



Comprehensive Annual Financial Report

For the Fiscal Year Ended June 30, 2019



Cape Fear
Public Utility Authority



**CAPE FEAR PUBLIC UTILITY AUTHORITY
WILMINGTON, NORTH CAROLINA**

**COMPREHENSIVE ANNUAL FINANCIAL REPORT
For the Fiscal Year Ended June 30, 2019**

Board Members

William A. Norris, Chairman
Wesley P. Corder, Vice Chairman
Deans Hackney, Secretary
Jennifer Adams, Treasurer
Hollis B. Briggs, Jr.
Jessica Cannon, M.D.
Pat Kusek
Kevin O'Grady
Charlie Rivenbark
Larry Sneed
Rob Zapple

Executive Director

James R. Flechtner, PE

Chief Financial Officer

John B. McLean, CPA

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**Cape Fear Public Utility Authority
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INTRODUCTORY SECTION

(Unaudited)



October 31, 2019

To the Cape Fear Public Utility Authority Board, Customers, and Bondholders:

We are pleased to submit the Comprehensive Annual Financial Report (CAFR) of the Cape Fear Public Utility Authority (the Authority) for the fiscal year ended June 30, 2019. The Authority, like all other local governments and public authorities in the State, is required by state law to publish a complete set of financial statements within four months of the end of each fiscal year. The financial statements must be presented in conformity with generally accepted accounting principles (GAAP) and audited in accordance with generally accepted auditing standards by a firm of licensed certified public accountants. This report is published to fulfill that requirement for the fiscal year ended June 30, 2019, and to provide further accountability to customers, bondholders, and other stakeholders by providing a more comprehensive report in lieu of the minimum basic financial statement requirements.

The Authority's management is responsible for the accounting system and for establishing and maintaining internal controls over financial reporting. The internal control system is designed to provide reasonable assurance regarding (1) the safeguarding of assets against loss from unauthorized use or disposition and (2) the reliability of financial records for preparing financial statements in conformity with accounting principles generally accepted in the United States of America. The concept of reasonable assurance recognizes that the cost of a control should not exceed its likely benefits and the evaluation of costs and benefits requires estimates and judgments by management.

Management assumes full responsibility for both the accuracy of the data presented and the completeness and fairness of the presentation, including all disclosures. To the best of our knowledge and belief, the enclosed financial data is accurate in all material aspects and fairly presents the financial position of the Authority. All disclosures necessary to enable the reader to gain an understanding of the Authority's financial activities have been included.

As noted earlier, the Authority is required by state law to have an annual independent financial audit. Cherry Bekaert, LLP conducted the audit and issued an unmodified ("clean") opinion that the financial statements present fairly, in all material respects, the financial position of the Authority as of June 30, 2019, and changes in financial position and its cash flows in conformity with GAAP. The independent auditors' report on the basic financial statements is located at the beginning of the financial section of this report on pages 16-17.

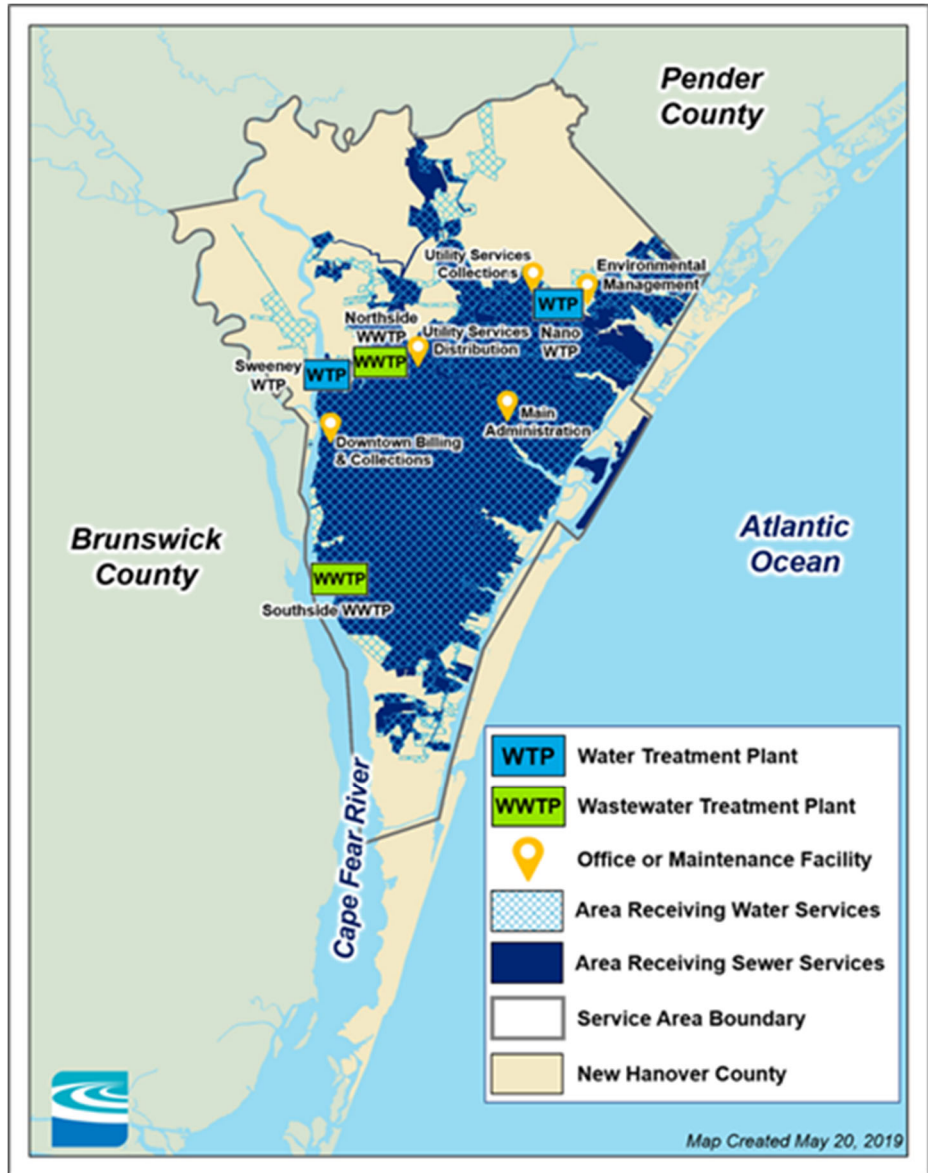
Please refer to the Management's Discussion and Analysis (MD&A) and the basic financial statements for detailed information on the Authority's financial performance in FY 2019. This transmittal letter and the MD&A are intended to complement one another.

Authority Profile

The 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 bulk purchase agreement with the Town of Wrightsville Beach to supplement their water capacity during tourist season up to 45 million gallons per year. New Hanover County's population is approximately 232,000 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 appointing the Executive Director and Legal Counsel.



The annual budget serves as the foundation for the Authority's financial planning and control. The annual operating budget is adopted by the Authority board at a functional level with capital project ordinances adopted on a multi-year basis. The Authority has a 10-year Capital Improvement Plan (CIP). The first year of the CIP is adopted annually. Other years are programmed and are subject to change as priorities are considered. The Authority's operations are accounted for and reported similar to a private enterprise, as provided services are funded by user fees and charges. Budget-to-actual comparisons are provided in this report for the annually appropriated operating fund. Multi-year capital projects are presented on a separate schedule with year to date and project-to-date information.

System Description

The Water System

The water system is composed of a surface water system and two groundwater systems. There are 70,564 water connections, an increase of 930 compared to the previous year. Also, an additional 5,208 locations have services available (vacant lots). The water system has 1,142 miles of distribution lines at June 30, 2019. The Authority also keeps eight wells on standby to supplement the water supply during emergencies or peak demand periods. Metered water consumption for the fiscal year June 30, 2019 increased 4.8% 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 10.0 million gallon per day (MGD) raw water intake at King's Bluff or purchased through a connection with the LCFWSA at U.S. Highway 421. The raw surface water is pumped to the Sweeney Water Treatment Plant (SWTP), which provides potable water to the majority of the Authority's service area. The SWTP has a rated capacity of 35.0 MGD. Average production during the fiscal year ended June 30, 2019 was 15.44 MGD and peak production of 22.28 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.

In October 2009, the Authority placed a Nano-Filtration Groundwater Membrane Plant (the Richardson Water Treatment Plant, RWTP) into operation to serve the northeast section of the distribution system. The RWTP has a rated capacity of 6.0 MGD. The source of raw water is from 25 wells drawing from two different aquifers. The Nanofiltration plant softens the groundwater and removes organic and inorganic contaminants to produce a blended groundwater that is followed by disinfection, pH adjustment, fluoridation, and corrosion control treatment. The Richardson Plant had a daily average production during the fiscal year ended June 30, 2019 of 2.73 MGD and peak production of 5.66 MGD. The Richardson distribution system provides water service to customers and includes 2.0 million gallons of covered ground storage and 2.25 million gallons of elevated storage in five elevated tanks. In addition, the Authority operates one smaller groundwater system, known as the Monterey Heights system, providing groundwater directly to customers from five wells and a single 0.5 million gallon elevated storage tank. The groundwater receives disinfection at each well site before being pumped to the distribution system and the storage tanks. Average production of the Monterey Heights system during the fiscal year ended June 30, 2019 was 0.761 MGD with peak production of 1.68 MGD.

The Wastewater System

There are 74,116 wastewater accounts, an increase of 1,073 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 19.59 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 delivering 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 kjeldahl nitrogen (TKN), fluoride, certain metals, and organics. All of these SIUs pre-treat wastewater prior to discharging to the Authority. All SIUs submit monthly monitoring reports. Authority staff conducts semi-annual monitoring. Surcharges are applied to waste that contains pollutants in excess of domestic strength waste. A NC Division of Water Quality approved enforcement response plan ensures permit violations are addressed timely and equitably. Additionally, the pretreatment program permits and monitors food service

establishments and other dischargers of non-domestic wastewater that could be harmful to the treatment works, employees, bio-solids, public health, and receiving waters.

Economic Condition and Outlook

The service area of the Authority, comprising most of New Hanover County, continues to be a commercial center for southeastern North Carolina and its economic profile consists of a diverse mixture of education, healthcare, manufacturing and service industries. The area serves as the economic, cultural, and services hub for southeastern North Carolina. The historic attractions, mild climate, water-related activities and business opportunities have made the region one of the fastest growing areas of the nation. The area's commercial and industrial base is diversified with a mix of local, regional, national and international companies. Local industries are involved in a range of operations including research and development and manufacturing processes resulting in the production of synthetic fibers, fiber optics, nuclear fuel and jet engine components.

Taxable sales in New Hanover County were up 13.2% for the fiscal year ended June 30, 2019. New Hanover County reported a 17% increase in the number of building permits issued with a 8% increase in the cost of these permitted projects compared to the prior year. The County's unemployment rate at June 30, 2019, of 4.0%, is lower than North Carolina's 4.1% and only slightly above the United States unemployment rate of 3.7%.

Long-Term Financial Planning and Relevant Financial Policies

The Authority's long-term financial plan incorporates the Authority's policy debt limitations and reserve levels. In accordance with these policies, the long-term financial plan includes gradual increases to rates to fully fund \$18 million in annual recurring capital expenditures. The Authority is currently planning to complete this transition by FY 22-23. During the transition period the Authority will supplement transfers from the operating fund with available cash reserves to fund capital expenditures. These policies were adopted to produce a flexible 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 demanded by credit rating agencies.

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 user 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 funding capital improvement exclusively through rates 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 Authority's 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 rate revenue funding for capital improvements. The policy debt metric limit of 45% was derived considering the Authority's debt service coverage target and its expectation of long-term borrowing costs.

The optimal level of reserves provides for a balance between having sufficient amounts to ensure continued service in the event of infrastructure failure or periods of declining revenues and the efficient use of the financial resources provided by rate payers. The Authority's reserve policy provides for a periodic, risk-based assessment of the optimal level of cash reserves. Factors considered in this assessment include working capital requirements, the probability and magnitude of catastrophic infrastructure failure and/or declining revenues, and credit rating agency benchmarks.

Major Initiatives

The Authority is committed to providing a level of service that is responsive to the needs of the community. The Authority's operating and capital budgets are developed to support these needs. Major initiatives incorporated into the Authority's operating and capital budgets include the following:

- Growth - The service area continues to experience significant population growth. The Authority collaborates with the City of Wilmington and New Hanover County to plan for and accommodate economic development and partners with private developers to meet demands for capacity and new services. The fiscal year 2020 10-year Capital Improvement Plan includes \$45.0 million related to growth projects, including \$25.0 million to construct an upsized water transmission main on behalf of LCFWSA in partnership with Brunswick County. Current major growth-related capital projects appropriated to fiscal year 2020 include the extension of water and wastewater service to the Highway 421 Corridor.
- Affordability - The health and well-being of our community depend on access to clean water and sanitary sewer service. The Authority recognizes that the cost of our services is one part of our customers' overall cost of living. CFPUA Assist, a non-profit created by the Authority governed by representatives of the Authority and other community institutions, partners with New Hanover County Department of Social Services to distribute private donations to customers in need.
- Water quality - Meeting regulatory requirements is just the starting point for the Authority. From there, steps are taken to maintain a comprehensive understanding of our source water and invest in technology to achieve the level of water quality that the community demands. The Authority tests source water for emerging, unregulated compounds, including per- and polyfluoroalkyl substances (PFAS), 1,4-dioxane, and pharmaceuticals and personal care products. This information is shared with our community and investments are made to remove these compounds. Construction will start in late 2019 to install granular activated carbon (GAC) filtration at the Sweeney Water Treatment Plant to remove PFAS from treated surface water. Total project costs are anticipated to be approximately \$43.0 million.
- Investments in aging infrastructure – The Authority has made significant investments in replacing and rehabilitating its aging infrastructure. These investments resulted in the termination of the EPA Consent Decree in June 2018. Comparing the last five years with the five years prior to the formation of the Authority, the frequency of sanitary sewer overflows has decreased by 45% while the volume of sanitary sewer overflows has decreased 98%. The Authority's Fiscal Year 2020 10-year Capital Improvement Program includes approximately \$127.0 million for infrastructure rehabilitation and replacement.

Awards and Acknowledgements

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the Authority for its comprehensive annual financial report for the fiscal year ended June 30, 2018. The Authority has received this prestigious award each of the ten fiscal years since it began operations July 1, 2008. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized comprehensive annual financial report (CAFR). This report must satisfy both generally accepted accounting principles and applicable legal requirements. The Certificate is valid for a period of one year only. We believe our current comprehensive annual financial report continues to meet the Certificate of Achievement Program's requirements and we are submitting it to GFOA to determine eligibility for another certificate.

The Authority Board members have provided their unfailing support of the highest standards of professionalism in the management of the Authority's finances. This report is the work of the efficient and dedicated staff of the Finance and Customer Service Departments. We wish to express our appreciation to all members of those departments who assisted and contributed to the preparation of this report and the entire Authority staff for their cooperation and assistance.

Respectfully submitted,

James R. Flechtner, P.E.
Executive Director



Government Finance Officers Association

**Certificate of
Achievement
for Excellence
in Financial
Reporting**

Presented to

**Cape Fear Public Utility Authority
North Carolina**

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2018

Christopher P. Morill

Executive Director/CEO

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 2020

Committee: Executive, Finance &
Communications



Deans Hackney

Secretary

Appointed by City of Wilmington

Seated in 2018

Term ends 2022

Committee: Executive, Finance & Human
Resources



Patricia O. Kusek

Commissioner

Appointed by New Hanover County

Seated in 2011

Term ends 2019

Committees: Communications &
Human Resources



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



Hollis Briggs, Jr.

Member

Appointed by New Hanover County

Seated in 2019

Term ends 2022

Committees: Long Range Planning



Jessica Cannon, M.D.

