



CAPE FEAR PUBLIC UTILITY AUTHORITY WILMINGTON, NORTH CAROLINA

COMPREHENSIVE ANNUAL FINANCIAL REPORT For the Fiscal Year Ended June 30, 2018

Board Members

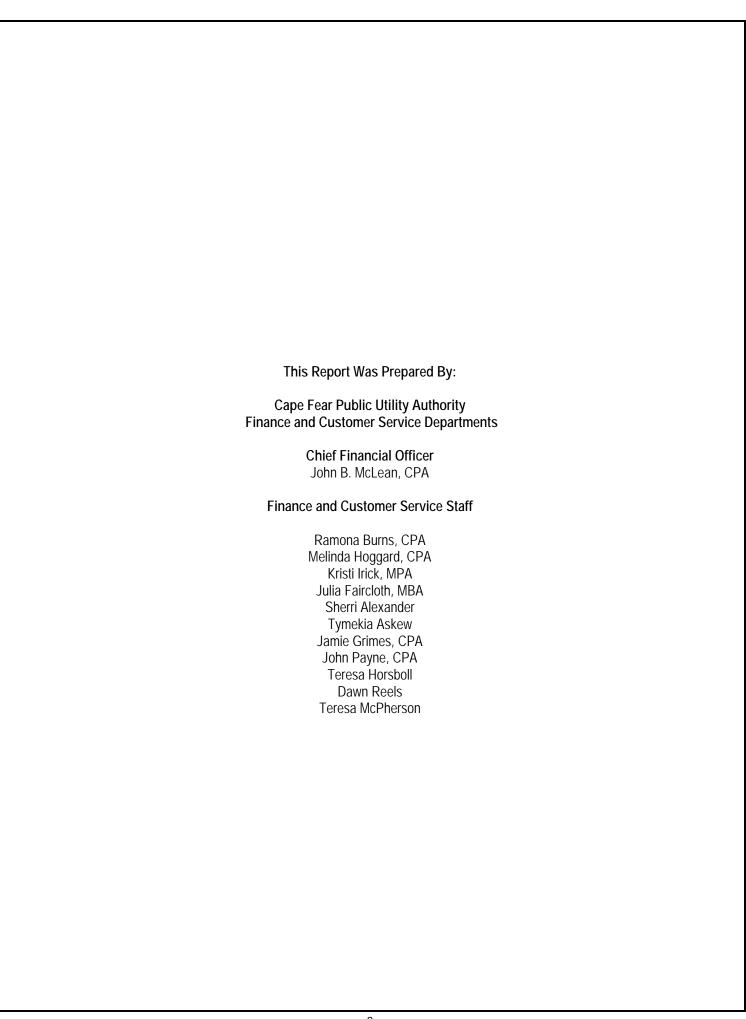
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Mike Brown, Treasurer
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James R. Flechtner, PE

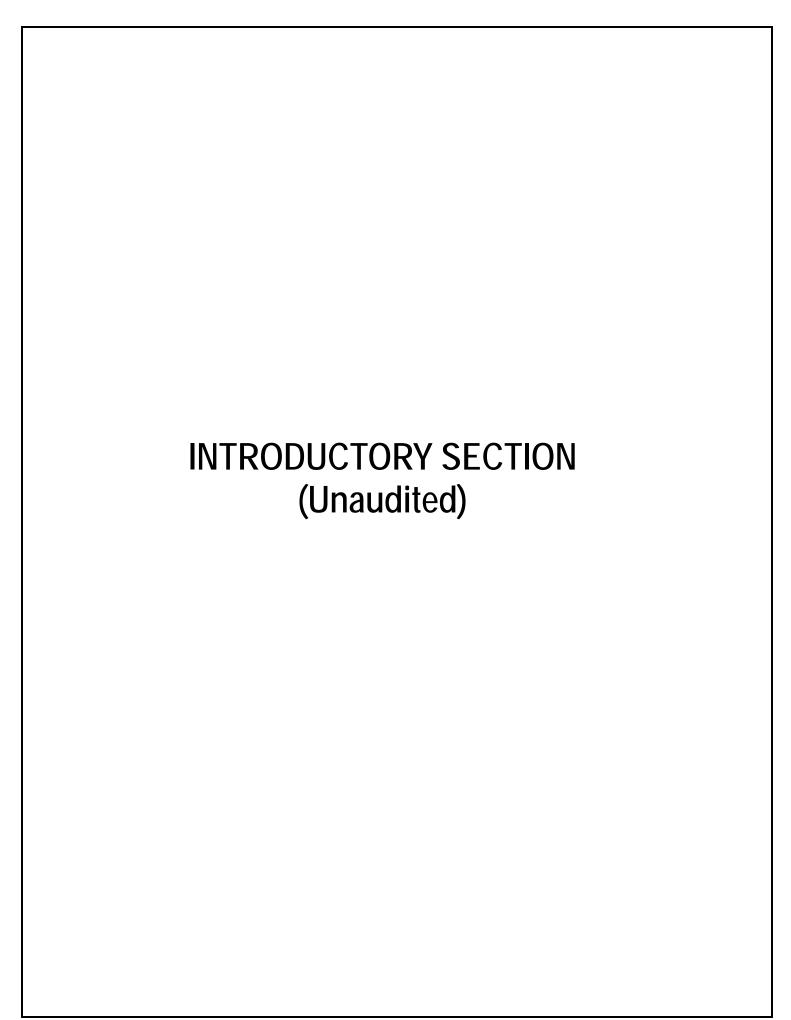
Chief Financial Officer

John B. McLean, CPA



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October 31, 2018

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, 2018. 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, 2018, 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, 2018, 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 2018. 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. New Hanover County's population is approximately 230,000 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 69,634 customer accounts, an increase of 1,022 compared to the previous year. Also, an additional 5,066 locations have services available (vacant lots). The water system has 1,131 miles of distribution lines at June 30, 2018. 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, 2018 increased .25% from the previous year.

The Authority has a needs-based contract to purchase up to 23.0 MGD of raw water from the Lower Cape Fear Water and Sewer Authority (LCFWSA) with a term ending in 2030. Raw surface water is either drawn from the Cape Fear River through

the Authority's 10 million gallon per day (MGD) raw water intake at King's Bluff or purchased through a connection with the LCFWSA at U.S. Highway 421. The raw surface water is pumped to the Sweeney Water Treatment Plant (SWTP), which provides potable water to the majority of the Authority's service area. The SWTP has a rated capacity of 35 MGD. Average production during the fiscal year ended June 30, 2018 was 14.49 MGD. The surface water distribution system has been providing water service for more than 100 years and includes 16.0 million gallons of covered finished water storage and 5.6 million gallons of storage in five elevated tanks. The LCFWSA and CFPUA equally share in the 106 MGD (combined) allocation of raw water from the Cape Fear River withdrawn at the Kings Bluff Raw Water Facilities.

In October 2009, the Authority placed a 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, 2018 of 2.49 MGD. The Richardson distribution system provides water service to customers and includes 2.8 million gallons of covered ground storage and 2.35 million gallons of elevated storage in five elevated tanks. In addition, the Authority operates one smaller groundwater system, 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, 2018 was 0.693 MGD.

The Wastewater System

There are 69,135 wastewater accounts, an increase of 1,512 compared to the previous year. Also, an additional 3,908 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 890 miles of gravity lines, 22,100 manholes, approximately 150 pump stations and 150 miles of pressurized sewage force main. Wastewater consumption, based on metered water (excluding irrigation) for the fiscal year June 30, 2018 increased 1.61% from the previous year.

The Authority currently owns and operates the James A. Loughlin, or Northside Wastewater Treatment Plant (NSWWTP) and the M'Kean Maffitt, or Southside Wastewater Treatment Plant (SSWWTP). The NSWWTP is permitted to treat up to 16.0 MGD. The SSWWTP is permitted to treat up to 12.0 MGD. For the fiscal year ended June 30, 2018, the combined average daily flows were 16.9 MGD of the combined 28.1 MGD permitted. Flows from the Walnut Hills Treatment Plant have been redirected to the NSWWTP. The NSWWTP and SSWWTP both use physical, chemical and biological processes to clean the wastewater. After the wastewater flows are collected and treated, the treated effluent from the SSWWTP and the NSWWTP is discharged into the Cape Fear River. The Authority also has a hauled waste program 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 the economic, medical, and educational hub for the surrounding counties that comprise southeastern North Carolina. As discussed in the paragraphs below, most economic indicators in the service area during the year were positive.

Taxable sales in New Hanover County were up 2.1% for the fiscal year ended June 30, 2018. 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, 2018, of 3.9%, unchanged from June 30, 2017. It is lower than North Carolina's 4.2% and the United States at 4.0%.

Tourism is a vital part of the area's economic component in terms of employment and revenues. In 2017, New Hanover County was ranked eight out of 100 counties in the state with \$578.22 million in travel-related revenues in calendar year 2017, a 4.32% increase over 2016 revenues. In 2017, tourism provided approximately 6,320 jobs with an annual payroll of \$141 million in New Hanover County. For fiscal year ended June 30, 2018, room occupancy tax receipts increased 3.53% over the prior year.

Major employers in New Hanover County with 500 or more employees include New Hanover Regional Medical Center, New Hanover County Schools, University of North Carolina at Wilmington, PPD, New Hanover County, Verizon Wireless, Cape Fear Community College, Wal-Mart, City of Wilmington, General Electric Hitachi Nuclear Americas, Wilmington Health Associates, Duke Energy.

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 to \$20 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's capital improvement plan provides for new appropriations in Fiscal Years 2019 and 2020 of \$54.9 million and \$79.8 million – much higher than the normal \$18 to \$20 million spent annually to improve and expand the water and wastewater system. Major projects include roughly \$46 million to upgrade the Sweeney Water Treatment Plant with technology that is effective at removing per-fluorinated compounds and other unregulated compounds from surface water; \$31 million to construct a new raw water transmission main; approximately \$11 million to rehabilitate gravity sewer for the Burnt Mill Outfall and major roads within the service area; and \$18 million to replace several pump stations. These projects will largely be funded with rate revenue collections and existing cash balances consistent with the adopted debt and reserve policy revisions discussed above. Other funding sources include approximately \$16 million in state grants and \$25 to \$30 million in revenue bonds for the raw water line project.

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, 2017. The Authority has received this prestigious award each of the nine 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.

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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, 2017

Christopher P. Morrill

Executive Director/CEO

Board Members



William Norris
Chair

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



Jennifer Adams
Secretary
Appointed by New Hanover County
Seated in 2016
Term ends 2019
Committee: Executive & Finance



Kevin O'Grady
Councilman
Appointed by City of Wilmington
Seated in 2014
Term ends 2019
Committees: Human Resources & Communications





Larry Sneeden
Member
Appointed by New Hanover County
Seated in 2012
Term ends in 2020
Committees: Executive, Finance,
Long Range Planning



Michael C. Brown, III
Treasurer

Appointed by New Hanover County
Seated in 2010
Term ends in 2019
Committees: Executive & Finance



Deans Hackney

Member

Appointed by City of Wilmington

Seated in 2018

Term ends 2019

Committees: Long Range Planning & Human Resources



Pat Kusek
Commissioner
Appointed by New Hanover County
Seated in 2011
Term ends in 2018
Committees: Communications



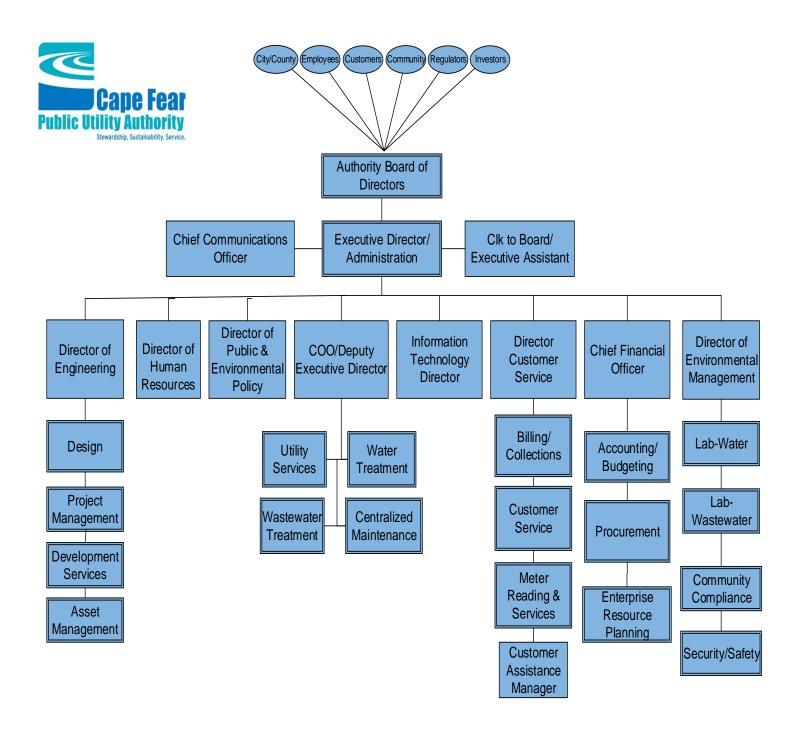
Skip Watkins
Commissioner
Appointed by New Hanover County
Seated in 2017
Term ends in 2018
Committees: Finance

