
94	Water Distribution Main Enhancements	1	18W005	$100,000	$300,393	$900,000	$0	$300,000	$0	$300,000	$0	$300,000	$0	$0	$0	$0
18	Water Distribution Sample Stations	1	17W245	$420,000	$19,437	$200,000	$0	$200,000	$0	$0	$0	$0	$0	$0	$0	$0
95	Cross Town Feeder Under Burnt Mill Creek Rehab/Replace	1	20W003	$150,000	$50,000	$350,000	$350,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
Water Growth Projects																
39	Distribution System - Standard Developer Agreements	1	17W248	$800,000	$376,509	$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				$17,314,911	$3,638,155	$115,280,000	$14,500,000	$13,680,000	$18,800,000	$8,400,000	$7,100,000	$12,400,000	$9,600,000	$10,600,000	$9,600,000	$10,600,000
Total Wastewater Capital Improvement Projects				$42,203,529	$2,362,996	$83,850,000	$7,750,000	$11,600,000	$9,750,000	$7,750,000	$11,250,000	$4,750,000	$7,750,000	$10,750,000	$4,750,000	$7,750,000
Total System Wide Capital Improvement Projects				$8,632,361	$1,228,310	$29,920,000	$3,270,000	$2,650,000	$2,950,000	$3,050,000	$2,950,000	$3,050,000	$2,950,000	$3,050,000	$2,950,000	$3,050,000
Proposed Total Capital Improvement Projects				$68,150,801	$7,229,461	$229,050,000	$25,520,000	$27,930,000	$31,500,000	$19,200,000	$21,300,000	$20,200,000	$20,300,000	$24,400,000	$17,300,000	$21,400,000
Proposed Total Capital Improvement Projects (Last year's CIP)						$188,030,000	$24,130,000	$27,500,000	$18,300,000	$19,300,000	$21,500,000	$16,800,000	$11,500,000	$16,250,000	$17,250,000	$15,500,000
Funding Source																
1	Pay-go Transfers						$4,686,397	$13,680,000	$18,800,000	$8,400,000	$7,100,000	$12,400,000	$9,600,000	$10,600,000	$9,600,000	$10,600,000
2	Bond Proceeds															
3	Grants															
4	SRF Loan Proceeds						$8,000,000									
5	Contributions from Others															
6	Capital Reserves						$1,813,603									
	TOTAL WATER					$115,280,000	$14,500,000	$13,680,000	$18,800,000	$8,400,000	$7,100,000	$12,400,000	$9,600,000	$10,600,000	$9,600,000	$10,600,000

Sum of All: Water, Waste Water and System Wide																
1	Pay-go Transfers						$11,806,397	$20,080,000	$26,500,000	$16,200,000	$14,800,000	$20,200,000	$17,300,000	$24,400,000	$17,300,000	$18,400,000
2	Bond Proceeds						$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,000,000
3	Grants						$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
4	SRF Loan Proceeds						$11,900,000	$7,850,000	$5,000,000	$3,000,000	$6,500,000	$0	$3,000,000	$0	$0	$0
5	Contributions from Others						$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
6	Capital Reserves						$1,813,603	$0	$0	$0	$0	$0	$0	$0	$0	$0
	TOTAL					$229,050,000	$25,520,000	$27,930,000	$31,500,000	$19,200,000	$21,300,000	$20,200,000	$20,300,000	$24,400,000	$17,300,000	$21,400,000

WASTE WATER: Projected 10 Year Capital Improvements Plan

Ref. #	FY-2021 to FY-2030 CIP	Funding Source	Current Project #	Amount Budgeted Prior to FY-21	Project Balance Feb 1, 2020	FY-21 to FY-30 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	FY-29 Planned	FY-30 Planned
Wastewater Capital Improvement Projects		*All dollar amounts are shown in 2020 dollars*														
Waste Water Treatment Plant Improvements																
131	Southside WWTP - Interim Rehabilitation Phase II (Design/Build)	4		$0	$0	$7,000,000	$0	$0	$500,000	$0	$6,500,000	$0	$0	$0	$0	$0
151	Southside WWTP - Capacity Upgrade (Design/Build)	2		$6,988,625	$0	$3,000,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,000,000
Collection System Rehabilitation/Replacement																
4	Find It, Fix It Methodology Sewer Collection Rehabilitation (AMP)	1	17S394	$10,500,000	$646,295	$24,000,000	$2,000,000	$2,000,000	$2,500,000	$2,500,000	$2,500,000	$2,500,000	$2,500,000	$2,500,000	$2,500,000	$2,500,000
141	Motts Creek Outfall Rehab	1		$0	$0	$3,000,000	$0	$0	$0	$0	$0	$0	$0	$3,000,000	$0	$0
142	Barnards Creek Outfall Rehab	1		$0	$0	$3,000,000	$0	$0	$0	$0	$0	$0	$0	$3,000,000	$0	$0
1	Sewer Emergency Repair	1	17S393	$15,500,000	$80,547	$5,000,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000
23	Rehabilitation of Sewer Infrastructure Matching with City Streets	1	17S395	$1,400,000	$600,000	$4,900,000	$0	$100,000	$600,000	$600,000	$600,000	$600,000	$600,000	$600,000	$600,000	$600,000
Pump Station & Force main Improvements																
107	PS - 14 Greenfield Lake Force Main Replacement	4	18S004	$1,331,293	$192,950	$7,850,000	$0	$7,850,000	$0	$0	$0	$0	$0	$0	$0	$0
55	PS - 69 Motts Creek Pump Station Upgrade	4	15S307	$287,250	$57,600	$3,900,000	$3,900,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
126	Pump Stations Prioritization and Rehabilitation	1,4	19S003	$165,000	$35,400	$10,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000
143	PS 9/11 (Water Street Infrastructure Phase 3)	4	12S173	$3,900,068	$142,740	$4,500,000	$0	$0	$4,500,000	$0	$0	$0	$0	$0	$0	$0
144	PS-12 Cowan Street Pump Station Rehab/Replace	4		$0	$0	$3,000,000	$0	$0	$0	$0	$0	$0	$3,000,000	$0	$0	$0
145	PS-14 Greenfield Lake Pump Station Rehab/Replace	4	18S004	$1,331,293	$192,950	$3,000,000	$0	$0	$0	$3,000,000	$0	$0	$0	$0	$0	$0
Sewer Growth Projects																
146	Wastewater Master Plan and Wet Weather Model	1		$0	$0	$200,000	$200,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
38	Collection System - Standard Developer Agreements	1	17S399	$800,000	$414,514	$1,500,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000	$150,000
Total Wastewater Capital Improvement Projects				$42,203,529	$2,362,996	$83,850,000	$7,750,000	$11,600,000	$9,750,000	$7,750,000	$11,250,000	$4,750,000	$7,750,000	$10,750,000	$4,750,000	$7,750,000
Total Water Capital Improvement Projects				$17,314,911	$3,638,155	$115,280,000	$14,500,000	$13,680,000	$18,800,000	$8,400,000	$7,100,000	$12,400,000	$9,600,000	$10,600,000	$9,600,000	$10,600,000
Total System Wide Capital Improvement Projects				$8,632,361	$1,228,310	$29,920,000	$3,270,000	$2,650,000	$2,950,000	$3,050,000	$2,950,000	$3,050,000	$2,950,000	$3,050,000	$2,950,000	$3,050,000
Proposed Total Capital Improvement Projects				$68,150,801	$7,229,461	$229,050,000	$25,520,000	$27,930,000	$31,500,000	$19,200,000	$21,300,000	$20,200,000	$20,300,000	$24,400,000	$17,300,000	$21,400,000
Funding Source																
1	Pay-go Transfers						$3,850,000	$3,750,000	$4,750,000	$4,750,000	$4,750,000	$4,750,000	$4,750,000	$10,750,000	$4,750,000	$4,750,000
2	Bond Proceeds															$3,000,000
3	Grants															
4	SRF Loan Proceeds						$3,900,000	$7,850,000	$5,000,000	$3,000,000	$6,500,000		$3,000,000			
5	Contributions from Others															
6	Capital Reserves															
	TOTAL WASTEWATER					$83,850,000	$7,750,000	$11,600,000	$9,750,000	$7,750,000	$11,250,000	$4,750,000	$7,750,000	$10,750,000	$4,750,000	$7,750,000

