



Orange Water and Sewer Authority

OWASA is Carrboro-Chapel Hill’s not-for-profit public service agency delivering high quality water, wastewater, and reclaimed water services.

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GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished
Budget Presentation
Award*

PRESENTED TO

**Orange Water & Sewer Authority
North Carolina**

For the Fiscal Year Beginning

July 1, 2018

Christopher P. Morrill

Executive Director

BUDGET MESSAGE

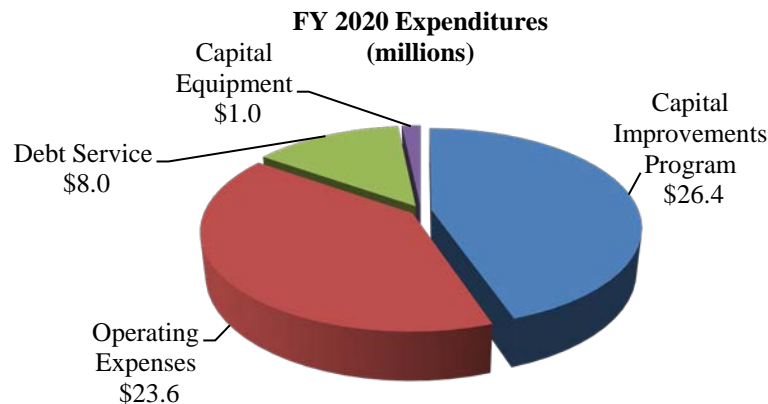
To the Board of Directors

The Annual Budget for the fiscal year beginning July 1, 2019 and ending June 30, 2020 has been prepared in accordance with OWASA's *Financial Management Policy*, our *Amended and Restated Bond Order* adopted on September 13, 2001, and North Carolina's *Local Government Budget and Fiscal Control Act*.

The primary drivers of this budget include the capital improvements project needs identified in OWASA's five-year Capital Improvements Program (CIP); projected drinking and reclaimed water demands; wastewater management needs; operating expenses required to sustain service levels; debt obligations; and reserve funding.

Projected operating revenues for Fiscal Year (FY) 2020 reflect a 5% increase in monthly rates. The operating expense budget is about 3.2% greater than the FY 2019 budget. Consistent with our strategic objectives, the FY 2020 operating expense budget meets the needs and priorities of the organization. However, it has few provisions for contingencies.

The budget consists of projected revenues of \$38.7 million, capital project costs of \$26.4 million, operating expenses of \$23.6 million, debt service payments of \$8.0 million, and capital equipment purchases of \$1.0 million.



Highlights of the Budget

Key elements of this budget include:

- A 5% increase in monthly water and wastewater rates.
- Continuation of the seasonal water conservation rate structure for customers other than individually-metered residential, multi-family master-metered, and irrigation-only customers. Under the seasonal water conservation rates, the water commodity charge will be \$8.47 per thousand gallons of water consumed during the warmer peak water demand months of May through September 2020. The water commodity charge during the cooler, lower demand months of October 2019 through April 2020 will be \$4.46 per thousand gallons.
- Irrigation-only meters are charged a year-round water commodity rate of \$9.11 per thousand gallons.
- Multi-family master-metered customers are charged a uniform year-round water commodity rate of \$6.07 per thousand gallons. Multi-family master-metered customers are properties served by one (or in some cases, more than one) OWASA meter which provides water service to more than one residential unit.

- Continuation of the five-tiered increasing block water rate structure for individually-metered residential customers. The block rate structure is designed under cost-of-service principles to promote water conservation.

	<u>Monthly Volume of Use in Gallons</u>	<u>Rate per 1,000 Gallons</u>
Block 1	1,000 to 2,000	\$2.82
Block 2	3,000 to 5,000	\$6.84
Block 3	6,000 to 10,000	\$8.39
Block 4	11,000 to 15,000	\$11.72
Block 5	All use 16,000 and up	\$21.20

For an individually-metered residential customer using 4,000 gallons of water per month, the monthly water and wastewater bill be \$75.62. (Average monthly use for customers in this class is 4,000 gallons.)

- An annual operating budget of \$23.6 million, which is an increase of 3.2% from the FY 2020 budget. The FY 2020 budget includes funding for 135 personnel positions.
- The budget includes a provision for a weighted-average salary increase of 4.68% for employees. The Board typically approves a cost of labor adjustment based on market data and a merit adjustment based on market data and employee performance. These adjustments normally go into effect in November of each year.
- Capital improvement spending of \$26.4 million for FY 2020, as identified in the five-year CIP. For the five-year period FY 2020-24, approximately 85% of capital spending is planned for water and wastewater system rehabilitation and replacement projects.
- Capital improvements will be funded through a combination of debt and cash. We plan to borrow approximately \$20 million through a combination low-interest loans from the state of North Carolina and revenue bonds.

Strategic Planning

OWASA’s Strategic Plan establishes the key goals and objectives for the next three to five years. It guides the organization’s work and funding priorities. The Board of Directors approved an updated Strategic Plan in June 2016; highlights are summarized below.

Initiative	Goals	Status
Provide reliable and high-quality supply of water for the next 50 years	<ul style="list-style-type: none"> • Optimum mix of technically, environmentally, economically, and socially feasible water supply and demand management alternatives that meet projected demands and level-of-service objectives under a range of future conditions and uncertainties. • Enhanced water supply reliability, reduced energy use, and reduced long-term life-cycle costs of water and wastewater service through cost-effective water use efficiency, conservation, and RCW strategies. 	<ul style="list-style-type: none"> • Our Long-Range Water Supply Plan is being updated. Our raw water demand projections are complete, and under most circumstances, our water supply will be sufficient to meet the community’s needs for the next 50 years. Supply and demand management alternatives will be part of the process.

	<ul style="list-style-type: none"> • Maintain our Jordan Lake water supply allocation. • New or amended water transfer agreements with Town of Cary and City of Durham for OWASA to access our Jordan Lake water supply allocation through those entities when needed. 	<ul style="list-style-type: none"> • On March 9, 2017, the North Carolina Environmental Management Commission approved OWASA's request to maintain its allocation of 5% of Jordan Lake's water supply pool.
Engage the Community	<ul style="list-style-type: none"> • Engage stakeholders to understand their perceptions and expectations so that we make well-informed decisions about our services and maintain their trust. • Empower stakeholders with information so they use water wisely and protect water quality through proper use of our wastewater system. • Provide stakeholders with timely information about projects, programs, and policies that are important to them and offer them meaningful opportunities to give feedback so that we can continue to improve. 	<ul style="list-style-type: none"> • Continue to identify communications channels, community partnerships, and activities through which to engage with Chapel Hill's and Carrboro's diverse communities; this includes being present where communities convene • Continue to develop and pilot programs and partnerships for providing interactive, educational programs on water and wastewater systems to young people and adults; learnings will inform the design and development of future educational outreach and leadership initiatives
Adopt financial management policies and budget decision processes to ensure affordable services and fiscal sustainability	<ul style="list-style-type: none"> • Financial reserve funds set at appropriate level. • Efficient process which provides opportunities for stakeholder input and allows the Board of Directors to make well-informed budget and rate decisions. • Affordability target set at appropriate level. • The right investments at the right time to sustain the community's essential water, wastewater, and reclaimed water assets. 	<ul style="list-style-type: none"> • The Board of Directors reviewed our <i>Financial Management Policy</i> in FY 2018, making no modifications. • The Board plans to further consider our policies regarding reserves in FY 2021.
Implement an Energy Management Plan	<ul style="list-style-type: none"> • Cost-effective measures to reduce our use of energy, related energy costs, and associated greenhouse gas (GHG) emissions. 	<ul style="list-style-type: none"> • Implementation of a Board-approved Plan is underway. The Board approved an updated plan on March 28, 2019. Since 2010, OWASA has reduced its use of purchased electricity by 27% since 2010, greenhouse gas emissions by 40%, and avoids over \$400,000 in annual energy expenses.
Implement Advanced Metering Infrastructure (AMI)	<ul style="list-style-type: none"> • Cost-effective, accurate, reliable and timely water metering information for enhanced customer service. 	<ul style="list-style-type: none"> • In May 2017, the Board approved awarding a contract to implement Agua Vista: OWASA's AMI system. The project began in June 2017 and was completed in FY 2019. To date, approximately

		20% of customers have registered on the system's customer portal.
Develop a plan and policy framework for long-term management and disposition of OWASA lands	<ul style="list-style-type: none"> Land assets provide the expected value to fulfill OWASA's mission and the assets are effectively managed. 	<ul style="list-style-type: none"> OWASA has developed a new incremental approach to forest management, drafted guiding principles for forest management, and begun a community engagement process to receive stakeholder input.

OWASA's Budget Process

The budget for OWASA's operating services and capital projects is developed in accord with:

- OWASA's *Mission Statement*. The Board's adopted *Mission and Values Statement* establishes priorities for serving the community. These priorities focus on service excellence, environmental responsibility, employee development and well-being, fiscal and operational efficiencies, relationships with local governments, and sustainable operations. These priorities must be met within the constraints set by various statutory, regulatory, and contractual obligations and agreements.
- OWASA's *Strategic Plan* which identifies the organization's high-priority goals and objectives.
- OWASA's *Financial Management Policy*, strategic financial planning, related policy decisions, and measurements of financial performance.
- A regularly updated water and wastewater master plan which includes reports and analyses of system needs.
- North Carolina General Statute Chapter 159: *The Local Government Budget and Fiscal Control Act*.
- A 15-year financial plan that takes into account economic assumptions, growth trends, operating and capital project costs, desired ratio of net income to debt service, projected water sales, growth in customer accounts, inflation factors, and the cost of borrowing.
- Strategic issues and policies as identified by the Board of Directors and staff.
- The five-year Capital Improvements Program.

The annual budget process begins early in each fiscal year and concludes with the adoption of an annual budget in June. Throughout the process, OWASA staff works closely with the Board of Directors in developing and refining information to submit for approval.

Public hearings on the proposed budget, CIP, and the schedule of rates and fees were held at the OWASA Board of Directors' regular meeting on May 23, 2019, and the budget and rate schedule were adopted by the Board on June 13, 2019.

OWASA maintains its financial records and presents its financial reports as an enterprise fund and uses the accrual method for financial reporting; generally, revenue is recognized when earned and expenses are recognized when incurred. The annual budget is prepared using the modified accrual method.

In accord with state law, the adopted budget may be amended at any time to reflect changes in services, projects and costs. Such amendments can be made in any form by the Board of Directors' action, but the budget must remain balanced. A budget is considered balanced when

the sum of net revenues and appropriated fund balance is equal to appropriations. In the state of North Carolina, the minimum legal budgetary level of control is at the departmental level. In addition to the departmental information presented in this document, compliance at this level is disclosed in OWASA's *Comprehensive Annual Financial Report*.

Priorities and Assumptions

Legal/Regulatory Assumptions

Federal, State, Local and Judicial

- OWASA must prepare and adopt a balanced budget in accord with the North Carolina Budget and Fiscal Control Act.
- Statutes governing purchasing and contracting require the development of and adherence to a Minority and Women-Owned Business Enterprise Program in soliciting and accepting bids for certain construction work.
- OWASA's primary source of income is customer rates and fees. The OWASA Board has sole authority to set and revise rates, fees and other charges for services. Rates, fees and charges are not subject to supervision or regulation by any bureau, board, commission, or other agency of the state, or by any political subdivision (N.C. General Statute 162A-9). Rates, fees and charges shall be set so that revenues, together with any other available funds, shall be sufficient at all times to pay (1) the cost of maintaining, repairing, and operating the water and wastewater systems including reserves for such purposes, and (2) all of the principal and interest on bonds (N.C. General Statute 162A-9).
- Fees are applicable throughout the service area, and fees and charges may vary by customer class when discernable cost factors can be attributed to the varying classes.
- The Governmental Accounting Standards Board requires that the cost of post-employment benefits be recognized and recorded in OWASA's annual financial statements.

Intergovernmental Sale and Purchase Agreements

Agreements of Sale and Purchase with the University of North Carolina at Chapel Hill (UNC) and the Towns of Chapel Hill and Carrboro state:

- OWASA shall charge reasonable rates, based on cost of service, to all classes of users, serving all users within each class impartially and without unjust discrimination, with no differential in rates based on the location of a customer.
- OWASA shall operate the water and wastewater system at the lowest rates possible consistent with its obligation to provide proper and efficient service.
- OWASA will furnish, for as long as UNC shall desire, drinking water, meeting acceptable purity standards, in such quantity as may be required to meet UNC's needs.
- UNC will purchase all its drinking water requirements from OWASA unless OWASA is unable to supply sufficient water.
- UNC will be provided, now and hereafter, reliable and adequate wastewater services to meet its needs.
- If five-year cumulative rate revisions exceed 20%, UNC may request that a rate study be performed by a qualified consultant.
- OWASA agrees to meet the reasonable water and wastewater needs of the Towns of Carrboro and Chapel Hill.

Additionally, Chapel Hill, Carrboro, and Orange County have adopted local water conservation ordinances as recommended by OWASA. The requirements of those ordinances have short- and long-term demand and revenue implications.

Bond Order (Series 2001 as amended and restated)

- Interest earnings are included in the debt service ratio calculation.
- OWASA shall not provide free service and shall charge all users including public bodies based on established rates, except for water used in fire protection, washing and flushing streets, and testing water lines. The cost of these public benefit uses is recovered from all customers.
- The Bond Order requires a minimum debt service coverage ratio of 1.2. OWASA’s *Financial Management Policy* sets the desired performance target as 2.0.
- In order to issue new debt, rates in any fiscal year must be sufficient to provide for debt service payments in the immediately succeeding fiscal year.

Organizational Assumptions

Financial Goals and Objectives

- The FY 2020 Budget assumes no changes in the levels of service delivered to customers.
- OWASA’s *Financial Management Policy* requires maintaining a working capital reserve balance at least equal to the greater of four months of the annual operating expense budget or 20% of the total estimated cost of capital improvements projects identified for the succeeding three years.
 - Four months of estimated operating costs based on the FY 2020 budget is \$7.9 million.
 - 20% of planned capital improvements for FY 2021 through FY 2023 is \$13.6 million.
 - The General Fund ending balance for FY 2020 is projected to be \$18.2 million.
- The *Financial Management Policy* calls for funding a Capital Improvements Reserve fund and a Rate/Revenue Stabilization Reserve fund. The minimum balance in the Capital Improvements Reserve fund is 2% of net capital assets. The minimum balance in the Rate/Revenue Stabilization Reserve fund is 5% of projected water and wastewater revenue.
- The *Financial Management Policy* specifies at least 30% cash funding of capital improvements. Our five-year financial plan reflects approximately 53% cash funding of capital projects during fiscal years 2020 through 2024.

The debt service coverage ratio for FY 2020 is projected to be 2.0, and OWASA’s financial plan indicates the following subsequent annual rate increases may be required in order to meet our financial obligations and maintain our financial measurement goals:

	<u>Projected Rate Increases</u>	
FY 2020	5% Water	5% Wastewater
FY 2021	5% Water	5% Wastewater
FY 2022	5% Water	5% Wastewater

Projected rate adjustments are estimates and will be analyzed during each year’s budget process.

The Need for Rate Increases

The projected rate increases are necessary for providing the funding required to meet the community’s water and wastewater needs.

- As the community’s provider of drinking water and wastewater management services, funding the programs needed to efficiently provide high-quality and reliable services around the clock is essential.
- On average, about \$20 million per year, roughly half of the fees customers pay for services, is invested in renewing and replacing the pipes, equipment and facilities necessary for delivering services.
- The costs of construction projects and the chemicals and materials needed for our services are increasing at rates greater than inflation.

Drivers for increased investments in our operating and capital budgets include supporting our commitment to the community to improve the reliability and resiliency of our services and rising construction costs.

- In FY 2019, two hurricanes, a large water main break, and a break in a critical pressurized sewer main exposed risks and opportunities for enhanced resiliency. We are planning for greater investment in risk reduction and resiliency improvement (both in the operating and capital budgets), including:
 - A more aggressive valve maintenance program,
 - The replacement of piping and valves at the water treatment plant,
 - The replacement of pressurized sewer piping and installation of bypass infrastructure near and under a major highway,
 - The addition of a utilities engineer position for accelerated execution of capital projects, and
 - Resources needed for enhanced emergency communications.
- We are accounting for increases in maintenance and chemical costs, as well as continued escalation in construction costs due to material prices and a less competitive bidding environment.
- We are taking a more thoughtful and strategic approach to inform and engage the community. We are striving to better inform our customers as to how their rates and fees are used and the value of the services OWASA provides.

Savings Reflected in the Operating Budget

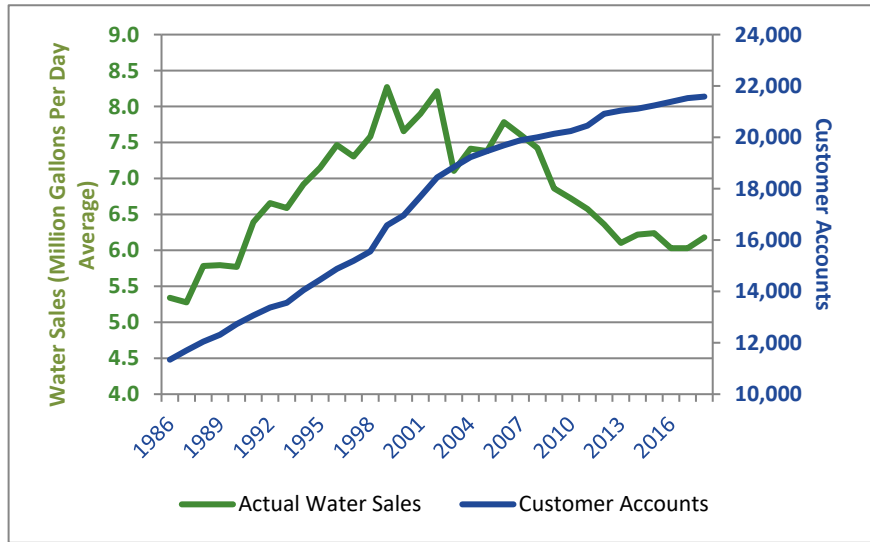
OWASA focuses on continuous improvement including seeking ways to reduce the costs of delivering services to the community. The following are a few of the more significant recent initiatives that have resulted in ongoing reductions in expenditures, including:

- Implementing Agua Vista, an advanced metering infrastructure (AMI) system. This project has allowed us to reduce (through attrition) the number of meter-reading staff by seven positions. Funding for two of these positions has been eliminated resulting in approximate savings of \$160,000 per year. Five of the positions have been reassigned to carry-out an accelerated distribution system valve-maintenance program.
- Securing low-interest loans from the state of North Carolina for infrastructure investments. These low-interest loans are projected to save about \$5 million in principal and interest payments, compared to financing with traditional revenue bonds, over the 20-year life of the loans.
- Implementing an energy management program that reduced our use of purchased natural gas by 8% and electricity by 26% since 2010 levels. Our energy reduction initiatives are responsible for avoiding over \$400,000 in annual energy costs.