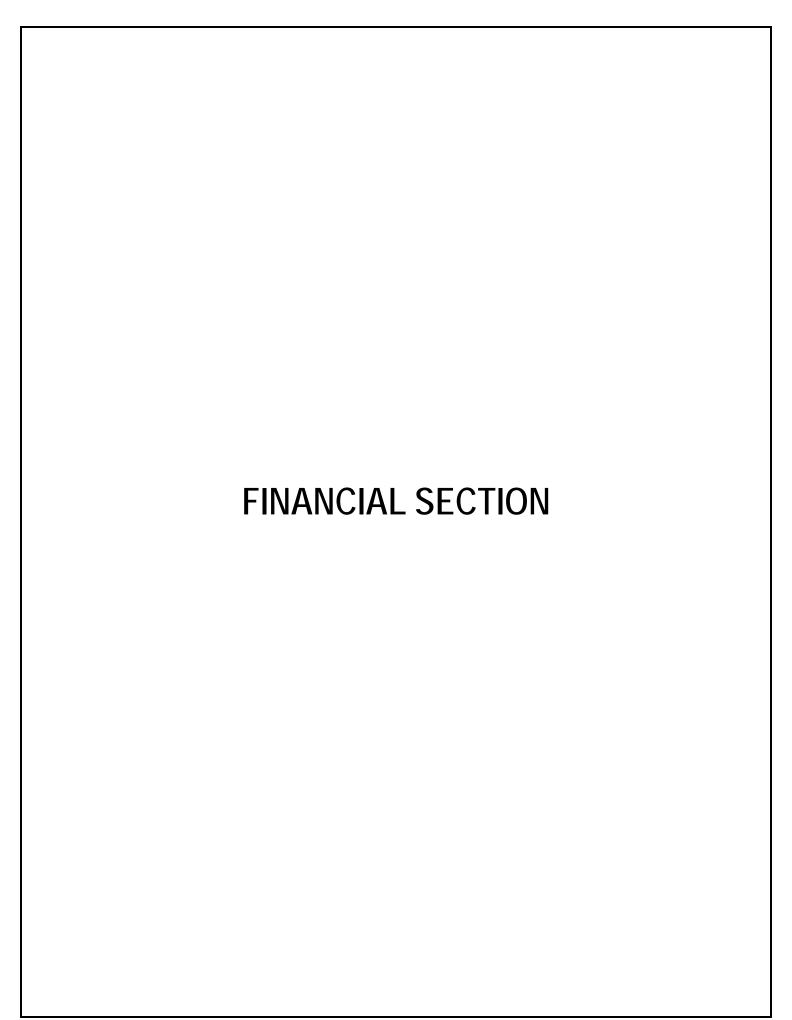


Cindee Wolf
Member
Appointed by City of Wilmington
Seated in 2011
Term ends in 2020
Committees: Long Range Planning,
Human Resources, Communications



Donna S. Pope Clerk to the Board







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, 2018, 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, 2018, 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.

Emphasis of Matter

As discussed in Note 10 to the financial statements, the Authority adopted Governmental Accounting Standards Board Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefit Plans Other Than Pensions.* As a result, net position as of June 30, 2017 has been restated.

As discussed in Note 10 to the financial statements, the Authority adopted Governmental Accounting Standards Board Statement No. 87, *Leases*. As a result, net position as of June 30, 2017 has been restated. Our opinion is not modified with respect to these matters.

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, 2018, 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.

Chury Bellut LLF Raleigh, North Carolina October 31, 2018 PAGELEFINIENIONALIVALINA

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, 2018. 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, 2018. 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 \$537.3 million which is an increase of \$23.8 million from the prior year.
- Total operating revenues were \$82.7 million, a decrease of \$.8 million or 1.0% over the prior year. The decrease is
 mainly attributable to revenues recognized in the previous fiscal year related to reimbursable repairs made by the
 Authority on behalf of the Lower Cape Fear Water and Sewer Authority for raw water transmission main repairs. A
 similar transaction did not occur in fiscal year 2018.
- Total operating expenses (including depreciation and amortization) were approximately \$66.5 million, an increase of approximately \$4.1 million or 6.6% over the prior year. The change is mainly due to increased expenses for salaries and related benefits including the implementation of merit increases for Authority staff; increases in employer healthcare premiums; an increase in pension expense due to the amortization of pension plan investment underperformance during the prior measurement period; and the implementation of GASB Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions.

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 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.

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 48 of this report.

FINANCIAL ANALYSIS

Table A presents the Condensed Statement of Net Position for the fiscal years ended June 30, 2018 and June 30, 2017.

Condensed Statement of	Net Position	
Table A		
	June 30,	June 30,
	2018	2017
Assets		
Current assets	\$ 144,188,367	\$ 114,168,486
Noncurrent assets-noncapital	-	28,158,507
Noncurrent assets-capital	697,182,242	683,099,644
Total assets	841,370,609	825,426,637
Deferred Outflows of Resources	20,640,230	18,333,467
Liabilities		
Current liabilities	33,443,355	28,464,419
Noncurrent liabilities	290,169,819	301,579,244
Total liabilities	323,613,174	330,043,663
Deferred Inflows of Resources	1,051,068	168,111
Net Position		
Net investment in capital assets	418,997,485	390,620,063
Restricted	17,935,269	10,966,309
Unrestricted	100,413,843	111,961,958
Total net position	\$ 537,346,597	\$ 513,548,330

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 \$537.3 million at June 30, 2018, which is an increase of \$23.8 million over the prior year. 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 \$28.4 million due to net additions in capital assets of \$14.1 million with a decrease in the carrying value of related debt of \$14.3 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 restricted by the Board for capital reserves in accordance with the Authority's one-time revenue policy.

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.

Table B presents the Condensed Statement of Revenues, Expenses and Changes in Net Position for the fiscal years ended June 30, 2018 and June 30, 2017.

Condensed Statement of Revenues, Expenses and Changes in Net Position Table B				
	Υ	ear Ended	١	ear Ended
		ine 30, 2018	June 30, 2017	
Revenues		•		,
Operating revenues				
Charges for services	\$	73,276,538	\$	72,952,927
System development charges		6,014,920		6,277,464
Other operating revenues		3,448,795		4,223,916
		82,740,253		83,454,307
Nonoperating revenues				
Investment earnings		1,567,523		880,543
Contributions from New Hanover County		304,000		627,000
Other nonoperating revenue		2,939,034		309,153
Total revenues		87,550,810		85,271,003
Expenses				
Operating expenses		44,462,727		41,501,031
Depreciation and amortization		22,024,805		20,880,300
		66,487,532		62,381,331
Nonoperating expenses				
Interest expense		8,660,925		9,321,091
Bond issuance costs and other debt service fees		142,708		-
Total expenses		75,291,165		71,702,422
Increase in net position before capital contributions		12,259,645		13,568,581
Capital contributions		11,538,622		17,654,167
Increase in net position		23,798,267		31,222,748
		_0,. 00,201		,,,,
Net position, July 1		513,548,330		484,821,757
Cumulative effect of change in accounting principle		•		(2,496,175)
Net position, June 30	\$	537,346,597	\$	513,548,330

The approximately \$23.8 million increase in the Authority's net position is a result of the following:

- Outperformance in revenues relative to budgeted levels outpaced operating expenses, excluding depreciation expense
 by \$4.2 million User charges and fees are set at levels that are anticipated to cover operating costs. Net position
 increases to the extent that actual revenues exceed budgeted levels and actual expenses fall below forecasts. During
 the year, outperformance of revenues relative to budgeted levels outpaced expenses excluding depreciation by
 approximately \$4.2 million. Some of the significant drivers of the outperformance in revenues are as follows:
 - Water and wastewater revenues As shown in Table C, actual fixed and volumetric charges for water and wastewater service exceeded budgeted amounts by \$998,736 or 1.4%. The outperformance in water and wastewater charges was due to customer growth that was greater than the growth assumptions incorporated in budgeted estimates. Actual customers (expressed in equivalent residential units) outpaced forecasts by 3,093 (3.6%) for water service and 1,939 (2.3%) for wastewater service. Despite slightly lower-than-expected water consumption per equivalent residential unit, the additional customers resulted in increased consumption over forecasts of 49.0 million gallons (2.19%). Lower-than-expected wastewater consumption per equivalent customers offset higher-than-expected number of equivalent residential units resulting in a decrease in wastewater consumption of 5.1 million gallons (-0.1%) compared to budgeted levels.
 - System development charges New customers are charged a one-time system "buy-in" fee for infrastructure improvements paid for by past and current customers that will benefit new customers. During the year, actual system development charges (\$6,014,920) exceeded budgeted levels (\$4,062,000) by \$1,952,920. The outperformance is attributable to the continued trend of new growth and development within the service area.
 - Investment earnings Actual interest receipts and changes in fair market value related to the Authority's certificates of deposits and other investments (\$1,570,177) exceeded budgeted levels (\$700,000) by \$870,177. Budgeted investment earnings were based on assumptions about the size of the Authority's investable assets which were anticipated to decline consistent with the Authority's plan to use available reserves to fund the Authority's capital program as user rates are gradually transitioned to fund \$18 million in annual capital expenditures on a pay-as-you-go basis by fiscal year 2023. During the year capital expenditures were less than expected resulting in more investable assets than assumed in the budget resulting in higher investment earnings. Forecasted investment earnings were also based on interest rates in effect during the budget development process. During the year interest rates increased above assumed levels which also contributed to outperformance in investment earnings.
 - Intergovernmental revenues During the year the Authority recognized \$1,683,206 in revenues from the City of Wilmington related to the termination of the Authority's consent decree. Pursuant to an interlocal agreement, the City held amounts in reserve to fund any potential liability for penalties and fines. Upon termination of the consent decree, the City released these reserve funds to the Authority. The Authority is obligated to use these funds on rehabilitation of water and wastewater infrastructure within the city limits.
- Capital asset additions during the year funded with current year revenues outpaced depreciation and amortization expense by \$5.9 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 were \$17.1 million. In addition, developers and other parties contributed \$10.8 million of infrastructure assets These additions outpaced depreciation and amortization expense on the Authority's capital assets during the period of \$22.0 million.
- Principal on outstanding debt of \$13.7 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 \$13.7 million related to outstanding bonds, installment obligations, loans, and lease liabilities.

Comparison of Budgeted and Ad	ctual Water and	Wastewater R	ate Revenues	s
	Table C			
	Budget	Actual	Variance	% Variance
Fixed Charges - Water	\$13,683,197	\$14,178,176	\$ 494,979	3.62%
Volumetric Charges - Water	20,053,033	20,241,663	188,630	0.94%
Fixed Charges - Wastewater	14,538,593	14,877,184	338,591	2.33%
Volumetric Charges - Wastewater	21,448,048	21,424,585	(23,463)	-0.11%
Equivalent residential units - Water	85,509	88,603	3,093	3.62%
Thousands of gallons consumed - Water	5,208,580	5,257,575	48,995	0.94%
Equivalent residential units - Wastewater	83,268	85,207	1,939	2.33%
Thousands of gallons consumed - Wastewater	4,682,980	4,677,857	(5,123)	-0.11%
Water consumption per ERU	60.9	59.3	(1.6)	-0.66%
Wastewater consumption per ERU	56.2	54.9	(1.3)	-0.35%

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 36.9 years. Capital assets during the year increased by \$14.1 million (2.1%) to \$697.2 million (net of accumulated depreciation and amortization). The increase was due to capitalization of \$25.3 million in internally constructed or acquired assets and the addition of \$10.8 million in infrastructure constructed by other parties conveyed to the Authority during the year. These additions were offset with depreciation and amortization expense of \$22.0 million. Major capital asset additions included the following:

- \$10.8 million of conveyed sewer and water lines in developing areas of New Hanover County
- \$6.6 million in expenditures to replace the Authority's existing meters with new, automatic reading technology to reduce the risk of erroneous meter reads and provide for a more efficient meter reading process
- \$2.6 million related to the rehabilitation and replacement of the Pump Station 10 force main
- \$1.3 million for sewer rehabilitation at 13th Street and North Lakeshore Drive
- \$1.1 million for the purchase of new motor fleet
- \$1.0 million related to interim rehabilitation efforts at the Southside Wastewater Treatment Plant

Table D presents capital asset balances at June 30, 2018 and June 30, 2017. Additional information on the Authority's capital assets can be found in Note 4 on page 36 of this report.

Amo	ortization		
	2018		2017
\$	3,846,140	\$	3,749,388
	5,529,387		5,333,131
	49,592,275		45,058,154
	58,967,802		54,140,673
	245,561,729		252,488,583
,	380,350,630		363,131,574
	5,221,808		5,554,448
	5,828,527		6,328,335
	128,030		245,875
	1,123,716		1,210,156
	-		
	638,214,440		628,958,971
\$	697,182,242	\$	683,099,644
	* -	2018 \$ 3,846,140 5,529,387 49,592,275 58,967,802 245,561,729 380,350,630 5,221,808 5,828,527 128,030	2018 \$ 3,846,140 \$ 5,529,387 49,592,275 58,967,802 245,561,729 380,350,630 5,221,808 5,828,527 128,030 1,123,716 638,214,440

Debt Administration

The Authority's long-term debt, presented in Table E below, totaled \$291.0 million at June 30, 2018. The Authority's overall debt coverage for fiscal year 2018 was 1.80, remaining above the 1.0 ratio required by bond covenants. Coverage on revenue bond debt was 2.08, well above the 1.2 ratio required by revenue bond covenants.