SYSTEM WIDE: Projected 10 Year Capital Improvements Plan

Ref. #	FY-2021 to FY-2030 CIP	Funding Source	Current Project #	Amount Budgeted Prior to FY-21	Project Balance Feb 1, 2020	FY-21 to FY-30 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	FY-29 Planned	FY-30 Planned
System Wide Capital Improvement Projects		*All dollar amounts are shown in 2020 dollars*														
Systemwide projects for both Water and Wastewater																
34	Motor Fleet Capital	1	17A013	$3,126,197	$4,842	$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	$2,249,307	$7,798	$5,000,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000
114	IT SCADA & Security	1	19A001	$268,073	$254,698	$7,500,000	$750,000	$750,000	$750,000	$750,000	$750,000	$750,000	$750,000	$750,000	$750,000	$750,000
30	Information Technology Networking Infrastructure Replacement	1	16A007	$949,284	$100,000	$1,000,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000
110	Generator Rehab and Replacement Program (AMP)	1	18A001	$387,500	$182,666	$5,000,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000
136	Facilities Structural and Roof Assessment and Rehab/Replace (AMP)	1	20A001	$100,000	$100,000	$4,200,000	$100,000	$100,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000
147	New Water and Sewer Service Installation	1	16W218	$592,000	$58,627	$500,000	$0	$100,000		$100,000		$100,000		$100,000		$100,000
148	Systemwide CCTV and Security Upgrades	1	20A002	$50,000	$45,473	$250,000	$250,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
149	EMD HVAC Phase 2	1	16W213	$910,000	$474,206	$470,000	$470,000	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total System Wide Capital Improvement Projects				$8,632,361	$1,228,310	$29,920,000	$3,270,000	$2,650,000	$2,950,000	$3,050,000	$2,950,000	$3,050,000	$2,950,000	$3,050,000	$2,950,000	$3,050,000
Total Water Capital Improvement Projects				$17,314,911	$3,638,155	$115,280,000	$14,500,000	$13,680,000	$18,800,000	$8,400,000	$7,100,000	$12,400,000	$9,600,000	$10,600,000	$9,600,000	$10,600,000
Total Wastewater Capital Improvement Projects				$42,203,529	$2,362,996	$83,850,000	$7,750,000	$11,600,000	$9,750,000	$7,750,000	$11,250,000	$4,750,000	$7,750,000	$10,750,000	$4,750,000	$7,750,000
Proposed Total Capital Improvement Projects				$68,150,801	$7,229,461	$229,050,000	$25,520,000	$27,930,000	$31,500,000	$19,200,000	$21,300,000	$20,200,000	$20,300,000	$24,400,000	$17,300,000	$21,400,000
Funding Source																
1	Pay-go Transfers						$3,270,000	$2,650,000	$2,950,000	$3,050,000	$2,950,000	$3,050,000	$2,950,000	$3,050,000	$2,950,000	$3,050,000
2	Bond Proceeds															
3	Grants															
4	SRF Loan Proceeds															
5	Contributions from Others															
6	Capital Reserves															
	TOTAL SYSTEM WIDE					$29,920,000	$3,270,000	$2,650,000	$2,950,000	$3,050,000	$2,950,000	$3,050,000	$2,950,000	$3,050,000	$2,950,000	$3,050,000

LONG-TERM FINANCIAL MANAGEMENT

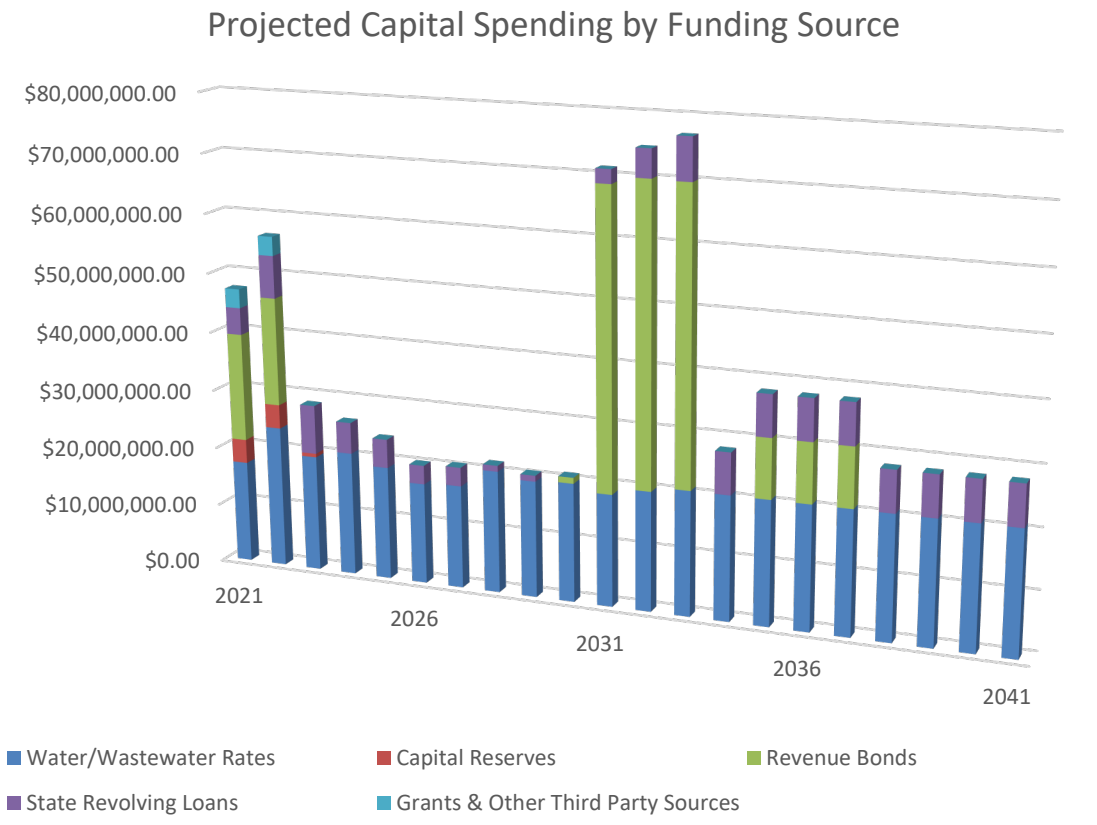
Consistent with the Strategic Plan, the Authority seeks to protect the environment, ensure public health and safety, and provide the highest quality services to both new and existing customers while maintaining a stable financial position that balances rates and the organization's long-term capital and 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.