Customer Demand and Service Levels

Over the last 15 years, drinking water demand in OWASA’s service area has declined substantially even as the number of customers served has increased (see chart below). Projected water demand for FY 2020 is about the same as it was in the early 1990s while the number of customers served has increased 70% during that time. Two droughts of record in the 2000s, the

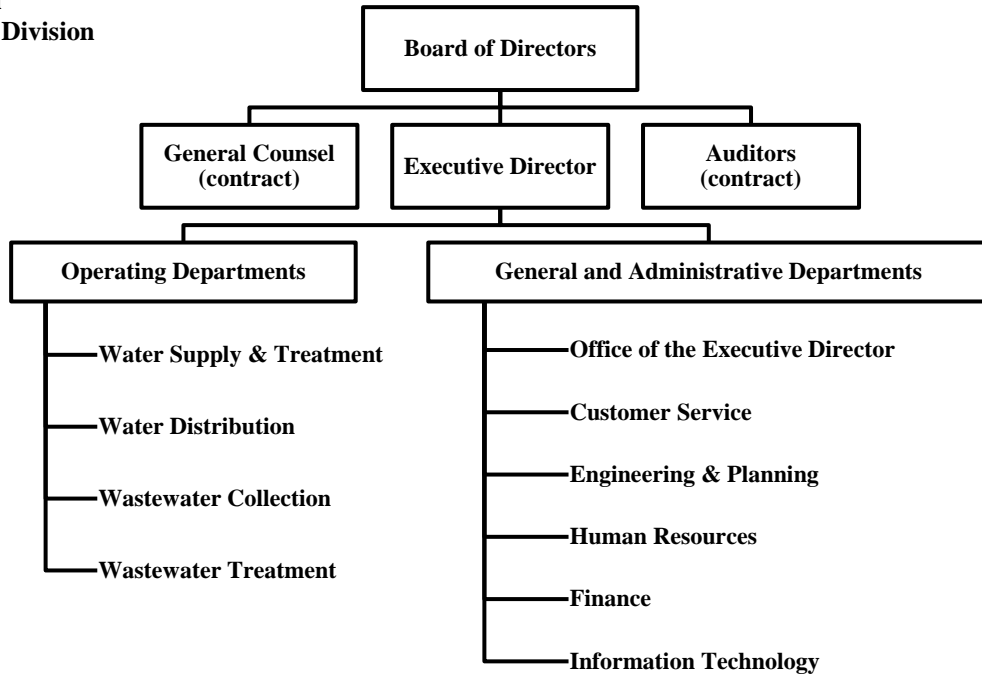
implementation of conservation rates in 2001 and 2007, and the completion of our reclaimed water (RCW) system in 2009 contributed to the reduction in drinking water demand.



The following projections are based on historical trends.

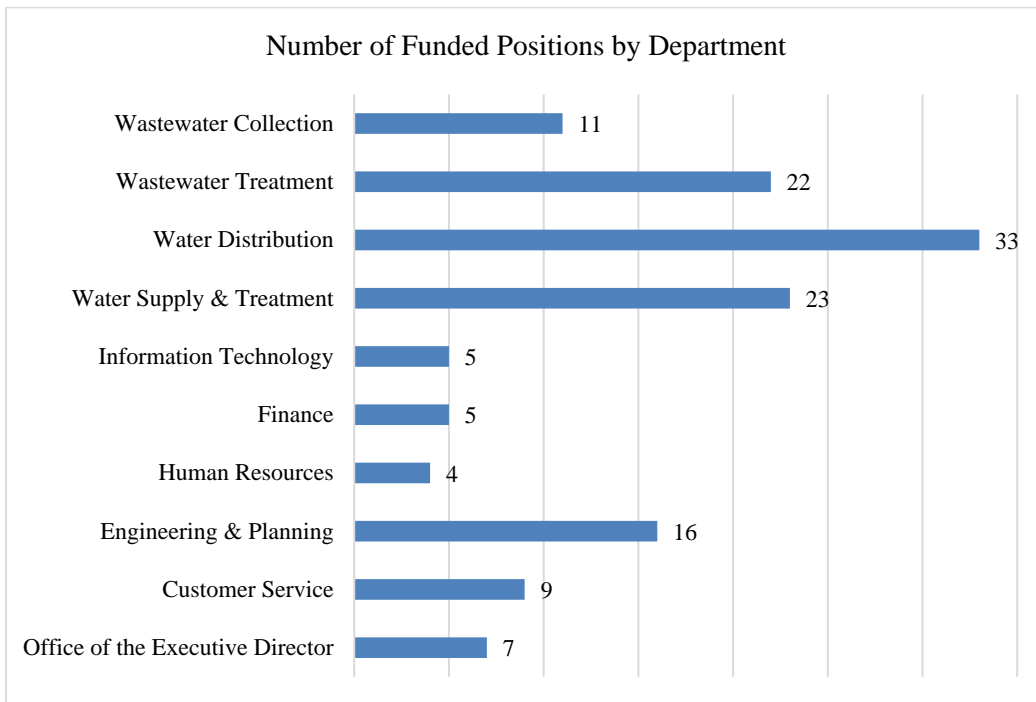
- FY 2020 projections for drinking water demand and new connections are affected by several factors including:
 - Drinking water sales in FY 2020 are expected to be approximately the same as they have been for the last several years. Average daily drinking water demand in FY 2020 is projected to be approximately 6.17 million gallons per day (MGD).
 - Reclaimed water (RCW) sales are also expected to be approximately the same as recent years. Estimated RCW use during FY 2020 is 0.78 MGD.
- Based on the development plans in OWASA’s service area, we expect to install 275 new 5/8” meter equivalents for the year.
- A construction cost inflation rate of 5.0% is assumed for FY 2021 and beyond.

**Organization
Overview by Division**



**Staffing
Summary**

The OWASA Board has authorized a total of 142 positions; 135 are funded for FY 2020. Funded staffing levels (full-time equivalents) are allocated by department as follows:



Summarized Annual Income and Expenses (Revenue Fund)

Description	Resources	Expenses	Balance
Total Operating Revenue	\$38,671,376		
Operating Expenses			
Net Expenses, General and Administrative		\$8,055,734	
Net Expenses, Operating		<u>15,503,228</u>	
Net Total Operating Expenses		23,558,962	
Net Operating Income			\$15,112,414
System Development Fees and Interest Earned	1,495,290		
Total Net Income			16,607,704
Total Debt Service		8,047,262	
Debt Coverage Ratio			2.1

Summarized Annual Capital/Non-operating Income and Expenses (General Fund)

Description	Resources	Expenses	Balance
General Fund Beginning Balance (7/1/19)			\$17,284,220
Transfer from Revenue	\$8,560,442		
Loan proceeds	20,000,000		
Funds Available for Expenditures			28,560,442
Total Estimated Capital Expenditures		\$27,412,700	
General Fund Ending Balance (6/30/2020)			<u>\$18,431,962</u>

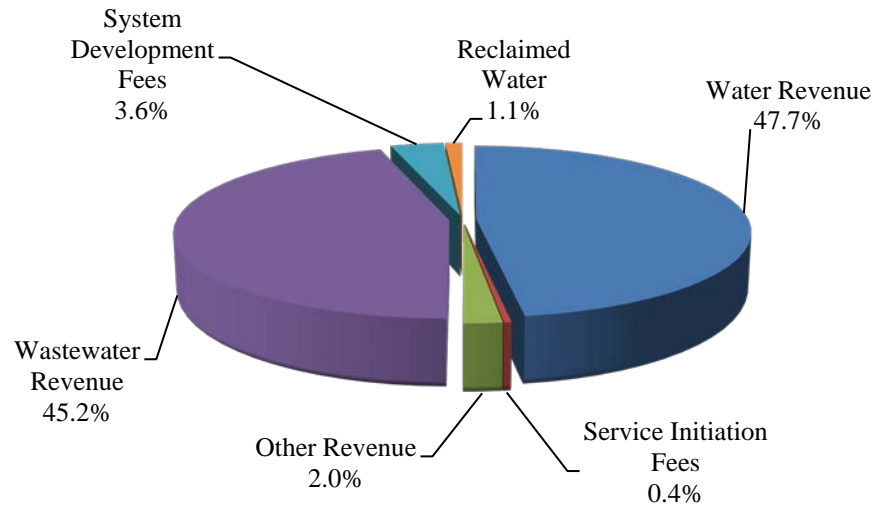
Revenue Summary

In providing essential public water, wastewater and reclaimed water services to Carrboro, Chapel Hill and portions of southern Orange County and southwest Durham County, OWASA incurs substantial operating and capital costs. OWASA operates as a nonprofit enterprise fund and has no legislative authority to levy taxes nor does it receive tax revenues from local governments. Ongoing water, wastewater and reclaimed water operations and capital improvements are financed almost entirely through customer fees and charges with occasional grants from state or federal governments. OWASA establishes rates sufficient to generate revenue to meet operating costs, pay debt service, and provide at least 30% cash funding for the CIP. Rates and fees are periodically adjusted in response to resource needs as determined in OWASA's financial planning process.

OWASA's gross receipts, with minor exceptions, are restricted by bond indenture. All revenues except grants, reimbursements and assessments must be deposited to the credit of the Revenue Fund. Monies in the Revenue Fund are pledged to the repayment of outstanding debt and must be expended first for current expenses and then debt service. Any funds remaining after current expenses and debt payments may be transferred to the General Fund and may be used for any lawful purpose: generally, for capital improvements and reserves.

The majority of OWASA's revenues are generated by the sale of drinking water and the collection and treatment of wastewater, and related services. Fees for water and wastewater services include charges for service initiation, line tapping, meter installation, monthly service charges, and a commodity charge for each 1,000 gallons of drinking water or reclaimed water used or wastewater processed. As depicted in the following graph, in FY 2020, 47.9% of total budgeted revenue is anticipated from water and reclaimed water services while wastewater services are expected to generate 45.3%. System development (new connection) fees, plan review and construction observation fees, rents, royalties, administrative fees, and interest income contribute the remaining 6.8% of total projected revenues.

FY 2020 Sources of Revenue



OWASA collects fees for delivery of reclaimed water services through a reclaimed water utility that became operational in 2009. The system primarily serves UNC for non-drinking purposes such as irrigation and cooling tower make-up water on campus.

OWASA's primary revenue-generating fees are summarized below.

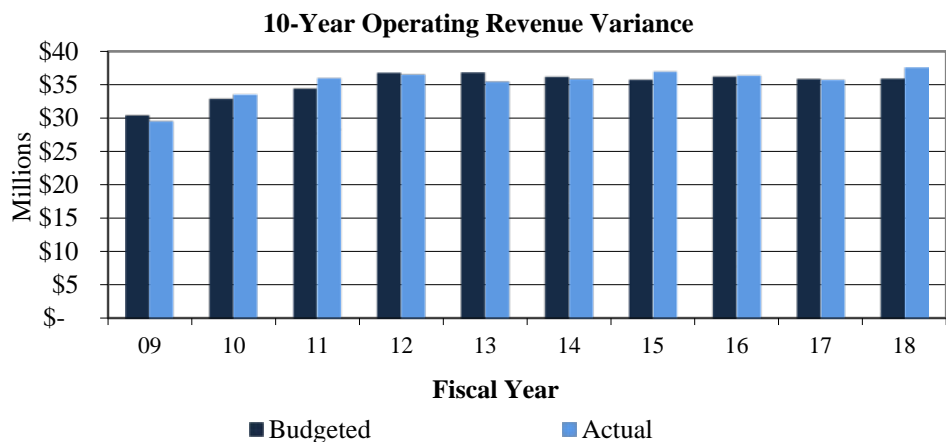
Fixed monthly charge	Calculated to recover costs related to certain direct and indirect customer service efforts, meter and lateral maintenance, and capital costs associated with supplying drinking and reclaimed water to, and collecting sewage from a customer's property. Charges are based on meter size.
Commodity charge	Calculated to recover the remaining direct and indirect costs of water supply and treatment, water distribution, sewage collection and treatment, general administration, and water and wastewater capital costs not recovered by the monthly service charge. This charge is applicable to all water, wastewater and reclaimed water accounts based on meter readings and is billed in thousand-gallon increments of water use.
Water and sewer system development fees	Calculated to recover a portion of the capital costs of providing water and wastewater system capacity. The system development fee applies to each new connection to a drinking or reclaimed water main or wastewater main, regardless of who may have paid for the installation of the main to which the connection is to be made. For the purpose of system development fees, customer accounts are divided into four categories: (1) single-family residential, (2) multi-family, individually-metered residential, (3) non-residential (including multi-family master-metered apartment complexes and all commercial, UNC, and institutional accounts) and (4) RCW service to UNC and non-UNC customers. The use of these categories is justified by distinct patterns of water and wastewater consumption.

A key assumption in developing the budget is the amount of expected growth. Revenue projections are calculated combining this assumption with the number of customer accounts, and applying the various rates to the assumed demand levels. The growth projection for FY 2020 is approximately 275, 5/8" meter equivalent residential units.

Service initiation fees	The purpose of this charge is to defray the labor and administrative costs associated with establishing a water, wastewater or reclaimed water account. This includes establishing service and account records for billing. The fee is applicable to all accounts requiring work to set a meter, reconnect service or read a meter.
Tapping fees	This charge is for making a tap into a water main and/or a wastewater main or manhole. The charge recovers the cost for time and equipment plus an allowance for overhead.
Service installation	This charge is to recover costs of installing a service connection from a water or reclaimed water main to the curb or property line and setting a meter.
Plan review and construction observation fees	This charge is to recover the cost of reviewing plans for the extension of water and wastewater facilities, and for field observation of the installation of these facilities. The plan review and construction observation fees apply to all extensions of the public water and/or wastewater system regardless of the party which undertakes the improvements. The fees apply separately to water and wastewater main extensions.
Operating revenue	In addition to recovering the cost of operations, rates and fees must be set at a level sufficient to fund future capital improvements costs and debt. Debt is issued to spread capital costs to future customers who will benefit from infrastructure improvements that have long useful lives.

As shown in the graph on page ix, beginning with a drought in 2001-2002, water demand began to decline in OWASA's service area. A second drought in 2007-2008 put further downward pressure on the demand for water. In 2009, our reclaimed water system came online and the University of North Carolina at Chapel Hill (UNC), OWASA's largest customer, began using less expensive reclaimed water for about 30% of its needs. Rate increases during these years helped offset the declines in water and wastewater service revenue.

The following graph summarizes the historical trend of OWASA's primary revenue stream compared to our budget for those revenues.



Debt and Debt Policy

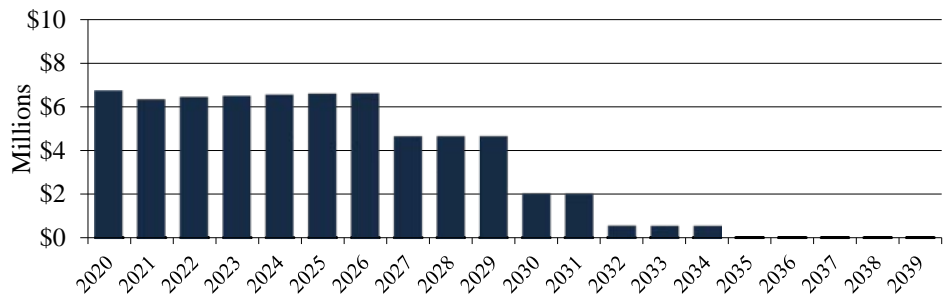
Revenue Bonds have been used to finance a significant portion of OWASA's capital improvements. The remainder has been funded with annual revenues, grants and fund balance.

As a stand-alone enterprise fund that does not have taxing authority or issue general obligation bonds, OWASA has no legal debt limit. OWASA's financial management policy specifies that the organization's debt should be no more than 50% of asset value. As of the end of FY 2019, OWASA's debt burden to asset value was 23%.

Outstanding debt was \$57.1 million as of June 30, 2019. The debt outstanding for each bond issue or loan is: Series 2010 refunding bonds - \$12.1 million, Series 2014 refunding bonds - \$13.4 million, Series 2015 refunding bonds - \$1.4 million, Series 2018 refunding bonds - \$18.1 and low-interest and interest-free loans from the state of North Carolina - \$12.1 million. Principal and interest payments on these balances will be approximately \$6.7 million in FY 2019. The graph of debt service payments below reflects future annual debt service for these outstanding issues. Because OWASA issues revenue bonds, there is no statutory limit on the amount of debt.