Outstanding Long-Term Obligation Table E	ons	
	2018	2017
Revenue Bonds	\$ 264,372,354	\$ 278,443,921
Installment Obligations:		
Locality compensation payment	9,795,000	11,741,800
ARRA Revolving Loan	848,642	905,219
DWSRF Revolving Loan	140,733	149,529
Clean Water State Revolving Loans	9,320,528	8,139,178
Lease Liability	6,490,007	6,923,535
Totals	\$ 290,967,264	\$ 306,303,182

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 issued \$32.9 million in 2017 Water and Sewer System Refunding Revenue Bonds to realize \$3.3 in interest savings through fiscal year 2037. In addition, the Authority received approximately \$1.7 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 and the replacement of the Pump Station 10 force main. Principal payments on outstanding long-term debt totaled \$13.3 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, 2018 the Authority's debt-to-capitalization ratio was 41.7%, or \$23.0 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, 2018

ASSETS

Cash and cash equivalents \$ 74,049,441 Investments 33,699,025 Receivables, net 15,284,578 Due from other governments 3,175,312 Restricted: Cash and cash equivalents 16,252,063	Current assets	
Receivables, net 15,284,578 Due from other governments 3,175,312 Restricted:	Cash and cash equivalents	\$ 74,049,441
Due from other governments 3,175,312 Restricted:	Investments	33,699,025
Restricted:	Receivables, net	15,284,578
	Due from other governments	3,175,312
Cash and cash equivalents 16,252,063	Restricted:	
	Cash and cash equivalents	16,252,063
Due from other governments 1,683,206	Due from other governments	1,683,206
Prepaids <u>44,742</u>	Prepaids	44,742
Total current assets 144,188,367	Total current assets	144,188,367
Noncurrent assets	Noncurrent assets	
Capital assets:	Capital assets:	
Land, easements and construction in progress 58,967,802	Land, easements and construction in progress	58,967,802
Other capital assets, net 638,214,440	Other capital assets, net	638,214,440
Total capital assets 697,182,242	Total capital assets	697,182,242
Total noncurrent assets 697,182,242	Total noncurrent assets	697,182,242
Total assets 841,370,609	Total assets	841,370,609
DEFERRED OUTFLOWS OF RESOURCES	DEFERRED OUTFLOWS OF RESOURCES	
Deferred charge on refunding 12,782,507		12.782.507
Amounts related to pensions 2,747,572		
Amounts related to OPEB 5,110,151	·	
Total deferred outflows of resources 20,640,230		
LIABILITIES Common High History		
Current liabilities		44 004 754
Accounts payable and accrued liabilities 11,804,751		
Accrued interest payable 3,508,110		
Due to other governments 1,285,866		
Unearned revenue 214,059		•
Customer and escrow deposits 2,721,160	·	
Compensated absences, current maturities 751,493		•
Long-term obligations, current maturities 13,157,916		
Total current liabilities 33,443,355		33,443,355
Noncurrent liabilities		500 750
Compensated absences 503,752	•	
Net pension liability 3,383,448		
Total OPEB liability 8,473,271		
Long-term obligations, net of current maturities 277,809,348		
Total noncurrent liabilities 290,169,819		
Total liabilities 323,613,174	lotal liabilities	323,613,174
DEFERRED INFLOWS OF RESOURCES 1,051,068	DEFERRED INFLOWS OF RESOURCES	1,051,068
NET POSITION	NET POSITION	
Net investment in capital assets 418,997,485	Net investment in capital assets	418,997,485
Restricted for:	·	-,,
Debt service 11,092,065		11.092.065
Capital projects 6,843,204	Capital projects	
Unrestricted 100,413,843		
Total net position \$ 537,346,597		

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, 2018

Operating revenues	
Charges for services	\$ 73,276,538
System development charges	6,014,920
Other operating revenues	3,448,795
Total operating revenues	82,740,253
Operating expenses	
Personnel and benefits	21,673,141
Operations and maintenance	22,789,586
Depreciation and amortization	22,024,805
Total operating expenses	66,487,532
Operating income	16,252,721
Nonoperating revenues (expenses)	
Investment earnings	1,567,523
Interest expense	(8,660,925)
Bond issuance costs	(142,708)
State & federal grants	2,786,821
Gain on disposal of capital assets	152,213
Contributions from New Hanover County	304,000
Total nonoperating (expenses)	(3,993,076)
Income before capital contributions	12,259,645
Capital contributions	11,538,622
Total capital contributions	11,538,622
Change in net position	23,798,267
Net position	20,170,201
Beginning of year	516,044,505
Restatement	(2,496,175)
End of year	\$ 537,346,597
Lita of year	φ 331,340,371

See Notes to Financial Statements.

Cape Fear Public Utility Authority Statement of Cash Flows For the Fiscal Year Ended June 30, 2018

Cash Flows From Operating Activities	
Cash received from customers	\$ 82,973,409
Cash paid to suppliers	(17,737,858)
Cash paid to or on behalf of employees	(20,663,747)
Cash received on behalf of others	18,716,421
Cash payments held on behalf of others	(18,512,169)
Cash received for deposits	1,071,485
Cash returned for deposits	(918,912)
Net cash provided by operating activities	44,928,629
Cash Flows from Noncapital Financing Activities	
Grants received from other governments	20,000
Net cash provided by noncapital financing activities	20,000
Cash Flows From Capital and Related Financing Activities	
Acquisition and construction of capital assets	(26,878,847)
Grants and contributions received from other governments	2,751,924
Proceeds from Clean Water State Revolving Loans	1,669,026
Proceeds from refunding bonds	32,890,000
Cash paid to refunding bond escrow agent	(33,198,687)
Principal paid on long-term obligations	(13,294,847)
Interest paid on long-term obligations	(10,597,443)
Proceeds from sale of capital assets	152,213
Capital contributions	710,991
Net cash used for capital and related financing activities	(45,795,670)
Cash Flows From Investing Activities	
Proceeds from investment maturities	17,652,373
Proceeds from interest on investments	1,015,939
Net cash provided by investing activities	18,668,312
Net increase in cash and cash equivalents	17,821,271
Cash and cash equivalents, beginning of year	72,480,233
Cash and cash equivalents, end of year	\$ 90,301,504
Reconciliation to the Statement of Net Position:	
Cash and cash equivalents	\$ 74,049,441
Restricted cash and cash equivalents	16,252,063
	\$ 90,301,504

(Continued)

Cape Fear Public Utility Authority Statement of Cash Flows (Continued) For the Fiscal Year Ended June 30, 2018

Reconciliation of Operating Income to Net Cash Provided by Operating Activities	
Operating income	\$ 16,252,721
Adjustments to reconcile operating income to net cash provided by operating activities:	
Depreciation and amortization	22,024,805
Changes in assets and liabilities:	
(Increase) in receivables, net	(1,075,032)
Decrease in prepaids	11,920
Increase in accounts payable, accrued liabilities and due to other governments	6,479,590
(Decrease) in unearned revenue	(19,040)
Increase in customer and escrow deposits	360,533
Increase in compensated absences	97,616
(Increase) in deferred outflows of resources related to pensions and OPEB	(3,347,858)
Increase in deferred inflows of resources related to pensions and OPEB	882,957
(Decrease) in net pension liability	(1,414,090)
Increase in total OPEB liability	 4,674,507
Total adjustments	 28,675,908
Net cash provided by operating activities	\$ 44,928,629
Complemental Calcula of Nanacah Astivitias	
Supplemental Schedule of Noncash Activities	40 707 404
Contributions of capital assets from developers	\$ 10,797,431
Debt payment reduction from New Hanover County	\$ 304,000

See Notes to Financial Statements.

Note 1. Summary of Significant Accounting Policies

The accounting policies and financial statements of the Cape Fear Public Utility Authority (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.

Reporting Entity

Cape Fear Public Utility Authority was created in 2007 pursuant to Chapter 162A of the North Carolina General Statutes, by the governing bodies of New Hanover County (County) and the City of Wilmington (City), for the purpose of providing water and wastewater services to residents of the county. The assets and related liabilities of the City and the County water and wastewater systems were transferred to the Authority on July 1, 2008. The Authority is empowered to set rates, fees and charges without oversight, supervision, or direction from any other state or local entity or agency, but has no taxing authority. The Authority Board consists of eleven members who hold office for staggered terms. The members are appointed by the governing bodies of the County and the City. Each of the governing bodies appoints five members and they jointly appoint the eleventh member. The five appointed members from each governing body include two current members from those respective governing bodies.

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 and donations. 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 income, 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.

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 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 add to the value of the asset or materially extend assets' lives are not capitalized. Donated capital assets are recorded at acquisition value at the time of donation. 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

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 three to eight 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; 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, 2018 is included below:

Note Disclosure

Cash on hand	\$	2,200
Deposits		94,728,225
Investments		29,270,103
Total	\$	124,000,529
Presentation on the Statement of Net Position	1	
Current Assets		
Cash and cash equivalents	\$	74,049,441
Investments		33,699,025
Restricted cash and cash equivalents		16,252,063
Total	\$	124,000,529

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, 2018, the carrying amount of the Authority deposits was \$94,728,225 and the bank balance was \$95,004,240. Of the bank balance, \$1,250,000 was covered by FDIC insurance and \$93,754,240 was covered by collateral held under the Pooling Method.

Investments

State law [G.S. 159-30(c)] authorizes the Authority to invest in 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") Government Portfolio and Term Portfolio, an SEC registered 2a-7 external investment pool.

Investments in the NCCMT Government Portfolio are valued at amortized cost, which is the share price. Investments in the NCCMT Term Portfolio are valued at fair value. At June 30, 2018, the Authority's investments in the NCCMT Government Portfolio were \$396,131. The fair value of the Authority's investments in the NCCMT Term Portfolio was \$28,873,972. Fair value for these investments were valued using quoted market prices (Level 1 inputs) and measured using the market approach.

The Authority's investments in the NCCMT Government Portfolio carried a credit rating of AAAm by Standard & Poor's as of June 30, 2018. The Authority's investment in the NCCMT Term Portfolio is unrated. The Term Portfolio is authorized to invest in obligations of the US government and agencies, and in high grade money market instruments as permitted under North Carolina General Statute 159-30 as amended.

Note 3. Receivables

At June 30, 2018, 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	\$ 17,119,267
Accrued interest receivable	8,889
Allowance for doubtful accounts - Authority	(1,843,578)
Total	\$ 15,284,578

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

State of North Carolina	\$ 1,862,604
Brunswick County	72,213
City of Wilmington	1,672,285
Town of Wrightsville Beach	301,013
New Hanover County	950,403
Total	\$ 4,858,518

Note 4. Capital Assets

Capital assets activity consists of the following for the fiscal year ended June 30, 2018. Depreciation and amortization expense for the year was \$21,320,712 and \$704,093, respectively.

	Beginning Balances July 1, 2017	Increases	Decreases	Completed Projects	Ending Balances June 30, 2018
Capital assets not being depreciated:					
Land*	\$ 3,749,388	\$ 30,200	\$ -	\$ 66,552	\$ 3,846,140
Intangible Asset - Easements*	5,333,131	-	-	196,256	5,529,387
Construction in progress	45,058,154	25,171,763	-	(20,637,642)	49,592,275
Total capital assets not being					
depreciated or amortized	54,140,673	25,201,963	-	(20,374,834)	58,967,802
Capital assets being depreciated or amortized:					
Plant, Structures and Improvements*	312,823,521	-	-	1,938,532	314,762,053
Water and Sewer Lines*	437,005,291	10,797,431	-	17,038,090	464,840,812
Furniture, Fixtures and Machinery*	16,230,252	108,009	(440,179)	1,398,212	17,296,294
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	780,842,298	10,905,440	(440,179)	20,374,834	811,682,393
Less accumulated depreciation or amortization for:					
Plant, Structures and Improvements*	60,334,938	8,865,386	-	_	69,200,324
Water and Sewer Lines*	73,873,717	10,616,465	-	-	84,490,182
Furniture, Fixtures and Machinery*	10,675,804	1,838,861	(440, 179)	-	12,074,486
Intangible Asset - Leased Facilities*	2,628,903	499,808	-	-	3,128,711
Intangible Asset - Computer Software*	3,592,005	117,845	-	-	3,709,850
Intangible Asset - Water Availability Rights	777,960	86,440	-	-	864,400
Total accumulated depreciation	•				
and amortization	151,883,327	22,024,805	(440,179)	-	173,467,953
Total capital assets being					
depreciated or amortized, net	628,958,971				638,214,440
Capital assets, net	\$ 683,099,644	_			\$ 697,182,242
* 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, 2018.

Capital Contributions	
Contributions from Developers-Cost Sharing	741,191
Contribution from Developers (Non-Cash)	10,797,431
Total Capital Contributions	\$ 11,538,622

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.

Principal and interest requirements to maturity for the Authority's lease liability are as follows:

Year Ending		
June, 30	Principal	Interest
2019	\$ 450,869	\$ 239,146
2020	468,904	231,345
2021	487,660	223,027
2022	507,166	219,518
2023	527,453	210,091
2024-2028	2,071,761	868,208
2029-2032	1,976,194	594,615
Total	 \$6,490,007	\$2,585,950

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

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, 2018, was 7.5% 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 \$1,132,187 for the year ended June 30, 2018.