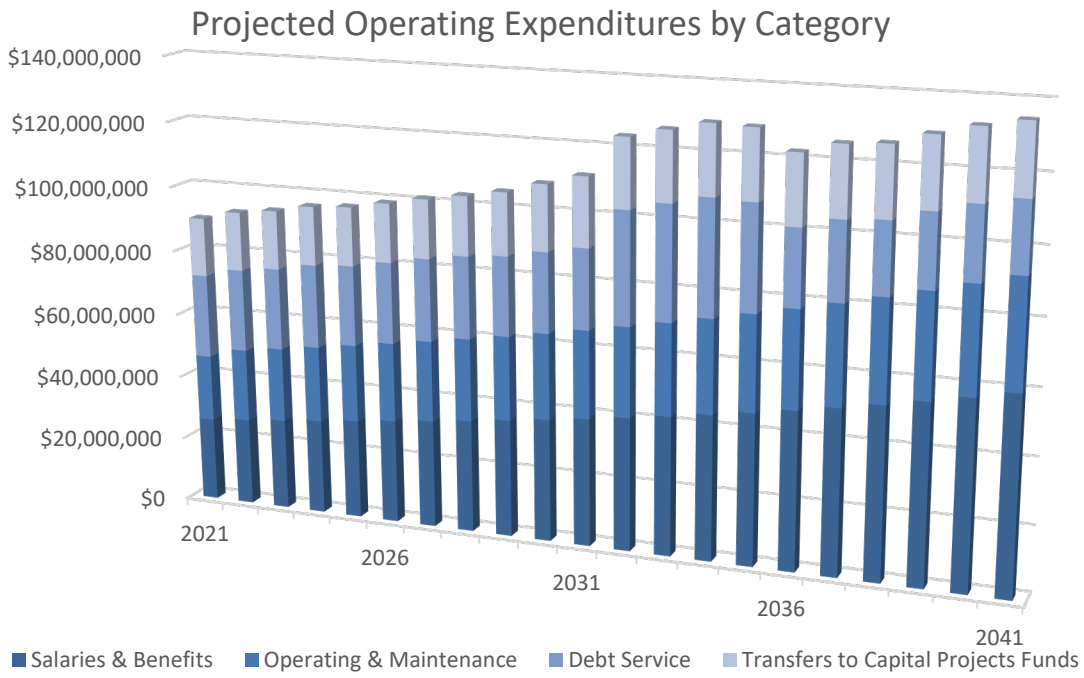
The development of the Authority's 20-year financial plan is an iterative, multi-departmental process and ultimately guided by the Authority's adopted policies and key benchmarks. The goal of this process is to ensure that the Authority remains both operationally and financially sustainable while minimizing 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.

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. Capital expenditures funded with water and wastewater rate revenues throughout the 20-year time horizon include scheduled replacement and rehabilitation of water and wastewater system assets that average approximately $20 million per year. Layered upon these expenditures are large projects that will be debt funded through the issuance of revenue bonds. The expenditure of revenue bond proceeds in FY 20-21 and FY 21-22 relate to the treatment upgrades at the Sweeney Water Treatment Plant for PFAS removal and the Authority's share of the construction of a new raw water transmission main from the King's Bluff intake station to Brunswick County's water treatment plant. The expenditure of revenue bonds in FY 30-31 through FY 32-33 relates to a $150 million capacity upgrade to the Southside Wastewater Treatment Plant and the expenditure of revenue bonds starting in FY 34-35 through FY 36-37 relate to a $30 million capacity upgrade at the Northside Wastewater Treatment Plant. Projected expenditures funded with state revolving loans include rehabilitation of replacement of pump stations and wastewater collection lines.


Projected Capital Spending by Funding Source
$80,000,000.00
$70,000,000.00
$60,000,000.00
$50,000,000.00
$40,000,000.00
$30,000,000.00
$20,000,000.00
$10,000,000.00
$0.00
2021
2026
2031
2036
2041
Water/Wastewater Rates
Capital Reserves
Revenue Bonds
State Revolving Loans
Grants & Other Third Party Sources


Projected Operating Expenditures by Category
$140,000,000
$120,000,000
$100,000,000
$80,000,000
$60,000,000
$40,000,000
$20,000,000
$0
2021
2026
2031
2036
2041
Salaries & Benefits
Operating & Maintenance
Debt Service
Transfers to Capital Projects Funds

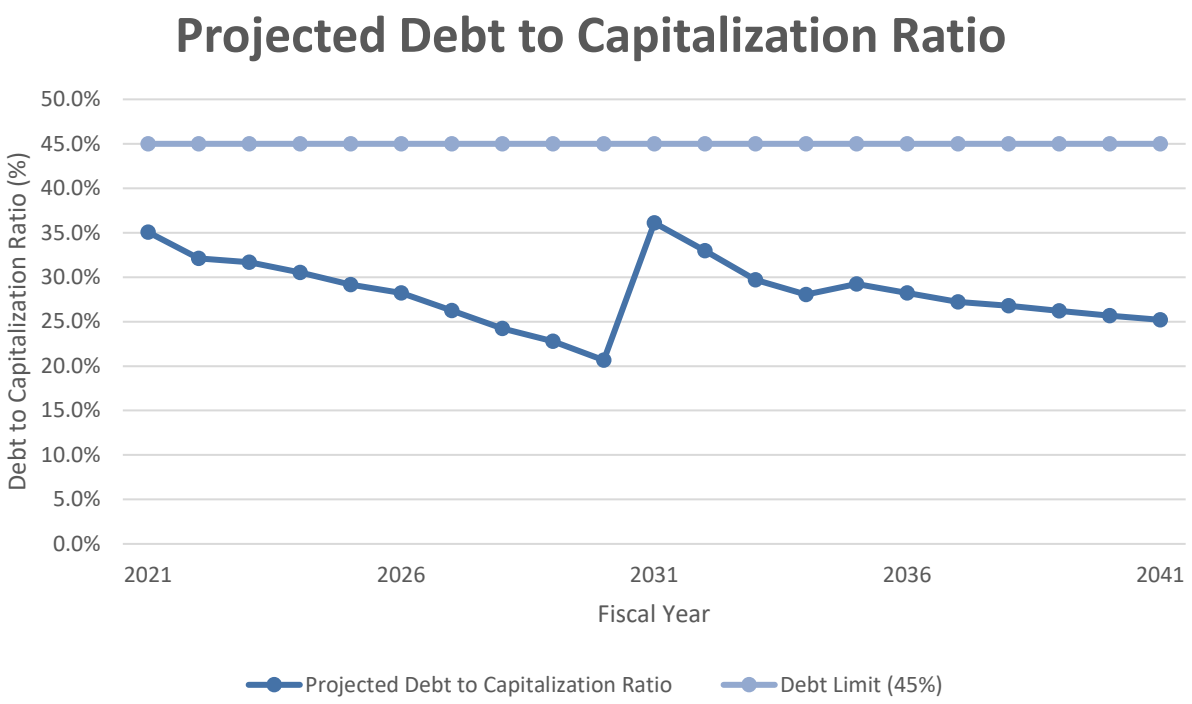
Operating expenditures, excluding debt service expenditures, were assumed to grow in accordance with inflationary assumptions. Salaries and benefits (other than health and dental benefits) are assumed to grow at 4% per year to accommodate growth in the workforce tied to customer and system growth and 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. Projected operating expenditures include $1.6 million for maintenance and replacement of granular activated carbon filters at the Sweeney Water Treatment Plant each year starting in FY 21-22. 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.

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.