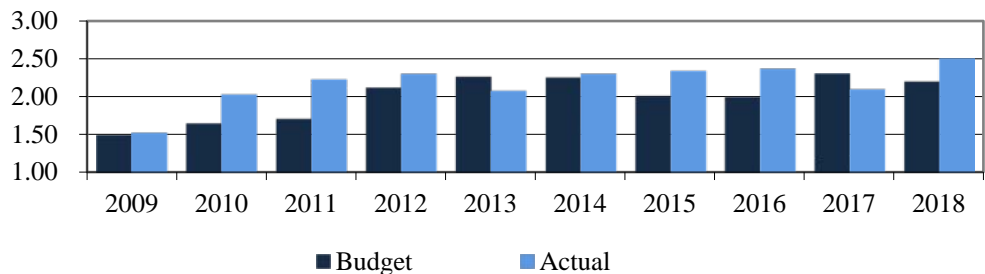
The following schedule of debt service for existing debt shows a decline in the amount of debt principal and interest payments.

Annual Debt Service (Existing Debt) FY 2020-2039



The ratio of net income to debt payments is an important measure of OWASA's financial performance. OWASA's Bond Order sets the minimum required debt coverage ratio at 1.2. The OWASA Board of Directors has set a goal of 2.0.

10 Year Debt Service Coverage Ratio - Budget to Actual



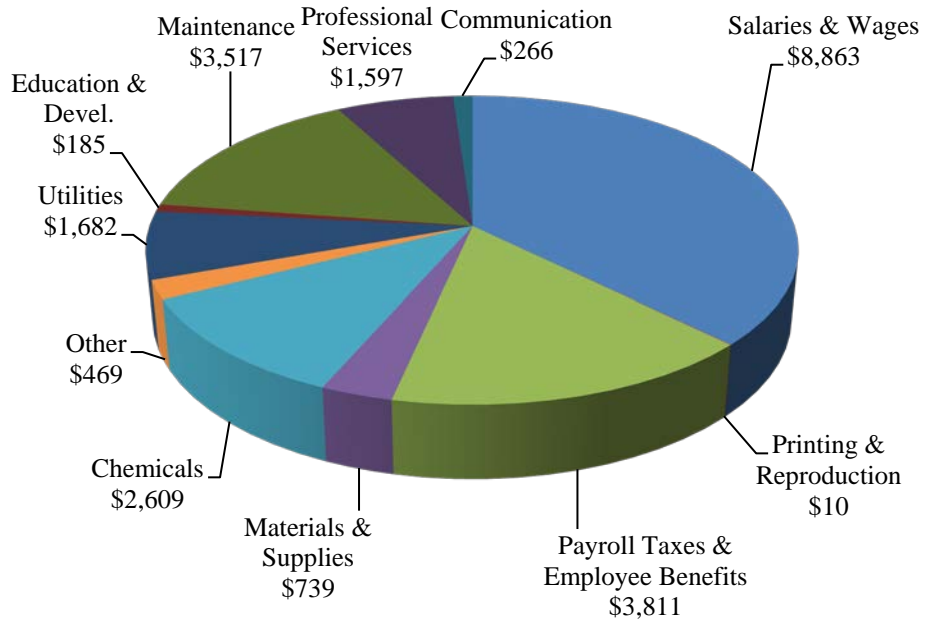
**Planned
Operating
Expenses
Summary**

The chart below shows the planned operating expenses for FY 2020. The graph illustrates the relative proportions of the total costs by each category of expense.

**Orange Water and Sewer Authority
Operating Expenses by Division/by Category
Fiscal Year 2020**

	General and Administrative	Operating Departments	Total Budget
Salaries & Wages	\$3,730,320	\$5,132,231	\$8,862,551
Payroll Taxes & Employee Benefits	1,608,310	2,204,492	3,812,802
Materials & Supplies	136,665	602,646	739,311
Chemicals	-	2,608,968	2,608,968
Utilities	194,400	1,487,300	1,681,700
Maintenance	430,903	3,086,426	3,517,329
Professional Services	1,404,736	191,960	1,596,696
Communication	245,146	20,415	265,561
Printing & Reproduction	6,800	3,500	10,300
Education & Development	110,574	74,041	184,615
Other	257,880	211,249	469,129
Total	<u>\$8,125,734</u>	<u>\$15,623,228</u>	<u>\$23,748,962</u>
Construction Credits	(70,000)	(120,000)	(190,000)
Total After Construction Credits	<u>\$8,055,734</u>	<u>\$15,503,228</u>	<u>\$23,558,962</u>

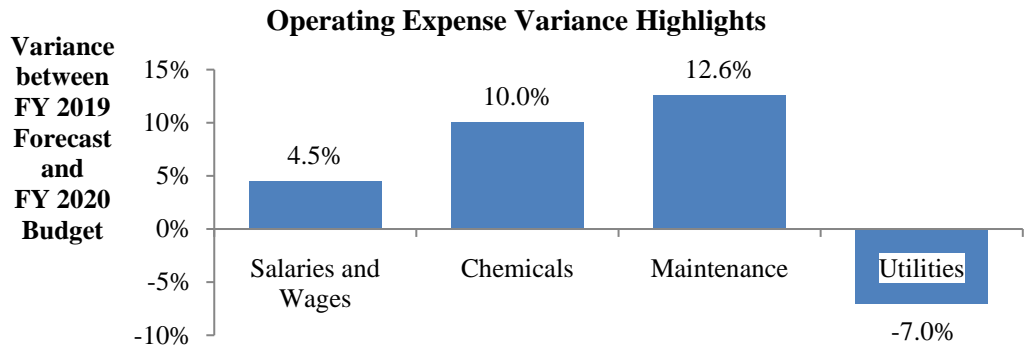
Operating Expenses
(numbers in thousands)



Construction credits are offsets against operating expenses for capital improvement projects performed by OWASA operations personnel. The amount of capitalized labor, equipment, and overhead costs for these in-house projects is credited to the appropriate departmental budget in the form of construction credits. Material costs are charged directly to each project from an inventory account and are not included in the construction credit amount.

Operating Expense Variances

The chart below highlights Operating Expenses that represent some of the more significant variances between the FY 2020 Budget and FY 2019 Forecast.



Salaries and Wages

The budget for salaries and wages is approximately \$380,000 or 4.5% higher than the amount forecasted for FY 2019. The FY 2020 budget includes a weighted-average combined cost of labor and merit pay increase of 4.68%.

Chemicals

The FY 2020 budget for chemicals to treat drinking water and wastewater is approximately \$238,000 or 10% greater than the FY 2019 forecast; we expect increases in unit costs.

Maintenance

The budget for maintenance expense is approximately \$393,000 or 12.6% higher than the forecast for FY 2019 due to increases in expected planned and corrective maintenance.

Utilities

Costs associated with the disposal of biosolids were higher than typical in FY 2019. Abnormal rainfall limited opportunities to liquid-land-apply biosolids which increased reliance on contract composting. The FY 2020 budget includes funding for biosolids disposal based on a more typical year.

Capital Equipment

OWASA replaces capital equipment items that has exceeded its useful life and purchases equipment to meet operational needs. Purchases planned for FY 2020 total almost \$1 million (see schedule on page 17).

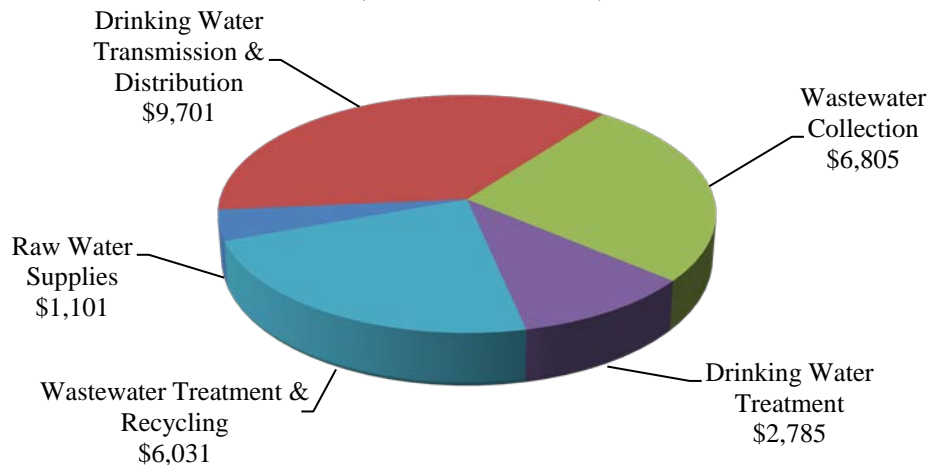
Capital Improvements Program Summary

Capital improvements are necessary to renew, replace, and improve infrastructure, and to provide safe, reliable, high-quality water, wastewater and reclaimed water services to current and future customers. Capital expenditures are recorded as capital assets and are depreciated over the economic useful lives of the assets.

A five-year planning period is used to develop the CIP. Only the first year of the CIP is included in each fiscal year's budget ordinance. For FY 2020, capital improvements projects total \$26.4 million, as shown below.

Capital Improvements Program

(numbers in thousands)



Strategic Issues and Policies

OWASA must maintain a budget that continues to ensure high-quality and reliable services to our customers while minimizing rate increases.

A summary of some of the more significant budget issues include:

1. Drinking water and reclaimed water sales in FY 2020 are expected to be about the same as projected for the last several years.
2. FY 2020 forecast for new construction and system growth is about 275 meter equivalents.
3. The existing seasonal rate fee structure remains in place for non-residential customers, the increasing block rate structure remains in place for individually-metered residential customers, as does the year-round water commodity rate for master-metered multi-family customers.
4. The CIP budget for FY 2020 is adequate to meet the needs of OWASA's customers today and in the future.

The organization's strategic plan and the financial management objectives set forth in OWASA's *Financial Management Policy* help us remain focused on mission-critical services, greater operational efficiency, accurate and sustainable asset management and capital improvements priorities, and opportunities for further reductions in operating expenses. We must accomplish this while balancing service levels with operating risks associated with distinct levels of service.

This budget reflects OWASA's continuing commitment to maintain, replace and renew water, wastewater, and reclaimed water system components to ensure high-quality and reliable services to our customers.

Conclusion

We believe the FY 2020 Budget reflects the OWASA Board of Directors' guidance and priorities, provides the appropriate level of funding for strategic initiatives, is responsive to community needs, and meets OWASA's contractual responsibilities and regulatory requirements.

Ed Kerwin
Executive Director

Stephen Winters, CPA
Director of Finance and Customer Service

SECTION I

ORANGE WATER AND SEWER AUTHORITY OVERVIEW

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ORANGE WATER AND SEWER AUTHORITY MISSION AND VISION

We are a community-owned utility providing our customers high quality and reliable water, wastewater, and reclaimed water services through responsible and creative stewardship of the resources we manage.

We provide excellent service so that if our customers could choose their water utility, they would always select OWASA. We are a trusted steward of the community, environmental, and financial resources we manage.

OUR VALUES

- **Quality Drinking Water**
We provide high quality drinking water through effective management and operation of our water supply, treatment, and distribution system.
- **Environmental Responsibility**
We protect the environment through effective management and operation of our wastewater collection, treatment, water reuse, and resource recovery systems. We manage our resources in an environmentally responsible manner.
- **Excellence in Customer Service**
We provide excellent service to our customers. We are leaders in engaging our customers and stakeholders and provide them meaningful opportunities to participate in decisions that are important to them.
- **Employees**
We value our employees as our most important resource and we provide them competitive compensation and a safe and rewarding work environment which promotes diversity and equal opportunity for all.
- **Affordability and Value**
We provide affordable and high-value services and we are committed to continuous improvement.
- **Sustainability**
We embrace the principles of environmental, social, and economic sustainability. We strive to make the highest and best use of our local water resources and to promote conservation of water, energy, and other natural resources.
- **Support for the Community We Serve**
We provide services consistent with the growth management and land use plans of the Town of Carrboro, the Town of Chapel Hill, and Orange County. We maintain open and positive communications with our governments and neighboring water utilities and cooperate in regional initiatives where appropriate and consistent with OWASA's commitment to our member governments.
- **Innovation and Creativity**
We seek innovation and creativity in accomplishing our mission and enhancing our services.

ORANGE WATER AND SEWER AUTHORITY
BOARD OF DIRECTORS

CHAIR

Yinka Ayankoya
200 Gary Road
Carrboro, NC 27510
Appointed by Carrboro; Term Expires 6/30/22

VICE CHAIR

Ruchir Vora
522 Dogwood Drive
Chapel Hill, NC 27516
Appointed by Chapel Hill; Term Expires 6/30/20

SECRETARY

Ray DuBose
103 Easy Street
Chapel Hill, NC 27516
Appointed by Orange County; Term Expires 6/30/20

MEMBERS

Bruce Boehm
1921 South Lakeshore Drive
Chapel Hill, NC 27514
Appointed by Chapel Hill; Term Expires 6/30/22

John Cooley
140 W. Franklin Street, Unit 418
Chapel Hill, NC 27516
Appointed by Carrboro; Term Expires 6/30/21

Jody Eimers
3120 Landeau Drive
Hillsborough, NC 27278
Appointed by Orange County; Term Expires 6/30/21

Robert Morgan
16 Kendall Drive
Carrboro, NC 27510
Appointed by Orange County; Term Expires 6/30/21

John N. Morris
614 Beechtree Court
Chapel Hill, NC 27514
Appointed by Chapel Hill; Term Expires 6/30/20

John Young
124 Meadowmont Village Circle
Chapel Hill, NC 27516
Appointed by Chapel Hill; Term Expires 6/30/19

ORANGE WATER AND SEWER AUTHORITY
MANAGEMENT TEAM

Denise Battle, Customer Service Manager
Mary Darr, P.E., Director of Engineering and Planning
Monica Dodson, Wastewater Treatment and Biosolids Recycling Manager
Jesse DuClau, Water Distribution and Wastewater Collection Systems Manager
Vishnu Gangadharan, P.E., Engineering Manager (Capital Projects)
Stephanie Glasgow, M.E.S.H., MPM, P.H.R., SHRM-CP, Director of Human Resources and Safety
Jessica Godreau, P.E., BCEE, Engineering Manager (Systems Development)
Ed Kerwin, Executive Director
Kenneth Loflin, Water Supply and Treatment Manager
Linda Low, Customer and Community Relationship Officer
Andrea Orbich, Executive Assistant
Daniel Przybyl, CGCIO, Director of Information Technology
Ruth Rouse, A.I.C.P., Planning and Development Manager
Kelly Satterfield, CPA, Finance and Procurement Manager
Todd Taylor, P.E., General Manager of Operations
Mary Tiger, Sustainability Manager
Stephen Winters, CPA, Director of Finance and Customer Service

GENERAL COUNSEL

Robert Epting, Esquire
Epting and Hackney, Attorneys at Law

BUDGET PREPARATION AND CALENDAR FOR FY 2020

OWASA's budget process begins in the fall of each year. Many key elements are prescribed in the *Financial Management Policy* and major milestones are published in a budget calendar. The operating expense and capital improvements program budgets are prepared by the staff with guidance and review by the Board of Directors.

OWASA maintains its financial records and presents its financial reports as an *enterprise fund* and uses the *accrual method* for financial reporting; generally, revenue is recognized when earned and expenses are recognized when incurred. The annual budget is prepared using the *modified accrual method*. The primary differences between the two accounting methods are shown below.

Transaction Type	Financial Reporting (Accrual)	Budgetary (Modified Accrual)
Depreciation expense	<i>Included</i> as an expense	<i>Excluded</i> as an expense
Principal portion of debt payments	<i>Excluded</i> as an expense	<i>Included</i> as an expense
Vacation accrual expense	<i>Included</i> as an expense	<i>Excluded</i> as an expense
Assessment income	Recognized in year assessed	Recognized in year collected

The budget development process begins with preparation of line-item budget requests by each of OWASA's departments and includes estimates for any new initiatives or cost reduction strategies. A 15-year financial plan is used to develop alternatives including possible rate adjustments and debt financing arrangements to achieve full cost recovery and meet OWASA's financial obligations. The following calendar reflects the timeframe for the preparation of this budget.

FY 2020 Budget Calendar

December 5, 2018	Finance Committee Meeting - discuss analysis of operating expenses and FY 2020 Budget Calendar and Assumptions.
January 8, 2019	Distribute templates for the preparation of operating expense appropriations, capital equipment requests and departmental budget narratives.
January 24, 2019	Board of Directors Meeting – review FY 2020 Budget Calendar and Assumptions
January 29, 2019	Submission of Capital Equipment Request Forms, Budget Narratives and Departmental Operating Budget Requests to Budget Officer.
March 14, 2019	Board of Directors Work Session – review preliminary FY 2020 budget information.
March 28, 2019	Board of Directors Meeting – discuss FY 2020 budget and rate adjustment information and approve date of public hearings on the FY 2020 budget and rates.
April 11, 2019	Board of Work Session – review of FY 2020 budget and rate adjustment options.
April 23, 2019	Finance Committee Meeting – Discuss FY 2020 budget and rate adjustment information.
April 25, 2019	Board of Directors Meeting – discuss FY 2020 budget and staff rate adjustment recommendation; and authorize staff to publicize proposal of a 5% increase in monthly drinking water and wastewater rates.
May 23, 2019	Board of Directors Meeting – Public Hearing on the Draft Annual Budget, Capital Improvements Budget and proposed adjustments to rates, fees, and charges.
June 9, 2019	Board of Directors Work Session – adopt FY 2020 Annual Budget and Schedule of Rates, Fees and Charges.
July 2019	Distribution of FY 2020 Annual Budget.

Rate Projections and Budgetary Forecast

OWASA’s annual financial planning and budget development process includes a 15-year projection of revenues, expenditures, borrowing needs, and rate adjustments. Revenue projections are based on estimates of customer water demand and service area growth. Operating expenses are projected to increase based on a combination of anticipated inflation rates and specific expected cost increases or decreases.

Annual rate increases over the 15-year planning horizon are expected to be between 4% and 5%. However, because conditions change, OWASA updates its financial plan each year and actual rate increases could vary from the projection.