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, 2018, the Authority reported a net pension liability of \$3,383,448 for its proportionate share of the net pension liability. The net pension liability was measured as of June 30, 2017. The total pension liability used to calculate the net pension asset was determined by an actuarial valuation as of December 31, 2016. The total pension liability was then rolled forward to the measurement date of June 30, 2017 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, 2017, the Authority's proportion was 0.22147%, which was a decrease of 0.00458% from its proportion measured as of June 30, 2016.

For the year ended June 30, 2018, the Authority recognized pension expense of \$1,204,317. 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	\$ 194,918	\$ 95,775
Difference between projected and actual earnings on pension plan investments	821,505	-
Changes in assumptions	483,203	-
Changes in proportion and difference between Authority contributions and proportionate share of contributions	115,759	22,795
Contributions subsequent to the measurement date	1,132,187	-
Total pension-related deferred outflows/inflows of resources	\$ 2,747,572	\$ 118,570

Deferred outflows of resources resulting from \$1,132,187 in contributions subsequent to the measurement date will be recognized as a decrease of the net pension liability in the year ended June 30, 2019. 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:		
2019		238,614
2020		1,011,352
2021		504,690
2022		(257,841)
	Total	1,496,815

Actuarial Assumptions. The total pension liability in the December 31, 2016 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation 3.0 percent

Salary increases 3.50 to 7.75 percent, including a 3.5% inflation and productivity factor 7.20 percent, 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 published tables and based on studies that cover significant portions of the U.S. population. The healthy mortality rates also contain a provision to reflect future mortality improvements.

The actuarial assumptions used in the December 31, 2015 valuation were based on the results of an actuarial experience study for the period January 1, 2010 through 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, 2016 are summarized in the following table:

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	6.0%	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 7.20%. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current contribution rate and that contributions from employers will be made at statutorily required rates, actuarially determined. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of the 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 7.20 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 (6.20 percent) or one percentage point higher (8.20 percent) than the current rate:

	1% Decrease (6.20%)	Discount Rate (7.20%)	1% Increase (8.20%)	
Authority's proportionate share of the net pension liability (asset)	\$ 10,157,188	\$ 3,383,448	\$ (2,270,486))

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.

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 has elected to make contributions on behalf of all employees to either the NC-401(k) Supplemental Retirement Income Plan or the 457 Deferred Compensation 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. If the employee does not elect either plan, the Authority's contribution is placed into the NC-401(k) Supplemental Retirement Income Plan on behalf of the employee.

The Authority's expense related to the NC-401(k) Supplemental Retirement Income Plan and the 457 Deferred Compensation Plan totaled \$458,612 and \$87,181, respectively, for the fiscal year ended June 30, 2018.

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, 2018 was \$8,473,271. The total OPEB liability was measured as of December 31, 2017 based on an actuarial valuation as of that date. The total OPEB liability in the December 31, 2017 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation2.00%Salary increases2.50%Discount Rate3.17%

Healthcare cost trend rates 6.00% for 2019, decreasing .17% per year to an ultimate rate of

4.50% for 2028 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.

Changes in the Total OPEB Liability.

	Total OPEB
	Liability
Balance at June 30, 2017	\$3,798,764
Changes for the year:	
Service cost	206,698
Interest	112,153
Differences between expected and actual experience	1,736,751
Changes in assumptions and other inputs	3,140,531
Benefit payments	(521,626)
Net changes	4,674,507
Balance at June 30, 2018	\$8,473,271

Differences between expected and actual experience reflect updated starting per capita health care costs and census data. Changes to the total OPEB liability attributable to changes in assumptions and other inputs reflect an increase in the assumed election rate for eligible participants from 60% to 95%; an increase in the assumed proportion of active employees electing coverage that are assumed to be married and electing spousal coverage from 30% to 75%; an overall decrease in health care cost trend rates; and an increase in 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		1% Decrease Discount Rate		1	% Increase
		(2.17%)		(3.17%)		(4.17%)
Total OPEB liability	\$	9,007,892	\$	8,473,271	\$	7,977,975

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	ealth Care rend Rate	1	% Increase
Total OPEB liability	\$	7,816,565	\$ 8,473,271	\$	9,213,160

OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB. For the year ended June 30, 2018, the Authority recognized OPEB expense of \$1,205,904. Deferred outflows and inflows of resources related to OPEB as of June 30, 2018 are as follows:

	Deferred Outflows of Resources			eferred Inflows of Resources
Differences between expected and actual experience	\$	1,420,880	\$	-
Changes in assumptions and other inputs		3,501,847		932,498
Contributions subsequent to the measurement date		187,424		-
Total OPEB-related deferred outflows/inflows of resources	\$	5,110,151	\$	932,498

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:		
2019		887,054
2020		887,054
2021		887,054
2022		887,054
2023		442,013
	Total	3,990,229

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, 2018, 2017, or 2016.

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, 2017 and June 30, 2018. Incurred claims during the year equaled worker's compensation claim payments of \$15,200.

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.

Note 8. Long-term Obligations

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. However, certain debt instruments could not be transferred to the Authority or refinanced due to the nature of the agreements. Accordingly, the City and the County have retained and are servicing 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.

Under Section 2.10 of the interlocal agreement, the County agreed to a reduction in the amount of the debt service payments made by the Authority to the County (debt payment reduction amount) for a period of 10 years, starting with the year ended June 30, 2009. The debt payment reduction amount was \$304,000 for 2018, which is shown as Contributions from New Hanover County on the Statement of Revenues, Expenses and Changes in Fund Net Position.

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

	Balance						Balance		Current
	July 1, 2017			Additions			June 30, 2018		Maturities
Revenue Bonds	\$ 243,015,000	\$	32,890,000	\$	40,590,000	\$	235,315,000	\$	11,124,000
Installment Obligations:									
Locality compensation payment	11,741,800		-		1,946,800		9,795,000		1,030,000
Unamortized Premiums/Discounts	35,428,921		-		6,371,567		29,057,354		-
Total Bonds and Installment Obligations	 290,185,721		32,890,000		48,908,367		274,167,354		12,154,000
Other Installment Obligations:									
ARRA Revolving Loan	905,219		-		56,577		848,642		56,576
DWSRF Revolving Loan	149,529		-		8,796		140,733		8,796
Clean Water State Revolving Loans	8,139,178		1,669,026		487,676		9,320,528		487,675
Total Other Installment Obligations	 9,193,926		1,669,026		553,049		10,309,903		553,047
Total Long-Term Obligations	\$ 299,379,647	\$	34,559,026	\$	49,461,416	\$	284,477,257	\$	12,707,047

The Authority has pledged net revenues to repay outstanding revenue bonds. Proceeds from the bonds provided financing for various improvements to the Authority's water and sewer system. The bonds are payable from net revenues and are payable through 2040. The total principal and interest remaining to be paid on the bonds is \$327,917,371. Principal and interest paid for the current year and net revenues were \$20,752,801 and \$43,088,083 respectively.

The Authority is in compliance with the covenants as to the rates, fees, rentals, and charges in Article VI, Section 6.6 of the General Trust Indenture, authorizing the issuance of the Water and Sewer Revenue Bonds, Series 1998. 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 six series of revenue bonds under this General Trust Indenture. Section 6.6 of the General Trust Indenture requires the 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. The debt service coverage ratio calculation for the fiscal year ended June 30, 2018 was 2.08 for parity indebtedness and 1.80 for all indebtedness.

Details of the Authority's outstanding bonded and long-term installment obligations at June 30, 2018 are as follows:

Revenue Bonds	
\$44,100,000 Water and Sewer Revenue Bonds, Series 2011 issued for water and sewer improvements; principal payments due annually on August 1 in varying amounts of \$1,245,000 to \$2,740,000 plus semiannual interest through August 1, 2036; coupons ranging from 3.25% to 5.00%	5,335,000
\$60,355,000 Water and Sewer System Revenue and Refunding Revenue Bonds, Series 2014A issued for water and sewer improvements; principal payments due annually on June 1 in varying amounts of \$1,015,000 to \$3,940,000 plus semiannual interest through June 1, 2040; coupons ranging from 3.00% to 5.00%	4,305,000
\$4,730,000 Taxable Water and Sewer System Refunding Revenue Bonds, Series 2014B issued to refund outstanding portions of 2005 Bonds; principal payments due annually on June 1 in varying amounts of \$1,155,000 to \$1,195,000 plus semiannual interest through June 1, 2019; coupons ranging from .20% to 2.00%	1,195,000
\$155,770,000 Water and Sewer System Refunding Revenue Bonds, Series 2016 issued to (a) refund all of the outstanding 2008 bonds and (b) prepay all of the outstanding 2006A Certificates of Participation; principal payments due annually on August 1 in varying amounts of \$2,000,000 to \$10,915,000 plus semiannual interest through August 1, 2034; coupons ranging from 1.75% to 5.00%	1,590,000
\$32,890,000 Water and Sewer System Refunding Revenue Bonds, Series 2017 issued to advance refund a portion of the outstanding 2011 bonds; principal payments due annually on August 1 in varying amounts of \$144,000 to \$2,609,000 plus semiannual interest through August 1, 2037; coupon of 3.03%	2,890,000
Total Revenue Bonds	5,315,000
Installment Obligations	
Locality compensation payable to New Hanover County for Refunding Limited Obligation Bonds due in annual principal payments on December 1 ranging from \$945,000 to \$1,105,000 through December 1, 2027; semiannual	
interest payments due December 1 and June 1	9,795,000
Total Installment Obligations Total Revenue Bonds and Installment Obligations	9,795,000 5,110,000
Plus Unamortized Premiums	9,057,354
Net Carrying Value of Revenue Bonds and Installment Obligations	4,167,354

On December 21, 2017, the Authority refunded \$29,795,000 in outstanding Series 2011 Water and Sewer System Revenue Bonds with \$32,890,000 in Series 2017 Water and Sewer System Revenue Refunding Bonds. All issuance costs for the transaction (\$142,708) were paid from bond proceeds. The net proceeds and a contribution of existing resources of \$469,638 were deposited in an irrevocable trust with the refunding bond escrow agent and used to purchase risk-free securities. As a result, the refunded amounts for the 2011 Series bonds have been removed from the financial statements. The advance refunding resulted in a difference between the reacquisition price and the net carrying amount of the old debt of \$413,219. This difference, reported in the accompanying financial statements as a deferred outflow of resources, will be charged to each year's operations through fiscal year 2037. The Authority completed the advance refunding to reduce its total debt service payments over the next 19 years by \$3,277,742 and to obtain an economic gain (difference between the present values of the old and new debt service payments) of \$2,507,361.

At June 30, 2018 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 \$12,782,507. At June 30, 2018 the outstanding amount of defeased debt consisted of \$29,795,000 of the 2011 Water and Sewer System Revenue and Revenue Refunding Bonds.

Other Installment Obligations

During the year ended June 30, 2010, the Authority was approved for a loan from the State of North Carolina, Department of Environment and Natural Resources (DENR). The loan was drawn down as expenditures were paid on the Aquifer Storage and Recovery capital project, to a maximum of \$2,263,046. Half of the loan amount was subject to immediate principal forgiveness under an American Recovery and Reinvestment Act of 2009 (ARRA) program awarded by the Environmental Protection Agency (EPA) through the State Revolving Fund program administered by DENR. The \$1,131,523 loan is due in 20 equal annual installments of \$56,576, commencing on May 1, 2014. The loan does not bear interest. At June 30, 2018, \$848,642 is recorded as an outstanding loan.

On June 27, 2013, the Authority was approved for a second loan from the State of North Carolina, Department of Environment and Natural Resources (DENR) in the amount of \$204,082. The loan was drawn down as expenditures were paid on the Aquifer Storage and Recovery capital project, to a maximum of \$175,917. The \$175,917 loan is due in 20 equal annual installments of \$8,796, commencing on May 1, 2015. The loan does not bear interest. At June 30, 2018, \$140,733 is recorded as an outstanding loan.

The Authority has been approved for various loans through the NC Clean Water State Revolving Fund and has executed promissory notes from the State of North Carolina, Department of Environment and Natural Resources (DENR). The approved loans total \$17,678,126 and are drawn down as expenditures are paid on the respective capital projects.