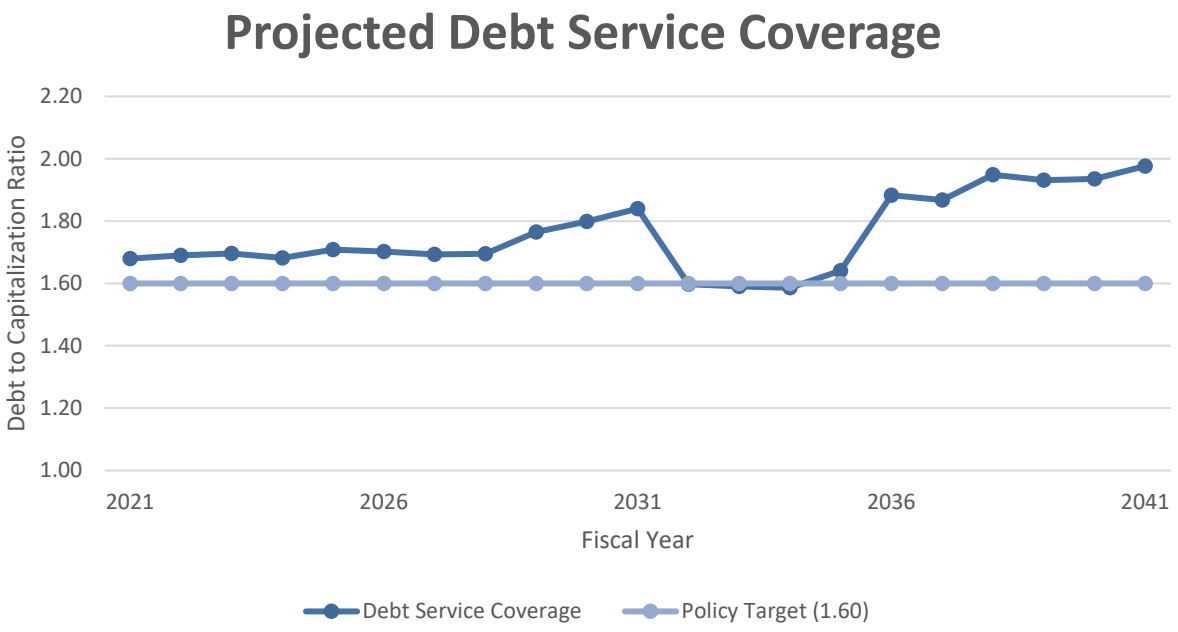
The Authority's long-term financial plan incorporates the Authority's policy on debt limitations and cash reserve levels. These policies were adopted in February 2017 to produce a resilient financial structure by reducing the proportion of the annual operating budget reserved for mandatory debt service payments, "free up" future borrowing capacity, and achieve robust coverage levels expected of the highest rated water and wastewater utilities. In accordance with these policies, rates were deliberately increased in FY 17-18 and FY 18-19 to achieve $18 million in annual pay-as-you-go capital funding. 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.

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.

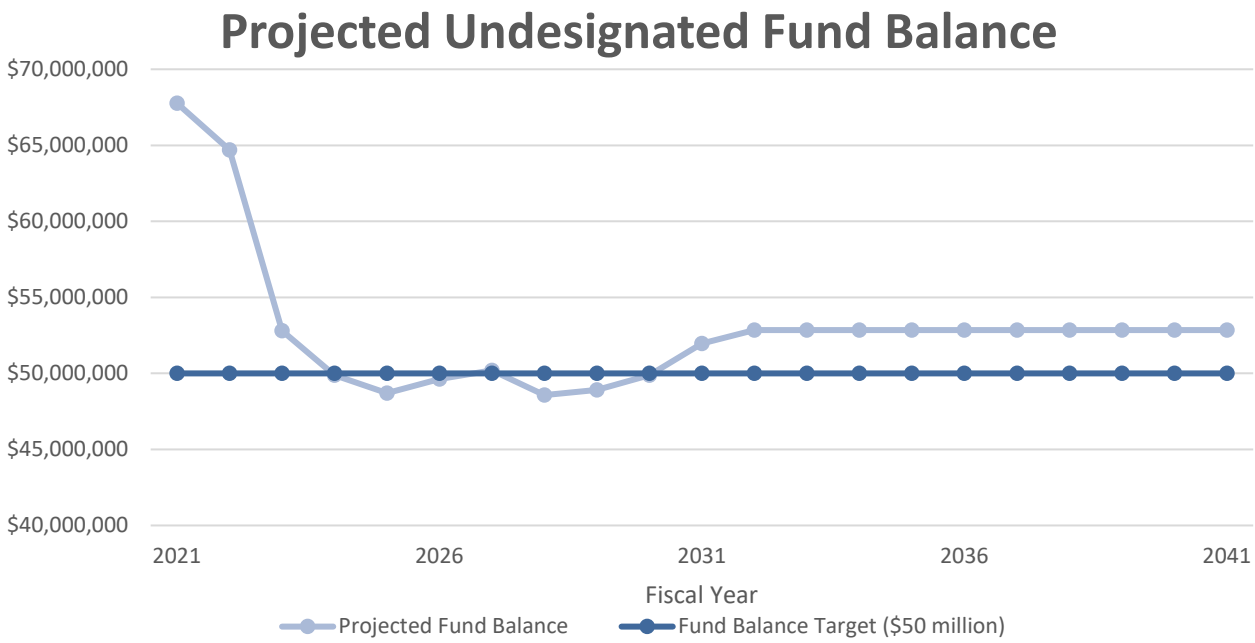


Over the 20-year forecast horizon, the debt-to-capitalization ratio is projected to be below the 45% limit. The debt-to-capitalization ratio is projected to decrease through FY 30-31 as the balance of outstanding debt decreases and the projected capital investment outpaces projected depreciation on system assets. The debt-to-capitalization ratio is projected to increase to 36.1% in FY 30-31 due to the planned issuance of debt to fund a capacity upgrade for the Southside Wastewater Treatment Plant. For financial flexibility, debt issuances have been projected so that the projected debt-to-capitalization never approaches the 45% limit too closely. Therefore, there is always some excess debt capacity available as circumstances may arise that require the issuance of debt.

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.



The graph above indicates that coverage is projected to be relatively stable through FY 30-31. Projected coverage decreases to around 1.6 in FY 30-31 due to increased debt service requirements related to the issuance of debt to fund the capacity upgrade at the Southside Wastewater Treatment Plant. Projected coverage sharply increases in FY 35-36 due to decreased debt service requirements as much of the Authority's existing debt fully matures.