Member

Appointed by City of Wilmington

Seated in 2019

Term ends in 2020

Committees: Long Range Planning



Larry Sneed

Member

Appointed by New Hanover County

Seated in 2012

Term ends in 2020

Committees: Long Range Planning



Rob Zapple

Commissioner

Appointed by New Hanover County

Seated in 2019

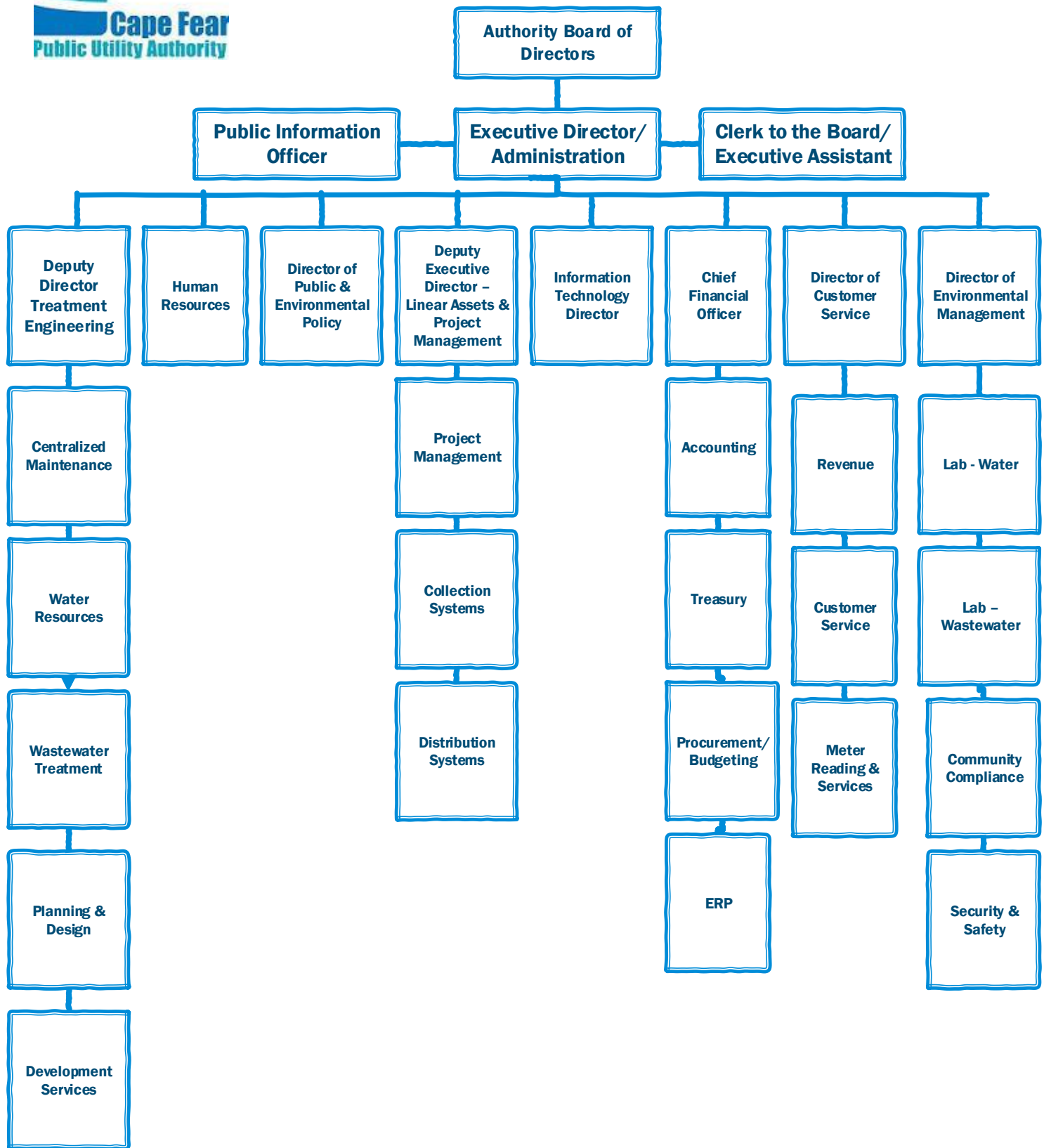
Term ends in 2019

Committees: Finance & Long Range
Planning



Donna S. Pope

Clerk to the Board



FINANCIAL SECTION

Report of Independent Auditor

The Board of Directors
Cape Fear Public Utility Authority
Wilmington, North Carolina

Report on the Financial Statements

We have audited the accompanying statement of net position of Cape Fear Public Utility Authority (the “Authority”) as of June 30, 2019, and the related statements of revenues, expenses, and changes in net position and cash flows for the year then ended, and the related notes to the financial statements which collectively comprise the Authority’s basic financial statements.

Management’s Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor’s Responsibility

Our responsibility is to express opinions on these basic financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor’s judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Authority’s preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Authority’s internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the Authority, as of June 30, 2019, and the respective changes in financial position and cash flows for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the required supplementary information as listed in the table of contents be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary and Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Authority's basic financial statements. The introductory section, and schedules listed in the table of contents under "Supplementary Schedules" and the statistical section, as well as the accompanying schedule of expenditures of federal and State awards as required by Uniform Guidance and the State Single Audit Implementation Act are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The supplementary schedules and the schedule of expenditures of federal and State awards are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, based on our audit the supplementary schedules and the schedule of expenditures of federal and State awards are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The introductory and statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated October 31, 2019, on our consideration of the Authority's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards*, and should be considered in assessing the Authority's internal control over financial reporting and compliance.

Cheryl Bekaert LLP

Raleigh, North Carolina
October 31, 2019

Cape Fear Public Utility Authority Management's Discussion and Analysis (Unaudited)

The management of Cape Fear Public Utility Authority (Authority) offers readers of our financial statements this narrative overview and analysis of the financial activities of the Authority for the fiscal year ended June 30, 2019. We encourage readers to consider the information presented here in conjunction with additional information that we have furnished in our letter of transmittal, which can be found on pages 6 through 10 of this report.

FINANCIAL HIGHLIGHTS

- The overall financial condition of the Authority improved during the year ended June 30, 2019. Assets and deferred outflows of resources of the Authority exceeded its liabilities and deferred inflows of resources at the close of the fiscal year by approximately \$566.5 million which is an increase of \$23.7 million from the prior year, as restated.
- Total operating revenues were \$86.0 million, an increase of \$3.3 million or 3.9% over the prior year. The increase is mainly attributable to an increase in charges for services driven by an increase in water and wastewater rates. The increase in rates was part of a deliberate plan to gradually increase rates to achieve \$18 million in pay-as-you-go capital funding each year. The \$18 million pay-as-you-go funding target was developed based on the Authority's targeted level of debt service coverage of 1.6x and the level of annual investment required to maintain the value of the Authority's infrastructure assets.
- Total operating expenses (including depreciation and amortization) were approximately \$73.8 million, an increase of approximately \$7.3 million or 11.0% over the prior year. The change is due to the following:
 - A \$1.7 million increase in personnel and benefits expense related to merit and cost-of-living adjustments for Authority staff and an increase in pension expense due to a decrease in the discount rate assumption from 7.2 % to 7.0%.
 - A \$4.7 million increase in operations and maintenance expense related to repairs of damages caused by Hurricane Florence and expenses related to the removal of per- and polyfluoroalkyl substances (PFAS).
 - A \$0.9 million increase in depreciation and amortization expense due to the Authority's increased investment in infrastructure during the year.

OVERVIEW OF THE FINANCIAL STATEMENTS

The Authority was created in accordance with NCGS 162A to provide water and wastewater services to the City of Wilmington (City) and the unincorporated areas of New Hanover County (County). The Authority does not provide other general purpose government services or programs and does not have the power of taxation. The Authority's operations, capital expansion program, and debt payments are funded almost entirely through user rates, fees, and other charges for these water and sewer services similar to a private business. As such, the Authority is considered a special-purpose government engaged in only business-type activities for financial reporting purposes.

The Authority's basic financial statements consist of a *Statement of Net Position*, a *Statement of Revenues, Expenses and Changes in Net Position*, and a *Statement of Cash Flows*. These statements, together with the *Management's Discussion and Analysis*, provide information about the Authority's financial position and results of operations during the year. To provide a better understanding of the information contained in these statements, *Notes to Financial Statements* and a *Schedule of Revenues and Expenditures – Budget and Actual (NON-GAAP)* appear immediately following the basic financial statements. In addition to this discussion and analysis, other required supplementary information, general statistical and demographic in nature, is presented.

The *Statement of Net Position* presents information on the Authority's assets and deferred outflows of resources and liabilities and deferred inflows of resources, with the difference between the two reported as net position. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the Authority is improving or deteriorating. The *Statement of Revenues, Expenses and Changes in Fund Net Position* presents information showing how the Authority's net position changed during the most recent fiscal year. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of cash flows. Thus, revenues and expenses are reported in this statement for some items that will only result in cash flows in future fiscal periods. Finally, the *Statement of Cash Flows* provides information on how the Authority's cash and cash equivalents changed during the year. The basic financial statements can be found on pages 26 through 29 of this report.

**Cape Fear Public Utility Authority
Management's Discussion and Analysis (Unaudited)**

The notes provide additional information that is essential to obtain a full understanding of the data provided in the financial statements. The Notes to Financial Statements can be found on pages 30 through 46 of this report.

FINANCIAL ANALYSIS

Table A presents the Condensed Statement of Net Position for the fiscal years ended June 30, 2019 and June 30, 2018.

Condensed Statement of Net Position		
Table A		
	June 30, 2019	June 30, 2018
Assets		
Current assets	\$ 126,789,174	\$ 144,188,368
Non-current assets - capital	736,730,114	702,687,118
Total assets	863,519,288	846,875,486
Deferred Outflows of Resources	19,458,107	20,640,230
Liabilities		
Current liabilities	34,742,234	33,443,355
Noncurrent liabilities	280,723,346	290,169,819
Total liabilities	315,465,580	323,613,174
Deferred Inflows of Resources	983,399	1,051,068
Net Position		
Net investment in capital assets	468,755,415	424,502,362
Restricted	21,388,218	17,935,269
Unrestricted	76,384,783	100,413,843
Total net position	\$ 566,528,416	\$ 542,851,474

As noted earlier, net position may serve over time as a useful indicator of the Authority's financial position. In the case of the Authority, assets and deferred outflows of resources exceeded liabilities and deferred inflows of resources by approximately \$566.5 million at June 30, 2019, which is an increase of \$23.7 million over the prior year, as restated. The largest component of the Authority's net position represents the investment in water and wastewater infrastructure and other capital assets net of the outstanding balance of debt issued to acquire and construct these assets. The Authority's net investment in capital assets increased by \$44.3 million due to capital contributions from developers of \$11.7 million; \$45.9 million in Authority-funded capital investment; \$22.9 million in depreciation and amortization expense; and a net reduction in the carrying value of the Authority's long-term debt and related deferred outflows of resources of \$9.6 million.

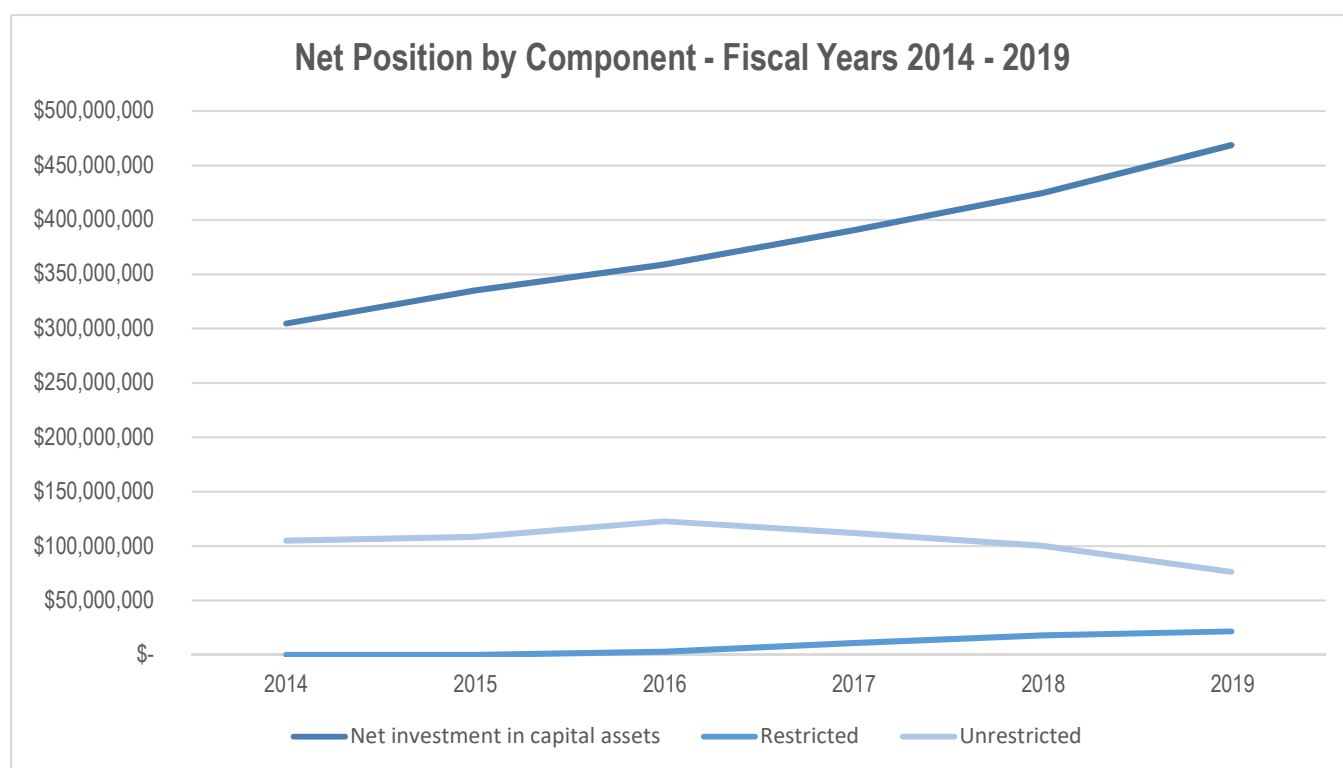
The restricted component of the Authority's net position consists of those resources that are restricted through law or by outside parties for a specific purpose. The Authority's restricted net position consists of assets set aside each month to pre-fund subsequent debt service payments as required by the Authority's bond indenture and prior years' operating budgetary surpluses

Cape Fear Public Utility Authority Management's Discussion and Analysis (Unaudited)

restricted by the Board for capital reserves in accordance with the Authority's one-time revenue policy. During fiscal year 2019 restricted net position increased by \$3.5 million. The increase was due mainly to a net increase in capital reserves, including additional restrictions of fiscal year 2018 operating surplus and amounts receivable from the City of Wilmington related to the release of monies upon termination of the Consent Decree that are restricted for water and wastewater projects within the city limits.

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 investment in the Authority's water and wastewater infrastructure. During the year, unrestricted net position decreased by \$24.0 million. The decrease was almost exclusively attributable of the Authority's deliberate plans to spend undesignated net position down to target levels. The Authority's target is \$50.0 million in undesignated fund balance calculated on the modified accrual basis. Amounts in excess of this target have and will continue to be spent to fund capital investments.

The graph below details the changes in the Authority's net position by component since fiscal year 2014.



The changes in the components of net position during fiscal year 2019 mentioned above are consistent with the changes to the components of net position over the past several fiscal years. In fiscal year 2016, the Board implemented revisions to the Authority's reserve, debt, and one-time revenue policies. The Board implemented an explicit debt limit which implied that annual pay-as-you-go capital funding needed to be increased to \$18.0 million. Funding more of the Authority's capital assets on a pay-as-you-go basis relative to debt funding over time has resulted in an increase in the Authority's net investment in capital assets. Further, as rates were transitioned upwards to achieve this funding target, excess unrestricted net position was used as a funding source which has resulted in a decrease in unrestricted net position and an increase in the net investment in capital assets over the past several years. To prevent operating budget surpluses from increasing unrestricted net position as the Authority is deliberately spending unrestricted net position, operating budget surpluses have been restricted by the Board for capital reserves pursuant to the Authority's one-time revenue policy resulting in an increase in restricted net position since fiscal year 2016.

**Cape Fear Public Utility Authority
Management's Discussion and Analysis (Unaudited)**

Table B presents the Condensed Statement of Revenues, Expenses and Changes in Net Position for the fiscal years ended June 30, 2019 and June 30, 2018.