Details of the Authority's outstanding Clean Water Revolving Fund Loans at June 30, 2018 are as follows:

botails of the Authority's Substantially Sister Water Neverthing Fund Ed		Balance
	Approved	June 30,
Clean Water State Revolving Fund Loans	Loan	2018
Burnt Mill Creek Phase 2 - \$3,025,992, principal payments of		
\$151,300 due annually on May 1 plus interest due semi-		
annually through May 1, 2033 at a rate of 2.455%.	\$ 3,025,992	\$ 2,269,494
Between the Creeks & Pump Station 28 Refurbishment -		
\$429,000, principal payments of \$21,450 due annually on May 1		
plus interest due semi-annually through May 1, 2034 at a rate of		
2.0%.	429,000	343,200
30th Street Sewer Rehabilitation - \$1,086,266, principal		
payments of \$54,313 due annually on May 1 plus interest due		
semi-annually through May 1, 2034 at a rate of 2.0%.	1,086,266	869,013
Mc Cumber Ditch - \$1,250,000, principal payments of \$62,500		
due annually on May 1 plus interest due semi-annually through		
May 1, 2034 at a rate of 2.0%.	1,097,140	877,712
Smith Creek 'Alandale' Pump Station - \$1,913,623, principal		
payments of \$95,681 due annually on May 1 plus interest due		
semi-annually through May 1, 2034 at a rate of 2.0%.	1,913,623	1,530,898
Greenfield Lake Sewer Outfall Rehabilitation - \$2,201,480,	1,0 10,000	1,000,000
principal payments of \$110,074 due annually on May 1 plus		
interest due semi-annually through May 1, 2034 at a rate of		
2.0%.	2,201,480	1,761,185
Pump Station 10 Force Main Rehabilitation - \$3,920,640,	, - ,	, ,
principal payments of \$196,032 due annually on May 1 plus		
interest due semi-annually through May 1, 2039 at a rate of		
1.4%.	3,920,640	1,007,415
Southside Wastewater Treatment Plant Interim Rehabilitation -		
\$6,158,625, principal payments of \$307,931 due annually on		
May 1 plus interest due semi-annually through May 1, 2039 at a		
rate of 1.4%.	6,158,625	661,611
Total	\$ 19,832,766	\$ 9,320,528

The debt service requirements for the Authority's outstanding bonds and installment obligations for future years are as follows:

Year Ending	 Revenue	Revenue Bonds Installment Obligations			Installment Obligations Total					Total		
June, 30	 Principal		Interest	Principal		Interest		erest Prin		ln	terest	
2019	\$ 11,124,000	\$	9,899,165	\$	1,030,000	\$	409,350	\$	12,154,000	\$ 10	,308,515	
2020	10,290,000		9,278,765		1,015,000		368,450		11,305,000	Ç	,647,215	
2021	10,808,000		8,765,366		1,000,000		328,150		11,808,000	Ç	,093,516	
2022	11,347,000		8,219,734		990,000		288,350		12,337,000	3	3,508,084	
2023	11,899,000		7,661,021		980,000		248,950		12,879,000	7	,909,971	
2024-2028	62,201,000		30,102,039		4,780,000		584,875		66,981,000	30	,686,914	
2029-2033	75,382,000		15,532,719		-		-		75,382,000	15	5,532,719	
2034-2038	39,729,000		2,950,813		-		-		39,729,000	2	2,950,813	
2039-2040	2,535,000		191,750		-		-		2,535,000		191,750	
Total	\$235,315,000		\$92,601,371		\$9,795,000		\$2,228,125		\$245,110,000	\$94	,829,496	

Year Ending		State Revolving Loans	ARRA Loan	DWSRF Loan		
June 30,	Principal	Interest	Principal	Principal		
2019	\$ 487,675	\$ 163,356	\$ 56,576	\$ 8,796		
2020	487,675	152,914	56,576	8,796		
2021	487,675	142,472	56,576	8,796		
2022	487,675	132,030	56,576	8,796		
2023	487,675	121,589	56,576	8,796		
2024-2028	2,438,375	451,314	282,880	43,980		
2029-2033	2,438,375	190,266	282,880	43,980		
2034-2038	336,375	6,728	-	8,796		
Total	7,651,500	\$1,360,669	\$ 848,640	\$ 140,736		

Principal requirements to maturity for CWSRF loans differ from amounts carried on the Statement of Net Position by \$1,669,026. This amount represents loan proceeds received through June 30, 2018 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, 2018. 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:

Project Type	Spent -to-Date			emaining Commitment
Wastewater Projects	\$	42,017,251	\$	21,629,063
Water Projects		24,953,651		14,560,991
System-wide Projects		3,717,141		3,609,492
Complete Projects		285,851,287		-
	\$	356,539,330	\$	39,799,546

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:

	Remaining				
Budgetary Fund	C	ommitment			
Operating Fund	\$	94,910			
Capital Projects Funds		39,799,546			
	\$	39,894,456			

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 GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* and GASB Statement No. 87, *Leases*. Both statements require the retroactive application and restatement of all prior period balances. Changes in accounting principle related to the implementation of these standards resulted in a net decrease to beginning net position of \$2,496,175 (a decrease of \$1,900,975 related to the implementation of GASB Statement No. 75 and a decrease of \$595,200 related to the implementation of GASB Statement No. 87).

Cape Fear Public Utility Authority Required Supplementary Information

Schedule of Changes in the Total OPEB Liability and Related Ratios 2018 $^{\star}\,$

	2018
Total OPEB liability	
Service cost	\$ 206,698
Interest	112,153
Changes in benefit terms	-
Difference between expected and actual	
experience	1,736,751
Changes in assumptions or other inputs	3,140,531
Benefit payments	(521,626)
Net change in total OPEB liability	4,674,507
Total OPEB liability - beginning	3,798,764
Total OPEB liability - ending	\$ 8,473,271
Covered-employee payroll	\$ 6,128,784
Total OPEB laibility as a percentage of	
covered-employee payroll	138.25%

^{*} The amounts presented for each fiscal year were measured as of the previous December 31 Information is not available for years prior to 2017.

Cape Fear Public Utility Authority Required Supplementary Information

Schedule of the Authority's Proportionate Share of the Net Pension Liabilty (Asset) Local Government Employees' Retirement System 2014-2018 *

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

^{*} 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 2014-2018 *

	2014		2015	2016	2017		2018
Contractually required contribution Contributions in relation to the contractually	\$ 92	3,373 \$	945,565	\$ 946,895	\$ 1,031,84	9 \$	1,132,187
required contribution	92	3,373	945,565	946,895	1,031,84	9	1,132,187
Contribution deficiency (excess)		-	-	-		-	-
Authority's covered-employee payroll	13,06	0,438	13,374,328	14,196,327	14,232,40	0	15,095,827
Contributions as a percentage of covered- employee payroll		7.07%	7.07%	6.67%	7.25	%	7.50%

^{*} 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, 2018

		Original Budget	Final Budget		Actual	Variance Positive (Negative)
Revenues			J			<u> </u>
Water rate revenues	\$	33,791,230	\$ 33,736,230	\$	34,419,838	\$ 683,608
Wastewater rate revenues		35,986,641	35,986,641		36,301,769	315,128
System development charges		4,000,000	4,062,000		6,014,920	1,952,920
Investment earnings		700,000	700,000		1,570,177	870,177
Grants from other governments		-	20,000		1,703,206	1,683,206
Other charges for service		4,500,800	4,500,800		5,509,048	1,008,248
Total revenues		78,978,671	79,005,671		85,518,959	6,513,288
Expenditures						
Salaries & Benefits		21,960,446	21,461,510		20,780,009	681,501
Operating		17,683,860	18,984,837		17,365,814	1,619,023
Capital Outlay		-	153,817		108,009	45,808
Debt Service		24,292,749	24,297,928		24,200,636	97,292
Contingency		675,000	1,063		-	1,063
Total expenditures		64,612,055	64,899,155		62,454,468	2,444,687
Other financing sources (uses)						
Proceeds from refunding bond issue		_	34,200,000		32,890,000	(1,310,000)
Sale of capital assets		-	-		152,213	152,213
Appropriated fund balance		540,000	5,720,098		-	(5,720,098)
Transfers out - Capital Projects Funds		(14,906,616)	(20,066,614)		(20,066,614)	-
Payment to refunded bond escrow agent		-	(33,960,000)		(32,729,050)	1,230,950
Total financing (uses)		(14,366,616)	(14,106,516)		(19,753,451)	(5,646,935)
Revenues and other financing (uses)						
over expenditures	\$	-	\$ -	\$	3,311,040	\$ 3,311,040
·				= 1		· ·
Reconciliation of modified accrual basis to full accrual b		i:				
Revenues and other financing sources over expenditures -				¢	/E 0EE 024\	
Capital Projects Funds - Water, Wastewater & Sytem-Wi	ue			\$	(5,055,026)	
Capital contributions - conveyed infrastructure					10,827,631	
Depreciation and amortization on capital assets					(22,024,805)	
Pension expense					(1,204,317)	
Contributions to pension plans					1,132,187	
OPEB expense					(1,205,904)	
Contributions to OPEB plan					482,518	
Capitalized expenditures					25,279,771	
Interest expense:					250 001	
Accrued interest expense					250,991	
Amortization of deferred amount on refunding					(1,449,564)	
Amortization of premium					3,376,350	
Accrued revenue					104,898	
Bad debt expense					(250,434)	
Compensated absences					(97,616)	
Contribution from New Hanover County					304,000	
Proceeds from long-term obligations					(3,716,516)	
Proceeds from refunding bonds					(32,890,000)	
Payment to refunded bond escrow agent					33,198,687	
Principal on lease liability					433,529	
Principal on long-term obligations				•	12,990,847	
Change in net position				\$	23,798,267	

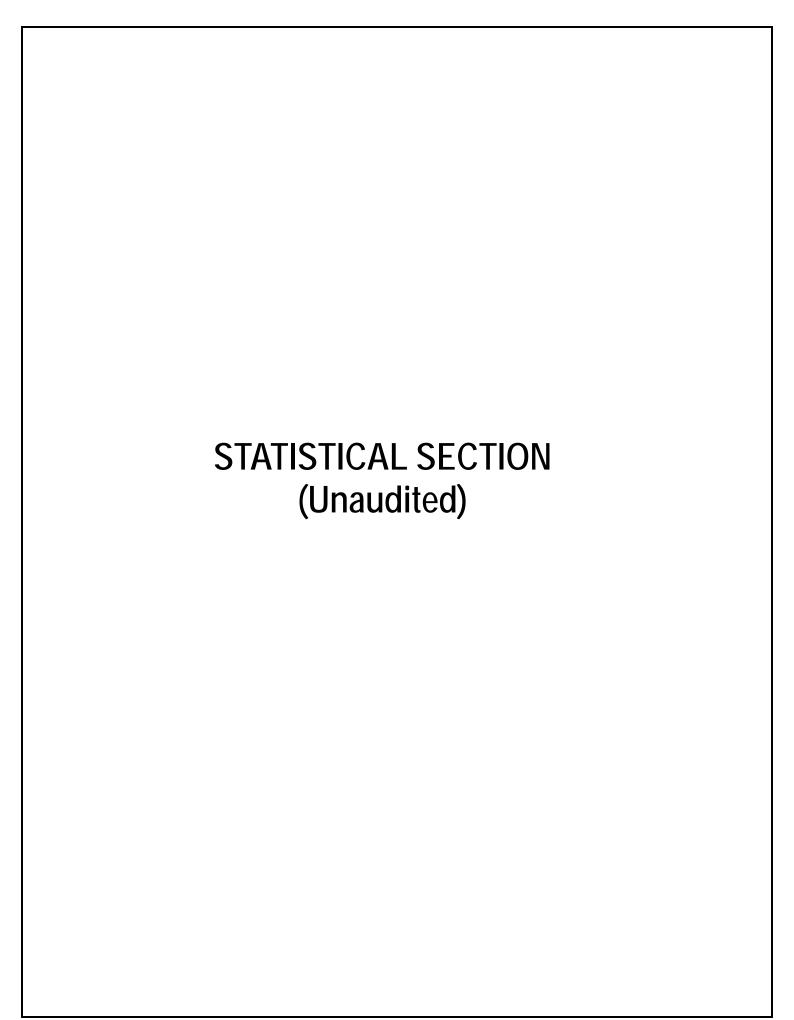
	Project	Prior	Current	Total to
	Ordinance	Years	Year	Date
Revenue				
Capital grants and contributions	\$ 31,152,395	\$ 25,426,817	1,794,605 \$	27,221,422
Charges for services	3,350,000	2,158,346	387,126 \$	2,545,472
Investment earnings	6,965,762	6,965,762	- \$	6,965,762
Total revenue	41,468,157	34,550,925	2,181,731	36,732,656
Expenditures				
Wastewater Capital Projects:				
MYRTLE LANDING SUBDIVISIN	386,148	386,148	-	386,148
PS 11 D/TOWN WATERSHED	3,900,068	1,146,980	86,100	1,233,080
WALNUT HILLS WTP DEMO	1,909,717	1,909,716	-	1,909,716
13TH ST/N. LAKE SHORE OUT	1,863,847	426,468	1,306,959	1,733,426
ARV IMPROVE TO PUMP STATI	2,511,347	1,819,879	378,420	2,198,299
PS#001 NORTHCHASE SE	-	20,470	(20,470)	-
PS#010 RENOVATION	410,363	156,561	253,801	410,361
PS#018 GREENHOW WOODS	-	20,876	(20,876)	-
PS#048 OAK LANDING	-	20,482	(20,482)	-
PS#104 RUNNY MEADE	-	7,565	(7,565)	-
MISC PS	1,785,716	60,135	186,723	246,857
PS#137 QUAIL WOODS	539,000	45,111	42,741	87,852
SCADA IMPLEMENTATION	547,641	537,089	10,552	547,640
ALUM SLUDGE TANK	1,724,964	1,725,063	(100)	1,724,962
MARQUIS HILLS EXTENSION	11,947,657	10,485,417	157,143	10,642,560
NORTHSIDE WWTP DIGESTER	761,986	143,093	618,892	761,986
PS 10 FORCE MAIN (LOAN)	4,273,500	332,005	2,652,849	2,984,854
AERIAL LINES PILING ASSES	100,000	-	85,458	85,458
PS 8 CAPACITY UPGRADE	1,530,000	118,164	853,963	972,127
PUMP STATION ALARMS	50,000	6,515	6,061	12,576
PS#12 FORCE MAIN (LOAN)	2,675,000	187,787	161,332	349,119
PS 89 CAPACITY UPGRADE	795,000	89,848	561,065	650,912
ARV REPLACEMENT-AM	59,310	15,298	21,315	36,613
EDGEWATER CLUB PS	1,605,504	1,602,303	3,200	1,605,503
PS#36 IMPROVEMENTS	2,419	5,291	(2,872)	2,419
D-TOWN GRAVITY PH 1	201,403	2,313	172,280	174,593
MANDATORY SE CONNECTION	150,000	70,494	62,705	133,199
SSWWTP INTERIM REHAB 2&3	770,097	679,931	90,165	770,096
MASONBORO SD SE ANNEX	165,365	59,291	25,226	84,517
FLOW MONITORING MODELING	420,000	292,930	104,823	397,753
CCTV CUT AND COVER REHAB	271,620	209,535	62,084	271,619
US HIGHWAY 421	11,400,000	970,670	814,826	1,785,496
SEWER EMERGENCY REPAIR	19,635	-	163	163
REHAB OF SEWER WITH CITY	552,091	-	36,490	36,490