The following summarizes projections for the next ten years. Revenue is projected based on assumptions of per-customer water use and estimates of system growth. Operating expense projections are based on assumptions about the rate of inflation and specific anticipated expense increases or decreases. Future capital improvement investment projections are based on system growth expectations and our ongoing processes for identifying assets that are nearing the end of their useful lives.

	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
Rate increase	5%	5%	5%	5%	4%	4%	4%	4%	4%	4%
	(numbers below in thousands)									
Revenue	\$41,827	\$44,436	\$46,690	\$49,276	\$51,665	\$53,988	\$56,397	\$58,917	\$61,572	\$64,349
Operating expenses	24,029	24,725	25,632	27,075	28,069	29,104	30,181	31,304	32,473	33,692
Capital Improvements Projects	27,939	16,178	23,987	18,148	19,110	22,988	25,324	29,708	23,925	22,820
Debt service coverage ratio	2.2	2.1	2.1	1.9	2.0	1.8	2.3	2.0	2.5	2.5

STATEMENT OF INCOME, EXPENSE AND DEBT SERVICE (OPERATING)

	FY 2018 Actual	FY 2019 Budget	FY 2019 Forecast	FY 2019 Forecast to FY 2019 Budget	FY 2020 Budget	FY 2020 Budget to FY 2019 Forecast
Operating Revenue						
Water	\$19,013,363	\$17,524,334	\$17,701,251	1.01%	\$19,144,421	8.15%
Sewer	17,062,645	17,265,060	17,260,660	-0.03%	18,157,612	5.20%
Reclaimed Water	441,303	454,440	453,870	-0.13%	458,820	1.09%
Service Initiation Fee	156,225	154,345	128,391	-16.82%	153,928	19.89%
Other	1,063,905	1,006,078	940,480	-6.52%	969,168	3.05%
Refunds and Adjustments	<u>(194,197)</u>	<u>(230,007)</u>	<u>(211,577)</u>	-8.01%	<u>(212,573)</u>	0.47%
Total Operating Revenue	<u>37,543,244</u>	<u>36,174,250</u>	<u>36,273,075</u>	0.27%	<u>38,671,376</u>	6.61%
Operating Expense						
General and Administrative	6,901,551	7,527,991	7,252,352	-3.66%	8,055,734	11.08%
Operations	<u>14,712,805</u>	<u>15,295,990</u>	<u>15,366,687</u>	0.46%	<u>15,503,228</u>	0.89%
Total Operating Expense	<u>21,614,356</u>	<u>22,823,981</u>	<u>22,619,039</u>	-0.90%	<u>23,558,962</u>	4.16%
Net Operating Income	15,928,888	13,350,269	13,654,036	2.28%	15,112,414	10.68%
Non-operating Revenue						
System Development Fees	1,578,262	1,194,353	1,085,449	-9.12%	1,448,887	33.48%
Interest	<u>56,524</u>	<u>23,678</u>	<u>34,122</u>	44.11%	<u>46,403</u>	35.99%
Total Net Income	<u>17,563,674</u>	<u>14,568,300</u>	<u>14,773,607</u>	1.41%	<u>16,607,704</u>	12.41%
Debt Service						
Existing	6,825,888	7,155,554	7,201,865	0.65%	6,735,246	-6.48%
New	<u>-</u>	<u>-</u>	<u>-</u>		<u>1,312,016</u>	
Total Debt Service	<u>6,825,888</u>	<u>7,155,554</u>	<u>7,201,865</u>	0.65%	<u>8,047,262</u>	11.74%
Net Income Less Debt Service	<u>\$10,737,786</u>	<u>\$7,412,746</u>	<u>\$7,571,742</u>	2.14%	<u>\$8,560,442</u>	13.06%
Debt Coverage Ratio	2.6	2.0	2.1		2.1	

This income statement discloses the source and application of OWASA's revenues and reflects the adequacy of operating revenues to meet the costs of operations and to satisfy debt service requirements. As presented in the Statement of Income and Expense (Capital/Non-Operating), excess revenues are available for transfer to the General Fund, the established funding mechanism for capital expenditures.

STATEMENT OF INCOME AND EXPENSE (CAPITAL/NON-OPERATING)

	FY 2018 Actual	FY 2019 Budget	FY 2019 Forecast	FY 2019 Forecast to FY 2019 Budget	FY 2020 Budget	FY 2020 Budget to FY 2019 Forecast
General Fund						
Resources						
Transfer from Revenue	\$10,737,786	\$7,412,746	\$7,571,742	2.14%	\$8,560,442	13.06%
Assessments	-	-	-		-	0.00%
Grants and Contributions	-	-	-		-	0.00%
Annual Income Available for Capital	<u>10,737,786</u>	<u>7,412,746</u>	<u>7,571,742</u>	2.14%	<u>8,560,442</u>	13.06%
Transfer from Construction Fund (Bond/Loan Proceeds)	<u>-</u>	<u>14,900,000</u>	<u>7,156,441</u>	0.00%	<u>20,000,000</u>	0.00%
Total Available for Capital	<u>10,737,786</u>	<u>22,312,746</u>	<u>14,728,183</u>	-33.99%	<u>28,560,442</u>	93.92%
Capital Expenditures						
Project Ordinances						
General Fund Contribution	19,170,000	6,052,000	7,643,559	26.30%	6,423,000	-15.97%
Funded by Bond/Loan Proceeds	<u>0</u>	<u>14,900,000</u>	<u>7,156,441</u>	0.00%	<u>20,000,000</u>	0.00%
Total Project Resolutions	19,170,000	20,952,000	14,800,000	-29.36%	26,423,000	78.53%
Capital Equipment	<u>1,178,175</u>	<u>1,001,135</u>	<u>1,001,135</u>	0.00%	<u>989,700</u>	-1.14%
Total Capital Outlay	<u>20,348,175</u>	<u>21,953,135</u>	<u>15,801,135</u>	-28.02%	<u>27,412,700</u>	73.49%
Annual General Fund Balance	<u>(\$9,610,389)</u>	<u>\$359,611</u>	<u>(\$1,072,952)</u>	-398.36%	<u>\$1,147,742</u>	-206.97%
General Fund Beginning Balance		17,018,861	17,018,861	0.00%	17,284,220	1.56%
General Fund Ending Balance	17,018,861	17,378,472	15,945,909	-8.24%	18,431,962	15.59%
Project Funding	63,861	(1,249,798)	(1,338,190)	7.07%	(1,453,940)	8.65%
Reserves						
Rate/Revenue Stabilization	1,750,000	1,774,470	1,774,470	0.00%	1,865,102	5.11%
Capital Improvements	3,600,000	4,000,000	4,000,000	0.00%	4,400,000	10.00%
Working Capital	<u>11,605,000</u>	<u>12,853,800</u>	<u>11,509,629</u>	-10.46%	<u>13,620,800</u>	18.34%
Unallocated General Fund Balance	<u>-</u>	<u>-</u>	<u>-</u>		<u>-</u>	

FUND BALANCE STATEMENTS

CONSOLIDATED SUMMARY - INTRAGOVERNMENTAL SERVICE FUNDS

	Beginning Balance	Revenues	Expenditures	Ending Balance	Change in Balance
Revenue Fund	-	\$40,166,666	(\$40,166,666)	-	-
Bond Service Fund	0	8,047,262	(8,047,262)	0	-
General Fund	<u>17,284,220</u>	<u>28,560,442</u>	<u>(27,412,700)</u>	<u>18,431,962</u>	<u>1,147,742</u>
Total	<u>\$17,018,861</u>	<u>\$76,774,370</u>	<u>(\$75,626,628)</u>	<u>\$18,166,603</u>	<u>\$1,147,742</u>

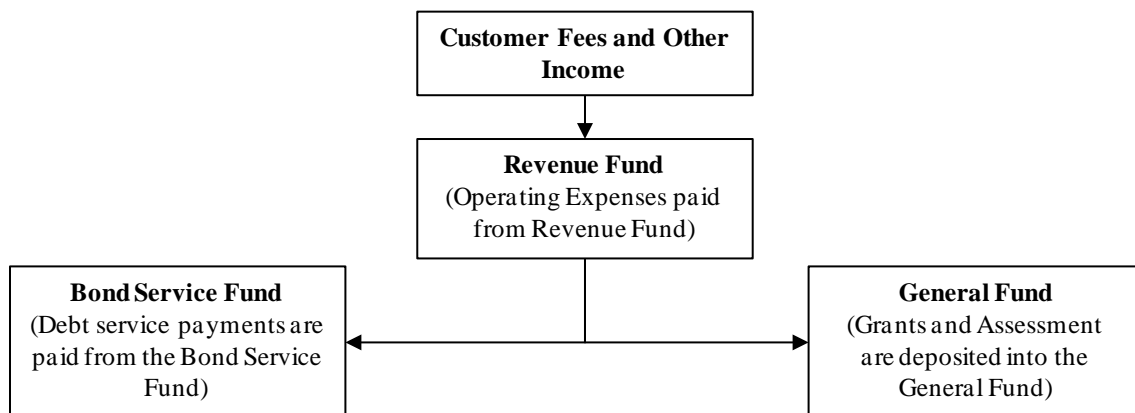
OWASA's Fund Accounting Structure

The Budget Ordinance reflects inflows and outflows of economic resources that represent activities related to the General Fund. Other funds presented here are either required contractually or are sub-accounts of the General Fund. Because of the close relationship of these funds to the General Fund, the following Fund Statements are included as attachments to the Budget Ordinance and are adopted as such. All funds, unrestricted and restricted, are treated as a part of the General Fund in OWASA's audited financial statements.

In accordance with OWASA's Amended and Restated Bond Order, Series 2001, all revenues from the operation of the water and wastewater system are deposited into the Revenue Fund except for grants and assessment proceeds which are earmarked for other purposes. Revenues are first applied to the payment of current expenses and then to the repayment of outstanding debt. Any excess amounts above the cost of current operations and debt service are available for capital improvements and may be transferred, upon certification to the Trustee, to the General Fund. The Revenue Fund is administered by OWASA.

The Bond Service Fund is established by the Amended and Restated Bond Order, Series 2001 and serves as the mechanism for repaying the current portion of long-term debt. The Bond Order requires that the total of any principal and interest payments on long-term debt be transferred to the Bond Service Fund no later than 45 working days prior to the due date of such payments. This Fund is comprised of restricted assets and is administered by the Bond Trustee.

Establishment of the General Fund is required by statute and is administered by OWASA. Monies in the General Fund may be used for any lawful purpose and, in addition to bond proceeds, are OWASA's primary source to pay for capital improvements. Interest earnings in the General Fund are considered debt-pledged revenue and are to be transferred to the credit of the Revenue Fund. The following flowchart shows the interrelationship of the funds.



Financial Reserves

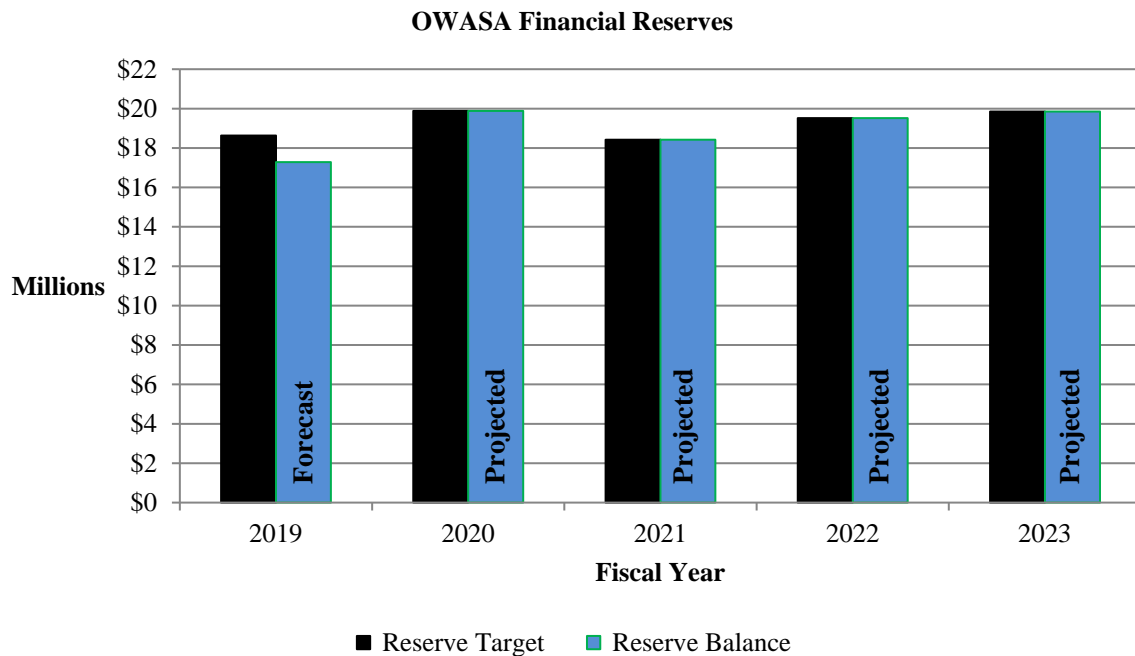
OWASA’s *Financial Management Policy* (see Section III) includes certain financial performance objectives which are intended to help management and other stakeholders monitor the organization’s financial condition. One of the objectives is to maintain adequate financial reserves and OWASA has established a minimum financial reserve target consisting of the following:

Working Capital Reserve – The greater of four months of operating expenses or 20% of the succeeding three years CIP budget.

Capital Improvements Reserve – At least 2% of depreciated capital assets. As of the end of FY 2018, 2% of depreciated capital assets was about \$5.7 million. We are contributing \$400,000 per year to this reserve until the target is met. This fund was established in FY 2009 and is projected to have a balance of \$4.4 million at the end of FY 2020.

Rate/Revenue Stabilization – At least 5% of projected water and wastewater revenue. The balance in this reserve is projected to be about \$1.9 million at the end of FY 2020.

The graph below depicts the combined balance of the Working Capital, Capital Improvements, and Rate/Revenue Stabilization Reserve funds compared to the target.



FUND BALANCE STATEMENTS

REVENUE FUND

	<u>Water</u>	<u>Sewer</u>	<u>Total</u>
Fund Balance July 1, 2019			-
Receipts			
Operating Revenue			
Customer Billings	\$19,144,421	\$18,157,612	\$37,302,033
Reclaimed Water	458,820	-	458,820
Service Initiation Fee	76,964	76,964	153,928
Other	484,584	484,584	969,168
Refunds and Adjustments	(106,287)	(106,286)	(212,573)
Total Operating Revenue	20,058,502	18,612,874	38,671,376
Non-operating Revenue			
Customer Fees	634,836	814,051	1,448,887
Interest Income	23,202	23,201	46,403
Total Non-operating Revenue	658,038	837,252	1,495,290
Total Receipts	20,716,540	19,450,126	40,166,666
Expenditures			
Current Expense	(12,177,627)	(11,381,335)	(23,558,962)
Debt Service	(4,753,142)	(3,294,120)	(8,047,262)
Total Expenditures	(16,930,769)	(14,675,455)	(31,606,224)
Net Revenue			8,560,442
To General Fund			(8,560,442)
Fund Balance June 30, 2020			-
Change in Available Balance			-

FUND BALANCE STATEMENTS

BOND SERVICE FUND

Fund Balance July 1, 2019		-
Receipts		
Transfers from Revenue Fund	\$8,047,262	
Interest	<u> </u>	
Total Receipts		\$8,047,262
Expenditures		
Debt Service	<u>8,047,262</u>	
Total Expenditures		<u>(8,047,262)</u>
Fund Balance June 30, 2020		<u>-</u>
Change in Available Balance		<u><u>-</u></u>

FUND BALANCE STATEMENTS

GENERAL FUND

Fund Balance July 1, 2019		\$17,284,220
Receipts		
Transfer from Revenue fund	8,560,442	
Transfer from Construction Fund (Loan Proceeds)	20,000,000	
Interest	-	
Assessments	-	
Grants and contributions	-	
	<hr/>	
Total Receipts		<hr/> 28,560,442
Total Balance Before Expenditures		45,844,662
Expenditures		
Capital Equipment/Leases	989,700	
Project Resolutions	26,423,000	
Transfer to Revenue Fund	0	
	<hr/>	
Total Expenditures		<hr/> (27,412,700)
Fund Balance June 30, 2020		<hr/> <hr/> \$18,431,962
Allocation of Fund Balance June 30, 2020		
Project Funding	(1,453,940)	
Capital Reserves	19,885,902	
	<hr/>	
Total Allocation		<hr/> <hr/> \$18,431,962
Unallocated General Fund Balance June 30, 2020		<hr/> -
Change in Available Balance		<hr/> <hr/> \$0

FUNDS FLOW STATEMENT

Revenue Fund

Operating Revenue	\$38,671,376	
Customer Fees	1,448,887	
Interest Income	<u>46,403</u>	
Total Revenues		40,166,666
Operating and Maintenance Expense	(23,558,962)	
Bond Service Fund (transfers to)	<u>(8,047,262)</u>	
Total Expenditures		<u>(31,606,224)</u>
Excess operating revenue (to be transferred to the General Fund)		8,560,442

General Fund

Beginning Balance July 1, 2018	17,284,220	
Transfer from Revenue Fund	8,560,442	
Assessments	0	
Grants and Contributions	<u>0</u>	
Total General Fund Balance (available for allocation)		25,844,662
Construction Fund - Loan Proceeds		20,000,000
Total General Fund and Loan Proceeds		45,844,662
Project Resolutions	26,423,000	
Capital Equipment and Leases	<u>989,700</u>	
Total General Fund Expenditures		27,412,700
General Fund Ending Balance June 30, 2019		<u><u>\$18,431,962</u></u>
Project Resolutions	(1,453,940)	
Reserves	<u>19,885,902</u>	
Total Allocation of General Fund Balance		<u><u>\$18,431,962</u></u>