Condensed Statement of Revenues, Expenses and Changes in Net Position		
Table B		
	Year Ended June 30, 2019	Year Ended June 30, 2018
Revenues		
Operating revenues		
Charges for services	\$ 77,413,386	\$ 73,276,538
System development charges	5,222,171	6,014,920
Other operating revenues	3,334,896	3,448,795
	85,970,453	82,740,253
Nonoperating revenues		
Investment earnings	2,204,682	1,567,523
State & federal grants	5,433,834	304,000
Other nonoperating revenue	756,444	2,939,034
Total revenues	94,365,413	87,550,810
Expenses		
Operating expenses	50,926,381	44,462,727
Depreciation and amortization	22,863,858	22,024,805
	73,790,239	66,487,532
Nonoperating expenses		
Interest expense	8,660,674	8,660,925
Bond issuance costs and other debt service fees	-	142,708
Total expenses	82,450,913	75,291,165
Increase in net position before capital contributions	11,914,500	12,259,645
Capital contributions	11,762,442	11,538,622
Increase in net position	23,676,942	23,798,267
Net position, July 1	537,346,597	516,044,505
Cumulative effect of change in accounting principle	5,504,877	(2,496,175)
Net position, June 30	\$ 566,528,416	\$ 537,346,597

**Cape Fear Public Utility Authority
Management's Discussion and Analysis (Unaudited)**

The approximately \$23.7 million increase in the Authority's net position is a result of the following:

- *Capital asset additions during the year funded with current year revenues outpaced depreciation and amortization expense by \$11.8 million* – Net position increases to the extent that additions to capital assets funded with current year revenues and contributions exceed depreciation and amortization on capital assets. During the year, additions to capital assets funded with user charges and grants were \$23.6 million, an increase of \$6.5 million over the prior year. This increase was largely driven by 1) increases in user charges deliberately implemented to fund more of the Authority's capital program on a pay-as-you-go basis and 2) increases in state grant funding for certain wastewater rehabilitation projects compared to the prior year. In addition, developers and other parties contributed \$11.1 million of infrastructure assets. These additions outpaced depreciation and amortization expense on the Authority's capital assets during the period of \$22.9 million.
- *Principal on outstanding debt of \$13.2 million was repaid with current year revenues* – Retirement of debt with revenues earned during the period increases net position. The Authority's user charges are established to recover operating costs during the year including the repayment of principal on outstanding debt obligations. During the year, the Authority made principal payments of \$13.2 million related to outstanding bonds, installment obligations, loans, and lease liabilities.
- *Personnel & benefits, operations & maintenance, and interest expense outpaced remaining revenues by \$1.3 million* – Revenues that weren't invested in the Authority's water and wastewater system or used to retire debt obligations are available to fund personnel & benefits, operations & maintenance, and interest expenses. User charges and fees are set at levels that are anticipated to cover expenses that are included in the Authority's operating budget. Net position increases to the extent that revenues exceed budgeted estimates. Net position decreases to the extent that actual full accrual expenses exceed modified accrual expenditures included in the Authority's operating budget. During the year, actual revenues outperformed relative to budgeted levels by \$5.7 million; however, some of this outperformance was offset by actual full accrual personnel & benefits, operations & maintenance, and interest expenses outpacing the modified accrual levels included in the operating budget by \$7.0 million.

The \$5.7 million outperformance in revenues was driven largely by outperformance in fixed and volumetric charges for water and wastewater service. As shown in Table C, actual fixed and volumetric charges for water and wastewater service exceeded budgeted amounts by \$3.2 million or 4.46%. The outperformance in water and wastewater charges was due to customer growth and consumption per customer that was greater than the assumptions incorporated in budgeted estimates. Actual customers (expressed in equivalent residential units) outpaced forecasts by 3,085 (3.51%) for water service and 1,973 (2.32%) for wastewater service. Billed usage per ERU exceeded budgetary estimates by 2,400 gallons or 4.07% for water and 600 gallons or 1.09% for wastewater service. The increased consumption were mainly attributable to relatively low precipitation levels in April - June 2019 compared to historical averages. In addition, system development charges, investment earnings, and other operating revenues exceeded budgeted levels by \$1.0 million, \$0.7 million, and \$0.8 million, respectively.

The \$7.0 million increase in actual personnel & benefits, operations & maintenance, and interest expense compared to the modified accrual basis amounts included in the operating budget were due to the following:

- Personnel & benefits expense includes approximately \$1.3 million not covered by current year revenues which is largely attributable to differences in budgeting and financial reporting practices related to pensions and other postemployment benefits expense. The operating budget funds employer pension contributions with current year revenues and retiree health benefit contributions with existing fund balance. Therefore, the excess of GAAP-basis pension expense over employer pension contributions during the year and the entire amount of

**Cape Fear Public Utility Authority
Management's Discussion and Analysis (Unaudited)**

GAAP-basis OPEB expense will result in a decrease in net position. During the year, pension expense exceeded employer pension contributions by \$0.3 million and OPEB expense was \$1.2 million.

- Operations & maintenance expense includes approximately \$7.5 million in expenses that weren't included in the Authority's operating budget. Most of this amount relates to operations & maintenance expenses included in the Authority's capital budget that were funded with unrestricted net position. These expenses included filter media replacement at the Sweeney Water Treatment Plant related to the removal of PFAS, SCADA system software and hardware maintenance, and emergency repairs on the water and wastewater system.
- Interest expense was approximately \$1.8 million less than the amount included in the operating budget partially offsetting the relative increases in personnel & benefits and operations & maintenance expense not included in the operating budget. Revenues are developed to cover interest on the Authority's debt that comes due during the year which is based on coupon rates; however, interest expense is recognized at the effective interest rate, which includes amortization of bond premiums. Since the effective interest rate on the Authority's debt obligations is less than the average coupon rate, interest expense is less than the interest payments made during the year.

Comparison of Budgeted and Actual Water and Wastewater Rate Revenues

Table C

	Budget	Actual	Variance	% Variance
Fixed Charges - Water	\$ 14,551,680	\$ 15,061,773	\$ 510,093	3.51%
Volumetric Charges - Water	20,882,958	22,472,935	1,589,977	7.61%
Fixed Charges - Wastewater	14,841,000	15,185,562	344,562	2.32%
Volumetric Charges - Wastewater	21,678,691	22,446,718	768,027	3.54%
Equivalent residential units - Water	88,000	91,085	3,085	3.51%
Thousands of gallons consumed - Water	5,194,766	5,590,282	395,517	7.61%
Equivalent residential units - Wastewater	85,000	86,973	1,973	2.32%
Thousands of gallons consumed - Wastewater	4,682,223	4,848,103	165,881	3.54%
Water consumption per ERU	59.0	61.4	2.4	4.07%
Wastewater consumption per ERU	55.1	55.7	0.6	1.09%

CAPITAL ASSETS AND DEBT ADMINISTRATION

Capital Assets

The Authority's capital assets include water treatment plants, wastewater treatment plants, pump stations, water distribution systems, and the wastewater collection system. The average remaining useful life of the Authority's depreciable assets is 28.4 years. Capital assets during the year increased by \$34.0 million (4.8%) to \$736.7 million (net of accumulated depreciation and amortization). The increase was due to capitalization of \$45.8 million in internally constructed or acquired assets and the addition of \$11.1 million in infrastructure constructed by other parties conveyed to the Authority during the year. These additions were offset with depreciation and amortization expense of \$22.9 million. Major capital asset additions included the following:

**Cape Fear Public Utility Authority
Management's Discussion and Analysis (Unaudited)**

- \$11.1 million of conveyed sewer and water lines in developing areas of New Hanover County
- \$8.4 million to extend water and wastewater service up the Highway 421 corridor
- \$4.4 million related to interim rehabilitation efforts at the Southside Wastewater Treatment Plant
- \$4.3 million in expenditures to replace the Authority's existing meters with new, automatic meter reading technology to reduce the risk of erroneous meter reads and provide for a more efficient meter reading process
- \$3.1 million related to the replacement of the Pump Station 10
- \$2.8 related to the design and engineering of enhancements to the Sweeney Water Treatment Plant to remove PFAS

Table D presents capital asset balances at June 30, 2019 and June 30, 2018. Additional information on the Authority's capital assets can be found in Note 4 on page 36 of this report.

Net of Depreciation and Amortization		
Table D		
	2019	2018
Nondepreciable capital assets:		
Land	\$ 3,846,140	\$ 3,846,140
Intangible Asset - Easements	5,690,586	5,529,387
Construction in progress	78,140,518	49,593,525
Total capital assets not being depreciated or amortized	87,677,244	58,969,052
Depreciable capital assets, net:		
Plant, Structures and Improvements	243,445,915	247,766,130
Water and Sewer Lines	393,192,796	383,222,945
Furniture, Fixtures and Machinery	5,979,998	5,638,582
Intangible Asset - Leased Facilities	5,328,721	5,828,528
Intangible Asset - Computer Software	68,162	138,163
Intangible Asset - Water Availability Rights	1,037,278	1,123,718
Total capital assets being depreciated or amortized	649,052,870	643,718,066
Capital assets, net	\$ 736,730,114	\$ 702,687,118

Debt Administration

The Authority's long-term debt, presented in Table E below, totaled \$273.3 million at June 30, 2019. The Authority's total debt coverage for fiscal year 2019 was 1.91, remaining above the required 1.0 ratio. Coverage on revenue bond debt was 2.10, well above the required 1.2 ratio.

**Cape Fear Public Utility Authority
Management's Discussion and Analysis (Unaudited)**

Outstanding Long-Term Obligations

Table E

	2019	2018
Revenue Bonds	\$ 250,034,259	\$ 264,372,354
Installment Obligations:		
Locality compensation payment	8,765,000	9,795,000
ARRA Revolving Loan	792,066	848,642
DWSRF Revolving Loan	131,938	140,733
Clean Water State Revolving Loans	13,582,206	9,320,528
Totals	\$ 273,305,469	\$ 284,477,257

The Authority's debt policy includes specific criteria that capital projects should generally meet to be candidates for debt funding. These criteria include whether the project is high-dollar where it would be impractical to fund through current year rate revenues; whether the project is growth-oriented where spreading costs through debt payments to future customers who will benefit from the capital improvements is equitable; or whether the project is emergency-related where an immediate source of funding is necessary to quickly restore system functionality. During the year, the Authority received approximately \$4.7 million in loan proceeds under the Clean Water State Revolving Loan program to reimburse eligible expenditures for interim rehabilitation efforts to the Southside Wastewater Treatment Plant; the replacement of the Pump Station 10 force main; the replacement of Pump Station 137; and the replacement of the Pump Station 12 force main. Principal payments on outstanding long-term debt totaled \$12.7 million.

The Authority's debt policies also include an explicit debt limitation that is reflective of the Board's target debt service coverage and expectation of borrowing costs. Debt may not be issued if such issuance would cause the Authority's debt-to-capitalization ratio to exceed 45%. As of June 30, 2019 the Authority's debt-to-capitalization ratio was 33.6%, or \$84.0 million in additional debt capacity.

The Authority maintains credit ratings of AA+ and Aa2 from Standard and Poor's and Moody's, respectively. Both ratings are one level below the highest possible ratings.

Additional information on the Authority's long-term debt can be found in Note 8, Long-Term Obligations beginning on page 44 of this report.

REQUESTS FOR ADDITIONAL INFORMATION

This report is designed to provide an overview of the Authority's finances for those with an interest in this area. Questions concerning any of the information found in this report or requests for additional information should be addressed to the Cape Fear Public Utility Authority, Finance Department, 235 Government Center Drive Suite 201 (Second Floor), Wilmington, NC 28403. You can also call 910-332-6668, visit our website at www.cfpua.org or send an email to john.mclean@cfpua.org.

Cape Fear Public Utility Authority
Statement of Net Position
June 30, 2019

ASSETS

Current assets

Cash and cash equivalents	\$ 49,438,043
Investments	32,193,126
Receivables, net	15,787,208
Due from other governments	7,940,556
Restricted:	
Cash and cash equivalents	19,846,761
Due from other governments	1,541,456
Prepays	42,023
Total current assets	126,789,173

Noncurrent assets

Capital assets:	
Land, easements and construction in progress	87,677,244
Other capital assets, net	649,052,870
Total capital assets	736,730,114
Total noncurrent assets	736,730,114
Total assets	863,519,287

DEFERRED OUTFLOWS OF RESOURCES

Deferred charge on refunding	11,369,908
Amounts related to pensions	4,291,206
Amounts related to OPEB	3,796,993
Total deferred outflows of resources	19,458,107

LIABILITIES

Current liabilities

Accounts payable and accrued liabilities	15,373,569
Accrued interest payable	3,259,261
Due to other governments	8,924
Unearned revenue	140,428
Customer and escrow deposits	2,856,380
Compensated absences, current maturities	776,721
Lease liability, current maturities	468,904
Long-term obligations, current maturities	11,858,047
Total current liabilities	34,742,234

Noncurrent liabilities

Compensated absences	617,155
Lease liability, net of current maturities	5,570,234
Net pension liability	5,260,906
Total OPEB liability	7,827,629
Long-term obligations, net of current maturities	261,447,421
Total noncurrent liabilities	280,723,345
Total liabilities	315,465,579

DEFERRED INFLOWS OF RESOURCES

Amounts related to pensions	44,329
Amounts related to OPEB	939,070
Total deferred inflows of resources	983,399

NET POSITION

Net investment in capital assets	468,755,415
Restricted for:	
Debt service	10,902,013
Capital projects	10,486,205
Unrestricted	76,384,783
Total net position	\$ 566,528,416

See Notes to Financial Statements.

Cape Fear Public Utility Authority
Statement of Revenues, Expenses and Changes in Net Position
For the Fiscal Year Ended June 30, 2019

Operating revenues

Charges for services	\$ 77,413,386
System development charges	5,222,171
Other operating revenues	3,334,896
Total operating revenues	85,970,453

Operating expenses

Personnel and benefits	23,420,453
Operations and maintenance	27,505,928
Depreciation and amortization	22,863,858
Total operating expenses	73,790,239
Operating income	12,180,214

Nonoperating revenues (expenses)

Investment earnings	2,204,682
Interest expense	(8,660,674)
State & federal grants	5,433,834
Gain on disposal of capital assets	132,953
Insurance proceeds	623,491
Total nonoperating (expenses)	(265,714)
Income before capital contributions	11,914,500

Capital contributions	11,762,442
Total capital contributions	11,762,442
Change in net position	23,676,942

Net position

Beginning of year	537,346,597
Restatement	5,504,877
End of year	\$ 566,528,416

See Notes to Financial Statements.

Cape Fear Public Utility Authority
Statement of Cash Flows
For the Fiscal Year Ended June 30, 2019

Cash Flows From Operating Activities

Cash received from customers	\$ 83,875,830
Cash paid to suppliers	(24,309,817)
Cash paid to or on behalf of employees	(22,217,376)
Cash received on behalf of others	19,979,527
Cash payments held on behalf of others	(19,920,039)
Cash received for deposits	1,054,736
Cash returned for deposits	(985,762)
Net cash provided by operating activities	37,477,099

Cash Flows from Noncapital Financing Activities

Insurance proceeds	623,491
Net cash provided by noncapital financing activities	623,491

Cash Flows From Capital and Related Financing Activities

Acquisition and construction of capital assets	(45,858,908)
Grants and contributions received from other governments	1,294,278
Proceeds from Clean Water State Revolving Loans	4,749,354
Principal paid on long-term obligations	(13,157,916)
Interest paid on long-term obligations	(10,711,017)
Proceeds from sale of capital assets	155,106
Capital contributions	692,343
Net cash used for capital and related financing activities	(62,836,760)

Cash Flows From Investing Activities

Purchases of investments	(42,410,196)
Proceeds from investment maturities	44,573,681
Proceeds from interest on investments	1,555,985
Net cash provided by investing activities	3,719,470
Net increase in cash and cash equivalents	(21,016,700)

Cash and cash equivalents, beginning of year	90,301,504
Cash and cash equivalents, end of year	\$ 69,284,804

Reconciliation to the Statement of Net Position:

Cash and cash equivalents	\$ 49,438,043
Restricted cash and cash equivalents	19,846,761
	\$ 69,284,804

(Continued)

Cape Fear Public Utility Authority
Statement of Cash Flows (Continued)
For the Fiscal Year Ended June 30, 2019

Reconciliation of Operating Income to Net Cash Provided by Operating Activities

Operating income	\$ 12,180,214
Adjustments to reconcile operating income to net cash provided by operating activities:	
Depreciation and amortization	22,863,858
Changes in assets and liabilities:	
(Increase) in receivables, net	(502,630)
Decrease in prepaids	2,719
Increase in operating accounts payable, accrued liabilities and due to other governments	1,799,039
(Decrease) in unearned revenue	(73,621)
Increase in customer and escrow deposits	135,220
Increase in compensated absences	138,631
(Increase) in deferred outflows of resources related to pensions and OPEB	(230,476)
Decrease in deferred inflows of resources related to pensions and OPEB	(67,669)
Increase in net pension liability	1,877,458
(Decrease) in total OPEB liability	(645,642)
Total adjustments	<u>25,296,887</u>
Net cash provided by operating activities	<u><u>\$ 37,477,101</u></u>

Supplemental Schedule of Noncash Activities

Contributions of capital assets from developers	<u><u>\$ 11,070,099</u></u>
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See Notes to Financial Statements.

Cape Fear Public Utility Authority
Notes to Financial Statements
For the Fiscal Year Ended June 30, 2019

Note 1. Summary of Significant Accounting Policies

The accounting policies and financial statements of the Cape Fear Public Utility Authority (the Authority) have been prepared in conformity with accounting principles generally accepted in the United States of America as applied to governmental units. The Governmental Accounting Standards Board (GASB) is the accepted standard-setting body for establishing accounting and financial reporting principles. The more significant of the Authority's accounting policies are described below.