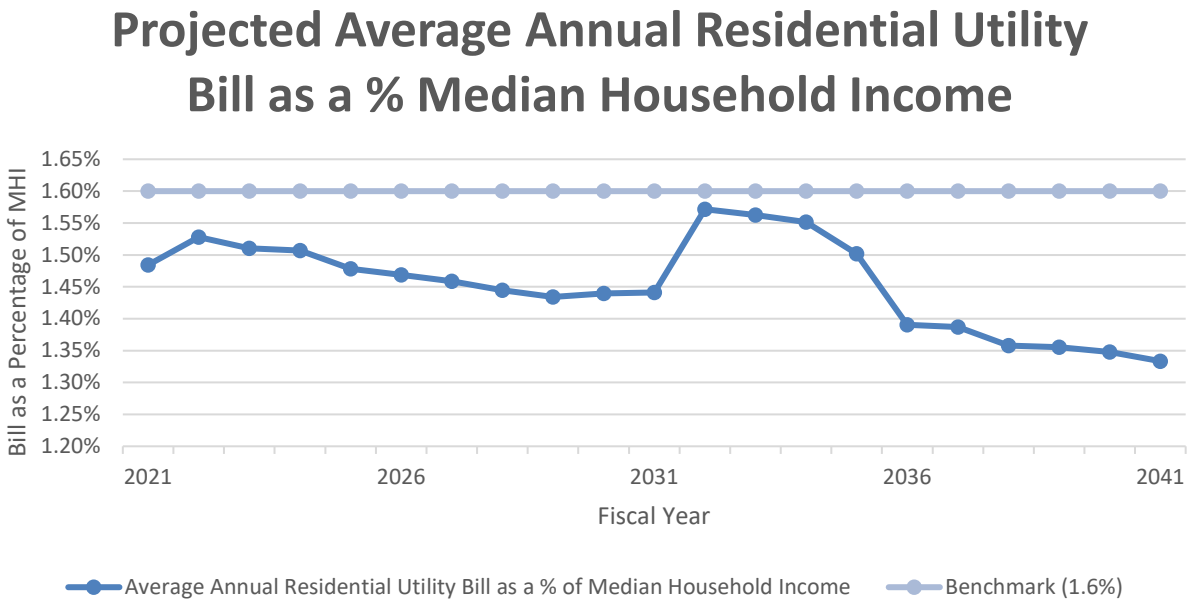
Available fund balance is another key indicator of financial health. The higher the available fund balance, the higher the capacity to absorb periods of declining revenues, unbudgeted expenditures, or both. At the same time, to minimize the impact to rate payers, it's critical that rates are developed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

The graph on the previous page reflects CFPUA's deliberate plan to spend available fund balance on its capital program to around the $50 million target through FY 23-24. Fund balance is projected to stay roughly flat at the $50 million target through the remainder of the forecast horizon.

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 8,400 gallons per billing cycle with an assumed 2% increase per year in both consumption and equivalent residential units. Estimated median household income data for calendar year 2018 per the U.S. Census Bureau 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 1.6% 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 1.57% in FY 30-31 due to increased debt service requirements related to the issuance of debt to fund the capacity upgrade at the Southside Wastewater Treatment Plant and then decreases sharply in FY35-36 due to decreased debt service requirements as much of the Authority's existing debt fully matures.



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.

The biggest threat to remaining within these various financial benchmarks is the $150 million capacity upgrade to the Southside Wastewater Treatment Plant, specifically the impact of this project on projected debt service coverage and the average annual residential utility bill as a percentage of median household income. Knowing that such a large project is on the horizon, management will be developing strategies to smooth out the projected impact of the project on debt service coverage and rate affordability. One effective strategy will be to borrow more in the years up to FY 30-31 in the form of state revolving loans. Doing so will not change the overall mix of debt and pay-as-you-go funding, but would smooth out the projected downward spike in debt service and projected upward spike in the average annual residential utility bill as a percentage of median household income in two ways. First, a gradual build-up of debt balance will result in a gradual increase to rates and reduce the amount needed to be borrowed to finance the Southside Wastewater Treatment plant capacity upgrade. Second, gradually building up the debt balance through low-interest state revolving loans will reduce overall debt service requirements through interest savings.

20-Year Projection of Operating and Capital Expenditures

	2021 Adopted Budget	2022 Projected Budget	2023 Projected Budget	2024 Projected Budget	2025 Projected Budget	2026 Projected Budget	2027 Projected Budget	2028 Projected Budget	2029 Projected Budget	2030 Projected Budget
Operating Activities										
Revenues	$ 89,979,679	$ 92,739,459	$ 94,113,711	$ 96,348,028	$ 97,118,678	$ 99,150,195	$ 101,321,706	$ 103,154,807	$ 105,150,644	$ 108,409,425
Expenditures, before Debt Service & Capital Outlay	46,233,121	49,359,232	50,978,701	52,663,140	54,415,706	56,239,731	58,070,832	59,972,507	61,947,948	64,000,519
Revenues over Expenditures before Debt Service & Capital Outlay	43,746,557	43,380,227	43,135,010	43,684,888	42,702,972	42,910,464	43,250,874	43,182,300	43,202,696	44,408,906
Debt Service on Existing Debt	25,746,557	25,380,227	25,135,010	25,075,453	23,619,228	23,554,824	23,478,325	23,409,752	22,430,147	22,400,714
Debt Service on Planned Future Debt	-	-	-	609,435	1,083,744	1,355,640	1,772,549	1,772,549	1,772,549	2,008,192
Total Estimated Debt Service	25,746,557	25,380,227	25,135,010	25,684,888	24,702,972	24,910,464	25,250,874	25,182,300	24,202,696	24,408,906
Revenue Available to Fund Capital Expenditures	18,000,000	18,000,000	18,000,000	18,000,000	18,000,000	18,000,000	18,000,000	18,000,000	19,000,000	20,000,000
Capital Investment										
Capital Funding Sources:										
Pay-go Transfers	17,271,083	23,964,416	19,628,799	20,926,667	19,166,667	17,066,667	17,433,333	20,633,333	19,666,667	20,033,333
Capital Reserves	4,018,428	4,018,428	604,534	-	-	-	-	-	-	-
Revenue Bonds	18,211,047	18,211,047	-	-	-	-	-	-	-	1,000,000
State Revolving Loans	4,546,447	7,163,113	8,250,000	5,283,333	4,833,333	3,166,667	3,166,667	1,000,000	1,000,000	-
Grants	2,358,316	2,358,316	-	-	-	-	-	-	-	-
Capital Contributions	837,176	837,176	-	-	-	-	-	-	-	-
Insurance Proceeds	7,101	7,101	-	-	-	-	-	-	-	-
Total Capital Funding	47,249,598	56,559,598	28,483,333	26,210,000	24,000,000	20,233,333	20,600,000	21,633,333	20,666,667	21,033,333
Capital Asset Balance as of 6/30	781,691,906	808,668,470	804,327,490	807,777,050	806,906,466	800,641,342	794,007,913	786,368,391	776,000,086	765,318,147
Financial Benchmarks										
Affordability:										
Average Residential Bi-monthly Water & Sewer Bill	$ 126.73	$ 131.77	$ 131.55	$ 132.59	$ 131.35	$ 131.79	$ 132.23	$ 132.27	$ 132.62	$ 134.43
% Change in Average Residential Bi-monthly Water and Sewer Bill	0.00%	3.98%	-0.17%	0.79%	-0.94%	0.34%	0.33%	0.03%	0.27%	1.37%
Annual Utility Bill as % of Effective Buying Income (<1.8%)	1.48%	1.53%	1.51%	1.51%	1.48%	1.47%	1.46%	1.44%	1.43%	1.44%
Median Household Income (1% per year growth)	$51,232	$51,744	$52,262	$52,784	$53,312	$53,845	$54,384	$54,928	$55,477	$56,032
Liquidity:										
Unrestricted Fund Balance as of 6/30 (appr. $50,000,000)	$67,771,796	$64,702,498	$52,799,866	$49,873,199	$48,706,532	$49,639,866	$50,206,532	$48,573,199	$48,906,532	$49,873,199
Days Cash on Hand (>250)	535	478	378	346	327	322	316	296	288	284
Coverage:										
Debt Coverage Ratio (>1.6)	1.68	1.69	1.70	1.68	1.71	1.70	1.69	1.69	1.76	1.80
Debt:										
Debt Balance as of 6/30	$274,107,143	$259,563,795	$254,671,845	$246,473,182	$235,369,518	$225,854,169	$208,508,344	$190,548,847	$176,740,235	$158,129,537
Debt to Capitalization Ratio (Cannot exceed 45%)	35.1%	32.1%	31.7%	30.5%	29.2%	28.2%	26.3%	24.2%	22.8%	20.7%
Available Debt Capacity	$ 77,654,215	$ 104,337,016	$ 107,275,526	$ 117,026,490	$ 127,738,392	$ 134,434,434	$ 148,795,217	$ 163,316,929	$ 172,459,804	$ 186,263,629