PLANNED OPERATING EXPENDITURES

EXPENDITURES BY CATEGORY

Category	FY18 Actual	FY19 Budget	FY19 Forecast	FY19 Forecast to FY19 Budget Variance	FY20 Budget	FY20 Budget to FY19 Forecast Variance
Personnel	\$12,254,854	\$12,520,274	\$12,316,838	-1.6%	\$12,675,353	2.9%
Chemicals	2,576,434	2,235,122	2,371,234	6.1%	2,608,968	10.0%
Materials & Supplies	663,977	758,331	814,205	7.4%	739,311	-9.2%
Utilities	1,558,022	1,696,703	1,808,544	6.6%	1,681,700	-7.0%
Maintenance	2,886,588	3,065,911	3,124,653	1.9%	3,517,329	12.6%
Professional Services	1,317,702	1,641,677	1,735,684	5.7%	1,596,696	-8.0%
Communication	190,255	183,487	244,400	33.2%	265,561	8.7%
Printing & Reproduction	4,485	10,850	9,950	-8.3%	10,300	3.5%
Education and Development	101,937	173,830	158,610	-8.8%	184,616	16.4%
Other	322,996	397,796	408,602	2.7%	469,128	14.8%
Total	21,877,250	22,683,981	22,992,720	1.4%	23,748,962	3.3%
Construction Credits	(262,891)	(160,000)	(197,603)	23.5%	(190,000)	-3.8%
Net Expense	\$21,614,359	\$22,523,981	\$22,795,117	1.2%	\$23,558,962	3.4%

**EXPENDITURES BY DIVISION
FISCAL YEAR 2020**

	General and Administrative	Operating Departments	Total Budget
Personnel	\$5,338,630	\$7,336,723	\$12,675,353
Chemicals		2,608,968	2,608,968
Materials & Supplies	136,664	602,646	739,310
Utilities	194,400	1,487,300	1,681,700
Maintenance	430,903	3,086,426	3,517,329
Professional Services	1,404,736	191,960	1,596,696
Communication	245,146	20,415	265,561
Printing & Reproduction	6,800	3,500	10,300
Education and Development	110,575	74,041	184,616
Other	257,880	211,249	469,129
Total	\$8,125,734	\$15,623,228	\$23,748,962
Construction Credits	(70,000)	(120,000)	(190,000)
Net Expense	\$8,055,734	\$15,503,228	\$23,558,962

PLANNED OPERATING EXPENDITURES

GENERAL AND ADMINISTRATIVE

Category	FY18 Actual	FY19 Budget	FY19 Forecast	FY19 Forecast to FY19 Budget Variance	FY20 Budget	FY20 Budget to FY19 Forecast Variance
Executive Director						
Personnel Costs	\$853,816	\$873,495	\$879,461	0.7%	\$941,889	7.1%
Operating Expenditures	617,530	496,780	593,743	19.5%	730,676	23.1%
Total Expenditures	1,471,346	1,370,275	1,473,204	7.5%	1,672,565	13.5%
Customer Service						
Personnel Costs	656,278	651,917	661,311	1.4%	664,746	0.5%
Operating Expenditures	150,312	155,500	166,728	7.2%	166,000	-0.4%
Total Expenditures	806,590	807,417	828,038	2.6%	830,746	0.3%
Engineering						
Personnel Costs	1,666,393	1,724,393	1,696,776	-1.6%	1,875,019	10.5%
Operating Expenditures	99,727	267,900	225,766	-15.7%	286,695	27.0%
Total Expenditures	1,766,120	1,992,293	1,922,542	-3.5%	2,161,714	12.4%
Human Resources						
Personnel Costs	535,490	667,642	603,899	-9.5%	725,646	20.2%
Operating Expenditures	227,293	458,250	589,522	28.6%	409,850	-30.5%
Total Expenditures	762,783	1,125,892	1,193,421	6.0%	1,135,496	-4.9%
Finance						
Personnel Costs	536,304	534,287	534,529	0.0%	549,026	2.7%
Operating Expenditures	445,279	420,322	415,819	-1.1%	332,530	-20.0%
Total Expenditures	981,583	954,609	950,348	-0.4%	881,556	-7.2%
Information Technology						
Personnel Costs	597,382	594,757	581,252	-2.3%	582,305	0.2%
Operating Expenditures	639,172	752,748	795,673	5.7%	861,352	8.3%
Total Expenditures	1,236,554	1,347,505	1,376,925	2.2%	1,443,657	4.8%
Total G&A	7,024,976	7,597,991	7,744,479	1.9%	8,125,734	4.9%
Construction Credit	(\$123,422)	(\$70,000)	(\$75,042)	7.2%	(\$70,000)	-6.7%
Net Expense	\$6,901,554	\$7,527,991	\$7,669,437	1.9%	\$8,055,734	5.0%

PLANNED OPERATING EXPENDITURES

OPERATING DEPARTMENTS

Category	FY18 Actual	FY19 Budget	FY19 Forecast	FY19 Forecast to FY19 Budget Variance	FY20 Budget	FY20 Budget to FY19 Forecast Variance
Water Supply & Treatment						
Personnel Costs	\$2,018,440	\$1,946,733	\$1,903,895	-2.2%	\$2,050,724	7.7%
Operating Expenditures	3,438,677	3,295,588	3,258,850	-1.1%	3,420,364	5.0%
Total Expenditures	5,457,117	5,242,321	5,162,745	-1.5%	5,471,088	6.0%
Water Distribution						
Personnel Costs	2,523,010	2,594,153	2,579,167	-0.6%	2,433,061	-5.7%
Operating Expenditures	815,633	820,561	859,730	4.8%	936,661	8.9%
Total Expenditures	3,338,643	3,414,714	3,438,897	0.7%	3,369,722	-2.0%
Wastewater Treatment						
Personnel Costs	2,084,954	2,103,226	2,089,447	-0.7%	2,029,030	-2.9%
Operating Expenditures	2,630,788	2,907,618	3,187,506	9.6%	3,266,337	2.5%
Total Expenditures	4,715,742	5,010,844	5,276,953	5.3%	5,295,367	0.3%
Wastewater Collection						
Personnel Costs	782,787	796,040	787,103	-1.1%	823,908	4.7%
Operating Expenditures	557,985	588,442	582,545	-1.0%	663,143	13.8%
Total Expenditures	1,340,772	1,384,482	1,369,648	-1.1%	1,487,051	8.6%
Total Operating Departments	14,852,274	15,052,360	15,248,242	1.3%	15,623,228	2.5%
Construction Credit	(139,469)	(90,000)	(122,561)	36.2%	(120,000)	-2.1%
Net Expense	\$14,712,805	\$14,962,360	\$15,125,681	1.1%	\$15,503,228	2.5%

PLANNED CAPITAL EQUIPMENT EXPENDITURES

FISCAL YEAR 2020

Capital Equipment Summary

Vehicles and heavy equipment	\$282,500
Survey equipment	26,500
Generators	35,000
Computer equipment	140,000
Pumping equipment	190,000
Laboratory equipment	32,000
Biosolids tankers	225,000
Sewer inspection camera equipment	21,700
Utility tractor	37,000
	<hr/>
Total	<u>\$989,700</u>

Definition of Capital Equipment Expenditures

Expenditures budgeted to purchase or add to fixed assets with an estimated useful life greater than one year and costing \$5,000 or more

DEBT SERVICE FOR FISCAL YEARS 2020-2039

Schedule of Existing Long-term Bonds and Loans

	Issue Dates	Interest Rates (Avg. Coupon)	Outstanding at 06/30/18
Series 2010 Revenue Refunding Bonds	9/30/2010	4.887%	\$12,185,000
Series 2014 Revenue Refunding Bonds	12/18/2014	4.488%	13,375,000
Series 2015 Revenue Refunding Bonds	7/1/2015	1.960%	1,420,000
Series 2018 Revenue Refunding Bonds	5/1/2018	3.746%	18,075,000
Total Bonded Debt			\$45,055,000
Loan from the State of North Carolina	10/4/2014	0%	\$4,920,000
Loans from the State of North Carolina	Various	1.53%	7,156,441
			\$12,076,441

Schedule of Existing and Potential Annual Debt Service

Fiscal Year Ending June 30	Existing Debt Service	Potential Debt Service (Estimated)	Total Existing and Potential Debt Service
2020	\$6,938,072	\$1,109,190	\$8,047,262
2021	6,537,653	1,628,262	8,165,915
2022	6,644,910	2,936,171	9,581,081
2023	6,696,168	3,232,024	9,928,192
2024	6,749,175	4,965,436	11,714,611
2025	6,788,182	4,967,753	11,755,935
2026	6,798,190	6,676,610	13,474,799
2027	4,836,522	6,678,927	11,515,448
2028	4,839,904	8,688,054	13,527,958
2029	4,839,461	8,690,371	13,529,833
2030	2,238,319	9,885,784	12,124,103
2031	2,228,676	9,888,101	12,116,777
2032	782,033	11,593,722	12,375,755
2033	775,791	11,596,038	12,371,829
2034	769,548	15,988,561	16,758,109
2035	435,305	16,322,804	16,758,109
2036	429,063	16,329,046	16,758,109
2037	422,820	16,335,289	16,758,109
2038	416,577	16,341,532	16,758,109
2039	153,752	16,604,357	16,758,109
Total	\$70,320,121	\$190,458,032	\$260,778,153

Potential Debt

Based on OWASA's long-range financial plan, there is a potential need for bond financing of capital improvements in future years. The "potential debt service" shown above relates to this potential need.

Debt Coverage

OWASA’s Bond Order requires a minimum annual required Debt Service Coverage Ratio of 1.2. The minimum annual debt service coverage ratio shall be 2.0; provided, however, that the minimum coverage ratio for any single year when severe weather anomalies or other unforeseen circumstances occur which negatively impact revenues and/or expenses shall not be less than 1.5 during the Fiscal Year.

CAPITAL IMPROVEMENTS PROGRAM BUDGET

Capital Improvements Program (CIP) expenditures are defined as those that pay for the addition, rehabilitation, and replacement of OWASA-owned water, wastewater, and reclaimed water system infrastructure and other depreciable assets. In general, CIP projects are identified as those projects that exceed \$10,000 in value and provide a system component that has an expected service life of at least five years. The five-year CIP is reviewed and updated annually.

CIP needs are identified by hydraulic models, risk/prioritization models, OWASA’s Energy Management Program, master planning studies, condition assessment, staff observations, regulatory or contractual requirements, repair and maintenance work order evaluation, community feedback, and strategic planning. After CIP projects are identified, a staff team prioritizes projects using a weighted criteria model. In addition to the results of this project prioritization, staff accounts for project interrelationships, coordination with other entities (Towns, Department of Transportation, etc.), project urgency, implementation considerations, and other external schedule constraints.

The FY 2020-2024 CIP budget totals almost \$113 million. The Board has approved a CIP budget for FY 2020 for over 50 projects totaling \$26,423,000.

We are confident that the level of investment presented in this CIP leaves OWASA well-positioned to remain the sustainable, responsible, and environmentally focused organization that our community expects.

The projects listed below have been identified for funding in FY 2020.

CAPITAL IMPROVEMENTS PROJECTS FUNDED IN FY 2019

Project Description	Purpose of Project	Amount
Raw Water Supplies		
Annual payment to preserve OWASA's Level II Jordan Lake storage allocation	Our Jordan Lake storage allocation serves as insurance against future water shortages	\$10,000
Quarry Reservoir Development – annual contribution to a no-fault well repair fund	Required by Special Use Permit	15,000
University Lake pump station improvements	Replacement of system due to age and condition	981,000
Cane Creek pump station improvements		10,000
University Lake sodium permanganate facility	Replace aging assets and reduce operational and safety risk	35,000
Cane Creek raw water transmission main capacity study	Condition assessment of raw water main	50,000
Water Transmission and Distribution		
Near-term Funding for Water Facility Assets	Replacement of facilities due to age and condition	80,000
Fordham Service Road water main replacement	Construction along service road south of Fordham Boulevard; being coordinated with adjacent development	864,000

Project Description	Purpose of Project	Amount
High priority water main replacement program	Construction of Pritchard Avenue water main, and the start of construction for Manning Drive water main and Country Club Road water main	5,813,000
Dobbins Drive water main condition assessment	Inspection and analysis of the water main	750,000
West Cameron Avenue water main replacement	Planning, design, and construction; majority of construction to occur in subsequent year	150,000
Water distribution system hydraulic model	Analysis of the water distribution system	150,000
Galvanized water main replacements	Programmatic replacement of most of the galvanized water mains in our system due to frequent breaks	200,000
Distribution system prioritization model	Comprehensive overhaul of prioritization model used to determine distribution system rehabilitation	345,000
Distribution system sampling stations	Additional sampling sites to improve water quality monitoring capabilities for the distribution system	60,000
Kensington Drive water main replacement	Rehabilitation due to age and condition	521,000
Near-term Funding for Water Distribution System Improvements	Replacement of facilities due to age and condition	400,000
Reimbursement for Distribution System Improvements	Reimburse other entities (NCDOT, Town of Chapel Hill, Town of Carrboro, private developers) for constructing improvements to the distribution system at OWASA's request in conjunction with external projects.	48,000
Jones Ferry Road Water Main Replacements	Replacement due to age, condition and design	300,000
Bolinwood Bridge Water Main Replacement	Replacement due to damage from high-water event	50,000
Westwood Neighborhood Water and Sewer Rehabilitation	Replacement due to age and condition	50,000
Water Treatment and Supply		
WTP belt filter press replacement	Replacement due to age and condition	350,000
WTP concrete condition assessment	Comprehensive and prioritized evaluation of concrete facilities	100,000
WTP sedimentation basin rehabilitation	Rehabilitation due to age and condition	1,190,000
WTP finished water pump improvements	Improvements to pumps, motors and electrical components	250,000
WTP chemical facility upgrades	Upgrades to chemical feed systems to improve reliability and treatment	555,000

Project Description	Purpose of Project	Amount
WTP and WWTP SCADA master plan	Replacement of critical process control equipment	25,000
HVAC replacement	Age, condition, and energy efficiency-based equipment replacement based on advanced energy audit	150,000
WTP Electrical Distribution Improvements	Convert the remainder of plant electrical distribution system to an updated voltage standard (a majority of the system already uses the updated standard) and to provide closed transition transfer capabilities for generators	50,000
Repair/Rehabilitation of WTP Front Entry	Replace the structural support walls for the staircase at the entrance to the water treatment plant	35,000
Wastewater Collection, Treatment and Disposal		
Sanitary sewer rehabilitation	Design and rehabilitation of deteriorated wastewater mains and manholes	3,081,000
Bolinwood Drive sewer interceptor replacement	Replacement due to age and condition	100,000
Dobbins Drive interceptor replacement	Replacement due to age, condition, and capacity limitations	850,000
Creek Crossing access improvements	Site-work to improve vehicular access as needed to maintain facilities (primarily aerial sewer crossings at creeks and streams)	50,000
Sanitary sewer hydraulic model	Analysis of the wastewater collection system	510,000
Prince Street common service replacement	Replacement of common (shared by more than one property) service lateral that is in poor condition	10,000
Rogerson Drive force main routing study	Initial funding of routing study for future alignment of Rogerson Drive Force Main	75,000
Rogerson Drive pump station rehabilitation	Rehabilitation due to age and condition	894,000
Pump station operational assessments	Motor and pump efficiency assessments at identified pump stations	35,000
Rogerson Drive Force Main Emergency Repair and Rehabilitation	Replacement due to age and condition	1,200,000
Coatings program	Corrosion control of key facility components and structures	75,000
WWTP solids thickening system improvements	Replacement of equipment due to age and condition	3,282,000
WWTP intermediate pump stations rehabilitation/replacement	Rehabilitation due to age and condition	113,000

Project Description	Purpose of Project	Amount
WWTP secondary clarifier rehabilitation	Evaluation of the condition of aging assets	344,000
WWTP fermenter tank and pumping rehabilitation	Cleaning, draining, inspection and recommendations for fermenter tank rehabilitation	112,000
WWTP headworks rehabilitation	Rehabilitation due to age and condition	888,000
WWTP gas monitoring system	Installation of gas monitoring systems to provide continuous air monitoring	90,000
WWTP security improvements	Enhance security of the facility	32,000
WWTP server room improvements	Architectural modifications, and installation of equipment and HVAC to support new technology infrastructure	150,000
Near-term Funding for Wastewater Facilities Rehabilitation	Replacement of facilities due to age and condition	360,000
WWTP Warehouse	Construction of a warehouse to improve tracking, replacement, and access to parts and equipment, including during emergency situations.	25,000
WTP and WWTP Facilities Building Envelope Rehabilitation	Rehabilitation of building envelope systems (roofs, walls, windows, etc.) at a prioritized set of OWASA's buildings and structures as recommended by a FY 2017 condition assessment	50,000
WWTP Chemical Building and Bulk Tank Piping Rehabilitation	Replace severely degraded exterior chemical piping; rehabilitate most components of the chemical feed building, including floor coatings, electrical panel, ventilation system, lighting, and reorientation of chemical feed pump areas and eyewash station	470,000
Offsite Biosolids Storage Improvements	Improve process monitoring capabilities and evaluate potential improvements to the storage tank mixing system	40,000
Total Capital Improvements Projects Funded in FY 2020		\$26,423,000

OWASA CAPITAL IMPROVEMENTS PROGRAM FIVE-YEAR OVERVIEW FOR FY 2020-2024

Project Category:	Annual Totals					5-Year Total
	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2020-24
Raw Water Supply Sources	\$1,231,000	\$2,865,000	1,665,000	1,370,000	170,000	\$7,301,000
Raw Water Transmission	30,000	70,000				100,000
Water Treatment Facilities	3,132,000	6,478,000	5,374,000	2,939,000	2,514,000	20,437,000
Finished Water Pumping	75,000					75,000
Finished Water Storage			100,000			100,000
Water Transmission and Distribution	9,044,000	9,530,000	3,595,000	6,797,000	6,363,000	35,329,000
Wastewater Collection Lines	4,456,000	4,072,000	3,194,000	6,798,000	4,540,000	23,060,000
Wastewater Pump Stations	1,793,000	285,000		300,000		2,378,000
Wastewater Treatment and Disposal	6,662,000	4,639,000	2,250,000	5,783,000	4,561,000	23,895,000
Reclaimed Water Facility Rehabilitation						
Central Office and Operations						
FY 2020 - 2024 CIP	\$26,423,000	\$27,939,000	\$16,178,000	\$23,987,000	\$18,148,000	\$112,675,000