Basis of Presentation, Measurement Focus, and Basis of Accounting

The Authority is a special-purpose government engaged only in business-type activities. Therefore, all activities of the Authority are presented in a single column using the financial statements that are required for enterprise funds. Enterprise funds are used to account for operations that are financed and operated in a manner similar to private business enterprises where the intent of the governing body is that the costs (expenses, including depreciation) of providing goods or services to the general public on a continuing basis be financed or recovered primarily through user charges.

The Authority's activities are accounted for using the economic resources measurement focus and the accrual basis of accounting. Under the accrual basis, revenue is recorded when earned and expenses are recorded at the time liabilities are incurred, regardless of when the related cash flows take place. Non-exchange transactions, in which the Authority gives (or receives) value without directly receiving (or giving) equal value in exchange, include grants. Revenue from grants and donations is recognized in the fiscal year in which all eligibility requirements have been satisfied.

The Authority distinguishes operating revenues and expenses from nonoperating items. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with an enterprise fund's principal ongoing operations. The principal operating revenues of the Authority are charges to customers including those for water and wastewater service, system development charges, connection fees, penalties, and others. Operating expenses for the Authority include the cost of materials and services, administrative expenses, and depreciation and amortization of capital assets. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses. These include but are not limited to grant revenues, investment earnings, gains/losses on the sale of capital assets, and interest expense.

Budgets

Budgets are adopted utilizing the modified accrual basis of accounting as required by State statute. An annual budget ordinance is adopted for operating and capital appropriations. All operating appropriations lapse at fiscal year-end, while capital appropriations continue until project completion.

Expenditures may not legally exceed appropriations at the department/division and expense category levels for operating appropriations and at the project fund level for capital appropriations. The budget may be amended as necessary by the governing board. A budget calendar is included in the North Carolina General Statutes which prescribes the last day on which certain steps of the budget procedure are to be performed. The following schedule lists the tasks to be performed and the date by which each is required to be completed.

April 30	Each department head will transmit to the budget officer the budget requests for their department for the budget year.
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**Cape Fear Public Utility Authority
Notes to Financial Statements
For the Fiscal Year Ended June 30, 2019**

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

July 1 The budget ordinance shall be adopted by the governing board.

Assets, Liabilities, Deferred Outflows and Inflows and Net Position

Cash, Cash Equivalents, Deposits and Investments

For financial statement presentation, the Authority defines "cash and cash equivalents" as demand deposits and investments (including restricted assets) purchased with an original maturity of 3 months or less. Investments in the North Carolina Capital Management Trust (NCCMT) Government and Term portfolios are considered cash and cash equivalents because the weighted-average maturity of the investments in each portfolio is less than 3 months. The Authority's certificates of deposits are considered investments, rather than cash and cash equivalents, because the original maturities were greater than 3 months at the time of purchase.

Restricted Assets and Liabilities

Restricted assets and liabilities are those that have constraints imposed by creditors, grantors, contributors, laws or regulations of other governments, or by law through state statute. The Authority is required by its bond indenture to deposit 1/6 of the next interest payment and 1/12 of the next principal payment with its trustee each month. These amounts are irrevocable and are considered restricted. Amounts restricted by the Board including capital reserve funds are also considered restricted.

Allowance for Doubtful Accounts

All receivables that historically experience uncollectible accounts are shown net of an allowance for doubtful accounts. This amount is estimated by analyzing historical revenue collection rates to determine the percentage uncollectible.

Capital Assets

Capital assets are defined by the Authority as assets with an initial, individual cost of more than \$5,000 and estimated useful life in excess of one year. Purchased capital assets are valued at original cost at the time of acquisition. The cost of normal repairs and maintenance which do not increase utility or capacity or do not materially extend lives of existing capital assets are expensed in the period incurred. Conveyed capital assets are recorded at acquisition value at the time of the conveyance. Major outlays for capital assets and improvements are capitalized as projects are constructed.

Capital assets, which include buildings, plant, furniture, fixtures, equipment and infrastructure assets, are depreciated using the straight-line method by groups or classes of property over the following expected service lives:

	Years
Plant, Structures and Improvements	20-40
Water and Sewer Lines	50
Furniture, Fixtures and Machinery	5

**Cape Fear Public Utility Authority
Notes to Financial Statements
For the Fiscal Year Ended June 30, 2019**

The Authority may consider capital assets impaired if both: (a) the decline in service utility of the capital asset is large in magnitude and (b) the event or change in circumstances is outside the normal life cycle of the capital asset. Impaired assets will be appropriately reduced in value or discarded if idle.

Intangible Assets

Intangible assets consist of water availability rights, easements, software and leased property. The water availability rights are available to the Authority under an agreement the City entered into in 1991 with a regional public authority, Lower Cape Fear Water and Sewer Authority (LCFWSA), and later modified in 2007. The agreement is a needs-based contract to purchase up to 23.0 MGD of raw water from the LCFWSA with a term ending in 2030. Raw surface water is either drawn from the Cape Fear River through the Authority's 10.0 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 water availability rights are being amortized over 40 years, the original life of the agreement. Easements are recorded at acquisition value and are not amortized. In accordance with GASB Codification Section 1400, computer software is capitalized with a minimum capitalization cost of \$25,000 and is amortized over a period of five years. Intangible lease assets are valued at the present value of future lease payments required over the lease term.

Deferred Inflows and Outflows of Resources

In addition to assets, the Statement of Net Position reports a separate section for deferred outflow of resources and deferred inflows of resources which are defined as consumption or acquisition of net position that applies to a future reporting period. The Authority has several items that meet this definition – a deferred charges on debt refunding equal to the difference between the reacquisition price and the net carrying value of the old debt; deferrals related to changes in the net pension liability and total OPEB liability; and deferrals related to employer pension and OPEB plan contribution plans made subsequent to the measurement date and the end of the fiscal year.

Use of Estimates

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Significant estimates to the financial statements include unbilled receivables, allowance for doubtful accounts, and estimated useful lives of capital assets, compensated absences, medical self-insurance, workers' compensation self-insurance, and the net pension and total OPEB liabilities and related deferrals.

Long-Term Obligations

Long-term obligations are reported as liabilities in the Statement of Net Position, net of bond premiums and discounts. Bond premiums and discounts are amortized into interest expense over the life of the bonds using the effective interest method. Bond issuance costs are expensed in the period incurred.

Compensated Absences

The vacation leave policy of the Authority provides for the maximum accumulation of 320 hours accrued vacation leave in any fiscal year with such leave being fully vested when accrued. Vacation leave is accrued by regular full-time and part-time employees working each pay period (limited to 26 pay periods per calendar year) and based on years of service to the Authority. Eligible employees begin accruing vacation leave on the employee's hire date;

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For the Fiscal Year Ended June 30, 2019**

however, the employee must be employed six (6) months before the employee is eligible to take paid vacation leave, unless authorized and approved by the Executive Director. The accrued value is based on each employee's rate of pay as of June 30 of each fiscal year. Vacation leave accrued over the 320 hour limit is converted to sick leave annually.

The Authority's sick leave policy provides for an unlimited accumulation of earned sick leave. Sick leave does not vest, but any unused sick leave accumulated at the time of retirement may be used in the determination of length of service for retirement benefit purposes. Since the Authority does not have any obligation for the accumulated sick leave until it is actually taken, no accrual for sick leave has been made.

Net Position

Net position is classified as net investment in capital assets, restricted, or unrestricted. Net investment in capital assets represents the amount invested in capital assets less the carrying value of any outstanding debt issued to acquire those assets. Restricted net position represents constraints on resources that are either externally imposed by creditors, grantors, contributors, laws or regulations of other governments, or by law through state statute. Net position that does not meet the definitions of "net investment in capital assets" or "restricted" is considered to be unrestricted.

Pension Plans

For purposes of measuring the net pension asset, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Local Governmental Employees' Retirement System (LGERS) and additions to/deductions from LGERS' fiduciary net position have been determined on the same basis as they are reported by LGERS. For this purpose, plan member contributions are recognized in the period in which the contributions are due. The Authority's employer contributions are recognized when due and the Authority has a legal requirement to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with the terms of LGERS. Investments are reported at fair value.

Note 2. Cash, Cash Equivalents, Deposits and Investments

A reconciliation of the Authority's cash, deposits, and investments for disclosure purposes and cash, cash equivalents, and investments for financial statement presentation as of June 30, 2019 is included below:

Cash on hand	\$ 2,200
Deposits	11,698,123
Investments	89,777,607
Total	\$ 101,477,930
Presentation on the Statement of Net Position	
Current Assets	
Cash and cash equivalents	\$ 49,438,043
Investments	32,193,126
Restricted cash and cash equivalents	19,846,761
Total	\$ 101,477,930

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Deposits

All deposits of the Authority are made in board-designated official depositories and are collateralized as required by State law (G.S. 159-31). The Authority may designate, as an official depository, any bank or savings and loan association whose principal office is located in North Carolina. Also, the Authority may establish time deposit accounts such as NOW and SuperNOW accounts, money market accounts and certificates of deposit.

Custodial Credit Risk for Deposits. All of the Authority's deposits are to be either insured or collateralized by using one of two methods. Under the Dedicated Method, all deposits that exceed the federal depository insurance coverage level are separately collateralized with securities held by the Authority's agent in the Authority's name. Under the Pooling Method, uninsured deposits are collateralized with securities in a statewide collateral pool held by the State Treasurer's agent in the name of the State Treasurer. Since the State Treasurer is acting in a fiduciary capacity for the Authority, these deposits are considered to be held by the participating Authority's agents in its name. The amount of the pledged collateral is based on an approved averaging method for non-interest bearing deposits and the actual current balance for interest-bearing deposits. Depositories using the Pooling Method report to the State Treasurer the adequacy of their pooled collateral covering uninsured deposits. The State Treasurer does not confirm this information with the Authority. Because of the inability to measure the exact amounts of collateral pledged for the Authority under the Pooling Method, the potential exists for under-collateralization, and this risk may increase in periods of high cash flows. However, the State Treasurer of North Carolina enforces strict financial stability standards for each depository that collateralizes public deposits under the Pooling Method, including minimum capitalization standards. The Authority relies on the State Treasurer to monitor those financial institutions.

At June 30, 2019, the carrying amount of the Authority deposits was \$11,698,123 and the bank balance was \$12,531,993. Of the bank balance, \$250,000 was covered by FDIC insurance and \$12,281,993 was covered by collateral held under the Pooling Method.

Investments

At June 30, 2019, the Authority's investment balances were as follows:

Investments by Type	Fair Value	Valuation Method	Credit Rating	Weight Average Days to Maturity
Commercial Paper	\$ 2,781,979	Fair value - Level 2	P1	215
U.S. Treasuries	15,796,103	Fair value - Level 1	AAA	547
Government-sponsored Entities:				
Federal National Mortgage Association	1,398,558	Fair value - Level 2	AAA	279
Federal Home Loan Bank	7,473,083	Fair value - Level 2	AAA	572
North Carolina Capital Management Trust:				
Governmental Portfolio	2,390,986	Fair Value - Level 1	AAAm	29
Term Portfolio	59,936,898	Fair Value - Level 1	Unrated	40
	<u>\$ 89,777,607</u>			

Investments in the NCCMT Government Portfolio are valued at fair value, which is the share price. All other investments are measured using the market approach which uses prices and other relevant information generated by market transactions involving identical or comparable assets or a group of assets. Level 1 debt securities are

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valued using directly observable, quoted prices (unadjusted) in active markets for identical assets. Level 2 debt securities are valued using a matrix pricing technique. Matrix pricing is used to value securities based on the securities' benchmark quoted prices.

Interest rate risk. The Authority's investment policy prohibits investments in single securities maturing more than 5 years from the purchase date. In addition, the weighted average maturity of the Authority's portfolio including cash and certificates of deposit may not exceed 360 days. At June 30, 2019, the weighted average maturity of the Authority's portfolio was 120 days.

Credit risk. The Authority is limited by G.S. 159-30(c) to highly rates investments including obligations of the United States or obligations fully guaranteed both as to principal and interest by the United States; obligations of the State of North Carolina; bonds and notes of any North Carolina local government or public authority; obligations of certain non-guaranteed federal agencies; certain high quality issues of commercial paper and bankers' acceptances; and the North Carolina Capital Management Trust ("NCCMT") Governmental Portfolio and Term Portfolio, an SEC registered 2a-7 external investment pool.

Concentration of Credit Risk. With the exception of U.S. treasury securities, money market funds and authorized pools, no more than 25% of the Authority's total investment portfolio including cash and certificates of deposit will be invested in a single security type. At June 30, 2019, the Authority's single largest investment other than investments in U.S. treasuries and investments in NCCMT was in debt obligations of the Federal Home Loan Bank which comprised 7.31% of the Authority's total portfolio.

Custodial Credit Risk. For an investment, the custodial risk is the risk that in the event of the failure of the counterparty, the Authority will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. The Authority engages a third party custodial agent for book entry transactions, all of which are held in the Authority's name.

Note 3. Receivables

At June 30, 2019, the Authority estimates the revenue value of water consumed by its customers but not billed by the last day of the fiscal year. This is accomplished by multiplying the unbilled water usage by the approximate number of days unbilled at June 30.

The Receivable amounts presented in the Statement of Net Position are as follows:

Receivables - Authority customers	\$	17,535,413
Allowance for doubtful accounts - Authority		(1,748,205)
Total	\$	15,787,208

Due from other governments that is owed to the Authority consists of the following:

State of North Carolina	\$	7,493,457
Brunswick County		156,808
City of Wilmington		290,291
City of Wilmington - Restricted		1,541,456
Total	\$	9,482,012

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Note 4. Capital Assets

Capital assets activity consists of the following for the fiscal year ended June 30, 2019. Depreciation and amortization expense for the year was \$22,207,610 and \$656,248, respectively.

	Beginning Balances July 1, 2018	Increases	Decreases	Ending Balances June 30, 2019
Capital assets not being depreciated:				
Land	\$ 3,846,140	\$ -	\$ -	\$ 3,846,140
Intangible Asset - Easements	5,529,387	161,199	-	5,690,586
Construction in progress*	49,593,525	43,244,433	(14,697,440)	78,140,518
Total capital assets not being depreciated or amortized	58,969,052	43,405,632	(14,697,440)	87,677,244
Capital assets being depreciated or amortized:				
Plant, Structures and Improvements	314,762,052	4,652,150	-	319,414,202
Water and Sewer Lines	464,840,812	21,115,390	-	485,956,202
Furniture, Fixtures and Machinery	17,296,294	2,453,276	(448,097)	19,301,473
Intangible Asset - Leased Facilities	8,957,238	-	-	8,957,238
Intangible Asset - Computer Software	3,837,880	-	-	3,837,880
Intangible Asset - Water Availability Rights	1,988,116	-	-	1,988,116
Total capital assets being depreciated or amortized	811,682,392	28,220,816	(448,097)	839,455,111
Less accumulated depreciation or amortization for:				
Plant, Structures and Improvements*	66,995,922	8,972,365	-	75,968,287
Water and Sewer Lines*	81,617,867	11,145,539	-	92,763,406
Furniture, Fixtures and Machinery*	11,657,712	2,089,706	(425,943)	13,321,475
Intangible Asset - Leased Facilities*	3,128,710	499,807	-	3,628,517
Intangible Asset - Computer Software*	3,699,717	70,001	-	3,769,718
Intangible Asset - Water Availability Rights	864,398	86,440	-	950,838
Total accumulated depreciation and amortization*	167,964,326	22,863,858	(425,943)	190,402,241
Total capital assets being depreciated or amortized, net*	643,718,066			649,052,870
Capital assets, net*	\$ 702,687,118			\$ 736,730,114

* Restated Beginning Balances

Capital contributions as shown on the Statement of Revenues, Expenses and Changes in Fund Net Position consist of the following at June 30, 2019.

Capital Contributions	
Contributions from Developers-Cost Sharing	692,343
Contribution from Developers (Non-Cash)	11,070,099
Total Capital Contributions	\$ 11,762,442

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Note 5. Leases

The Authority leases office and warehouse facilities under two lease arrangements. The lease for the Administration Building commenced on June 1, 2008, with an amendment to that lease effective July 26, 2012, with a new lease term of 120 months, expiring July 25, 2022, with the option to extend the lease for two additional five-year periods. A lease for the Operations Center commenced August 1, 2011 with an amendment to that lease effective August 1, 2016, with a new lease term of 60 months, with the option to extend the lease for one additional two-year period.