20-Year Projection of Operating and Capital Expenditures

	2031 Projected Budget	2032 Projected Budget	2033 Projected Budget	2034 Projected Budget	2035 Projected Budget	2036 Projected Budget	2037 Projected Budget	2038 Projected Budget	2039 Projected Budget	2040 Projected Budget	2041 Projected Budget
Operating Activities											
Revenues	$ 111,531,236	$ 123,656,926	$ 126,404,315	$ 129,029,930	$ 128,548,852	$ 122,365,537	$ 125,493,923	$ 126,281,790	$ 129,624,783	$ 132,562,475	$ 134,830,248
Expenditures, before Debt Service & Capital Outlay	66,133,763	68,351,411	70,657,397	73,055,871	75,551,209	78,148,031	80,851,215	83,665,912	86,597,566	89,651,930	92,835,092
Revenues over Expenditures before Debt Service & Capital Outlay	45,397,473	55,305,515	55,746,918	55,974,059	52,997,643	44,217,506	44,642,708	42,615,878	43,027,217	42,910,545	41,995,156
Debt Service on Existing Debt	22,389,280	22,372,822	22,352,663	22,124,803	18,699,950	7,589,287	7,579,177	5,123,597	5,112,749	4,580,452	3,256,000
Debt Service on Planned Future Debt	2,008,192	11,932,693	12,394,256	12,849,256	13,297,693	15,628,218	16,063,531	16,492,281	16,914,468	17,330,093	17,739,156
Total Estimated Debt Service	24,397,473	34,305,515	34,746,918	34,974,059	31,997,643	23,217,506	23,642,708	21,615,878	22,027,217	21,910,545	20,995,156
Revenue Available to Fund Capital Expenditures	21,000,000	21,000,000	21,000,000	21,000,000	21,000,000	21,000,000	21,000,000	21,000,000	21,000,000	21,000,000	21,000,000
Capital Investment											
Capital Funding Sources:											
Pay-go Transfers	18,900,000	20,133,333	21,000,000	21,000,000	21,000,000	21,000,000	21,000,000	21,000,000	21,000,000	21,000,000	21,000,000
Capital Reserves	-	-	-	-	-	-	-	-	-	-	-
Revenue Bonds	50,000,000	50,000,000	49,000,000	-	10,000,000	10,000,000	10,000,000	-	-	-	-
State Revolving Loans	2,333,333	4,666,667	7,000,000	7,000,000	7,000,000	7,000,000	7,000,000	7,000,000	7,000,000	7,000,000	7,000,000
Grants	-	-	-	-	-	-	-	-	-	-	-
Capital Contributions	-	-	-	-	-	-	-	-	-	-	-
Insurance Proceeds	-	-	-	-	-	-	-	-	-	-	-
Total Capital Funding	71,233,333	74,800,000	77,000,000	28,000,000	38,000,000	38,000,000	38,000,000	28,000,000	28,000,000	28,000,000	28,000,000
Capital Asset Balance as of 6/30	803,762,953	827,854,199	857,119,739	839,182,031	849,275,490	851,406,394	851,245,595	839,240,327	829,105,413	816,650,735	802,416,215
Affordability:											
Average Residential Bi-monthly Water & Sewer Bill	$ 135.91	$ 149.72	$ 150.36	$ 150.76	$ 147.42	$ 137.83	$ 138.86	$ 137.31	$ 138.45	$ 139.04	$ 138.94
% Change in Average Residential Bi-monthly Water and Sewer Bill	1.10%	10.16%	0.43%	0.27%	-2.21%	-6.51%	0.75%	-1.11%	0.83%	0.43%	-0.08%
Annual Utility Bill as % of Effective Buying Income (<1.8%)	1.44%	1.57%	1.56%	1.55%	1.50%	1.39%	1.39%	1.36%	1.36%	1.35%	1.33%
Median Household Income (1% per year growth)	$56,592	$57,158	$57,729	$58,307	$58,890	$59,479	$60,074	$60,674	$61,281	$61,894	$62,513
Liquidity:											
Unrestricted Fund Balance as of 6/30 (appr. $50,000,000)	$51,973,199	$52,839,866	$52,839,866	$52,839,866	$52,839,866	$52,839,866	$52,839,866	$52,839,866	$52,839,866	$52,839,866	$52,839,866
Days Cash on Hand (>250)	287	282	273	264	255	247	239	231	223	215	208
Coverage:											
Debt Coverage Ratio (>1.6)	1.84	1.60	1.59	1.59	1.64	1.88	1.87	1.95	1.93	1.94	1.98
Debt:											
Debt Balance as of 6/30	$290,270,763	$273,096,387	$254,701,798	$235,234,034	$248,229,347	$240,373,903	$231,770,402	$224,876,068	$217,257,843	$209,487,681	$202,286,632
Debt to Capitalization Ratio (Cannot exceed 45%)	36.1%	33.0%	29.7%	28.0%	29.2%	28.2%	27.2%	26.8%	26.2%	25.7%	25.2%
Available Debt Capacity	$ 71,422,566	$ 99,438,003	$ 131,002,085	$ 142,397,880	$ 133,944,623	$ 142,758,974	$ 151,290,115	$ 152,782,079	$ 155,839,593	$ 158,005,150	$ 158,800,664

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

TERM	STANDS FOR
EOC	Emergency Operations Center
EFT	Electronic Funds Transfer
EPA	Environmental Protection Agency
ERT	Encoder Receiver Transmitter
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

CAPE FEAR PUBLIC UTILITY AUTHORITY
ACRONYMS

TERM	STANDS FOR
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
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	Nephlometric Turbidity Units
O & M	Operational & Maintenance
ORC	Operator in Responsible Charge
OSHA	Occupational Safety and Health Administration
PER	Preliminary Engineering Report
PFAS	Polyfluoroalkyl Substances
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

TERM	STANDS FOR
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
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

			Rates and Fees Effective 11/13/19	Rates and Fees Effective 7/1/20	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"	$ 27.56	$ 27.56	Sec. 1-97 (1) f
		1" (Single-Family Residential with fire sprinkler system)	$ 27.56	$ 27.56	Sec. 1-97 (1) f
		1"	$ 68.90	$ 68.90	Sec. 1-97 (1) f
		1 1/2"	$ 137.80	$ 137.80	Sec. 1-97 (1) f
		2"	$ 220.48	$ 220.48	Sec. 1-97 (1) f
		3"	$ 413.40	$ 413.40	Sec. 1-97 (1) f
		4"	$ 689.00	$ 689.00	Sec. 1-97 (1) f
		6"	$ 1,378.00	$ 1,378.00	Sec. 1-97 (1) f
		8"	$ 2,204.80	$ 2,204.80	Sec. 1-97 (1) f
		10"	$ 3,445.00	$ 3,445.00	Sec. 1-97 (1) f
		12"	$ 4,134.00	$ 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)****		$ 4.02	$ 4.02	Sec. 1-97 (1) c
	** Single-Family Residential is serviced by one domestic meter				
			Bi-Monthly	**Bi-Monthly**	
C.	**Availability Charge for unconnected 5/8" water service; Availability Charge for larger meters based on meter size**		$ 27.56	$ 27.56	Sec. 1-97 (1) a
D.	**Bulk Water Rates**				
	Bulk Water Resale Rate (per 1,000 gallons)		$ 3.48	$ 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"	$ 1,880.00	$ 1,920.00	Sec. 1-97 (2) d
		1" (Single-Family Residential with fire sprinkler system)	$ 1,880.00	$ 1,920.00	Sec. 1-97 (2) d
		1"	$ 4,700.00	$ 4,800.00	Sec. 1-97 (2) d
		1 1/2"	$ 9,400.00	$ 9,600.00	Sec. 1-97 (2) d
		2"	$ 15,040.00	$ 15,360.00	Sec. 1-97 (2) d
		3"	$ 28,200.00	$ 28,800.00	Sec. 1-97 (2) d
		4"	$ 47,000.00	$ 48,000.00	Sec. 1-97 (2) d
		6"	$ 94,000.00	$ 96,000.00	Sec. 1-97 (2) d
		8"	$ 150,400.00	$ 153,600.00	Sec. 1-97 (2) d
		10"	$ 235,000.00	$ 240,000.00	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				
		Initial inspection	No Charge	No Charge	Sec. 1-97 (2) b