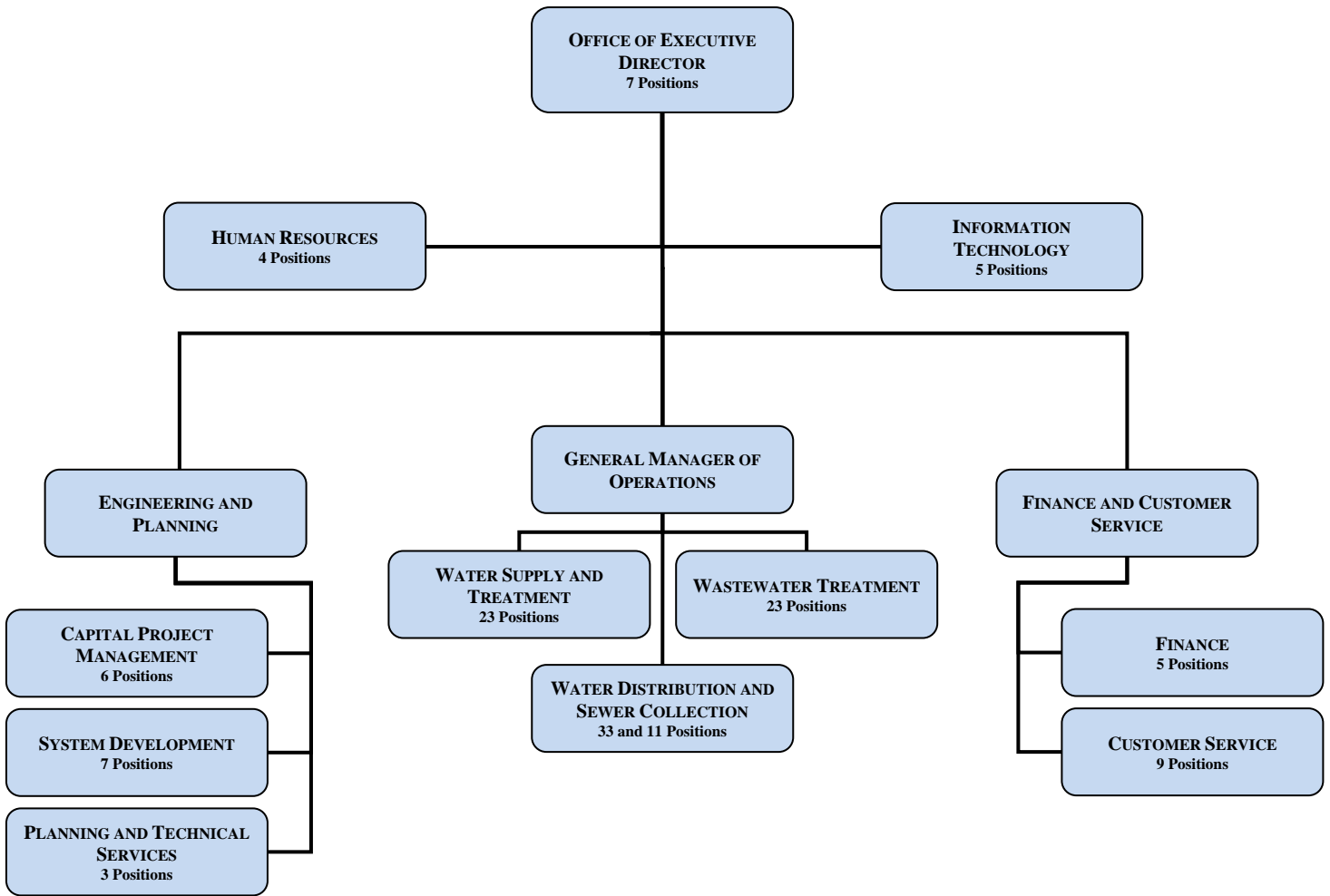
SECTION II

OVERVIEW OF OWASA DEPARTMENTS

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ORANGE WATER AND SEWER AUTHORITY STAFF - DEPARTMENT STRUCTURE

(Number of Positions Funded for FY 2020 Shown)



OFFICE OF EXECUTIVE DIRECTOR

(General and Administrative)

MISSION

Administrative functions include the Board of Directors, Executive Director, and support personnel involved in the general management of OWASA.

The Board of Directors is responsible for policies relating to the management and operations of OWASA in accordance with authority derived from the North Carolina General Statutes, OWASA's Bond Order, OWASA's Bylaws, the 1976 Agreements of Sale and Purchase with the University of North Carolina at Chapel Hill, the Town of Carrboro, and the Town of Chapel Hill, and other legal and organizational documents. The Board sets the overall mission and policies of the organization, appoints the Executive Director, General Counsel, and auditors, and provides oversight and monitoring of OWASA's activities.

The Executive Director is the Chief Administrative Officer responsible for the overall management and supervision of OWASA's services. The Executive Director employs and organizes the staff, assigns responsibilities, and is responsible for carrying out the policies and directives of OWASA. A small support staff provides direct assistance to the Executive Director, including Communications and Community Relations, Sustainability, and Administrative Support.

SUMMARY OF ACTIVITIES

- Provide leadership to ensure that the organization's mission is accomplished.
- Promote and maintain outstanding service and communications with OWASA's customers.
- Provide the Board of Directors timely support and information.
- Ensure that all water, wastewater, and reclaimed water facilities and programs are operated in compliance with all applicable standards.
- Develop, implement, and maintain effective long-term financial, operational and environmental sustainability plans.
- Implement sound fiscal policies, budgets, and controls.
- Provide high-level technical and administrative direction and support for the sustainability and resource management activities throughout the organization.
- Maintain effective coordination, cooperation, and communication with local governments, the University of North Carolina at Chapel Hill, state and federal agencies, and continue involvement in civic, professional, and community activities.
- Promote continued innovation and creativity in providing services effectively, efficiently and sustainably.
- Promote training and development of employees to improve OWASA's services.
- Motivate employees and encourage teamwork throughout the organization.

KEY FOCUS AREAS FOR FY 2020

Strategic Initiative	Objective
Provide High Quality and Reliable Services	<ul style="list-style-type: none">• Support addressing the findings of the recent study of the resiliency and reliability of our infrastructure• Support an integrated strategy for meeting the long-range water needs of the community
Engage the Community	<ul style="list-style-type: none">• Implement the annual communications and engagement plan to partner with stakeholders in meaningful initiatives, share timely and relevant information to inform customers' decision-making, and foster continued public trust and dialogue with the community.• Advance an affordability outreach program focused on reducing water and sewer bills by reducing use
Implement an Energy Management Plan	<ul style="list-style-type: none">• Provide resources to implement the Board-approved plan• Update plan to meet Board-established objectives

OFFICE OF THE EXECUTIVE DIRECTOR

**Three-year Comparison
Fiscal Years 2018 - 2020**

	FY 2018 Actual	FY 2019 Budget	FY19 Budget to FY18 Actual	FY 2019 Forecast	FY19 Forecast to FY19 Budget	FY 2020 Budget	FY20 Budget to FY19 Forecast
Personnel Costs							
Salaries and Wages	\$615,146	\$657,381		\$662,502		\$707,843	
Fringe Benefits	<u>238,670</u>	<u>216,115</u>		<u>216,958</u>		<u>234,047</u>	
Total Personnel Costs	853,816	873,496	2%	879,460	1%	941,890	7%
Other Operating Expense							
Materials and Supplies	4,671	7,925		8,179		7,950	
Utilities	41,337	57,309		56,455		47,100	
Maintenance	0	0		0		0	
Professional Services	483,343	311,000		367,493		458,900	
Communication	43,040	50,787		86,192		111,496	
Printing and Reproduction	433	1,250		1,250		1,250	
Education and Development	15,220	28,530		28,530		22,480	
Other	<u>29,486</u>	<u>39,979</u>		<u>45,645</u>		<u>81,500</u>	
Total Operating Expenditures	617,530	496,780	-20%	593,744	20%	730,676	23%
Total Expenditures	<u>1,471,346</u>	<u>1,370,276</u>	-7%	<u>1,473,204</u>	8%	<u>1,672,566</u>	14%
Construction Credit	(123,422)	(70,000)		(75,042)		(70,000)	
Net Expense	<u>\$1,347,924</u>	<u>\$1,300,276</u>	-4%	<u>\$1,398,162</u>	8%	<u>\$1,602,566</u>	15%

Personnel Summary			
	FY 2018	FY 2019	FY 2020
Positions	6	6	7

CUSTOMER SERVICE
(General and Administrative)

MISSION

The Customer Service Department is responsible for establishing and promoting quality service for OWASA customers. Areas of responsibility include greeting callers and visitors; billing and collecting water, wastewater and reclaimed water accounts, septage accounts, and special assessments; accounting for accounts receivable; investigating water theft; responding to inquiries and requests from customers and others; investigating special circumstances that might account for high consumption or billing irregularities; and support of other departments with analyses and information.

SUMMARY OF ACTIVITIES

- Courteously greet all callers and visitors to OWASA, identifying their needs and providing service.
- Operate and maintain the customer billing system to produce accurate and timely bills.
- Collect and deposit customer and other payments.
- Develop, interpret and administer OWASA policies relating to customer service and billing and collecting accounts.
- Provide reports and technical assistance to the organization regarding sales, collections, accounts and other customer service information.
- Develop the knowledge and skills of employees by providing training.
- Enforce OWASA policies concerning customer service matters.
- Oversee OWASA’s participation in the North Carolina Debt Setoff Program.

KEY FOCUS AREAS FOR FY 2020

Strategic Initiative	Objective
Promote use of Agua Vista’s (OWASA’s automated metering infrastructure system) web portal	<ul style="list-style-type: none"> • Educate customers about useful website features • Solicit customer feedback to enhance customer service and increase customer satisfaction. • <input type="checkbox"/> Encourage customers to register on the portal, update contact details, and complete survey about household water use to improve accuracy of leak alerts
Support the Diversity and Inclusion Program	<ul style="list-style-type: none"> • Provide strategic support toward achieving a diverse workforce and inclusive environment.
Support update of OWASA’s website	<ul style="list-style-type: none"> • Improve information and navigability to enhance customer experience

CUSTOMER SERVICE

**Three-year Comparison
Fiscal Years 2018 - 2020**

	FY 2018 Actual	FY 2019 Budget	FY19 Budget to FY18 Actual	FY 2019 Forecast	FY19 Forecast to FY19 Budget	FY 2020 Budget	FY20 Budget to FY19 Forecast
Personnel Costs							
Salaries and Wages	\$444,730	\$447,983		\$455,661		\$466,809	
Fringe Benefits	<u>211,548</u>	<u>203,934</u>		<u>205,650</u>		<u>197,936</u>	
Total Personnel Costs	656,278	651,917	-1%	661,311	1%	664,745	-1%
Other Operating Expense							
Materials and Supplies	2,054	3,000		3,000		3,000	
Utilities	1,500	1,500		1,500		1,500	
Maintenance	1,240	0		0		0	
Professional Services	27,332	40,000		40,000		40,000	
Communication	56,405	75,000		72,547		75,000	
Printing and Reproduction	0	1,000		600		500	
Education and Development	658	5,000		18,790		15,000	
Other	<u>61,123</u>	<u>30,000</u>		<u>30,291</u>		<u>31,000</u>	
Total Operating Expenditures	150,312	155,500	3%	166,728	7%	166,000	-4%
Total Expenditures	<u>806,590</u>	<u>807,417</u>	0%	<u>828,039</u>	3%	<u>830,745</u>	-2%
Construction Credit	0	0		0		0	
Net Expense	<u>\$806,590</u>	<u>\$807,417</u>	0%	<u>\$828,039</u>	3%	<u>\$830,745</u>	-2%

Personnel Summary			
	FY 2018	FY 2019	FY 2020
Positions	9	9	9

Key Performance Measurements				
	Goal	FY 2017	FY 2018	FY 2019
Workload				
Customer accounts	N/A	21,526	21,585	21,712
Number of calls received	N/A	30,092	29,081	28,818
Effectiveness				
Bill accuracy	100%	99.6%	99.8%	99.8%
Call handle ratio (calls answered vs. calls received)	90%	96%	90%	91%

ENGINEERING AND PLANNING

(General and Administrative)

MISSION

The Engineering and Planning Department is responsible for four primary functions:

1. Management of system development projects, which includes the review of construction plans and inspection of construction to ensure that water and wastewater work accomplished by outside entities (private developers, etc.) is accomplished in accordance with OWASA's Standards and Specifications prior to OWASA taking ownership and assuming operations/maintenance responsibility for these systems;
2. Management of the Capital Improvements Program, which includes execution of design and construction for large-scale repair, renovation, replacement and upgrade projects as necessary to maintain the reliability and efficient operations of OWASA's water, wastewater and reclaimed water infrastructure;
3. Asset management, which includes assessing and prioritizing infrastructure improvements needed to achieve desired customer and environmental service levels, minimizing asset failure, and ensuring long-term viability of water, wastewater and reclaimed water facilities and systems; and
4. Planning, which includes long-range and strategic master planning functions such as demand forecasting, land management and the use of various modeling tools that guide policy and capital investment decisions to ensure OWASA remains capable of meeting the community's current and future utility needs. Planning functions also include the ongoing management and improvement of OWASA's Geographic Information System (GIS) data, including the location and attribute details of underground water, wastewater and reclaimed water infrastructure.

SUMMARY OF ACTIVITIES

- Review construction drawings and inspect construction work performed by third party entities.
- Provide regular updates and revisions of OWASA's standard engineering specifications and procedures.
- Maintain as-built and record drawings for water, wastewater and reclaimed water facilities, support facilities, and utility work accomplished in the service area.
- Produce small-scale in-house designs.
- Complete studies and modeling efforts to determine the engineering and economic feasibility of various approaches to repairing and upgrading OWASA's infrastructure.
- Manage and direct consultant efforts for developing project designs and biddable contract documents and management of contract administrative requirements.
- Develop the five-year Capital Improvements Program.
- Maintain and update the Long-Range Water Supply Plan to ensure a reliable and high-quality supply of water for the community for the next 50 years.
- Direct land management issues including acquisition of utility easements, forestry management and watershed protection.
- Provide engineering support for the operation and maintenance of system infrastructure.
- Maintain the Asset Management Program to assess and prioritize water, wastewater, reclaimed water and support facility infrastructure improvements using system models, renewal/replacement model and prioritization tools.
- Manage and maintain OWASA's GIS that integrates GIS technology with the many operating and business functions of the organization.

KEY FOCUS AREAS FOR FY 2020

Strategic Initiative	Objective
Provide reliable and high-quality supply of water for the next 50 years	<ul style="list-style-type: none">• Update Long-Range Water Supply Plan
Maintain water, wastewater, and reclaimed water systems to ensure service levels are sustained	<ul style="list-style-type: none">• Execute capital improvements program
Forest Management	<ul style="list-style-type: none">• Effectively manage forest assets to fulfill OWASA's mission

ENGINEERING AND PLANNING

**Three-year Comparison
Fiscal Years 2018 - 2020**

	FY 2018	FY 2019	FY19 Budget to FY18 Actual	FY 2019	FY19 Forecast to FY19 Budget	FY 2020	FY20 Budget to FY19 Forecast
	Actual	Budget		Forecast		Budget	
Personnel Costs							
Salaries and Wages	\$1,218,228	\$1,270,789		\$1,254,623		\$1,406,840	
Fringe Benefits	<u>448,165</u>	<u>453,604</u>		<u>442,153</u>		<u>468,179</u>	
Total Personnel Costs	1,666,393	1,724,393	3%	1,696,776	-2%	1,875,019	-2%
Other Operating Expense							
Materials and Supplies	12,691	16,315		15,988		17,115	
Utilities	8,850	9,800		9,625		10,800	
Maintenance	1,889	2,000		1,599		1,500	
Professional Services	42,571	187,500		159,513		192,500	
Communication	557	600		406		650	
Printing and Reproduction	242	2,100		2,100		2,050	
Education and Development	16,685	28,060		18,010		28,545	
Other	<u>16,242</u>	<u>21,525</u>		<u>18,525</u>		<u>33,535</u>	
Total Operating Expenditures	99,727	267,900	169%	225,766	-16%	286,695	-2%
Total Expenditures	<u>1,766,120</u>	<u>1,992,293</u>	13%	<u>1,922,542</u>	-4%	<u>2,161,714</u>	-2%
Construction Credit	0	0		0		0	
Net Expense	<u>\$1,766,120</u>	<u>\$1,992,293</u>	13%	<u>\$1,922,542</u>	-4%	<u>\$2,161,714</u>	-2%

Personnel Summary			
	FY 2018	FY 2019	FY 2020
Positions	15	15	16

Key Performance Measurements				
	Goal	FY 2017	FY 2018	FY 2019
Actual capital project expenditures as a percentage of budget	>90%	71%	127%	83%
Average plan review time (working days)	<15.0	7.5	8.1	7.8
Capital projects communication plans' effectiveness rating (on a scale of 1 to 5 with 5 the highest)	>4.0	4.1	3.4	3.45

HUMAN RESOURCES
(General and Administrative)

MISSION

The Human Resources Department is responsible for managing, creating and administering human resources and safety initiatives. This includes recruiting and selecting new hires; policy compliance and development; benefits administration; compensation and classification policies; employee discipline and rewards; workers' compensation; employee insurance management; and employee records management.