			Actual	
	Project	Prior	Current	Total to
	Ordinance	Years	Year	Date
TRALEE PLACE DEVELOPER AG	22,655	33,600	(10,945)	22,655
CAROLINA HEIGHTS & LINCOL	342,892	221,067	121,823	342,891
PS #'S34 & 35 REPLACEMENT	136,548	119,517	17,030	136,547
6619 NEWBURY WAY	132,295	3,455	128,839	132,294
SOUTHSIDE WWTP REHAB DISI	425,000	47,200	48,153	95,353
ECHO FARMS AND BASIN 36 O	1,317,044	713,339	603,704	1,317,043
SSWWTP REHAB CWSRF	6,308,625	202,760	1,038,132	1,240,893
RIVER PLACE DEVELOPER AGM	924,219	-	543,245	543,245
BLUE CLAY ROAD FM	1,219,308	484,444	734,864	1,219,308
PINER RUN DVLPR AGMT-SWR	204,452	-	204,452	204,452
CHANNEL WATCH DEV AGMT PS	199,383	-	199,383	199,383
PS 5 6 13 16 21 29 REPLAC	968,626	66,054	791,990	858,044
PS #10 REPLACEMENT-GRANT	1,147,450	31,903	558,603	590,506
GRAVITY SEWER REHAB-GRANT	1,226,970	53,374	57,816	111,189
PORTER'S NECK MAIN VALVE	144,955	-	144,954	144,954
PRIMARY SLUDGE PUMPS	45,259	12,275	32,984	45,259
LENNON DR. PIPE REPLACEME	44,048	-	44,047	44,047
SSWWTP FORCE MAIN ER	7,707	7,712	(6)	7,706
HEW CRK RDIRECT TO NORTHS	150,000	-	10,000	10,000
SANDFIDDLER POINT SEWER ER	15,424	-	15,424	15,424
PS 14 GREEN LAKE FM REPLA	400,000	-	28,813	28,813
CASTLE HAYNE SEWER EXPANS	600,000	-	22,000	22,000
DOWNTOWN FIFI MH'S &	578,913	-	376,985	376,985
NORTH CHASE PS#4	37,151	-	37,151	37,151
6TH STREET/OTHER 6 INCH VCP PIPE	894,886	-	30,050	30,050
PS #14 24" GRAVITY SEWER	40,908	-	40,907	40,907
LINEAR ASSET RISK ANALYSIS SOFTWARE	197,997	-	53,550	53,550
PS #36 CAPACITY UPGRADE	300,000	-	140,000	140,000
SECONDARY CLARIFIER COVERS	133,944	-	133,944	133,944
NSWWTP 14" LINE LEAK SEWER ER	23,564	-	23,563	23,563
SHIPYARD BLVD. 1300 BLOCK SEWER ER	9,758	-	9,758	9,758
ABBINGTON TERRACE & GALAHAD CT ER	36,453	-	36,453	36,453
LANEY OUTFALL MANHOLE REHAB	940,819	-	30,212	30,212
SSWWTP 30" INFLUENT PIPE COLLAPSED	111,609	-	111,609	111,609
HALYARD RESTORE SEWER SERVICE	27,632	-	27,631	27,631
17TH STREET 1800 BLOCK SEWER ER	67,430	-	67,430	67,430
CAROLINA PLACE GRAVITY SEWER REHAB	100,000	-	5,246	5,246
318 CHURCH ST. SINK HOLE	20,723	-	20,723	20,723
215 CHURCH ST. RECONNECT	114,481	-	114,480	114,480
EMERGENCY GENERATOR REPLACEMENT	450,608	-	20,426	20,426
FOREST CREEK OUTFALL COST RECOVERY CAPITAL	60,000	-	10,063	10,063

			Actual	
	Project	Prior	Current	Total to
	Ordinance	Years	Year	Date
6408 SHINWOOD SEWER ER	38,547	-	38,547	38,547
CHERRY AVE 4124 SEWER ER	70,100	-	70,100	70,100
MCCUMBER'S DITCH 36" GRAVITY ER	900,000	-	888,608	888,608
39TH & PARK AVE POINT REPAIR ER	29,732	-	29,731	29,731
DOWNTOWN GRAVITY SEWER PH II	1,000,000	-	190	190
PS #8 FM SEWER ER	5,650	-	5,650	5,650
WRIGHTSVILLE AVE (1201) ER	44,967	-	44,966	44,966
WRIGHTSVILLE AVE SEWER ER	80,822	-	80,881	80,881
Total Wastewater Capital Projects Expenditures	75,628,952	25,550,126	16,467,126	42,017,251
Water Capital Projects:				
LANDFALL-SUMMER REST WLE	71,031	16,707	54,324	71,031
WELL SITE SECURITY	47,963	41,704	6,258	47,962
DBP EVALUATION PROJECT	3,722,350	410,299	3,253,314	3,663,613
DBP REDUCTION INFRASTRUCT	-	2,672,887	(2,672,887)	-
4TH ST WATER MAIN LINING	885,475	651,747	233,727	885,474
ASR WESTBROOK WELL	417,466	414,174	3,291	417,465
ANNEXATION EASEMENTS	105,444	7,830	390	8,220
METER SERVS BDLG@SWEENEY	562,500	489,777	38,248	528,025
KERR AVE WATERLINE-PH 2	2,607,253	1,946,938	5,300	1,952,238
REPLACE CH AQUIFER SOURCE	146,000	61,711	12,991	74,702
EMD HVAC & POWER SUPPLY	650,000	9,950	23,250	33,200
COMP METER REPLACE PH 2	15,780,000	4,042,368	6,612,618	10,654,986
N. WATER ST WATER REPLACE	504,973	247,172	150	247,322
MANDATORY H2O CONNECTION	592,000	202,274	71,254	273,529
WATER VALVE REPLACE-AM	391,139	65,838	144,494	210,332
SAMPLE STION/AUTOFLUSH AM	57,245	40,608	8,210	48,818
H2O TOWERS STRUCTURE REHA	213,710	212,757	952	213,709
US HIGHWAY 421	7,000,000	554,512	430,790	985,303
FIFI RAW WATER LINE REHAB	200,000	61,812	32,410	94,222
OZONE POWER SUPPLY UNIT U	1,846,000	96,000	233,012	329,012
WATER INFRA REHAB W/CITY	400,000	-	24,140	24,140
WATER DISTRIB SAMPLE STAT	420,000	34,689	325,166	359,855
AUTO FLUSHERS	50,000	-	8,414	8,414
WATER METERS FOR NEW CUST	500,000	(44,201)	473,860	429,658
CHANNEL WATCH DEVELOPER A	136,608	-	136,607	136,607
KINGS BLUFF PUMP STATION	2,700,000	31,300	282,751	314,051
RACHELS PLACE DEV. AGMT.	75,624	75,624	(75,624)	-
KINGS BLUFF RAW WATER BAR	94,684	84,922	9,760	94,682
SAS WATER SUPPLY IMPROVEM	21,213	13,713	7,500	21,213
EMS DEPARTMENT ROOF REPLA	475,000	2,475	172,537	175,012

			Actual	
	Project	Prior	Current	Total to
	Ordinance	Years	Year	Date
MONTEREY HEIGHTS TO SURFA	2,675,000	202,090	289,450	491,540
RIVER PLACE DEV AGT WATER	379,923	-	232,819	232,819
PINER RUN DVLPR AGMT WTR	19,504	-	19,504	19,504
WATER MODELING SOFTWARE	53,933	49,639	4,294	53,933
NEW RAW WATER LINE	1,700,000	23,295	774,248	797,543
WATER METER VAULT REPLACE	285,000	-	82,632	82,632
RAW WATER ELEVATOR SHAFT	29,313	2,840	26,473	29,313
NORTHERN NHC WATER MAIN E	60,000	-	60,000	60,000
PROD WELL/AQUIFER STOR &	100,000	-	44,897	44,897
REHAB OF EMER WELLS	200,000	-	27,845	27,845
RELOCA PORTS MASTER METER	100,000	-	2,075	2,075
WTR DISTR MAIN ENHANCEMEN	100,000	-	1,458	1,458
CSTL HYNE WATER EXPANSION	600,000	-	31,336	31,336
WCA DEV AGREEMENT	7,504	-	7,504	7,504
KINGS BLUFF CONDUCTOR REP	24,634	-	24,633	24,633
SWEENEY TREATMENT ENHANCEMENTS	880,200	-	629,013	629,013
WINTER STORM WATER MAIN ER	80,900	-	80,900	80,900
AVENSHIRE CIR (1019) WATER MAIN ER	29,295	-	29,295	29,295
BETTENCOURT ALLEY WATER MAIN REPLACEMENT (AM)	120,000	-	4,614	4,614
Total Water Capital Projects Expenditures	48,118,884	12,723,454	12,230,198	24,953,651
System-Wide Capital Projects:				
ENTERPRISE SOFTWARE REPLA	5,400,000	113,064	798,264	911,328
IT NETWORKING INFRASTURCT	364,271	192,430	17,637	210,067
CUSTOMER SERVICE REMODEL	136,697	123,930	12,767	136,697
LARGE EQUIP PURCHASE	1,305,882	162,522	278,143	440,665
MOTOR FLEET CAPITAL	1,906,197	778,665	1,109,517	1,888,182
PORTABLE EMERG. GENERATOR	22,000	11,969	10,031	22,000
SCADA SYSTEM SERVER UPGRA	290,805	11,998	96,205	108,202
Total System-Wide Capital Projects Expenditures	9,425,852	1,394,577	2,322,564	3,717,141
Completed Projects-Prior Years	294,632,247	285,851,287	-	285,851,287
Total expenditures	427,805,935	325,519,443	31,019,887	356,539,330
Revenue (under) expenditures	(386,337,778)	(290,968,518)	(28,838,156)	(319,806,674)
Other financing sources				
Long-term obligations issued	242,825,582	230,850,824	3,716,516	234,567,340
Transfers in - Operating Fund	114,657,807	81,602,460	20,066,614	101,669,074
Appropriated fund balance	28,854,389	-	-	-
Total other financing sources	386,337,778	312,453,284	23,783,130	336,236,414
Revenue and other financing				
sources over expenditures	\$ -	\$ 21,484,766	\$ (5,055,026)	\$ 16,429,740

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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 2018	F	Fiscal Year 2017	Fiscal Year 2016	Fiscal Year 2015	Fiscal Year 2014 (1)	Fiscal Year 2013	Fiscal Year 2012 (1)	Fiscal Year 2011	Fiscal Year 2010	Fiscal Year 2009 (1)
Net investment in capital assets Restricted Unrestricted	\$ 418,997,485 17,935,269 100,413,843	\$	390,620,063 10,966,309 111,961,958	\$ 359,084,362 2,916,717 122,820,678	\$ 335,218,505 - 108,678,499	\$ 304,634,404 - 104,968,819	\$ 295,343,987 - 95,959,547	\$ 288,506,512 - 84,201,125	\$ 287,538,728 - 68,587,385	\$ 295,307,938 - 60,590,755	\$ 293,467,066 - 56,535,895
Total net position	\$ 537,346,597	\$	513,548,330	\$ 484,821,757	\$ 443,897,004	\$ 409,603,223	\$ 391,303,534	\$ 372,707,637	\$ 356,126,113	\$ 355,898,693	\$ 350,002,961

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

⁽¹⁾ Net Position was restated in fiscal years 2017, 2014, 2012 and 2009 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 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	Fiscal Year 2009
Operating revenues										
Charges for services	\$ 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	\$ 42,726,268
System development charges	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	2,727,848
Other operating revenues	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	139,595
Total operating revenues	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	45,593,711
Operating expenses										
Personnel and benefits	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	17,714,505
Operations and maintenance	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	14,639,330
Depreciation and amortization	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	12,400,153
Total operating expenses	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	44,753,988
Operating income (loss)	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	839,723
Nonoperating revenues (expenses)										
Investment earnings	1,567,523	880,543	3,312,744	1,012,470	993,737	959,408	962,260	738,453	4,105,897	5,970,732
Interest expense	(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)	(9,674,421)
Bond issuance costs and other debt service fees	(142,708)	-	(717,165)	(683,650)	(85,243)	(316,120)	(625,383)	(131,224)	(104,215)	(100,183)
State and federal grants	2,786,821	220,254			-			-		-
Gain (Loss) on disposal of capital assets	152,213	88,899	53,691	77,599	73,780	(202,214)	-	-	-	-
Amortization of bond issuance costs	-	-	-	-	-	-	-	-	-	(4,357,699)
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	64,627,498
Total nonoperating revenues (expenses)	(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)	56,465,927
Income before capital contributions, special items and										
extraordinary items	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	57,305,650
Capital contributions from the City of Wilmington and New Hanover County	-	-	-	-	-	-	-	-	-	285,873,980
Capital contributions-other	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	6,823,331
Special impairment of capital assets	-	· · · -	, , , <u>-</u>	-	· · ·	· · ·	· · · -	(8,191,391)	(2,275,200)	, , , , <u>-</u>
Extraordinary impairment of capital assets	-	-	-	-	-	-	-	-	(1,292,068)	-
Total capital contributions, special and extraodinary items	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	292,697,311
Increase in net position	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	350,002,961
Net position										
Beginning of year	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	-	(2,496,175)		(1,603,112)	-	- , . ,	-	-	-	-
End of year, restated	\$ 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