At June 30, 2019 principal and interest requirements to maturity for the Authority's lease liability were as follows:

Year Ending June, 30	Principal	Interest
2020	\$ 468,904	\$ 231,345
2021	487,660	223,027
2022	507,166	219,518
2023	527,453	210,091
2024	382,503	182,436
2025-2029	2,154,632	844,137
2030-2032	1,510,820	436,250
Total	\$6,039,138	\$2,346,804

Note 6. Post-Retirement Benefits

Local Governmental Employees' Retirement System

Plan description. The Authority is a participating employer in the statewide Local Governmental Employees' Retirement System (LGERS), a cost-sharing multiple-employer defined benefit pension plan administered by the State of North Carolina. LGERS membership is comprised of general employees and local law enforcement officers (LEOs) of participating local governmental entities. Article 3 of G.S. Chapter 128 assigns the authority to establish and amend benefit provisions to the North Carolina General Assembly. Management of the plan is vested in the LGERS Board of Trustees, which consists of 13 members – nine appointed by the Governor, one appointed by the State Senate, one appointed by the State House of Representatives, and the State Treasurer and State Superintendent, who serve as ex-officio members. The Local Governmental Employees' Retirement System is included in the Comprehensive Annual Financial Report (CAFR) for the State of North Carolina. The State's CAFR includes financial statements and required supplementary information for LGERS. That report may be obtained by writing to the Office of the State Controller, 1410 Mail Service Center, Raleigh, North Carolina 27699-1410, by calling (919) 981-5454, or at www.osc.nc.gov.

Benefits Provided. LGERS provides retirement and survivor benefits. Retirement benefits are determined as 1.85% of the member's average final compensation times the member's years of creditable service. A member's average final compensation is calculated as the average of a member's four highest consecutive years of compensation. Plan members are eligible to retire with full retirement benefits at age 65 with five years of creditable service, at age 60 with 25 years of creditable service, or at any age with 30 years of creditable service. Plan members are eligible to retire with partial retirement benefits at age 50 with 20 years of creditable service or at age 60 with five years of creditable service. Survivor benefits are available to eligible beneficiaries of members who die while in active service.

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or within 180 days of their last day of service and who have either completed 20 years of creditable service regardless of age or have completed five years of service and have reached age 60. Eligible beneficiaries may elect to receive a monthly Survivor's Alternate Benefit for life or a return of the member's contributions. The plan does not provide for automatic post-retirement benefit increases. Increases are contingent upon actuarial gains of the plan.

Contributions. Contribution provisions are established by General Statute 128-30 and may be amended only by the North Carolina General Assembly. Authority employees are required to contribute 6% of their compensation. Employer contributions are actuarially determined and set annually by the LGERS Board of Trustees. The Authority's contractually required contribution rate for the year ended June 30, 2019, was 7.75% for general employees, actuarially determined as an amount that, when combined with employee contributions, is expected to finance the costs of benefits earned by employees during the year. Contributions to the pension plan from the Authority \$1,275,906 for the year ended June 30, 2019.

Refunds of Contributions – Authority employees who have terminated service as a contributing member of LGERS, may file an application for a refund of their contributions. By state law, refunds to members with at least five years of service include 4% interest. State law requires a 60-day waiting period after service termination before the refund may be paid. The acceptance of a refund payment cancels the individual's right to employer contributions or any other benefit provided by LGERS.

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions – At June 30, 2019, the Authority reported a net pension liability of \$5,260,906 for its proportionate share of the net pension liability. The net pension liability was measured as of June 30, 2018. The total pension liability used to calculate the net pension asset was determined by an actuarial valuation as of December 31, 2017. The total pension liability was then rolled forward to the measurement date of June 30, 2018 utilizing update procedures incorporating the actuarial assumptions. The Authority's proportion of the net pension liability was based on a projection of the Authority's long-term share of future payroll covered by the pension plan, relative to the projected future payroll covered by the pension plan of all participating LGERS employers, actuarially determined. At June 30, 2018, the Authority's proportion was 0.22176%, which was a decrease of 0.00029% from its proportion measured as of June 30, 2017.

For the year ended June 30, 2019, the Authority recognized pension expense of \$1,535,489. Deferred outflows and deferred inflows of resources related to pensions were as follows:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 811,633	\$ 27,234
Difference between projected and actual earnings on pension plan investments	722,166	-
Changes in assumptions	1,396,041	-
Changes in proportion and difference between Authority contributions and proportionate share of contributions	85,460	17,095
Contributions subsequent to the measurement date	1,275,906	-
Total pension-related deferred outflows/inflows of resources	\$ 4,291,206	\$ 44,329

Cape Fear Public Utility Authority
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Deferred outflows of resources resulting from \$1,275,906 in contributions subsequent to the measurement date will be recognized as a decrease of the net pension liability in the year ended June 30, 2020. Other amounts reported as deferred inflows of resources related to pensions will be recognized in pension expense in future years as follows:

Year ended June 30:	
2020	1,440,426
2021	933,127
2022	169,621
2023	427,797
Total	2,970,971

Actuarial Assumptions. The total pension liability in the December 31, 2017 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	3.00%
Salary increases	3.50% to 8.10%, including a 3.50% inflation and productivity factor
Investment rate of return	7.00%, net of pension plan investment expense, including inflation

The plan currently uses mortality tables that vary by age, gender, employee group (i.e. general, law enforcement officer) and health status (i.e. disabled and healthy). The current mortality rates are based on the RP-2014 Total Data Set for Healthy Annuitants Mortality Table. Rates for male members are multiplied by 115% for ages 50-78 and by 135% for ages greater than 78. Rates for female members are multiplied by 79% for ages 50-78 and by 116% for ages greater than 78. The RP-2014 annuitant tables have no rates prior to age 50. The RP-2014 Total Data Set Employee Mortality Table (with no adjustments) is used for ages less than 50.

The actuarial assumptions used in the December 31, 2017 valuation were based on the results of an actuarial experience study prepared as of December 31, 2014.

Future ad hoc COLA amounts are not considered to be substantively automatic and are therefore not included in the measurement.

The projected long-term investment returns and inflation assumptions are developed through review of current and historical capital markets data, sell-side investment research, consultant whitepapers, and historical performance of investment strategies. Fixed income return projections reflect current yields across the U.S. Treasury yield curve and market expectations of forward yields projected and interpolated for multiple tenors and over multiple year horizons. Global public equity return projections are established through analysis of the equity risk premium and the fixed income return projections. Other asset categories and strategies' return projections reflect the foregoing and historical data analysis. These projections are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation and best estimates of arithmetic real rates of return for each major asset class as of June 30, 2018 are summarized in the following table:

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Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Fixed Income	29.0%	1.4%
Global Equity	42.0%	5.3%
Real Estate	8.0%	4.3%
Alternatives	8.0%	8.9%
Credit	7.0%	6.0%
Inflation Protection	<u>6.0%</u>	4.0%
Total	<u>100%</u>	

The information above is based on 30-year expectations developed with the consulting actuary for the 2016 asset, liability, and investment policy study for the North Carolina Retirement Systems, including LGERS. The long-term nominal rates of return underlying the real rates of return are arithmetic annualized figures. The real rates of return are calculated from nominal rates by multiplicatively subtracting a long-term inflation assumption of 3.00%. All rates of return and inflation are annualized.

Discount rate. The discount rate used to measure the total pension liability was 7.00%. The projection of cash flows used to determine the discount rate assumed that for fiscal year ending 2019 to fiscal year ending 2022, System contributions will follow the Employer Contribution Rate Stabilization Policy as adopted by the Board of Trustees on January 21, 2016, and for fiscal years ending 2023 and beyond, System contributions will be based on the actuarially determined contribution rates. Based on those policies, the System's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the Authority's proportionate share of the net pension liability to changes in the discount rate. The following presents the Authority's proportionate share of the net pension liability calculated using the discount rate of 7.00 percent, as well as what the Authority's proportionate share of the net pension liability would be if it were calculated using a discount rate that is one percentage point lower (6.00 percent) or one percentage point higher (8.00 percent) than the current rate:

	1% Decrease (6.00%)	Discount Rate (7.00%)	1% Increase (8.00%)
Authority's proportionate share of the net pension liability (asset)	\$ 12,637,151	\$ 5,260,906	\$ (902,800)

Pension plan fiduciary net position. Detailed information about the pension plan's fiduciary net position is available in the separately issued Comprehensive Annual Financial Report (CAFR) for the State of North Carolina.

Supplemental Retirement Income Plan and Deferred Compensation Plan

Plan Descriptions. The Authority offers its employees the opportunity to participate in the NC-401(k) Supplemental Retirement Income Plan, a defined contribution pension plan administered by the Department of State Treasurer and a Board of Trustees. The plan provides retirement benefits to employees of the Authority. Article 5 of G.S. Chapter 135 assigns the authority to establish and amend benefit provisions to the North Carolina General Assembly.

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The Authority also offers its employees a deferred compensation plan created in accordance with Internal Revenue Code Section 457 administered by ICMA-RC. The plan, available to all Authority employees, permits them to defer a portion of their salary until future years. The deferred compensation is not available to employees until termination, retirement, death, or unforeseeable emergency. All assets of the plan are held in trust for the exclusive benefit of the participants and their beneficiaries.

Funding Policy. The Authority makes contributions on behalf of all employees to the NC-401(k) Supplemental Retirement Income Plan. The Authority's contribution is 2% of covered payroll and contributions are made to the plan selected by the employee. The Authority also matches the contributions made by employees up to 2% of covered payroll.

The Authority's expense related to the NC-401(k) Supplemental Retirement Income Plan totaled \$597,336 for the fiscal year ended June 30, 2019.

Other Post-Employment Benefits (OPEB)

Plan Description. The Authority provides post-employment health care benefits to retirees of the Authority through a single-employer defined benefit plan. The Board is authorized to amend the terms of postemployment health care benefits. The plan is closed to new entrants as benefits are only provided to certain employees that were employed by the City of Wilmington (City) or New Hanover County (County) prior to July 1, 2008. To be eligible for post-retirement health care benefits, employees who transferred from the City must have at least five years of creditable service while employees who transferred from the County must have at least 15 years of creditable service. As of the measurement date, membership consisted of 109 active plan members and 27 retirees or retiree dependents.

Benefits Provided. Post-employment health benefits under the plan consist of premium subsidies equal to the difference between the total cost of individual health insurance policies purchased for each retiree and the share paid by the retiree.

Actuarial Assumptions. The Authority's total OPEB liability as of June 30, 2019 was \$7,827,629. The total OPEB liability was measured as of December 31, 2018 based on an actuarial valuation as of that date. The total OPEB liability in the December 31, 2018 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.00%
Salary increases	2.50%
Discount Rate	3.67%
Healthcare cost trend rates	6.00% for 2020, decreasing .17% per year to an ultimate rate of 4.50% for 2029 and subsequent years

The discount rate was based on S&P Municipal Bond 20-Year High-Grade Rate Index. Mortality rates were based on the RP-2014 Healthy Annuitant Mortality Table for males and females.

The plan does not issue a stand-alone financial report.

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Changes in the Total OPEB Liability.

	Total OPEB Liability
Balance at June 30, 2018	\$ 8,473,271
Changes for the year:	
Service cost	178,078
Interest	260,720
Differences between expected and actual experience	(143,522)
Changes in assumptions and other inputs	(443,556)
Benefit payments	(497,362)
Net changes	(645,642)
Balance at June 30, 2019	\$ 7,827,629

Differences between expected and actual experience reflect updated starting per capita health care costs and retiree contributions. Changes to the total OPEB liability attributable to changes in assumptions and other inputs reflect an increase in health care cost trend rates and the discount rate.

Sensitivity of the total OPEB liability to changes in the discount rate. The following presents the total OPEB liability of the Authority, as well as what the Authority's total OPEB liability would be if it were calculated using a discount rate that is 1-percentage-point lower or 1-percentage-point higher than the current discount rate:

	1% Decrease (2.67%)	Discount Rate (3.67%)	1% Increase (4.67%)
Total OPEB liability	\$ 8,310,600	\$ 7,827,629	\$ 7,379,727

Sensitivity of the total OPEB liability to changes in the healthcare cost trend rates. The following presents the total OPEB liability of the Authority, as well as what the Authority's total OPEB liability would be if it were calculated using healthcare cost trend rates that are 1-percentage-point lower or 1-percentage-point higher than the current healthcare cost trend rates:

	1% Decrease	Health Care Trend Rate	1% Increase
Total OPEB liability	\$ 7,235,497	\$ 7,827,629	\$ 8,492,592

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OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB. For the year ended June 30, 2019, the Authority recognized OPEB expense of \$1,216,532. Deferred outflows and inflows of resources related to OPEB as of June 30, 2019 are as follows:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 998,109	\$ 9,896
Changes in assumptions and other inputs	2,566,379	929,174
Contributions subsequent to the measurement date	232,505	-
Total OPEB-related deferred outflows/inflows of resources	\$ 3,796,993	\$ 939,070

Amounts reported as deferred outflows and inflows of resources related to OPEB will be recognized in the OPEB expense as follows:

Year ended June 30:	
2020	777,734
2021	777,734
2022	777,734
2023	332,695
2024	(40,479)
Total	2,625,418

Note 7. Risk Management

The Authority is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. The Authority self-insures risks associated with workers' compensation for the first \$500,000 per incident, transfers risk for the next \$1 million per incident through the purchase of insurance, and retains all risks thereafter. The Authority carries commercial coverage or bonds for all other risks of loss including property, general liability, auto, crime, public official liability and excess liability coverage. Claims did not exceed coverage for any category for the fiscal years ended June 30, 2019, 2018, or 2017.

For self-insured risks, liabilities are reported when it is probable that a loss has occurred and the amount of the loss can be reasonably estimated. Liabilities include an amount for claims that have been incurred but not reported (IBNR). Claim liabilities are calculated considering the effects of inflation and recent claim settlement trends including the frequency and amount of payouts. Claims liabilities are reported as accounts payable and accrued liabilities. The Authority carried a worker's compensation reserve of \$140,000 at June 30, 2018 and June 30, 2019. Incurred claims during the year equaled worker's compensation claim payments of \$81,900.

The Authority's Chief Financial Officer and Deputy Financial Officer are individually bonded for \$250,000. Remaining employees that have access to funds are bonded under a blanket bond of \$1,000,000.

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Note 8. Long-term Debt

G.S. 162A-8 gives the Authority the power to periodically issue revenue bonds in accordance with the provisions of G.S. 159-80 through G.S. 159-98. Pursuant to the interlocal agreement transferring the City's and the County's water and wastewater system to the Authority, the Authority assumed responsibility for all of the related debt. The General Trust Indenture dated as of December 1, 1998 and four series indentures under which the City had issued revenue bonds were assigned to the Authority on July 1, 2008 as provided for in Section 6.11(a) of the General Trust Indenture. The Authority has issued seven series of revenue bonds under this General Trust Indenture. Some debt instruments could not be transferred to the Authority or refinanced due to the nature of the agreements. Accordingly, the City and the County retained and continued to service those obligations with the Authority making payments to the City and the County equal to the principal and interest payments required under those debt instruments. All City obligations have been retired. Periodically, the Authority applies for low-interest loan funding under the Capitalization Grants for Clean Water State Revolving Funds and the Capitalization Grants for Drinking Water State Funds programs through the North Carolina Department of Environmental Quality.

Changes in the Authority's long-term debt during the fiscal year were as follows:

	Balance July 1, 2018	Additions	Retirements	Balance June 30, 2019	Current Maturities
Revenue Bonds					
Direct borrowings	\$ 32,890,000	\$ -	\$ 144,000	\$ 32,746,000	\$ 260,000
Other	202,425,000	-	10,980,000	191,445,000	10,030,000
Installment Obligations:					
Locality compensation payment	9,795,000	-	1,030,000	8,765,000	1,015,000
Unamortized Premiums/(Discounts)	29,057,354	-	3,214,095	25,843,259	-
Total Bonds and Installment Obligations	274,167,354	-	15,368,095	258,799,259	11,305,000
Other Installment Obligations:					
ARRA Revolving Loan	848,642	-	56,577	792,065	56,576
DWSRF Revolving Loan	140,733	-	8,796	131,937	8,796
Clean Water State Revolving Loans	9,320,528	4,749,354	487,675	13,582,207	487,675
Total Other Installment Obligations	10,309,903	4,749,354	553,048	14,506,209	553,047
Total Long-Term Obligations	\$ 284,477,257	\$ 4,749,354	\$ 15,921,143	\$ 273,305,468	\$ 11,858,047

In accordance with the General Trust Indenture, the Authority is subject to various covenants including the repayment of scheduled principal and interest and the required debt service coverage to be no less than 120% or 1.20 times on revenue bond indebtedness and to be no less than 100% or 1.00 times on total long-term indebtedness. Under the General Trust Indenture, the Authority's revenue bonds are subject to acceleration in the event of default. In addition, the Authority's direct borrowing revenue bonds are subject to an increase in the interest rate from 3.03% to 6% in the event of a default. The Authority is compliant with the covenants of the General Trust Indenture. The debt service coverage ratio calculation for the fiscal year ended June 30, 2019 was 2.10 for parity indebtedness and 1.91 for all indebtedness.