The Human Resources Department monitors changes in state and federal human resource and safety regulations and laws to assure the timely updates and compliance of OWASA's Human Resource and Safety policies and practices. The Department reviews and proposes revisions to employee benefits, classification and pay plans to assure that OWASA remains competitive in the labor market.

The role of the Department is to assure both management and employees that human resource matters are being handled both fairly, equitably, and without discrimination in accordance with good human resource practices and applicable policies, regulations, and laws.

SUMMARY OF ACTIVITIES

- Promote responsive and courteous customer service in all activities.
- Administer the Compensation and Classification Plan for the organization and ensure the compensation and benefits package is competitive.
- Provide a safety program to enhance safety awareness, prevent worker injuries, and promote safe work practices. Manage the workers' compensation and return to work programs.
- Manage the recruitment and selection process to ensure capable candidates for vacant positions.
- Process employee benefit and insurance plans tasks in a timely and appropriate manner.
- Review employee training and development programs.
- Review human resource policies and practices and make recommendations for revisions.
- Encourage uniformity and timeliness in processing performance appraisals.
- Actively promote equal employment/affirmative action objectives.
- Promote good employee relations and a positive working environment.
- Promote the general well-being of the work force through counseling, special personal needs assistance, and advice to employees and managers through available resources.
- Ensure that job applicants are evaluated in accordance with equal opportunity laws and the Americans with Disabilities Act.

KEY FOCUS AREAS FOR FY 2020

Strategic Initiative	Objective
Evaluate employee compensation, benefits, and performance evaluation systems and implement improvements	<ul style="list-style-type: none"> • Maintain OWASA's pay for performance system
Implement Advanced Metering Infrastructure	<ul style="list-style-type: none"> • Provide key human resource support for implementing of system
Diversity and Inclusion	<ul style="list-style-type: none"> • The diversity of OWASA's workforce reflects the communities we serve. • Inclusive work environment for everyone that encourages and supports each Team member to contribute to their full ability towards OWASA's mission.

HUMAN RESOURCES

**Three-year Comparison
Fiscal Years 2018 - 2020**

	FY 2018 Actual	FY 2019 Budget	FY19 Budget to FY18 Actual	FY 2019 Forecast	FY19 Forecast to FY19 Budget	FY 2020 Budget	FY20 Budget to FY19 Forecast
Personnel Costs							
Salaries and Wages	\$216,204	\$293,315		\$258,538		\$292,767	
Fringe Benefits	<u>319,286</u>	<u>374,327</u>		<u>345,361</u>		<u>432,879</u>	
Total Personnel Costs	535,490	667,642	25%	603,899	-10%	725,646	-2%
Other Operating Expense							
Materials and Supplies	2,094	7,000		6,700		8,500	
Utilities	1,500	2,650		2,650		2,800	
Maintenance	0	0		0		400	
Professional Services	130,356	342,500		450,847		270,250	
Communication	70,946	36,000		59,522		54,000	
Printing and Reproduction	158	1,000		1,000		1,000	
Education and Development	652	10,100		9,804		12,900	
Other	<u>21,587</u>	<u>59,000</u>		<u>59,000</u>		<u>60,000</u>	
Total Operating Expenditures	227,293	458,250	102%	589,523	29%	409,850	-2%
Total Expenditures	<u>762,783</u>	<u>1,125,892</u>	48%	<u>1,193,422</u>	6%	<u>1,135,496</u>	-2%
Construction Credit	0	0		0		0	
Net Expense	<u>\$762,783</u>	<u>\$1,125,892</u>	48%	<u>\$1,193,422</u>	6%	<u>\$1,135,496</u>	-2%

Personnel Summary			
	FY 2018	FY 2019	FY 2020
Positions	3	4	4

Key Performance Measurements				
	Goal	FY 2017	FY 2018	FY 2019
Vacancies as a percentage of total authorized positions	<8.0%	9.3%	10.0%	10.5%
At fault EEOC complaints	0	0	0	0
Diversity percentages				
Racial minorities	25-30%	26%	26%	27%
Female gender	25-30%	22%	23%	25.4%
Number of injuries, illnesses or lost workdays compared to a common exposure base of 100 full-time workers	<3.5	1.5	3.0	4.67

FINANCE

(General and Administrative)

MISSION

The Finance Department is responsible for maintaining the fiscal affairs of OWASA in a professional manner and consistent with generally accepted accounting principles and statutory requirements. Areas of responsibility include accounts payable, accounts receivable, general ledger, asset records, cash investment, payroll, cost accounting, purchasing, budget development, revenue and expenditure forecasting, grants management, and financial reporting. The Finance Department is also responsible for oversight and coordination of studies of rates and fees, and the issuance of revenue bonds.

Data recorded and maintained by the Finance Department provides decision-support for the Board of Directors, Executive Director, and department managers.

SUMMARY OF ACTIVITIES

- Promote responsive and courteous customer service in all activities.
- Manage OWASA’s cash and investments to optimize return while maintaining adequate liquidity to meet expenditures in a timely manner.
- Process invoices timely and accurately taking advantage of discounts for payments and maintaining effective relationships with vendors.
- Process payroll accurately and timely.
- Provide prompt and accurate management reports.
- Maintain OWASA’s 15-year financial plan.
- Develop annual budget.
- Monitor budget performance.
- Maintain general ledger and related subsidiary ledgers.
- Maintain a reliable and timely cost accounting system.
- Administer the *Financial Management Policy*.
- Review adequacy of rates and fees to generate necessary revenues to support a fiscally sound organization.

KEY FOCUS AREAS FOR FY 2020

Strategic Initiative	Objective
Issue revenue bonds and/or secure low-interest loans from the state of North Carolina	<ul style="list-style-type: none">• Fund capital improvements program
Evaluate proposals from banking institutions and select organization to engage	<ul style="list-style-type: none">• Successfully meet OWASA’s banking services needs for the next five to ten years
Support the Diversity and Inclusion Program	<ul style="list-style-type: none">• Make improvements in service excellence, achieving a diverse workforce and providing an inclusive environment.

FINANCE

**Three-year Comparison
Fiscal Years 2018 - 2020**

	FY 2018 Actual	FY 2019 Budget	FY19 Budget to FY18 Actual	FY 2019 Forecast	FY19 Forecast to FY19 Budget	FY 2020 Budget	FY20 Budget to FY19 Forecast
Personnel Costs							
Salaries and Wages	\$400,819	\$401,044		\$401,602		\$417,017	
Fringe Benefits	<u>135,485</u>	<u>133,243</u>		<u>132,927</u>		<u>132,009</u>	
Total Personnel Costs	536,304	534,287	0%	534,529	0%	549,026	-2%
Other Operating Expense							
Materials and Supplies	6,407	11,500		10,515		11,500	
Utilities	5,764	5,500		5,499		5,500	
Maintenance	0	0		0		0	
Professional Services	410,061	379,877		379,121		294,086	
Communication	6,693	4,000		4,000		4,000	
Printing and Reproduction	3,204	2,000		1,500		2,000	
Education and Development	8,683	11,600		9,406		9,600	
Other	<u>4,467</u>	<u>5,845</u>		<u>5,779</u>		<u>5,845</u>	
Total Operating Expenditures	445,279	420,322	-6%	415,820	-1%	332,531	-2%
Total Expenditures	<u>981,583</u>	<u>954,609</u>	-3%	<u>950,349</u>	0%	<u>881,557</u>	-2%
Construction Credit	0	0		0		0	
Net Expense	<u>\$981,583</u>	<u>\$954,609</u>	-3%	<u>\$950,349</u>	0%	<u>\$881,557</u>	-2%

Personnel Summary			
	FY 2018	FY 2019	FY 2020
Positions	6	5	5

Key Performance Measurements				
	Goal	FY 2017	FY 2018	FY 2019
Working capital reserve	\$12.9M (FY19)	\$19.5M	\$9.6M	\$11.5M
Debt service coverage ratio	2.0	2.4	2.3	2.1
Debt to asset value	≤50	23	21	24
Service affordability	1.5	1.4	1.4	1.4

M = million

INFORMATION TECHNOLOGY

(General and Administrative)

MISSION

The Information Technology (IT) Department is responsible for developing and supporting OWASA's computer, telecommunications, and office systems through high quality service to internal and external customers; improved coordination, productivity, and efficiency among OWASA departments and work groups; and reliable access to high quality information that supports decision-making at all levels of the organization.

SUMMARY OF ACTIVITIES

- Promote responsive and courteous customer service in all activities.
- IT functions are carried out through planning, procurement, installation, maintenance, and staff training in the following areas: Local Area Network (LAN) management, office and business process automation, personal computing, data transmission, radio communication, telephone, voicemail, mobile phones, office equipment (fax, copiers, and printers).
- Develop, maintain, and implement a long-range plan for the effective and efficient use of technology for information systems throughout the organization.
- IT serves as OWASA's clearinghouse for assessing organization-wide information service needs and priorities, and allocates technology resources accordingly through the acquisition, modification, and/or re-assignment of hardware and software, and through recommendations for staff training. IT establishes appropriate technology standards, specifications, security levels, and procedures for OWASA's information system.

KEY FOCUS AREAS FOR FY 2020

Strategic Initiative	Objective
American Water Infrastructure Act of 2018	<ul style="list-style-type: none">• Utilizing the AWWA Cybersecurity Guidance Tool, conduct a cybersecurity risk assessment and develop a list of recommendations• Support the OWASA Risk and Resilience Assessment and development of the Emergency Response Plan
Improve on-site information technology infrastructure	<ul style="list-style-type: none">• Complete construction of WWTP server room and relocate IT infrastructure to new sever room
Microsoft Azure	<ul style="list-style-type: none">• Establish a cloud presence utilizing Microsoft Azure to improve resiliency and business continuity
Cybersecurity	<ul style="list-style-type: none">• Implement Security-as-a-Service to improve network security

INFORMATION TECHNOLOGY

**Three-year Comparison
Fiscal Years 2018 - 2020**

	FY 2018 Actual	FY 2019 Budget	FY19 Budget to FY18 Actual	FY 2019 Forecast	FY19 Forecast to FY19 Budget	FY 2020 Budget	FY20 Budget to FY19 Forecast
Personnel Costs							
Salaries and Wages	\$438,525	\$439,118		\$430,393		\$439,045	
Fringe Benefits	<u>158,857</u>	<u>155,639</u>		<u>150,860</u>		<u>143,260</u>	
Total Personnel Costs	597,382	594,757	0%	581,253	-2%	582,305	-2%
Other Operating Expense							
Materials and Supplies	86,772	97,300		95,426		88,600	
Utilities	134,240	133,690		143,021		126,700	
Maintenance	324,972	342,105		402,586		429,003	
Professional Services	24,682	115,000		87,225		149,000	
Communication	0	0		0		0	
Printing and Reproduction	0	0		0		0	
Education and Development	19,752	21,890		21,646		22,050	
Other	<u>48,754</u>	<u>42,763</u>		<u>45,768</u>		<u>46,000</u>	
Total Operating Expenditures	639,172	752,748	18%	795,672	6%	861,353	-2%
Total Expenditures	<u>1,236,554</u>	<u>1,347,505</u>	9%	<u>1,376,925</u>	2%	<u>1,443,658</u>	-2%
Construction Credit	0	0		0		0	
Net Expense	<u>\$1,236,554</u>	<u>\$1,347,505</u>	9%	<u>\$1,376,925</u>	2%	<u>\$1,443,658</u>	-2%

Personnel Summary			
	FY 2018	FY 2019	FY 2020
Positions	5	5	5

WATER SUPPLY AND TREATMENT

(Operating)

MISSION

The Water Supply and Treatment Department is responsible for providing high quality drinking water to OWASA customers. Departmental functions include operation and maintenance of three water supply reservoirs, public recreation facilities at two lakes, the Jones Ferry Road Water Treatment Plant, water treatment solids processing and recycling facilities, and five elevated storage tanks. The department also administers watershed protection programs.

SUMMARY OF ACTIVITIES

- Efficiently and effectively operate the water treatment, laboratory, and maintenance programs in compliance with federal and state regulations and requirements while providing high quality drinking water to OWASA customers.
- Provide timely analytical monitoring data for process control and regulatory reporting.
- Maintain a computerized maintenance management program to facilitate work scheduling, track equipment history and reliability, and maintain a database of suppliers and parts for equipment to support asset management.
- Respond to weekend and after-hours water and wastewater emergency calls from OWASA customers in a courteous and timely fashion and dispatch appropriate personnel to resolve customer problems.
- Provide responsive and courteous service to address water quality concerns raised by customers.
- Enhance customer awareness of watershed protection and water treatment by conducting facility tours and providing general information relating to water quality and treatment.
- Operate and maintain the recreational facilities at University Lake and Cane Creek Reservoir in a courteous and friendly manner.
- Reinforce the teamwork approach required to accomplish the Department's objectives.
- Oversee and manage OWASA-owned land and conservation easements in the University Lake and Cane Creek watersheds.

KEY FOCUS AREAS FOR FY 2020

Strategic Initiative	Objective
Provide reliable and high-quality supply of water for the next 50 years	<ul style="list-style-type: none">• Maintain Partnership for Safe Water Phase IV objectives• Continue strong emphasis on the development and training of employees to improve knowledge, skills, and abilities• Maintain continuous compliance with state and federal drinking water standards• Complete conventional sedimentation basin concrete rehabilitation project• Complete upgrades to finished water pump station• Rehabilitate University Lake raw water pump station
Support the Diversity and Inclusion Program	<ul style="list-style-type: none">• Make improvements in service excellence, achieving a diverse workforce and inclusive environment

WATER SUPPLY AND TREATMENT

**Three-year Comparison
Fiscal Years 2018 - 2020**

	FY 2018 Actual	FY 2019 Budget	FY19 Budget to FY18 Actual	FY 2019 Forecast	FY19 Forecast to FY19 Budget	FY 2020 Budget	FY20 Budget to FY19 Forecast
Personnel Costs							
Salaries and Wages	\$1,377,591	\$1,344,377		\$1,314,408		\$1,457,662	
Fringe Benefits	<u>640,849</u>	<u>602,356</u>		<u>589,487</u>		<u>593,062</u>	
Total Personnel Costs	2,018,440	1,946,733	-4%	1,903,895	-2%	2,050,724	-2%
Other Operating Expense							
Materials and Supplies	210,714	218,209		215,144		210,834	
Chemicals	1,613,128	1,307,650		1,307,346		1,573,336	
Utilities	448,265	384,840		385,143		378,045	
Maintenance	1,002,399	1,084,380		1,063,460		1,079,515	
Professional Services	78,380	153,000		146,032		84,000	
Communication	1,535	4,000		4,842		3,200	
Printing and Reproduction	0	0		0		0	
Education and Development	9,439	16,350		9,890		12,150	
Other	<u>74,817</u>	<u>127,159</u>		<u>126,993</u>		<u>79,284</u>	
Total Operating Expenditures	3,438,677	3,295,588	-4%	3,258,850	-1%	3,420,364	-2%
Total Expenditures	<u>5,457,117</u>	<u>5,242,321</u>	-4%	<u>5,162,745</u>	-2%	<u>5,471,088</u>	-2%
Construction Credits	0	0		0		0	
Net Expense	<u>\$5,457,117</u>	<u>\$5,242,321</u>	-4%	<u>\$5,162,745</u>	-2%	<u>\$5,471,088</u>	-2%

Personnel Summary			
	FY 2018	FY 2019	FY 2020
Positions	25	23	23

Key Performance Measurements				
	Goal	FY 2017	FY 2018	FY 2019
Workload				
Finished water pumped to the distribution system	N/A	2.4B	2.5B	2.4B
Percent of solids removed from treatment process and recycled for beneficial use	100%	100%	100%	100%
Effectiveness				
Primary drinking water standards non-compliances	0	0	0	0
Secondary drinking water standards non-compliances	0	0	0	0
Average finished water turbidity (Nephelometric Turbidity Units)	<0.10	0.04	0.03	0.02

B = billion

WATER DISTRIBUTION

(Operating)

MISSION

The Water Distribution Department is responsible for maintaining the drinking water distribution system from the water treatment plant to the meters at customers' premises with the exception of the system's storage tanks and booster pumping stations. The Department also develops and implements efficient and effective measures for maintaining and repairing components of the water distribution infrastructure and is responsible for accurately and efficiently reading meters and replacing certain water mains to maintain the integrity and capacity of the system.

SUMMARY OF ACTIVITIES

- Provide responsive and courteous customer service in all activities.
- Conduct regular flushing of water mains to ensure water quality throughout the distribution system.
- Maintain ongoing valve and fire hydrant maintenance and repair programs to help ensure reliable operation of the distribution system.
- Accurately and efficiently read water meters to ensure correct consumption is billed to customers.
- Investigate distribution system for sources of unaccounted water (water pumped to system but not metered or billed).
- Administer a backflow prevention program to ensure water quality.
- Coordinate repairing and replacing water meters.
- Maintain integrity of water distribution lines by continuing rehabilitation program.
- Install service connections.
- Repair and replace water mains and appurtenances.