			Rates and Fees Effective 11/13/19	Rates and Fees Effective 7/1/20	Ordinance Reference
		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
		3"	$ 30.00	$ 30.00	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**		$ 4.63	$ 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			
			Bi-Monthly	**Bi-Monthly**	
C.	**Availability Charge for unconnected 5/8" sewer service; Availability Charge for larger meters based on meter size**		$ 29.10	$ 29.10	Sec. 1-97 (1) a
D.	**Bulk Wastewater Collection and Treatement Rate (per 1,000 gallons)**		$3.34	$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"	$ 1,930.00	$ 2,070.00	Sec. 1-97 (2) d
		1" (Single-Family Residential with fire sprinkler system)	$ 1,930.00	$ 2,070.00	Sec. 1-97 (2) d
		1"	$ 4,825.00	$ 5,175.00	Sec. 1-97 (2) d
		1 1/2"	$ 9,650.00	$ 10,350.00	Sec. 1-97 (2) d
		2"	$ 15,440.00	$ 16,560.00	Sec. 1-97 (2) d
		3"	$ 28,950.00	$ 31,050.00	Sec. 1-97 (2) d
		4"	$ 48,250.00	$ 51,750.00	Sec. 1-97 (2) d
		6"	$ 96,500.00	$ 103,500.00	Sec. 1-97 (2) d
		8"	$ 154,400.00	$ 165,600.00	Sec. 1-97 (2) d
		10"	$ 241,250.00	$ 258,750.00	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		$5.60 per gpd	N/A	Per Contract
	Chair Road Associates - Regional Lift Station (PS #157) Only		$1.43 per gpd	$1.50 per gpd	Per Contract
	CFPUA Cost Recovery - Northwest Forcemain Improvements Only		N/A	$3.96 per gpd	Sec. 4-4 (c)
	Kirkland Sewer Project Capacity Fee		$2.71 per gpd	$2.71 per gpd	Per Contract
H.	**Grinder Pump Fees**				
	Residential grinder pump fee, bi monthly		N/A	$30.00	
	Developer grinder pump fee per platted lot		N/A	$300.00	

			Rates and Fees Effective 11/13/19	Rates and Fees Effective 7/1/20	Ordinance Reference
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)
		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)	$ 4.63	$ 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 CFPUA 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)	$120.60 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)	$138.90	$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	$55.00	$55.00	Sec. 1-9 (g); Sec. 1-9(h)
		Meter Obstruction Fee	$55.00	$55.00	Sec. 1-97 (3) q
		System Tampering Civil Action Violation, in accordance with N.C.G.S. 14-151(e)	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	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)

			Rates and Fees Effective 11/13/19	Rates and Fees Effective 7/1/20	Ordinance Reference
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)
		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	Up to $200	Sec. 1-6
		Utility Deposit Commercial	Determined by Policy	Determined by Policy	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	$ 1,500.00	$ 1,500.00	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 Ten 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 (000's) (4)	Per Capita Income (4)
2019	**122,607**	**232,274**	**39**	**25,512**	**4.0%**	N/A	N/A
2018	119,045	227,198	38	26,263	3.9%	N/A	N/A
2017	117,525	223,483	38	26,096	3.9%	$10,050,351	$44,236
2016	115,933	220,358	38	25,901	4.8%	$9,444,753	$42,262
2015	113,657	216,298	38	26,241	5.6%	$8,921,731	$40,487
2014	112,067	213,267	38	25,470	6.1%	$8,454,467	$39,035
2013	109,922	209,234	38	25,364	9.1%	$7,819,052	$36,653
2012	108,297	206,189	37.5	25,253	9.3%	$7,543,199	$36,054
2011	106,476	202,667	36.7	23,934	10.1%	$7,419,000	$36,020
2010	102,207	194,054	38.5	23,643	9.4%	$7,031,719	$34,588

(1) US Census Bureau.
(2) Provided by the NHC Schools Finance Department
(3) North Carolina Department of Commerce
(4) Federal Agency Data: Bureau of Economic Analysis. Data provided for as many years as available.

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

	2019				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	168,572	3.05%	$ 748,774	2.01%	1 UNC Wilmington	136,483	2.34%	$ 430,613	1.89%
2 New Hanover Regional Medical Center	60,177	1.09%	293,046	0.79%	2 New Hanover County	63,232	1.08%	232,431	1.02%
3 Elementis	56,084	1.01%	229,592	0.62%	3 New Hanover Regional Medical Center	61,473	1.05%	211,318	0.93%
4 Wimington Housing Authority	45,853	0.83%	221,171	0.59%	4 New Hanover County Schools	47,862	0.82%	208,756	0.92%
5 New Hanover County	41,252	0.75%	242,841	0.65%	5 Wilmington Housing Authority	40,956	0.70%	137,433	0.60%
6 New Hanover County Schools	38,540	0.70%	253,938	0.68%	6 Lake Forest Apartments	30,088	0.52%	97,305	0.43%
7 State Port of North Carolina	27,352	0.49%	152,230	0.41%	7 College Manor Apartments	23,411	0.40%	80,985	0.36%
8 Lake Forest Apartments	25,906	0.47%	119,936	0.32%	8 Mayfaire Complex	22,955	0.39%	119,091	0.52%
9 Tribute	23,595	0.43%	212,910	0.57%	9 Tribute Properties	21,463	0.37%	114,526	0.50%
10 State of North Carolina	14,481	0.26%	66,648	0.18%	10 Elementis Chromium	18,971	0.33%	58,243	0.26%
Total Net Consumption / Net Revenue	**501,812**	**9.08%**	**$ 2,541,086**	**6.81%**	**Total Net Consumption / Net Revenue**	**466,893**	**8.00%**	**$ 1,690,699**	**7.42%**
Total Annual System Net Consumption / Net Revenue	**5,526,758**		**$ 37,309,181**		**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 Ten Years Ago