The Authority's outstanding revenue bonds are secured by a pledge of net revenue. The total principal and interest remaining to be paid on the bonds is \$306,893,207. Principal and interest paid for the current year and net revenues pledged for repayment were \$23,178,918 and \$44,213,520 respectively.

At June 30, 2019 the Authority carried total deferred outflows of resources related to the difference between the reacquisition price of refunding debt and the net carrying value of refunded debt in the amount of \$11,369,908. This

Cape Fear Public Utility Authority
Notes to Financial Statements
For the Fiscal Year Ended June 30, 2019

amount will be amortized as a component of interest expense in future years. At June 30, 2019 the outstanding amount of defeased debt consisted of \$29,795,000 of the 2011 Water and Sewer System Revenue and Revenue Refunding Bonds.

The debt service requirements to maturity for the Authority's outstanding revenue bonds and installment obligations are as follows:

Year Ending June 30	Direct Borrowings		Other		Total	
	Principal	Interest	Principal	Interest	Principal	Interest
2020	\$ 260,000	\$ 988,265	\$ 10,030,000	\$ 8,290,500	\$ 10,290,000	\$ 9,278,765
2021	268,000	980,266	10,540,000	7,785,100	10,808,000	8,765,366
2022	277,000	972,009	11,070,000	7,247,725	11,347,000	8,219,734
2023	1,709,000	941,921	10,190,000	6,719,100	11,899,000	7,661,021
2024	1,762,000	889,335	10,715,000	6,199,600	12,477,000	7,088,935
2025-2029	9,650,000	3,599,822	53,970,000	23,704,625	63,620,000	27,304,447
2030-2034	11,225,000	2,021,722	67,100,000	10,561,875	78,325,000	12,583,597
2035-2039	7,595,000	349,829	16,530,000	1,385,513	24,125,000	1,735,342
2040	-	-	1,300,000	65,000	1,300,000	65,000
Total	\$32,746,000	\$10,743,169	\$191,445,000	\$71,959,038	\$224,191,000	\$82,702,207

Year Ending June 30	Locality Compensation Payments		Clean Water State Revolving Fund Loans		ARRA Loan	DWSRF Loan
	Principal	Interest	Principal	Interest	Principal	Principal
2020	\$ 1,015,000	\$ 368,450	\$ 487,675	152,914	\$ 56,576	\$ 8,796
2021	1,000,000	328,150	487,675	142,472	56,576	8,796
2022	990,000	288,350	487,675	132,030	56,576	8,796
2023	980,000	248,950	487,675	121,589	56,576	8,796
2024	970,000	207,525	487,675	111,147	56,576	8,796
2025-2029	3,810,000	377,350	2,438,375	399,105	282,880	43,980
2030-2034	-	-	2,287,075	138,057	226,304	43,977
Total	\$ 8,765,000	\$ 1,818,775	\$ 7,163,825	\$ 1,197,314	\$ 792,064	\$ 131,937

Principal requirements to maturity for CWSRF loans differ from amounts carried on the Statement of Net Position by \$6,418,380. This amount represents loan proceeds received through June 30, 2019 on the Authority's four outstanding loan-funded projects. Because final amortization schedules will be issued upon project completion, these amounts are excluded from the principal requirements to maturity disclosed above.

Note 9. Construction and Other Significant Commitments

Construction commitments. The Authority has active water and wastewater capital projects as of June 30, 2019. The projects include wastewater, water, and system-wide projects. At the end of the year, the Authority's commitments with contractors, developers and professional firms are as follows:

Cape Fear Public Utility Authority
Notes to Financial Statements
For the Fiscal Year Ended June 30, 2019

Project Type	Spent -to-Date	Remaining Commitment
Wastewater Projects	210,263,781	\$ 33,357,684
Water Projects	190,883,005	9,731,409
System-wide Projects	9,492,840	3,688,498
	<u>\$ 410,639,626</u>	<u>\$ 46,777,591</u>

Encumbrances. Encumbrance accounting is utilized to the extent necessary to assure effective budgetary control and accountability and to facilitate effective cash planning and control. The Authority periodically enters into agreements with other parties in order to provide water and sewer services. Funds are encumbered at the time of the agreement. At year-end the amount of outstanding encumbrances were as follows:

Budgetary Fund	Remaining Commitment
Operating Fund	\$ 89,319
Capital Projects Funds	46,777,591
	<u>\$ 46,866,910</u>

These remaining commitments will be funded from the proceeds from state grants and loans and funds generated from operations.

Note 10. Restatement of Beginning Net Position

During the year, the Authority implemented new accounting software. The depreciation convention that had been used in the Authority's legacy system was not an option in the new system. To maintain consistency in the application of accounting principles and comparability among reporting periods, the Authority recalculated accumulated depreciation on its capital assets as if the depreciation convention used in the new system had always been applied resulting in an increase to beginning net position of \$5,504,877.

Cape Fear Public Utility Authority
Required Supplementary Information

Schedule of Changes in the Total OPEB Liability and Related Ratios
2018-2019 *

	2018	2019
Total OPEB liability		
Service cost	\$ 206,698	\$ 178,078
Interest	112,153	260,720
Changes in benefit terms	-	-
Difference between expected and actual experience	1,736,751	(143,522)
Changes in assumptions or other inputs	3,140,531	(443,556)
Benefit payments	(521,626)	(497,362)
Net change in total OPEB liability	4,674,507	(645,642)
Total OPEB liability - beginning	3,798,764	8,473,271
Total OPEB liability - ending	\$ 8,473,271	\$ 7,827,629
Covered-employee payroll	\$ 6,128,784	\$ 6,250,591
Total OPEB liability as a percentage of covered-employee payroll	138.25%	125.23%

* The amounts presented for each fiscal year were measured as of the previous December 31. Information is not available for years prior to 2018.

**Cape Fear Public Utility Authority
Required Supplementary Information**

**Schedule of the Authority's Proportionate Share of the Net Pension Liability (Asset)
Local Government Employees' Retirement System
2014-2019 ***

	2014	2015	2016	2017	2018	2019
Authority's proportion of the net pension liability (asset)	0.2096%	0.2133%	0.2190%	0.2261%	0.2215%	0.2218%
Authority's proportionate share of the net pension liability (asset)	\$ 2,526,485	\$ (1,258,105)	\$ 982,683	\$ 4,797,538	\$ 3,383,448	\$ 5,260,906
Authority's covered-employee payroll	\$ 12,624,256	\$ 13,060,438	\$ 13,374,328	\$ 14,196,327	\$ 14,232,400	\$ 15,095,827
Authority's proportionate share of the net pension liability (asset) as a percentage of its covered payroll	20.01%	-9.63%	7.35%	33.79%	23.77%	34.85%
Plan fiduciary net position as a percentage of the total pension liability (asset)	94.35%	102.64%	98.09%	91.47%	94.18%	91.63%

* The amounts presented for each fiscal year were measured as of the prior fiscal year ending June 30 based on an actuarial valuation dated the previous December 31. Information is not available for years prior to 2014

**Schedule of Authority Contributions
Local Government Employees' Retirement System
2014-2019 ***

	2014	2015	2016	2017	2018	2019
Contractually required contribution	\$ 923,373	\$ 945,565	\$ 946,895	\$ 1,031,849	\$ 1,132,187	\$ 1,275,906
Contributions in relation to the contractually required contribution	923,373	945,565	946,895	1,031,849	1,132,187	1,275,906
Contribution deficiency (excess)	-	-	-	-	-	-
Authority's covered payroll	13,060,438	13,374,328	14,196,327	14,232,400	15,095,827	16,463,303
Contributions as a percentage of covered-employee payroll	7.07%	7.07%	6.67%	7.25%	7.50%	7.75%

* Information is not available for years prior to 2014.

Cape Fear Public Utility Authority
Schedule of Revenues and Expenditures - Budget and Actual (Non-GAAP) -
Operating Fund
For the Fiscal Year Ended June 30, 2019

	Original Budget	Final Budget	Actual	Variance Positive (Negative)
Revenues				
Water/wastewater fixed charges	\$ 29,392,680	\$ 29,392,680	\$ 29,997,568	\$ 604,888
Water/wastewater volumetric charges	42,561,649	42,561,649	44,274,588	1,712,939
System development charges	4,200,000	4,200,000	5,175,342	975,342
Investment earnings	700,000	1,540,000	2,213,571	673,571
Grants from other governments	-	1,500,000	1,407,834	(92,166)
Other charges for service	4,300,800	4,369,601	5,280,566	910,965
Total revenues	81,155,129	83,563,930	88,349,469	4,785,539
Expenditures				
Salaries & Benefits	22,864,878	22,770,878	22,348,150	422,728
Operating	19,015,668	20,411,336	19,619,156	792,180
Capital Outlay	-	166,592	87,941	78,651
Debt Service	23,178,918	23,187,418	23,178,918	8,500
Contingency	-	11,080	-	11,080
Total expenditures	65,059,464	66,547,304	65,234,165	1,313,139
Other financing sources (uses)				
Insurance proceeds	-	225,000	226,176	1,176
Sale of capital assets	-	127,930	155,106	27,176
Appropriated fund balance	600,000	694,910	-	(694,910)
Transfers out - Capital Projects Funds	(16,695,665)	(18,064,466)	(18,064,466)	-
Total financing (uses)	(16,095,665)	(17,016,626)	(17,683,184)	(666,558)
Revenues and other financing (uses) over expenditures	\$ -	\$ -	\$ 5,432,120	\$ 5,432,120

Reconciliation of modified accrual basis to full accrual basis:

Revenues and other financing sources over expenditures -	
Capital Projects Funds - Water, Wastewater & Sytem-Wide	\$ (24,480,665)
Capital contributions - conveyed infrastructure	11,070,099
Capitalized expenditures	45,858,908
Depreciation and amortization on capital assets	(22,863,858)
Remaining net book value of sold/disposed capital assets	(22,153)
Pension expense	(1,535,489)
Contributions to pension plans	1,275,906
OPEB expense	(1,216,532)
Contributions to OPEB plan	542,444
Interest expense:	
Change in accrued interest liability	248,847
Amortization of deferred amount on refunding	(1,412,599)
Amortization of premium	3,214,095
Accrued revenue	888,170
Bad debt expense	(247,169)
Increase in compensated absences liability	(138,631)
Proceeds from long-term obligations	(6,094,467)
Principal on lease liability	450,869
Principal on long-term obligations	12,707,047
Change in net position	\$ 23,676,942

Cape Fear Public Utility Authority
Schedule of Revenue and Expenditures - Budget and Actual (Non-GAAP) -
Capital Projects Funds - Water, Wastewater & System-Wide
From Inception and For the Fiscal Year Ended June 30, 2019

	Project Ordinance	Prior Years	Actual Current Year	Total to Date
Revenue				
Capital grants and contributions	\$ 47,312,092	\$ 27,221,141	\$ 4,718,344	\$ 31,939,485
Charges for services	3,350,000	2,545,469	345,329	2,890,798
Investment earnings	6,965,762	6,965,762	-	6,965,762
Total revenue	57,627,854	36,732,372	5,063,673	41,796,045
Expenditures				
Water projects	209,982,042	170,313,038	20,569,967	190,883,005
Wastewater projects	263,005,841	180,469,326	29,794,455	210,263,781
System-wide projects	14,945,432	5,756,676	3,736,164	9,492,840
Total expenditures	487,933,315	356,539,040	54,100,586	410,639,626
Other financing sources				
Long-term obligations issued	242,825,582	234,567,340	6,094,467	240,661,807
Insurance proceeds	397,315	-	397,315	397,315
Transfers in - Operating Fund	151,296,882	101,669,074	18,064,466	119,733,540
Appropriated fund balance	35,785,682	-	-	-
Total other financing sources	430,305,461	336,236,414	24,556,248	360,792,662
Revenue and other financing sources over expenditures	\$ -	\$ 16,429,746	\$ (24,480,665)	\$ (8,050,919)

STATISTICAL SECTION

(Unaudited)

Cape Fear Public Utility Authority Statistical Section (Unaudited)

Financial Trends

These schedules identify the trends in changes over time of the Authority's financial functional effectiveness and financial strength.

Net Position by Component
Changes in Net Position

Revenue Capacity

These schedules contain information to help the reader assess the Authority's revenue sources.

Schedule of User Rates
Principal Water Customers
Principal Wastewater Customers
Consumption by Customer Group
Schedule of New Connections

Debt Capacity

These schedules represent the ratio of debt to revenue.

Pledged-Revenue Coverage
Ratios of Outstanding Debt by Type

Demographic and Economic Information

These schedules show the demographic and economic picture of the environment in which the authority provides its services.

Demographic Statistics
Principal Employers
Full Time Equivalent Employees

Operating Information

These schedules contain operating and capital asset data to show how operations and assets have changed as the Authority grows.

Water Production and Wastewater Treatment
Operating Statistics

Sources

Unless otherwise noted, the information included in these schedules is derived from the Comprehensive Annual Financial Report (CAFR) for the fiscal year ended June 30, 2018 and is provided for additional analysis purposes only and has not been verified by audit as presented.

Cape Fear Public Utility Authority
Net Position By Component
Current Fiscal Year and Last Nine Fiscal Years
(Accrual Basis of Accounting)

	Fiscal Year 2019	Fiscal Year 2018(1)	Fiscal Year 2017(1)	Fiscal Year 2016	Fiscal Year 2015	Fiscal Year 2014 (1)	Fiscal Year 2013	Fiscal Year 2012 (1)	Fiscal Year 2011	Fiscal Year 2010
Net investment in capital assets	\$ 468,755,415	\$ 424,502,362	\$ 390,620,064	\$ 359,084,362	\$ 335,218,505	\$ 304,634,404	\$ 295,343,987	\$ 288,506,512	\$ 287,538,728	\$ 295,307,938
Restricted for:										
Debt service	10,902,013	11,092,065	10,966,309	2,916,717	-	-	-	-	-	-
Capital projects	10,486,205	6,843,204	-	-	-	-	-	-	-	-
Unrestricted	76,384,783	100,413,843	111,961,957	122,820,678	108,678,499	104,968,819	95,959,547	84,201,125	72,046,877	64,280,334
Total net position	\$ 566,528,416	\$ 542,851,474	\$ 513,548,330	\$ 484,821,757	\$ 443,897,004	\$ 409,603,223	\$ 391,303,534	\$ 372,707,637	\$ 359,585,605	\$ 359,588,272

Source: Cape Fear Public Utility Authority's Comprehensive Annual Financial Report.

(1) Net Position was restated in fiscal years 2018, 2017, 2014, and 2012 to reflect a change in accounting principle.