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																		
	2	018	2	2017		2016	2	015 ⁽¹⁾	20)14 ⁽¹⁾	20	13 ⁽¹⁾	2012 ⁽¹⁾	2	2011 ⁽¹⁾	2	.010 ⁽¹⁾		2009
Water Rates																			
Water Fixed Rate (bi-monthly)	\$	26.67	\$	25.81	\$	25.81	\$	25.81	\$	25.81	\$	25.81	\$ 25.81	\$	24.99	\$	21.89	\$	15.20
Water Rate per 1,000 gallons	\$	3.85	\$	3.67	\$	3.67	\$	3.67	\$	3.67	\$	3.42	N/A		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	\$	2.22	\$	1.95
9,001 - 18,000 gallons		N/A		N/A		N/A		N/A		N/A		N/A	N/A		N/A	\$	3.36	\$	2.95
18,001+ gallons		N/A		N/A		N/A		N/A		N/A		N/A	N/A		N/A	\$	4.50	\$	3.95
0 - 12,000 gallons		N/A		N/A		N/A		N/A		N/A		N/A	\$ 2.64	\$	2.64		N/A		N/A
12,001 - 24,000 gallons		N/A		N/A		N/A		N/A		N/A		N/A	\$ 3.96	\$	3.96		N/A		N/A
Over 24,000 gallons		N/A		N/A		N/A		N/A		N/A		N/A	\$ 5.28	\$	5.28		N/A		N/A
Irrigation (2)	\$	3.85	\$	3.67	\$	3.67	\$	3.67	\$	3.67	\$	3.42	\$ 3.36	\$	2.64		N/A		N/A
Non-Residential	\$	3.85	\$	3.67	\$	3.67	\$	3.67	\$	3.67	\$	3.42	\$ 3.96	\$	3.96	\$	3.36	\$	2.95
Average bi-monthly residential consumption per customer (gallons) (3)		8,100		8,400		8,600		8,600		8,400		9,200	10,000		10,000		10,000		10,000
Average bi-monthly residential bill	\$	57.86	\$	56.64	\$	57.37	\$	57.37	\$	56.64	\$	57.27	\$ 52.21	\$	51.39	\$	45.23	\$	35.70
Wastewater Rates																			
Wastewater Fixed Rate (bi-monthly)	\$	29.10	\$	29.10	\$	29.10	\$	29.10	\$	29.10	\$	29.10	\$ 26.68	\$	26.68	\$	23.37	\$	16.50
Wastewater Variable Rate (4)	\$	4.58	\$	4.56	\$	4.56	\$	4.56	\$	4.56	\$	4.21	\$ 4.04	\$	3.59	\$	3.14	\$	2.75
Wastewater Flat Rate (5)	\$	67.58	\$	138.54	\$	138.54	\$	138.54	\$	138.54	\$	130.14	\$ 123.64	\$	112.84	\$	98.73	\$	82.50
Average bi-monthly residential consumption per customer (gallons) (3)		8,100		8,400		8,600		8,600		8,400		9,200	10,000		10,000		10,000		10,000
Average bi-monthly residential bill	\$	66.20	\$	67.40	\$	68.32	\$	68.32	\$	67.40	\$	67.83	\$ 67.08	\$	62.58	\$		\$	44.00

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

For years 2009 and 2010, irrigation rates were set at the over 18,000 gallons rate.

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

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

⁽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

2009 (1) 2018 Thousands of % of Thousands of % of % of Ten Largest Users of the Water System Annual Consumption Gallons % of System Revenues (\$) Revenues Ten Largest Users of the Water System Annual Consumption Gallons System Revenues (\$) Revenues 1.95% \$ 458,735 1.32% 2.34% \$ 430,613 1.89% 1 UNC Wilmington 102,951 1 UNC Wilmington 136,483 1.23% 0.86% 1.08% 1.02% 2 New Hanover Regional Medical Center 64.628 297,075 2 New Hanover County 63.232 232.431 0.85% 0.60% 1.05% 0.93% 208.074 3 New Hanover Regional Medical Center 211.318 3 Wilmington Housing Authority 44.688 61.473 41,080 0.78% 162,159 0.47% 47,862 0.82% 208,756 0.92% 4 Elementis 4 New Hanover County Schools 0.75% 0.72% 0.70% 0.60% 5 New Hanover County Schools 39,659 250,703 5 Wilmington Housing Authority 40,956 137,433 0.43% 6 New Hanover County 37,626 0.71% 217,435 0.63% 6 Lake Forest Apartments 30,088 0.52% 97,305 0.51% 0.60% 0.40% 0.36% 26,660 80,985 7 Tribute Properties 207,172 7 College Manor Apartments 23,411 8 Lake Forest Apartments 25,042 0.48% 111,292 0.32% 8 Mayfaire Complex 22,955 0.39% 119,091 0.52% 0.36% 0.50% 9 State of North Carolina 18,786 80,488 0.23% 9 Tribute Properties 21,463 0.37% 114,526 0.34% 0.53% 0.33% 0.26% 10 City of Wilmington 185,271 10 Elementis Chromium 58,243 17,758 18,971 6.28% 466,893 7.42% 418,878 7.95% \$ 2,178,404 8.00% \$ 1,690,699 Total Net Consumption / Net Revenue Total Net Consumption / Net Revenue \$ 22,781,177 Total Annual System Net Consumption / Net Revenue 5,271,263 \$ 34,667,433 Total Annual System Net Consumption / Net Revenue 5,834,129

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

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

Source: Cape Fear Public Utility Authority Customer Service Department.

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

2018 2009 ⁽¹⁾

	Thousands	% of	D (A)	% of		Thousands	% of	5 (A)	% of
Ten Largest Users of the Wastewater System Annual Consumption	of Gallons		Revenues (\$)		Ten Largest Users of the Wastewater System Annual Consumption	of Gallons	•	Revenues (\$)	Revenues
1 Town of Wrightsville Beach	254,728	5.17%	\$ 702,767	1.86%	1 Town of Wrightsville Beach	214,743	4.42%	\$ 442,639	2.00%
2 New Hanover Regional Medical Center	61,131	1.24%	332,756	0.88%	2 UNC Wilmington	87,800	1.81%	269,249	1.22%
3 UNC Wilmington	53,375	1.08%	323,595	0.86%	3 New Hanover Regional Medical Center	54,042	1.11%	176,741	0.80%
4 Wilmington Housing Authority	44,526	0.90%	242,297	0.64%	4 New Hanover County Schools	45,665	0.94%	199,592	0.90%
5 New Hanover County Schools	36,641	0.74%	275,907	0.73%	5 Wilmington Housing Authority	40,652	0.84%	129,175	0.58%
6 New Hanover County	34,453	0.70%	233,776	0.62%	6 New Hanover County	34,744	0.72%	132,783	0.60%
7 Tribute Properties	25,982	0.53%	231,752	0.61%	7 Lake Forest Apartments	30,080	0.62%	92,040	0.42%
8 Lake Forest Apartments	25,042	0.51%	130,929	0.35%	8 Mayfaire Complex	25,303	0.52%	125,124	0.57%
9 Corning, Inc.	22,971	0.47%	106,184	0.28%	9 Tribute Properties	24,536	0.51%	154,676	0.70%
10 State of North Carolina	18,786	0.38%	94,945		10 College Manor Apartments	23,411	0.48%	77,352	0.35%
Total Net Consumption / Net Revenue	577,635	10.94%	\$ 2,674,908	7.09%	Total Net Consumption / Net Revenue	580,975	11.96%	\$ 1,799,371	8.15%
Total Annual System Net Consumption / Net Revenue	4,928,329	=	\$ 37,713,883	=	Total Annual System Net Consumption / Net Revenue	4,856,146	=	\$ 22,089,335	:

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

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

Source: Cape Fear Public Utility Authority Customer Service Department.

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

_	20	018	2017	7	20	16	2	015		2014		2013	2	2012	2	2011	201	10 (1)	200	09 (1)
	Thousand Gallons	% of Consumption	Thousand Gallons	% of Consumption	Thousand Gallons	% of Consumption														
Water Customers																				
Residential	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%	4,152,536	71.18%
Commercial	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%	1,094,936	18.77%
Industrial	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%	102,707	1.76%
Institutional and Government	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%	483,950	8.30%
Total	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%	5,834,129	100.00%
Wastewater Customers																				
Residential	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%	3,543,624	72.97%
Commercial	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%	869,266	17.90%
Town of Wrightsville Beach	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%	214,743	4.42%
Pender County	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%	14,139	0.29%
Industrial	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%	24,964	0.51%
Institutional and Government	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%	189,410	3.90%
Total (2)	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%	4,856,146	100.00%

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

Source: Cape Fear Public Utility Authority Customer Service Department.

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

Water includes domestic and irrigation connections

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

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

Cape Fear Public Utility Authority Schedule of New Connections Current Fiscal Year and Last Nine Fiscal Years

	Increase In Available	Cumulative Available	% Water Growth -	Increase in	Cumulative	% Water
Fiscal Year Ended	Services	Services	Available	Water	Water	Growth -
June 30	Water	Water	Services	Connections	Connections	Connections
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%
2009	-	62,551	0.00%	-	61,644	0.00%

	Available Services	Available Services	% Wastewater Growth -	Increase In	Cumulative	% Wastewater
Fiscal Year Ended	Wastewater	Wastewater	Available	Wastewater	Wastewater	Growth -
June 30	(2)(3)	(3)	Services	Connections	Connections	Connections
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%
2009	-	62,296	0.00%	-	60,228	0.00%

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

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.

⁽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.

⁽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	Re	Gross Revenues (1)		Less Operating xpenses (2)	Net Available Revenue		Debt Service Principal		Debt Service Interest		Total ebt Service	Debt Coverage Ratio
2018 Parity Debt Coverage Ratio Total Debt Coverage Ratio	\$	87,550,810	\$	44,462,727	\$ 43,088,083	\$	10,795,000 13,294,847		9,957,801 10,597,443		20,752,801 23,892,290	2.08 1.80
2017 Parity Debt Coverage Ratio Total Debt Coverage Ratio	\$	85,271,003	\$	41,501,031	\$ 43,769,972	\$	12,825,000 15,300,761		8,617,881 9,328,777		21,442,881 24,629,538	2.04 1.78
2016 Parity Debt Coverage Ratio Total Debt Coverage Ratio	\$	81,854,931	\$	33,164,836	\$ 48,690,095	\$	5,945,000 8,504,035	\$	12,944,573 14,296,359		18,889,573 22,800,394	2.58 2.14
2015 Parity Debt Coverage Ratio Total Debt Coverage Ratio	\$	77,002,229	\$	30,712,770	\$ 46,289,459	\$	6,850,000 11,493,145	\$	13,056,801 14,633,341	\$ \$	19,906,801 26,126,486	2.33 1.77
2014 Parity Debt Coverage Ratio Total Debt Coverage Ratio	\$	74,317,342	\$	30,508,462	\$ 43,808,880	\$	7,210,000 11,652,876	\$	13,209,678 14,833,732		20,419,678 26,486,608	2.15 1.65
2013 Parity Debt Coverage Ratio Total Debt Coverage Ratio	\$	71,023,046	\$	30,068,015	\$ 40,955,031	\$	8,105,000 11,989,171		13,525,578 14,590,085		21,630,578 26,579,256	1.89 1.54
2012 Parity Debt Coverage Ratio Total Debt Coverage Ratio	\$	69,045,118	\$	29,956,912	\$ 39,088,206	\$	6,919,113 12,006,657	\$	11,894,186 13,283,201		18,813,299 25,289,858	2.08 1.55
2011 Parity Debt Coverage Ratio Total Debt Coverage Ratio	\$	62,820,928	\$	29,378,869	\$ 33,442,059	\$	3,329,579 9,147,645		8,612,881 11,160,138	\$	11,942,460 20,307,783	2.80 1.65
2010 (3) Parity Debt Coverage Ratio Total Debt Coverage Ratio	\$	53,457,074	\$	29,314,125	\$ 24,142,949	\$	2,320,562 8,706,072		5,220,454 8,092,789		7,541,016 16,798,861	3.20 1.44
2009 (3) Parity Debt Coverage Ratio Total Debt Coverage Ratio	\$	47,783,403	\$	31,517,799	\$ 16,265,604	\$ \$	2,232,043 7,987,738		4,040,421 7,508,261		6,272,464 15,495,999	2.59 1.05

⁽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 expenses.