	2019				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	223,691	4.46%	$ 735,113	1.92%	1 Town of Wrightsville Beach	214,743	4.42%	$ 442,639	2.00%
2 UNC Wilmington	57,472	1.15%	357,249	0.93%	2 UNC Wilmington	87,800	1.81%	269,249	1.22%
3 NHRMC	57,016	1.14%	317,699	0.83%	3 New Hanover Regional Medical Center	54,042	1.11%	176,741	0.80%
4 Wilmington Housing Authority	45,837	0.91%	250,225	0.65%	4 New Hanover County Schools	45,665	0.94%	199,592	0.90%
5 New Hanover County Schools	40,500	0.81%	296,399	0.77%	5 Wilmington Housing Authority	40,652	0.84%	129,175	0.58%
6 New Hanover County	36,723	0.73%	241,819	0.63%	6 New Hanover County	34,744	0.72%	132,783	0.60%
7 Lake Forest Apartments	25,906	0.52%	136,621	0.36%	7 Lake Forest Apartments	30,080	0.62%	92,040	0.42%
8 Corning, Inc.	25,701	0.51%	119,922	0.31%	8 Mayfaire Complex	25,303	0.52%	125,124	0.57%
9 Tribute	23,089	0.46%	230,161	0.60%	9 Tribute Properties	24,536	0.51%	154,676	0.70%
10 State of North Carolina	14,481	0.29%	75,953	0.20%	10 College Manor Apartments	23,411	0.48%	77,352	0.35%
Total Net Consumption / Net Revenue	**550,416**	**10.94%**	**$ 2,761,161**	**7.20%**	**Total Net Consumption / Net Revenue**	**580,975**	**11.96%**	**$ 1,799,371**	**8.15%**
Total Annual System Net Consumption / Net Revenue	**5,010,981**		**$ 38,345,170**		**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 Ten Years Ago

2019				2009			
Employers	**Employees (1)**	**Rank**	**Percentage of Total County Employment**	**Employers**	**Employees (3)**	**Rank**	**Percentage of Total County Employment**
New Hanover Regional Medical Center	7,138	1	5.90%	New Hanover Regional Medical Center	4,890	1	5.10%
New Hanover County Schools	4,240	2	3.51%	New Hanover County Schools	4,130	2	4.30%
GE Hitachi Nuclear Energy and GE Aviation	2,800	3	2.32%	GE Hitachi Nuclear Energy and GE Aviation	3,000	3	3.13%
Wal-Mart Stores	2,414	4	2.00%	University of North Carolina at Wilmington	1,810	4	1.89%
University of North Carolina Wilmington	2,024	5	1.67%	New Hanover County	1,670	5	1.74%
PPD	1,500	6	1.24%	PPD	1,420	6	1.48%
Duke Energy	1,375	7	1.14%	Cape Fear Community College	1,260	7	1.31%
Verizon Wireless	1,167	8	0.97%	City of Wilmington	1,200	8	1.25%
City of Wilmington	1,077	9	0.89%	Verizon Wireless	1,200	9	1.25%
Corning, Inc.	1,000	10	0.83%	Corning, Inc.	1,000	10	1.04%
			20.46%				**22.49%**
Total # Employed at June 30 of the respective FY (2)			**120,905**	**Total # Employed at June 30 of the respective FY (2)**			**95,964**

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

(1) Source: 2019 Book on Business; www.wilmingtonbiz.com

(2) Source: North Carolina Employment Security Commission (2009) and www.nccommerce.com (2019)

(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 Ten Fiscal Years

	Fiscal Year									
	2019	**2018**	**2017**	**2016**	**2015**	**2014**	**2013**	**2012**	**2011**	**2010**
Water System										
Number of available service connections	75,772	74,700	73,118	71,439	70,356	68,794	68,033	67,067	64,602	63,683
Number of treatment plants - surface water system	1	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	35.00	35.00	27.50	27.50
Average production (mgd) - surface water	15.44	14.49	14.63	14.35	13.56	13.44	13.20	13.50	13.70	13.30
Number of groundwater systems	2	2	2	3	3	3	3	3	3	3
Number of treatment plants - groundwater system	1	1	1	1	1	1	1	1	1	1
Number of active wells - groundwater system	37	38	37	34	36	36	36	36	36	36
Treatment capacity (mgd) - groundwater plant	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Treatment capacity (mgd) - other groundwater systems	1.02	1.02	0.90	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Average production (mgd) - groundwater	3.49	3.07	3.08	3.04	2.94	2.48	2.95	2.95	3.20	3.30
Miles of water mains	1,142	1,131	1,113	1,114	1,089	1,041	1,078	1,072	1,070	1,129
Wastewater System										
Number of available service connections	74,116	73,043	71,539	69,222	68,246	66,829	66,059	64,529	64,330	63,793
Number of treatment plants	2	2	2	3	3	3	3	3	3	3
WPC plant permit (mgd)	28.00	28.10	28.10	28.10	28.10	22.10	22.10	22.10	22.10	22.10
Average annual daily flow (mgd)	19.59	17.49	17.16	18.76	17.48	16.45	16.17	15.10	15.80	16.80
Number of lift stations	147	148	146	142	143	141	141	141	141	142
Miles of wastewater gravity mains	912	892	877	848	844	827	850	840	840	881
Miles of wastewater force mains	144	143	142	131	131	112	110	104	104	100
Number of manholes	22,134	22,097	22,017	21,221	21,049	20,918	20,300	20,300	20,300	N/A

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

	2019		2018		2017		2016		2015		2014		2013		2012		2011		2010 (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	Thousand Gallons	% of Consumption
Water Customers																				
Residential	**3,718,024**	**67.27%**	3,614,451	68.57%	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%
Commercial	**1,238,734**	**22.41%**	1,175,036	22.29%	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%
Industrial	**109,343**	**1.98%**	90,719	1.72%	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%
Institutional and Government	**460,658**	**8.34%**	391,058	7.42%	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%
Total	**5,526,758**	**100.00%**	5,271,263	100.00%	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%
Wastewater Customers																				
Residential	**3,312,519**	**66.11%**	3,259,728	66.14%	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%
Commercial	**1,143,289**	**22.82%**	1,078,506	21.88%	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%
Town of Wrightsville Beach	**223,691**	**4.46%**	254,728	5.17%	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%
Pender County	**12,715**	**0.25%**	14,374	0.29%	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%
Industrial	**16,613**	**0.33%**	17,144	0.35%	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%
Institutional and Government	**302,154**	**6.03%**	303,850	6.17%	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%
Total [(2)]	**5,010,981**	**100.00%**	4,928,329	100.00%	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%

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, 2020

LEGISLATIVE INTENT/PURPOSE:
Appropriations and estimated revenues for the Fiscal Year Beginning July 1, 2020.

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	
Salaries & Benefits	$25,755,773
Operating	20,477,349
Debt Service	25,746,559
Transfers to Capital Projects Funds	18,000,000
Total Appropriations	**$89,979,681**
Revenues	
Water/Wastewater Charges - Volumetric	$45,340,246
Water/Wastewater Charges - Fixed	31,100,185
System Development Charges	5,785,500
Investment Earnings	1,657,650
Other Charges for Service	5,596,100
Appropriated Fund Balance	500,000
Total Revenues	**$89,979,681**

SECTION II: That appropriations herein authorized shall have the amount of outstanding purchase orders as of June 30, 2020 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	$1,616,192
Water Capital Improvement Projects	14,775,143
Wastewater Capital Improvement Projects	5,729,254
Total Appropriations	**$22,120,589**
Revenues	
Transfers from Operating Fund	$10,220,589
State Revolving Loan Proceeds	10,086,397
Capital Reserves	1,813,603
Total Revenues	**$22,120,589**

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.

_____
William Norris, Chairman

Adopted at a regular meeting
On June 10, 2020

ATTEST:

_____
Donna S. Pope, Clerk to the Board

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 case 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 owed 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.
Collaterize	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.