Cape Fear Public Utility Authority
Changes in Net Position
Current Fiscal Year and Last Nine Fiscal Years
(Accrual Basis of Accounting)

	Fiscal Year 2019	Fiscal Year 2018	Fiscal Year 2017	Fiscal Year 2016	Fiscal Year 2015	Fiscal Year 2014	Fiscal Year 2013	Fiscal Year 2012	Fiscal Year 2011	Fiscal Year 2010
Operating revenues										
Charges for services	\$ 77,413,386	\$ 73,276,538	\$ 72,952,927	\$ 68,627,099	\$ 67,429,021	\$ 65,495,922	\$ 63,061,317	\$ 61,115,234	\$ 57,086,229	\$ 47,524,673
System development charges	5,222,171	6,014,920	6,277,464	6,068,284	4,740,567	4,396,198	3,832,586	3,734,210	2,035,607	2,287,015
Other operating revenues	3,334,896	3,448,795	4,223,916	3,873,167	3,835,966	3,344,807	3,152,075	3,173,602	2,671,784	2,313,214
Total operating revenues	85,970,453	82,740,253	83,454,307	78,568,550	76,005,554	73,236,927	70,045,978	68,023,046	61,793,620	52,124,902
Operating expenses										
Personnel and benefits	23,420,453	21,673,141	17,850,409	16,598,873	15,944,834	16,128,971	15,253,963	15,257,145	15,176,175	17,038,778
Operations and maintenance	27,505,928	22,789,586	23,650,622	16,393,895	14,633,728	14,051,693	14,643,018	14,474,821	14,188,596	13,214,913
Depreciation and amortization	22,863,858	22,024,805	20,880,300	20,076,373	18,776,391	17,729,409	17,591,990	16,107,252	14,283,401	13,096,230
Total operating expenses	73,790,239	66,487,532	62,381,331	53,069,141	49,354,953	47,910,073	47,488,971	45,839,218	43,648,172	43,349,921
Operating income (loss)	12,180,214	16,252,721	21,072,976	25,499,409	26,650,601	25,326,854	22,557,007	22,183,828	18,145,448	8,774,981
Nonoperating revenues (expenses)										
Investment earnings	2,204,682	1,567,523	880,543	3,312,744	1,012,470	993,737	959,408	962,260	738,453	4,105,897
Interest expense	(8,660,674)	(8,660,925)	(9,321,091)	(8,274,675)	(8,332,023)	(11,919,549)	(13,213,771)	(10,500,330)	(13,011,609)	(10,909,406)
Bond issuance costs and other debt service fees	-	(142,708)	-	(717,165)	(683,650)	(85,243)	(316,120)	(625,383)	(131,224)	(104,215)
State and federal grants	5,433,834	2,786,821	220,254	-	-	-	-	-	-	-
Insurance proceeds	623,491	-	-	-	-	-	-	-	-	-
Gain (Loss) on disposal of capital assets	132,953	152,213	88,899	53,691	77,599	73,780	(202,214)	-	-	-
Amortization of bond issuance costs	-	-	-	-	-	-	-	-	-	-
Gain (Loss) on extinguishment of debt	-	-	-	93,020	-	-	-	-	-	-
Contributions from the City of Wilmington and New Hanover County	-	304,000	627,000	950,000	1,254,000	1,577,000	1,900,000	1,900,000	1,900,000	1,900,000
Total nonoperating revenues (expenses)	(265,714)	(3,993,076)	(7,504,395)	(4,582,385)	(6,671,604)	(9,360,275)	(10,872,697)	(8,263,453)	(10,504,380)	(5,007,724)
Income before capital contributions, special items and extraordinary items	11,914,500	12,259,645	13,568,581	20,917,024	19,978,997	15,966,579	11,684,310	13,920,375	7,641,068	3,767,257
Capital contributions from the City of Wilmington and New Hanover County	-	-	-	-	-	-	-	-	-	-
Capital contributions-other	11,762,442	11,538,622	17,654,167	20,007,729	14,314,784	3,936,222	6,911,587	2,661,149	777,743	5,695,743
Special impairment of capital assets	-	-	-	-	-	-	-	-	(8,191,391)	(2,275,200)
Extraordinary impairment of capital assets	-	-	-	-	-	-	-	-	-	(1,292,068)
Total capital contributions, special and extraordinary items	11,762,442	11,538,622	17,654,167	20,007,729	14,314,784	3,936,222	6,911,587	2,661,149	(7,413,648)	2,128,475
Increase in net position	23,676,942	23,798,267	31,222,748	40,924,753	34,293,781	19,902,801	18,595,897	16,581,524	227,420	5,895,732
Net position										
Beginning of year	537,346,597	513,548,330	484,821,757	443,897,004	411,206,335	391,303,534	372,707,637	356,126,113	355,898,693	350,002,961
Cumulative effect of change in accounting principle	5,504,877	-	(2,496,175)	-	(1,603,112)	-	-	-	-	-
End of year, restated	\$ 566,528,416	\$ 537,346,597	\$ 513,548,330	\$ 484,821,757	\$ 443,897,004	\$ 411,206,335	\$ 391,303,534	\$ 372,707,637	\$ 356,126,113	\$ 355,898,693

Source: Cape Fear Public Utility Authority's Comprehensive Annual Financial Report.

Cape Fear Public Utility Authority
Schedule of User Rates
Current Fiscal Year and Last Nine Fiscal Years

	Fiscal Year											
	2019	2018	2017	2016	2015 ⁽¹⁾	2014 ⁽¹⁾	2013 ⁽¹⁾	2012 ⁽¹⁾	2011 ⁽¹⁾	2010 ⁽¹⁾		
Water Rates												
Water Fixed Rate (bi-monthly)	\$ 27.56	\$ 26.67	\$ 25.81	\$ 25.81	\$ 25.81	\$ 25.81	\$ 25.81	\$ 25.81	\$ 24.99	\$ 21.89		
Water Rate per 1,000 gallons	\$ 4.02	\$ 3.85	\$ 3.67	\$ 3.67	\$ 3.67	\$ 3.67	\$ 3.42	N/A	N/A	N/A		
Water Variable Rate:												
0 - 9,000 gallons	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 2.22		
9,001 - 18,000 gallons	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 3.36		
18,001+ gallons	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 4.50		
0 - 12,000 gallons	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 2.64	\$ 2.64	N/A		
12,001 - 24,000 gallons	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 3.96	\$ 3.96	N/A		
Over 24,000 gallons	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$ 5.28	\$ 5.28	N/A		
Irrigation ⁽²⁾	\$ 4.02	\$ 3.85	\$ 3.67	\$ 3.67	\$ 3.67	\$ 3.67	\$ 3.42	\$ 3.36	\$ 2.64	N/A		
Non-Residential	\$ 4.02	\$ 3.85	\$ 3.67	\$ 3.67	\$ 3.67	\$ 3.67	\$ 3.42	\$ 3.96	\$ 3.96	\$ 3.36		
Average bi-monthly residential consumption per customer (gallons) ⁽³⁾	8,100	8,400	8,400	8,600	8,600	8,400	9,200	10,000	10,000	10,000		
Average bi-monthly residential bill	\$ 60.12	\$ 59.01	\$ 56.64	\$ 57.37	\$ 57.37	\$ 56.64	\$ 57.27	\$ 52.21	\$ 51.39	\$ 45.23		
Wastewater Rates												
Wastewater Fixed Rate (bi-monthly)	\$ 29.10	\$ 29.10	\$ 29.10	\$ 29.10	\$ 29.10	\$ 29.10	\$ 29.10	\$ 26.68	\$ 26.68	\$ 23.37		
Wastewater Variable Rate ⁽⁴⁾	\$ 4.63	\$ 4.58	\$ 4.56	\$ 4.56	\$ 4.56	\$ 4.56	\$ 4.21	\$ 4.04	\$ 3.59	\$ 3.14		
Wastewater Flat Rate ⁽⁵⁾	\$ 66.60	\$ 67.58	\$ 138.54	\$ 138.54	\$ 138.54	\$ 138.54	\$ 130.14	\$ 123.64	\$ 112.84	\$ 98.73		
Average bi-monthly residential consumption per customer (gallons)	8,100	8,400	8,400	8,600	8,600	8,400	9,200	10,000	10,000	10,000		
Average bi-monthly residential bill	\$ 66.60	\$ 67.58	\$ 67.40	\$ 68.32	\$ 68.32	\$ 67.40	\$ 67.83	\$ 67.08	\$ 62.58	\$ 54.77		

⁽¹⁾ Rates effective May 1 of respective fiscal year.

⁽²⁾ Board adopted lower irrigation rate to discourage irrigation wells.

For 2010, irrigation rates were set at the over 18,000 gallons rate.

⁽³⁾ Average customer consumption was not calculated prior to 2012. Values for time periods prior to 2012 are estimates.

⁽⁴⁾ Wastewater volume charges are capped at 30,000 gallons for residential customers.

⁽⁵⁾ Wastewater flat rate charge when Authority water is not available. Residential customers charge based on average

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

2019					2010				
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	183,400	3.34%	\$ 670,500	2.37%
2 New Hanover Regional Medical Center	60,177	1.09%	293,046	0.79%	2 New Hanover Regional Medical Center	60,103	1.10%	253,431	0.90%
3 Elementis	56,084	1.01%	229,592	0.62%	3 New Hanover County Schools	51,773	0.94%	288,296	1.02%
4 Wilmington Housing Authority	45,853	0.83%	221,171	0.59%	4 Wilmington Housing Authority	37,520	0.68%	158,505	0.56%
5 New Hanover County	41,252	0.75%	242,841	0.65%	5 New Hanover County	36,290	0.66%	195,927	0.69%
6 New Hanover County Schools	38,540	0.70%	253,938	0.68%	6 Lake Forest Apartments	33,107	0.60%	128,507	0.45%
7 State Port of North Carolina	27,352	0.49%	152,230	0.41%	7 College Manor Apartments	30,588	0.56%	123,732	0.44%
8 Lake Forest Apartments	25,906	0.47%	119,936	0.32%	8 Mayfaire Complex	25,244	0.46%	163,222	0.58%
9 Tribute	23,595	0.43%	212,910	0.57%	9 Tribute Properties	24,645	0.45%	174,715	0.62%
10 State of North Carolina	14,481	0.26%	66,648	0.18%	10 Wilmington Hilton	18,448	0.34%	71,652	0.25%
Total Net Consumption / Net Revenue	501,812	9.08%	\$ 2,541,086	6.81%	Total Net Consumption / Net Revenue	501,118	9.14%	\$ 2,228,487	7.88%
Total Annual System Net Consumption / Net Revenue	5,526,758		\$ 37,309,181		Total Annual System Net Consumption / Net Revenue	5,485,532		\$ 28,288,199	

Source: Cape Fear Public Utility Authority Customer Service Department.

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

2019					2010				
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	242,837	4.79%	\$ 358,180	1.28%
2 UNC Wilmington	57,472	1.15%	357,249	0.93%	2 UNC Wilmington	111,952	2.21%	399,691	1.42%
3 NHRMC	57,016	1.14%	317,699	0.83%	3 New Hanover County Schools	49,331	0.97%	272,876	0.97%
4 Wilmington Housing Authority	45,837	0.91%	250,225	0.65%	4 New Hanover Regional Medical Center	59,071	1.17%	236,881	0.84%
5 New Hanover County Schools	40,500	0.81%	296,399	0.77%	5 New Hanover County	34,159	0.67%	172,881	0.62%
6 New Hanover County	36,723	0.73%	241,819	0.63%	6 Wilmington Housing Authority	37,420	0.74%	149,983	0.53%
7 Lake Forest Apartments	25,906	0.52%	136,621	0.36%	7 College Manor Apartments	30,588	0.60%	117,478	0.42%
8 Corning, Inc.	25,701	0.51%	119,922	0.31%	8 Lake Forest Apartments	33,107	0.65%	120,990	0.43%
9 Tribute	23,089	0.46%	230,161	0.60%	9 Mayfaire Complex	25,012	0.49%	159,386	0.57%
10 State of North Carolina	14,481	0.29%	75,953	0.20%	10 Tribute Properties	24,382	0.48%	192,464	0.69%
Total Net Consumption / Net Revenue	550,416	10.94%	\$ 2,761,161	7.20%	Total Net Consumption / Net Revenue	647,859	12.78%	\$ 2,180,810	7.77%
Total Annual System Net Consumption / Net Revenue	5,010,981		\$ 38,345,170		Total Annual System Net Consumption / Net Revenue	5,070,084		\$ 28,052,866	

Source: Cape Fear Public Utility Authority Customer Service Department.

**Cape Fear Public Utility Authority
Consumption by Customer Group
Current Fiscal Year and Last Nine 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%

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.

**Cape Fear Public Utility Authority
Schedule of New Connections
Last Ten Fiscal Years**

Fiscal Year Ended June 30	Increase In Available Services Water	Cumulative Available Services Water	% Water Growth - Available Services	Increase in Water Connections	Cumulative Water Connections	% Water Growth - Connections
2019	1,072	75,772	1.44%	930	70,564	1.34%
2018	1,582	74,700	2.16%	1,022	69,634	1.49%
2017	1,679	73,118	2.35%	1,260	68,612	1.87%
2016	1,083	71,439	1.54%	1,216	67,352	1.84%
2015	1,562	70,356	2.27%	1,072	66,136	1.65%
2014	761	68,794	1.12%	391	65,064	0.60%
2013	966	68,033	1.44%	1,224	64,673	1.93%
2012	2,465	67,067	3.82%	457	63,449	0.73%
2011	919	64,602	1.44%	1,121	62,992	1.81%
2010	1,132	63,683	1.81%	227	61,871	0.37%

Fiscal Year Ended June 30	Increase In Available Services Wastewater (2)(3)	Cumulative Available Services Wastewater (3)	% Wastewater Growth - Available Services	Increase In Wastewater Connections	Cumulative Wastewater Connections	% Wastewater Growth - Connections
2019	1,073	74,116	1.47%	865	70,000	1.25%
2018	1,504	73,043	2.10%	1,512	69,135	2.24%
2017	2,317	71,539	3.35%	1,239	67,623	1.87%
2016	976	69,222	1.43%	654	66,384	0.99%
2015	1,417	68,246	2.12%	731	65,730	1.12%
2014	770	66,829	1.17%	1,195	64,999	1.87%
2013	1,530	66,059	2.37%	448	63,804	0.71%
2012	199	64,529	0.31%	571	63,356	0.91%
2011	537	64,330	0.84%	1,454	62,785	2.37%
2010	1,497	63,793	2.40%	1,103	61,331	1.83%

(1) Water connections and available services include domestic and irrigation.

(2) Available Services include domestic and irrigation both connected and non-connected services.

Connected Services are defined as Locations that have Active Billed Customers.

Non-Connected Services are defined as Locations that have Services available but have no Active Billed Customers.

Available services are an indicator of potential customer growth.

(3) Both available services and connected services for all years have been restated to present more accurate numbers based on a better understanding of the data.

Cape Fear Public Utility Authority
Pledged-Revenue Coverage
Water and Sewer Revenue Bonds
Current Fiscal Year and Last Nine Fiscal Years

Fiscal Year Ended June 30	Gross Revenues (1)	Less Operating Expenses (2)	Net Available Revenue	Debt Service Principal	Debt Service Interest	Total Debt Service	Debt Coverage Ratio
2019							
Parity Debt Coverage Ratio	\$ 93,741,922	\$ 49,528,402	\$ 44,213,520	\$ 11,124,000	\$ 9,899,165	\$ 21,023,165	2.10
Total Debt Coverage Ratio				\$ 12,707,047	\$ 10,471,871	\$ 23,178,918	1.91
2018							
Parity Debt Coverage Ratio	\$ 87,550,810	\$ 43,319,161	\$ 44,231,649	\$ 10,795,000	\$ 9,957,801	\$ 20,752,801	2.13
Total Debt Coverage Ratio				\$ 13,294,847	\$ 11,067,081	\$ 24,361,928	1.82
2017							
Parity Debt Coverage Ratio	\$ 85,271,003	\$ 40,961,133	\$ 44,309,870	\$ 12,825,000	\$ 8,617,881	\$ 21,442,881	2.07
Total Debt Coverage Ratio				\$ 15,300,761	\$ 9,328,777	\$ 24,629,538	1.80
2016							
Parity Debt Coverage Ratio	\$ 82,884,985	\$ 33,299,149	\$ 49,585,836	\$ 5,945,000	\$ 12,944,573	\$ 18,889,573	2.63
Total Debt Coverage Ratio				\$ 9,075,790	\$ 14,296,359	\$ 23,372,149	2.12
2015							
Parity Debt Coverage Ratio	\$ 78,349,623	\$ 31,053,037	\$ 47,296,586	\$ 6,850,000	\$ 13,056,801	\$ 19,906,801	2.38
Total Debt Coverage Ratio				\$ 12,747,145	\$ 14,633,342	\$ 27,380,487	1.73
2014							
Parity Debt Coverage Ratio	\$ 74,317,342	\$ 30,508,462	\$ 43,808,880	\$ 7,210,000	\$ 13,209,678	\$ 20,419,678	2.15
Total Debt Coverage Ratio				\$ 11,652,876	\$ 14,833,732	\$ 26,486,608	1.65
2013							
Parity Debt Coverage Ratio	\$ 71,023,046	\$ 30,068,015	\$ 40,955,031	\$ 8,105,000	\$ 13,525,578	\$ 21,630,578	1.89
Total Debt Coverage Ratio				\$ 11,989,171	\$ 14,590,085	\$ 26,579,256	1.54
2012							
Parity Debt Coverage Ratio	\$ 69,045,118	\$ 29,956,912	\$ 39,088,206	\$ 6,919,113	\$ 11,894,186	\$ 18,813,299	2.08
Total Debt Coverage Ratio				\$ 12,006,657	\$ 13,283,201	\$ 25,289,858	1.55
2011							
Parity Debt Coverage Ratio	\$ 62,820,928	\$ 29,378,869	\$ 33,442,059	\$ 3,329,579	\$ 8,612,881	\$ 11,942,460	2.80
Total Debt Coverage Ratio				\$ 9,147,645	\$ 11,160,138	\$ 20,307,783	1.65
2010 (3)							
Parity Debt Coverage Ratio	\$ 53,457,074	\$ 29,314,125	\$ 24,142,949	\$ 2,320,562	\$ 5,220,454	\$ 7,541,016	3.20
Total Debt Coverage Ratio				\$ 8,706,072	\$ 8,092,789	\$ 16,798,861	1.44

(1) Gross revenues include all charges for services (including system development charges), other charges and investment earnings.