⁽³⁾ Debt coverage ratios for fiscal years ended June 30, 2010 and 2009 were 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

		General		ARRA	DWSRF	Clean Water			% of		
Fiscal	Revenue	Obligation	Installment	Revolving	Revolving	State Revolving	Lease		Personal		Per
Year	Bonds	Bonds	Obligations	Loan	Loan	Fund Loans	Liability (1)	Total	Income (2)	(Capita
2018	264,372,354	-	9,795,000	848,642	140,733	9,320,528	6,490,007	290,967,264	N/A	\$	1,302
2017	278,443,921	-	11,741,800	905,219	149,529	8,139,178	-	299,379,647	N/A	\$	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	-	-	14,171	338,732,552	2.227%	\$	1,643
2011	255,556,814	11,712,630	39,918,647	330,545	-	-	179,315	307,697,951	2.411%	\$	1,518
2010	259,225,928	16,371,000	42,475,207	-	-	-	413,381	318,485,516	2.208%	\$	1,641
2009	261,888,896	21,605,709	45,007,970	-	-	-	155,324	328,657,899	2.148%	\$	1,710

⁽¹⁾ The lease liability in fiscal year 2018 reflects the implementation of GASB Statement 87, *Leases*. Prior years were not restated. The lease liabilities in fiscal years 2009 through 2012 are lease liabilities related to capital leases measured under generally accepted accounting principles effective in those years.

⁽²⁾ 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	City of	New Hanover		Public	Local	Personal	
Ended	Wilmington	County	Median	School	Unemployment	Income	Per Capita
June 30	Population (1)	Population (1)	Age (3)	Enrollment (2)	Rate % (3)	(000's) (4)	Income (4)
2018	119,045	227,198	38	26,263	3.9%	N/A	N/A
2017	117,525	223,483	38	26,096	3.9%	N/A	N/A
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
2009	101,526	192,235	38	23,614	9.0%	\$7,059,313	\$35,265

- (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

2018 2009

	Employees		Percentage of Tota County	al	Employees		Percentage of Tota County
Employers	(1)		Employment	Employers	(3)	Rank	Employment
New Hanover Regional Medical Center	6,880	1	5.68%	New Hanover Regional Medical Center	4,890	1	5.10%
New Hanover County Schools	4,476	2	3.70%	New Hanover County Schools	4,130	2	4.30%
GE Hitachi Nuclear Energy and GE Aviation	3,000	3	2.48%	GE Hitachi Nuclear Energy and GE Aviation	3,000	3	3.13%
Wal-Mart Stores	2,227	4	1.84%	University of North Carolina at Wilmington	1,810	4	1.89%
University of North Carolina Wilmington	2,154	5	1.78%	New Hanover County	1,670	5	1.74%
Duke Energy	1,770	6	1.46%	PPD	1,420	6	1.48%
New Hanover County	1,726	7	1.43%	Cape Fear Community College	1,260	7	1.31%
PPD	1,500	8	1.24%	City of Wilmington	1,200	8	1.25%
Verizon Wireless	1,278	9	1.06%	Verizon Wireless	1,200	9	1.25%
City of Wilmington	1,067	10	0.88%	Corning, Inc.	1,000	10	1.04%
		=	21.54%	_ =		=	22.49%
Total # Employed at June 30 of the respective FY (2)		_	121,074	Total # Employed at June 30 of the respective FY (2)		_	95,964

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

(1) Source: 2018 Book on Business; www.wilmingtonbiz.com

(2) Source: North Carolina Employment Security Commission (2009) and www.ncworks.gov (2018)

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

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

Departments	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
General - Administrative										
Administration	4	5	5	5	5	6	5	4	6	7
Human Resources/Safety	4	5	5	5	5	4	4	4	4	4
Finance/Information Technology (2)	12	12	12	12	15	14.5	14	15	15	16
Engineering	27	27	27	25	24	22	22	22	24	25
Operations										
Administration/Information Technology (1)(2)	10	14	14	14	9	9	9	9	9	9
Centralized Maintenance (1)	19	19	14	14	-	-	-	-	-	-
Utility Services (1)	90	85	90	87	96	96	96	96	104	104
Water Treatment (1)	26	25	25	24	30	30	30	31	31	31
Wastewater Treatment (1)	31	30	30	30	40	40	40	40	41	41
Environmental Management	29.5	28.5	28.5	28.5	28.5	29.5	29.5	29.5	29.5	30.5
Customer Service (1)	54	53	53	50	42	41	42	41	41	42
Total FTE's	306.5	303.5	303.5	294.5	294.5	292	291.5	291.5	304.5	309.5

⁽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) Current Fiscal Year and Last Nine Fiscal Years

Fiscal Year	Water Processed	
Ended	and	Wastewater
June 30	Pumped to System	Treated
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
2009	6,375,455	5,696,412

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

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

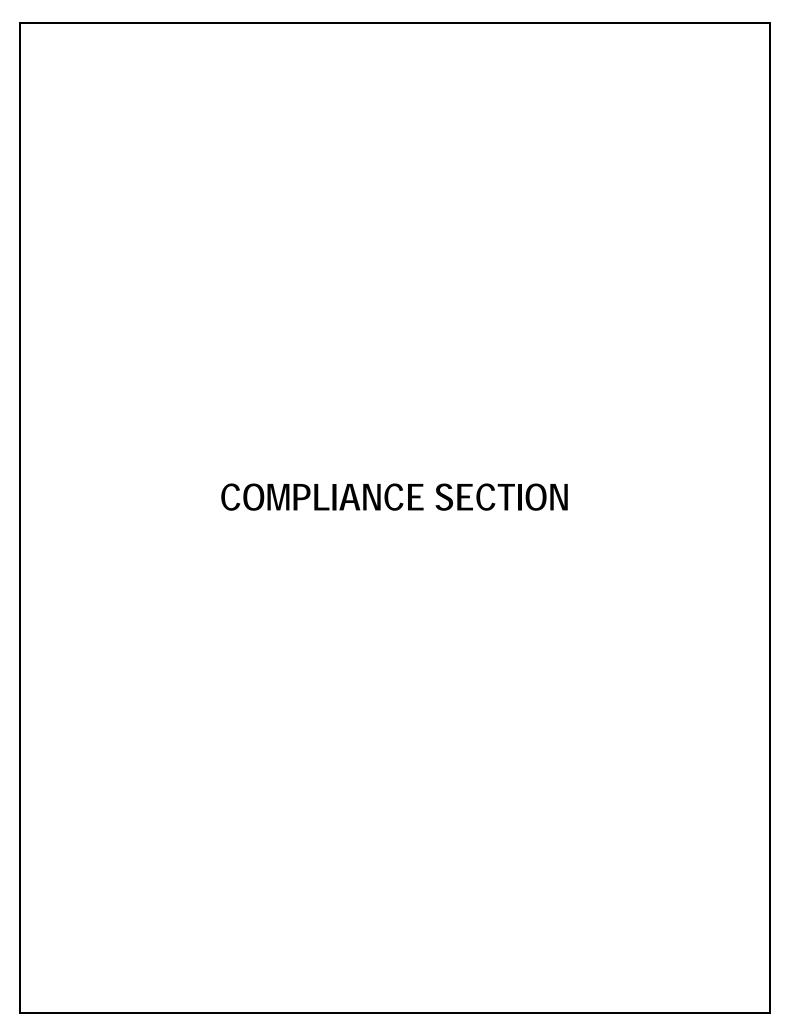
	Fiscal Year									
	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Water System										
Number of available service connections ⁽¹⁾	79,424	73,118	71,439	70,356	68,794	68,033	67,067	64,602	63,683	62,551
Number of treatment plants - surface water system	1	1	1	1	1	1	1	1	1	1
Treatment capacity (mgd) - surface water	35.00	35.00	35.00	35.00	35.00	35.00	35.00	27.50	27.50	27.50
Average production (mgd) - surface water	14.49	14.63	14.35	13.56	13.44	13.20	13.50	13.70	13.30	14.30
Number of groundwater systems	2	2	3	3	3	3	3	3	3	3
Number of treatment plants - groundwater system	1	1	1	1	1	1	1	1	1	-
Number of active wells - groundwater system	38	37	34	36	36	36	36	36	36	36
Treatment capacity (mgd) - groundwater plant	6	6	6	6	6	6	6	6	6	-
Treatment capacity (mgd) - other groundwater systems	1.02	0.90	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Average production (mgd) - groundwater	3.07	3.08	3.04	2.94	2.48	2.95	2.95	3.20	3.30	3.10
Miles of water mains	1,131	1,113	1,114	1,089	1,041 (2)	1,078	1,072	1,070 (2)	1,129	1,103
Wastewater System										
Number of available service connections ⁽¹⁾	73,043	71,539	69,222	68,246	66,829	66,059	64,529	64,330	63,793	62,296
Number of treatment plants	2	2	3	3	3	3	3	3	3	3
WPC plant permit (mgd)	28.10	28.10	28.10	28.10	22.10	22.10	22.10	22.10	22.10	22.10
Average annual daily flow (mgd)	17.49	17.16	18.76	17.48	16.45	16.17	15.10	15.80	16.80	15.60
Number of lift stations	148	146	142	143	141	141	141	141	142	142
Miles of wastewater gravity mains ⁽²⁾	892	877	848	844	827 ⁽²⁾	850	840	840 ⁽²⁾	881	877
Miles of wastewater force mains	143	142	131	131	112	110	104	104	100	100
Number of manholes	22,097	22,017	21,221	21,049	20,918	20,300	20,300	20,300	N/A	N/A

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

Source: Cape Fear Public Utility Authority Records

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

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





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, 2018, 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, 2018.

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.

Chury Bellut LLP Raleigh, North Carolina October 31, 2018



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, 2018. 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, 2018.

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 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.

Raleigh, North Carolina October 31, 2018

Chuny Belaut LLP



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's") 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, 2018. 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, 2018.

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.

Raleigh, North Carolina October 31, 2018

Chumy Belaert LLP

SCHEDULE OF FINDINGS AND QUESTIONED COSTS

YEAR ENDED JUNE 30, 2018

Section I—Summary of Auditor's Results

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section i—summary of Additor's Results				
Financial Statements				
Type of auditor's report issued on whether the financial statements were	prepared in accordance with GAAP	: Unmodified		
nternal control over Financial Reporting:				
Material weakness(es) identified?		yes	Χ	no
Significant deficiency(ies) identified that are not considered to be	material weaknesses?	yes	Х	none reported
Noncompliance material to financial statements noted?		yes	Χ	no
Federal Awards nternal control over major federal programs:				
Material weakness(es) identified?		yes	Χ	no
Significant deficiency(ies) identified that are not considered to be	material weaknesses?	yes	Χ	none reported
Noncompliance material to federal awards?		yes	Χ	no
Type of auditor's report issued on compliance for major federal programs	S :	Unmodified		
Any audit findings disclosed that are required to be reported in accordan With 2 CFR 200.516(a)?	ce	yes _	Х	no
dentification of major federal programs:				
<u>CFDA Numbers</u> <u>Names of Federal Pro</u>	gram or Cluster			

66.458

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

SCHEDULE OF FINDINGS AND QUESTIONED COSTS (CONTINUED)

YEAR ENDED JUNE 30, 2018

Drinking Water Bond Program

Section I—Summary of Auditor's Results (continued)	
Dollar threshold used to distinguish between Type A and Type B Programs:	<u>\$ 750,000</u>
Auditee qualified as low-risk auditee?	yesXno
State Awards	
Internal control over major state program:	
Material weakness(es) identified?	yesXno
Significant deficiency(ies) identified that are not considered to be material weaknesses?	yesX_ 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?	yesXno
Identification of major State programs:	
Names of State Program or Cluster	

SCHEDULE OF FINDINGS AND QUESTIONED COSTS (CONTINUED)

YEAR ENDED JUNE 30, 2018

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.

SUMMARY SCHEDULE OF PRIOR AUDIT FINDINGS

YEAR ENDED JUNE 30, 2018

None.

Cape Fear Public Utility Authority Schedule of Expenditures of Federal and State Awards For the Fiscal Year Ended June 30, 2018

Grantor/Pass-through Grantor/Program Title	Federal CFDA or Other Identifying <u>Number</u>	State/ Pass-through Grantor's <u>Number</u>	Federal (Direct & Pass-through) Expenditures		State Expenditures		Local <u>Expenditures</u>	
Federal Awards: Non-cash Assistance U.S. Environmental Protection Agency Passed-through the N.C. Dept. of Environmental Quality:								
Capitalization Grants for Clean Water State Revolving Funds	66.458	C6-00477106-3	\$	3,716,516	\$	-	\$	-
Total U.S. Environmental Protection Agency				3,716,516		=		=
Total Federal Awards			\$	3,716,516	\$	=	\$	-
State Awards: Cash Assistance North Carolina Department of Environmental Quality Wastewater Asset Inventory and Assessment Pump Station Replacement & Rehabilitation Find-It, Fix-It Gravity Sewer Rehabilitation Pump Station 10 Replacement Total State Awards	E-AIA-W-17-0043 E-SRP-W-17-0027 E-SRP-W-17-0028 E-SRP-W-17-0029		\$	- - - -	\$	140,494 429,022 53,846 295,253 918,615		- - - - -
Total Assistance			\$	3,716,516	\$	918,615	\$	-

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, 2018. 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.