(2) Operating expenses do not include depreciation and amortization expense, OPEB, and pension expense and include pension and OPEB contributions.

(3) Debt coverage ratios for fiscal years ended June 30, 2010 was restated in fiscal year ended June 30, 2011 to be consistent with a restatement of investment earnings.

Cape Fear Public Utility Authority
Ratios of Outstanding Debt by Type
Current Fiscal Year and Last Nine Fiscal Years

Fiscal Year	Revenue Bonds	General Obligation Bonds	Installment Obligations	ARRA Revolving Loan	DWSRF Revolving Loan	Clean Water State Revolving Fund Loans	Total	% of Personal Income (1)	Per Capita
2019	\$ 250,034,259	\$ -	\$ 8,765,000	\$ 792,065	\$ 131,937	\$ 13,582,207	\$ 273,305,468	N/A	\$ 1,177
2018	264,372,354	-	9,795,000	848,642	140,733	9,320,528	284,477,257	N/A	\$ 1,252
2017	278,443,921	-	11,741,800	905,219	149,529	8,139,178	299,379,647	3.357%	\$ 1,340
2016	294,031,807	-	13,679,800	961,795	158,325	8,611,567	317,443,294	2.975%	\$ 1,441
2015	291,532,167	-	29,044,491	1,018,371	167,121	8,696,154	330,458,304	2.700%	\$ 1,528
2014	277,272,935	2,355,000	32,259,698	1,074,947	91,048	8,653,524	321,707,152	2.628%	\$ 1,550
2013	285,309,582	5,255,000	35,410,732	1,131,523	-	2,442,453	329,549,290	2.373%	\$ 1,575
2012	293,217,535	7,759,279	37,297,244	444,323	-	-	338,718,381	2.227%	\$ 1,643
2011	255,556,814	11,712,630	39,918,647	330,545	-	-	307,518,636	2.413%	\$ 1,517
2010	259,225,928	16,371,000	42,475,207	-	-	-	318,072,135	2.211%	\$ 1,639

(1) Federal Agency Data: Bureau of Economic Analysis. Data provided for as many years as available.

**Cape Fear Public Utility Authority
Demographic Statistics
Current Fiscal Year and Last Nine 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 Employers
Current Fiscal Year and Nine Years Ago**

2019				2010			
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	4,738	1	5.04%
New Hanover County Schools	4,240	2	3.51%	New Hanover County Schools	3,666	2	3.90%
GE Hitachi Nuclear Energy and GE Aviation	2,800	3	2.32%	Wal-Mart Stores	2,592	3	2.76%
Wal-Mart Stores	2,414	4	2.00%	GE Hitachi Nuclear Energy and GE Aviation	2,100	4	2.23%
University of North Carolina Wilmington	2,024	5	1.67%	University of North Carolina at Wilmington	1,898	5	2.02%
PPD	1,500	6	1.24%	PPD	1,500	6	1.60%
Duke Energy	1,375	7	1.14%	New Hanover County	1,480	7	1.57%
Verizon Wireless	1,167	8	0.97%	Corning, Inc.	1,000	8	1.06%
City of Wilmington	1,077	9	0.89%	City of Wilmington	981	9	1.04%
Corning, Inc.	1,000	10	0.83%	Cape Fear Community College	541	10	0.58%
			20.46%				21.80%
Total # Employed at June 30 of the respective FY (2)			120,905	Total # Employed at June 30 of the respective FY (2)			94,030

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

(2) Source: North Carolina Employment Security Commission (2010) and www.nccommerce.com (2019)

(3) Source: New Hanover County CAFR for Fiscal Year Ended June 30, 2010 using the Wilmington Industrial Development, Inc. and NC State Demographics Website.

Cape Fear Public Utility Authority
Full Time Equivalent Employees
Current Fiscal Year and Last Nine Fiscal Years

Departments	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
General - Administrative										
Administration	3	4	5	5	5	5	6	5	4	6
Human Resources/Safety	4	4	5	5	5	5	4	4	4	4
Finance/Information Technology (2)	12	12	12	12	12	15	14.5	14	15	15
Public & Environmental Policy	3	-	-	-	-	-	-	-	-	-
Engineering	27	27	27	27	25	24	22	22	22	24
Operations										
Administration/Information Technology (1)(2)	12	10	14	14	14	9	9	9	9	9
Centralized Maintenance (1)	21	19	19	14	14	-	-	-	-	-
Utility Services (1)	90	90	85	90	87	96	96	96	96	104
Water Treatment (1)	27	26	25	25	24	30	30	30	31	31
Wastewater Treatment (1)	29	31	30	30	30	40	40	40	40	41
Environmental Management	28.75	29.5	28.5	28.5	28.5	28.5	29.5	29.5	29.5	29.5
Customer Service (1)	57	54	53	53	50	42	41	42	41	41
Total FTE's	313.75	306.5	303.5	303.5	294.5	294.5	292	291.5	291.5	304.5

(1) In FY 14 the Operations Divisions were reorganized to create a new Centralized Maintenance Division.

(2) In FY15 the Authority reorganized resulting in individual position moves and department moves.

- Information Technology moved to Operations - Administration

Cape Fear Public Utility Authority
Water Production and Wastewater Treatment
(thousands of gallons)
Last Ten Fiscal Years

Fiscal Year Ended June 30	Water Processed and Pumped to System	Wastewater Treated
2019	6,917,279	7,151,000
2018	6,628,000	6,382,135
2017	6,488,231	6,266,178
2016	6,353,470	6,865,851
2015	6,038,539	6,379,565
2014	6,016,143	6,004,110
2013	5,970,000	5,900,239
2012	6,020,000	5,525,894
2011	6,179,900	5,777,917
2010	5,989,700	6,122,662

Cape Fear Public Utility Authority
Operating Statistics
Current Year and Last Nine 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

COMPLIANCE SECTION

**Report of Independent Auditor on Internal Control over Financial Reporting and on
Compliance and Other Matters Based on an Audit of Financial Statements Performed in
Accordance with *Government Auditing Standards***

The Board of Directors
Cape Fear Public Utility Authority
Wilmington, North Carolina

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the accompanying financial statements of Cape Fear Public Utility Authority (the "Authority"), as of and for the year ended June 30, 2019, and the related notes to the financial statements which collectively comprise the Authority's basic financial statements as listed in the table of contents, and have issued our report thereon dated October 31, 2019.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Authority's internal control over financial reporting ("internal control") to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control. Accordingly, we do not express an opinion on the effectiveness of the Authority's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the Authority's financial statements will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that were not identified. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Authority's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Authority's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Authority's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Cherny Bekaert LLP

Raleigh, North Carolina
October 31, 2019

**Report of Independent Auditor on Compliance for Each Major Federal Program
and on Internal Control over Compliance in Accordance with OMB Uniform Guidance
and the State Single Audit Implementation Act**

The Board of Directors
Cape Fear Public Utility Authority
Wilmington, North Carolina

Report on Compliance for Each Major Federal Program

We have audited Cape Fear Public Utility Authority's (the "Authority") compliance with the types of compliance requirements described in the OMB *Compliance Supplement* and the *Audit Manual for Governmental Auditors in North Carolina*, issued by the Local Government Commission, that could have a direct and material effect on each of the Authority's major federal programs for the year ended June 30, 2019. The Authority's major federal programs are identified in the summary of auditor's results section of the accompanying schedule of findings and questioned costs.

Management's Responsibility

Management is responsible for compliance with the requirements of laws, regulations, contracts, and grants applicable to its federal programs.

Auditor's Responsibility

Our responsibility is to express an opinion on compliance for each of the Authority's major federal programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. *Code of Federal Regulations* (CFR) Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* ("Uniform Guidance"), and the State Single Audit Implementation Act. Those standards, the Uniform Guidance, and the State Single Audit Implementation Act require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major federal program occurred. An audit includes examining, on a test basis, evidence about the Authority's compliance with those requirements and performing such other procedures as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for each major federal program. However, our audit does not provide a legal determination of the Authority's compliance.

Opinion on Each Major Federal Program

In our opinion, the Authority complied, in all material respects, with the types of compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2019.

Report on Internal Control over Compliance

Management of the Authority is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered the Authority's internal control over compliance with the types of requirements that could have a direct and material effect on each major federal program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing an opinion on compliance for each major federal program and to test and report on internal control over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of the Authority's internal control over compliance.

A deficiency in internal control over compliance exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. A *material weakness in internal control over compliance* is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency in internal control over compliance* is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

Cherny Bekaert LLP

Raleigh, North Carolina
October 31, 2019

**Report of Independent Auditor on Compliance with Requirements
Applicable To Each Major State Program and Internal Control over Compliance
In Accordance with the Uniform Guidance and the State Single Audit Implementation Act**

The Board of Directors
Cape Fear Public Utility Authority
Wilmington, North Carolina

Report on Compliance for each Major State Program

We have audited Cape Fear Public Utility Authority's (the "Authority") compliance with the types of requirements described in the *Audit Manual for Governmental Auditors in North Carolina*, issued by the Local Government Commission that could have a direct and material effect on each of the Authority's major state programs for the year ended June 30, 2019. The Authority's major state programs are identified in the summary of auditor's results section of the accompanying schedule of findings and questioned costs.

Management's Responsibility

Management is responsible for compliance with the requirements of laws, regulations, contracts, and grants applicable to its major state program.

Auditor's Responsibility

Our responsibility is to express an opinion on compliance for each of the Authority's major state programs based on our audit of the types of compliance requirements referred to above. We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America; the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and applicable sections of *Title 2 US Code of Federal Regulations (CFR) Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* ("Uniform Guidance"), as described in the *Audit Manual for Governmental Auditors in North Carolina*, and the State Single Audit Implementation Act. Those standards, the Uniform Guidance, and the State Single Audit Implementation Act require that we plan and perform the audit to obtain reasonable assurance about whether noncompliance with the types of compliance requirements referred to above that could have a direct and material effect on a major state program occurred. An audit includes examining, on a test basis, evidence about the Authority's compliance with those requirements and performing such other procedures, as we considered necessary in the circumstances.

We believe that our audit provides a reasonable basis for our opinion on compliance for each major state program. However, our audit does not provide a legal determination of the Authority's compliance.

Opinion on Each Major State Program

In our opinion, the Authority complied, in all material respects, with the compliance requirements referred to above that could have a direct and material effect on its major state programs for the year ended June 30, 2019.

Report on Internal Control over Compliance

Management of the Authority is responsible for establishing and maintaining effective internal control over compliance with the types of compliance requirements referred to above. In planning and performing our audit of compliance, we considered the Authority's internal control over compliance with the types of requirements that could have a direct and material effect on a major state program to determine the auditing procedures that are appropriate in the circumstances for the purpose of expressing our opinion on compliance for each major state program and to test and report on internal control over compliance with the Uniform Guidance, but not for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, we do not express an opinion on the effectiveness of the Authority's internal control over compliance.

A deficiency in internal control over compliance exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a state program, on a timely basis. A *material weakness in internal control over compliance* is a deficiency, or combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a state program will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency in internal control over compliance* is a deficiency, or combination of deficiencies, in internal control over compliance with a type of compliance requirement of a state program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control over compliance that might be significant deficiencies or material weaknesses. We did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

Cherry Bekaert LLP

Raleigh, North Carolina
October 31, 2019

CAPE FEAR PUBLIC UTILITY AUTHORITY

SCHEDULE OF FINDINGS AND QUESTIONED COSTS

YEAR ENDED JUNE 30, 2019

Section I—Summary of Auditor's Results

Financial Statements

Type of auditor's report issued on whether the financial statements were prepared in accordance with GAAP: *Unmodified*

Internal control over Financial Reporting:

- Material weakness(es) identified? _____ yes X no
- Significant deficiency(ies) identified that are not considered to be material weaknesses? _____ yes X none reported

Noncompliance material to financial statements noted?

_____ yes X no

Federal Awards

Internal control over major federal programs:

- Material weakness(es) identified? _____ yes X no
- Significant deficiency(ies) identified that are not considered to be material weaknesses? _____ yes X none reported

Noncompliance material to federal awards?

_____ yes X no

Type of auditor's report issued on compliance for major federal programs:

Unmodified

Any audit findings disclosed that are required to be reported in accordance
With 2 CFR 200.516(a)?

_____ yes X no

Identification of major federal programs:

CFDA Numbers

66.458

Names of Federal Program or Cluster

U.S. Environmental Protection Agency
Capitalization Grants for Clean Water State Revolving Funds

CAPE FEAR PUBLIC UTILITY AUTHORITY
SCHEDULE OF FINDINGS AND QUESTIONED COSTS (CONTINUED)

YEAR ENDED JUNE 30, 2019

Section I—Summary of Auditor's Results (continued)

Dollar threshold used to distinguish between Type A and Type B Programs:

\$ 750,000

Auditee qualified as low-risk auditee?

X yes no

State Awards

Internal control over major state program:

- Material weakness(es) identified?
- Significant deficiency(ies) identified that are not considered to be material weaknesses?

yes X no

yes X none reported

Noncompliance material to State awards?

yes X no

Type of auditor's report issued on compliance for major State program:

Unmodified

Any audit findings disclosed that are required to be reported in accordance with
State Single Audit Implementation Act?

yes X no

Identification of major State programs:

Names of State Program or Cluster

Drinking Water Bond Program

CAPE FEAR PUBLIC UTILITY AUTHORITY
SCHEDULE OF FINDINGS AND QUESTIONED COSTS (CONTINUED)

YEAR ENDED JUNE 30, 2019

Section II—Findings Related to the Audit of the Basic Financial Statements

None.

Section III—Federal Award Findings and Questioned Costs

None.

Section IV—State Award Findings and Questioned Costs

None.

CAPE FEAR PUBLIC UTILITY AUTHORITY
SUMMARY SCHEDULE OF PRIOR AUDIT FINDINGS

YEAR ENDED JUNE 30, 2019

None.

Cape Fear Public Utility Authority
Schedule of Expenditures of Federal and State Awards
For the Fiscal Year Ended June 30, 2019

Grantor/Pass-through Grantor/Program Title	Federal CFDA or Other Identifying Number	State/ Pass-through Grantor's Number	Federal (Direct & Pass-through) Expenditures	State Expenditures	Local Expenditures
Federal Awards:					
Non-cash Assistance					
<u>U.S. Environmental Protection Agency</u>					
Passed-through the N.C. Dept. of Environmental Quality:					
Capitalization Grants for Clean Water State Revolving Funds	66.458	C6-00477106-3	\$ 6,094,467	\$ -	\$ -
Total U.S. Environmental Protection Agency			6,094,467	-	-
Total Federal Awards			\$ 6,094,467	\$ -	\$ -
State Awards:					
<u>North Carolina Department of Environmental Quality</u>					
Pump Station Replacement & Rehabilitation	E-SRP-W-17-0027		\$ -	\$ 361,263	\$ -
Find-It, Fix-It Gravity Sewer Rehabilitation	E-SRP-W-17-0028		-	1,034,780	-
Pump Station 10 Replacement	E-SRP-W-17-0029		-	1,575,968	-
Pilot Testing for Treatment of PFAS Including GenX	H-SAP-D-19-0032		-	439,792	-
Total State Awards			-	3,411,803	-
Total Assistance			\$ 6,094,467	\$ 3,411,803	\$ -

See Notes to Schedule of Expenditures of Federal and State Awards.

Notes to the Schedule of Expenditures of Federal and State Awards:

Note 1: Basis of Presentation

The accompanying schedule of expenditures of federal and State awards (SEFSA) includes the federal and State grant activity of the Cape Fear Public Utility Authority under the programs of the federal government and the State of North Carolina for the year ended June 30, 2019. The information in this SEFSA is presented in accordance with the requirements of Title 2 US Code of Federal Regulations Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards and the State Single Audit Implementation Act. Because the SEFSA presents only the expenditures of federal and state awards, it is not intended to and does not present the Authority's financial position, changes in net position, or cash flows.

Note 2: Summary of Significant Accounting Policies

Expenditures reported in the SEFSA are reported on the modified accrual basis of accounting. Such expenditures are recognized following the cost principles contained in Uniform Guidance, wherein certain types of expenditures are not allowable or are limited as to reimbursement.

Note 3: Indirect Cost Rate

The Authority has elected not to use the 10-percent de minimis indirect cost rate allowed under the Uniform Guidance.