KEY FOCUS AREAS FOR FY 2020

Strategic Initiative	Objective
Promote education and training	<ul style="list-style-type: none">• Ensure proper employee training and development in new methods of maintenance of water lines and usage of related equipment
Valve Maintenance	<ul style="list-style-type: none">• Annually inspect and operate critical valve infrastructure• Continue to inspect and maintain 25% of the non-critical valve infrastructure• Repair and replace damaged/inoperable valve materials
Unidirectional Flushing (UDF)	<ul style="list-style-type: none">• Revisit and implement UDF plan and process
Conduct routine flushing and sampling	<ul style="list-style-type: none">• Maintain high quality drinking water throughout the system• Install new sampling stations
Implement Backflow/Cross-Connection Program	<ul style="list-style-type: none">• Identifying all backflows throughout the system• Ensure that devices are in compliance and tested annually• Identify, track, and organize compliance
Maintain standards to continue to qualify for the President's Award for Distribution System Operation from the Partnership for Safe Water	<ul style="list-style-type: none">• Continue to meet or exceed the requirements to achieve the President's Award• Work towards achieving the award's next level• Update, analyze, and maintain system pressure data quarterly
Support the Diversity and Inclusion Program	<ul style="list-style-type: none">• Make improvements in service excellence, achieving a diverse workforce and providing an inclusive environment

WATER DISTRIBUTION

**Three-year Comparison
Fiscal Years 2018 - 2020**

	FY 2018 Actual	FY 2019 Budget	FY19 Budget to FY18 Actual	FY 2019 Forecast	FY19 Forecast to FY19 Budget	FY 2020 Budget	FY20 Budget to FY19 Forecast
Personnel Costs							
Salaries and Wages	\$1,637,715	\$1,729,045		\$1,714,650		\$1,681,740	
Fringe Benefits	<u>885,295</u>	<u>865,108</u>		<u>864,517</u>		<u>751,321</u>	
Total Personnel Costs	2,523,010	2,594,153	3%	2,579,167	-1%	2,433,061	-2%
Other Operating Expense							
Materials and Supplies	88,900	80,416		104,131		85,868	
Utilities	196,933	203,199		203,199		201,341	
Maintenance	498,867	503,696		519,158		549,626	
Professional Services	8,837	8,400		8,793		7,680	
Communication	2,764	1,200		4,992		5,000	
Printing and Reproduction	448	1,500		1,500		1,500	
Education and Development	15,937	20,250		15,727		23,416	
Other	<u>2,947</u>	<u>1,900</u>		<u>2,230</u>		<u>62,230</u>	
Total Operating Expenditures	815,633	820,561	1%	859,730	5%	936,661	-2%
Total Expenditures	<u>3,338,643</u>	<u>3,414,714</u>	2%	<u>3,438,897</u>	1%	<u>3,369,722</u>	-2%
Construction Credits	(100,491)	(90,000)		(90,733)		(90,000)	
Net Expense	<u><u>\$3,238,152</u></u>	<u><u>\$3,324,714</u></u>	3%	<u><u>\$3,348,164</u></u>	1%	<u><u>\$3,279,722</u></u>	-2%

Personnel Summary			
	FY 2018	FY 2019	FY 2020
Positions	33	35	35

Key Performance Measurements				
	Goal	FY 2017	FY 2018	FY 2019
Workload				
Miles of finished water pipe maintained	N/A	380	382	383
Effectiveness				
Volume of water billed vs. volume pumped to the system	90.0%	91.8%	91.5%	89.7%
Number of main breaks per 100 miles of pipe	<7.00	6.8	7.6	9.2

WASTEWATER TREATMENT

(Operating)

MISSION

The Mason Farm Wastewater Treatment Plant (WWTP) is responsible for reliably providing efficient and effective treatment of wastewater, reclaimed water, and the resulting biosolids. The Department complies with various local, state, and federal regulations that pertain to discharges from OWASA's facilities, plus the general operation requirements to meet applicable standards. These include; National Pollutant Discharge Elimination System (NPDES) Permit, Land Application Permit (Water Quality, Non-Discharge), Stormwater Discharge Permit, and Reclaimed Water Permit.

SUMMARY OF ACTIVITIES

- Provide responsive and courteous customer service in all activities.
- Maintain plant, maintenance, and laboratory programs to ensure that discharges are in compliance with their operating permits.
- Operate plant, laboratory, and maintenance areas in compliance with applicable state and federal requirements.
- Eliminate offsite odors and provide prompt response to public inquires.
- Maintain all equipment necessary to provide reliable pumping of wastewater without spillage or overflow.
- Provide timely analytical monitoring data for process control and regulatory reporting.
- Maintain a computerized maintenance management program to facilitate work scheduling, track equipment history and reliability, and maintain a database of suppliers and parts for equipment to support asset management.
- Manage all programs in an environmentally and operationally sound manner.

KEY FOCUS AREAS FOR FY 2020

Strategic Initiative	Objective
Complete Phase 3 Assessment - American Water Works Association's Partnership for Clean Water program for Mason Farm WWTP	<ul style="list-style-type: none">• Optimization and efficiency efforts will include assessments of chemical and energy use, unit process capacity and performance, administrative controls to identify and prioritize factors limiting performance
Complete key preventative maintenance projects at Mason Farm WWTP	<ul style="list-style-type: none">• The purpose of these projects is to assess the condition of some of our critical equipment/systems to be able to make more informed decisions regarding our operation and maintenance practices and investments in our equipment/infrastructure
Improve denitrification performance at the Mason Farm WWTP	<ul style="list-style-type: none">• With the new Jordan Lake Nutrient rules lingering, staff will continue to work to optimize the wastewater treatment process to improve total nitrogen removal
Implement appropriate security improvements as identified in the security assessment of the Mason Farm WWTP	<ul style="list-style-type: none">• Complete the appropriate security improvements at the WWTP facility including physical, electronic and procedural measures to improve site security
Continued focus on training and development of employees	<ul style="list-style-type: none">• Provide training opportunities to enhance staff knowledge of job-specific skills to improve performance in current roles and focus on developing skills for employee growth
Continue to support the Diversity and Inclusion Program	<ul style="list-style-type: none">• Make improvements in service excellence, achieving a diverse workforce and providing an inclusive environment

WASTEWATER TREATMENT

**Three-year Comparison
Fiscal Years 2018 - 2020**

	FY 2018 Actual	FY 2019 Budget	FY19 Budget to FY18 Actual	FY 2019 Forecast	FY19 Forecast to FY19 Budget	FY 2020 Budget	FY20 Budget to FY19 Forecast
Personnel Costs							
Salaries and Wages	\$1,432,562	\$1,492,726		\$1,462,371		\$1,437,342	
Fringe Benefits	<u>652,392</u>	<u>610,500</u>		<u>627,076</u>		<u>591,687</u>	
Total Personnel Costs	2,084,954	2,103,226	1%	2,089,447	-1%	2,029,029	-2%
Other Operating Expense							
Materials and Supplies	221,540	272,405		310,859		265,945	
Chemicals	777,145	727,472		863,889		805,632	
Utilities	608,995	760,986		864,223		781,580	
Maintenance	842,992	953,730		957,850		1,214,240	
Professional Services	103,679	96,000		89,024		92,600	
Communication	8,242	11,400		11,400		11,715	
Printing and Reproduction	0	0		0		0	
Education and Development	10,374	18,000		18,000		27,000	
Other	<u>57,821</u>	<u>67,625</u>		<u>72,261</u>		<u>67,625</u>	
Total Operating Expenditures	2,630,788	2,907,618	11%	3,187,506	10%	3,266,337	-2%
Total Expenditures	<u>4,715,742</u>	<u>5,010,844</u>	6%	<u>5,276,953</u>	5%	<u>5,295,366</u>	-2%
Construction Credits	0	0		0		0	
Net Expense	<u>\$4,715,742</u>	<u>\$5,010,844</u>	6%	<u>\$5,276,953</u>	5%	<u>\$5,295,366</u>	-2%

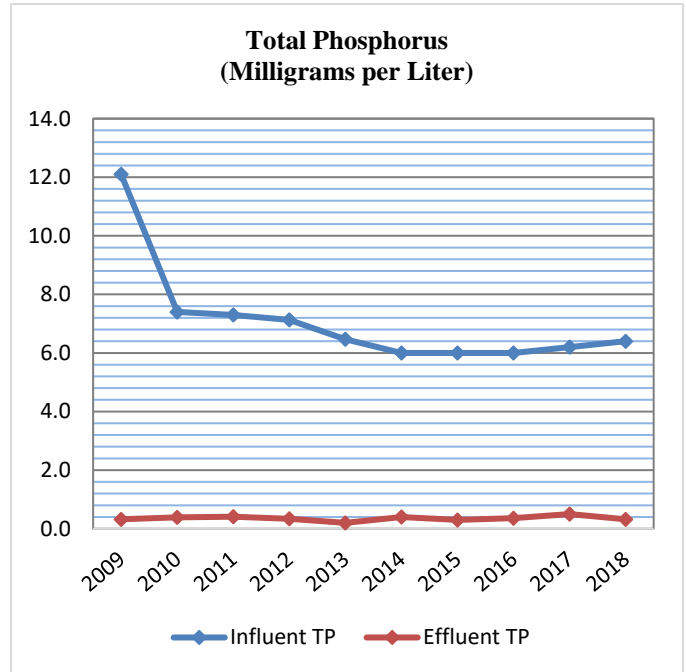
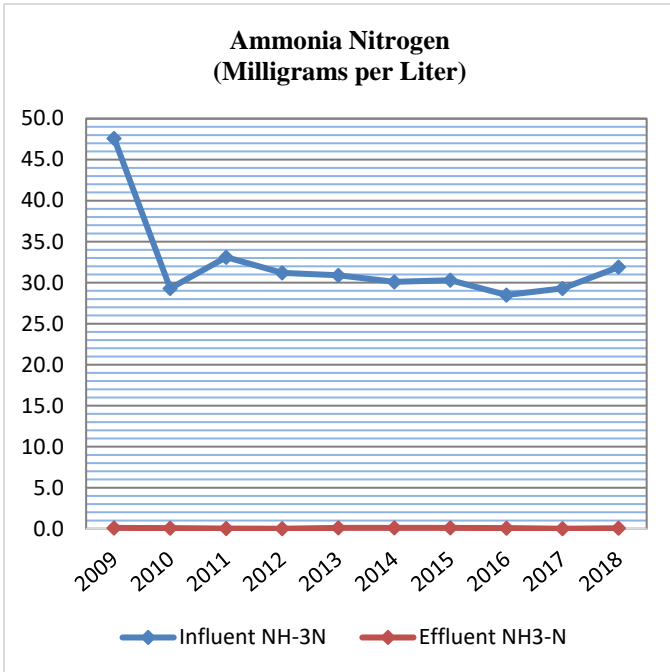
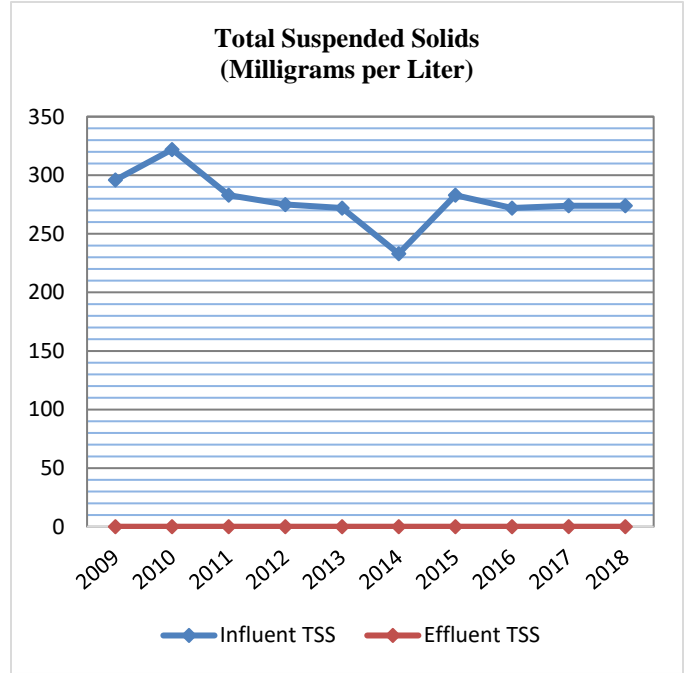
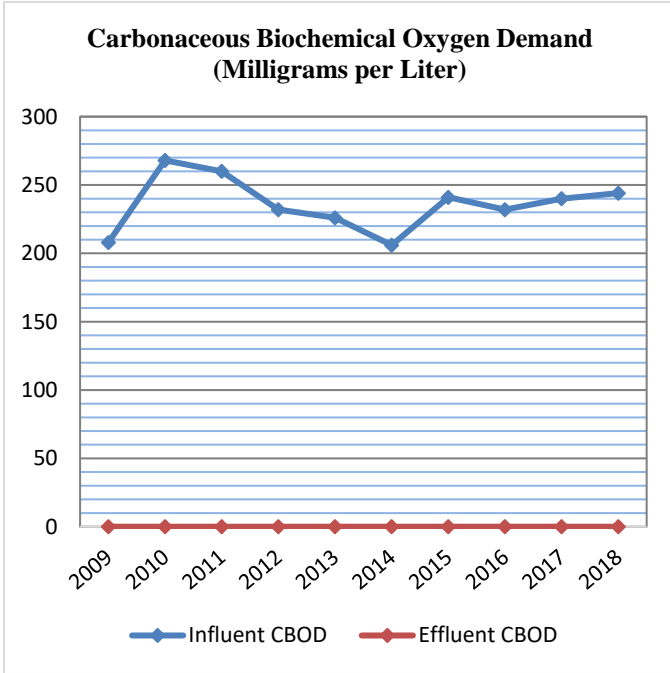
Personnel Summary			
	FY 2018	FY 2019	FY 2020
Positions	22	22	23

Key Performance Measurements				
	Goal	FY 2017	FY 2018	FY 2019
Workload				
Number of gallons of wastewater treated	N/A	3.1B	2.8B	3.0B
Effectiveness				
Events of permit noncompliance	0	0	0	0
Wastewater overflows	0	0	0	0
Odor events	0	1	0	1

B = billion

Mason Farm Wastewater Treatment Plant Loading and Performance Last 10 Years

The following graphs show the loading and performance of the Mason Farm Wastewater Treatment Plant annually for the past ten years. This information is also shown in a table on page 59.



WASTEWATER COLLECTION

(Operating)

MISSION

The Wastewater Collection Department is responsible for maintaining the public wastewater collection system (except for pumping stations) which carries wastewater to the Mason Farm Wastewater Treatment Plant. The Department uses systematic approaches to minimize and prevent overflows of wastewater to local creeks and streams. The Department also operates ongoing programs to clear and mow easements and inspect and clean wastewater mains.

SUMMARY OF ACTIVITIES

- Provide responsive and courteous customer service in all activities.
- Manage an efficient and effective predictive, preventive, and corrective maintenance program for the wastewater collection infrastructure.
- Maintain an ongoing program to reduce inflow/infiltration into the wastewater collections system.
- Regularly mow and clear easements and clean wastewater mains.
- Maintain a computerized maintenance management program for the Department's operation.
- Ensure proper employee training and development in new methods of maintaining wastewater lines and using related equipment. Enhance knowledge and skills of employees to increase proficiency through participation in education and training workshops and in-house programs.
- Administer fats, oils and grease monitoring program.

KEY FOCUS AREAS FOR FY 2020

Strategic Initiative	Objective
Promote education and training	<ul style="list-style-type: none">• Ensure proper employee training and development in new methods of maintenance of sewer lines and usage of related equipment
Reduce Sanitary Sewer Overflows	<ul style="list-style-type: none">• Complete preventative maintenance; sewer cleaning, CCTV inspections, upgrade system through point repairs and push patching
Easements and Encroachments	<ul style="list-style-type: none">• Maintain and inspect easements and outfalls• Inspect manholes and aerial crossing infrastructure
Improve performance in cleaning and video inspections.	<ul style="list-style-type: none">• Video inspect at least ten miles of wastewater lines• Clean at least 20% of wastewater system
FOG Program	<ul style="list-style-type: none">• Inspect, maintain and enforce grease interceptors throughout the collection system• Implement and maintain compliance tracking
Support the Diversity and Inclusion Program	<ul style="list-style-type: none">• Make improvements in service excellence, achieving a diverse workforce and providing an inclusive environment

WASTERWATER COLLECTION

**Three-year Comparison
Fiscal Years 2018 - 2020**

	FY 2018 Actual	FY 2019 Budget	FY19 Budget to FY18 Actual	FY 2019 Forecast	FY19 Forecast to FY19 Budget	FY 2020 Budget	FY20 Budget to FY19 Forecast
Personnel Costs							
Salaries and Wages	\$500,522	\$534,129		\$528,352		\$555,487	
Fringe Benefits	<u>282,265</u>	<u>261,911</u>		<u>258,751</u>		<u>268,421</u>	
Total Personnel Costs	782,787	796,040	2%	787,103	-1%	823,908	-2%
Other Operating Expense							
Materials and Supplies	214,295	244,262		244,262		269,999	
Chemicals	0	0		0		0	
Utilities	110,638	137,229		137,229		126,334	
Maintenance	214,229	180,000		180,000		243,045	
Professional Services	8,461	8,400		7,636		7,680	
Communication	73	500		500		500	
Printing and Reproduction	0	2,000		2,000		2,000	
Education and Development	4,537	14,050		8,807		11,475	
Other	<u>5,752</u>	<u>2,000</u>		<u>2,110</u>		<u>2,110</u>	
Total Operating Expenditures	557,985	588,441	5%	582,544	-1%	663,143	-2%
Total Expenditures	<u>1,340,772</u>	<u>1,384,481</u>	3%	<u>1,369,647</u>	-1%	<u>1,487,051</u>	-2%
Construction Credits	(38,978)	0		(31,828)		(30,000)	
Net Expense	<u>\$1,301,794</u>	<u>\$1,384,481</u>	6%	<u>\$1,337,819</u>	-3%	<u>\$1,457,051</u>	-2%

Personnel Summary			
	FY 2018	FY 2019	FY 2020
Positions	11	11	11

Key Performance Measurements				
	Goal	FY 2017	FY 2018	FY 2019
Workload				
Miles of gravity wastewater collection piping maintained	N/A	329	329	335
Effectiveness				
Number of reportable wastewater overflows	0	2	4	19*
Total number of reportable overflows per 100 miles of wastewater pipe	0.0	0.6	1.2	5.6

- Increase in FY 2019 due to the failure of a section of OWASA's most critical pressurized sewer main; 16 reportable spills resulted from this event.

Section III

SUPPLEMENTAL INFORMATION

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Chapel Hill Statistical Data [64](#)

Financial Management Policy [67](#)

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**Resolution Adopting the Annual Budget For
Orange Water and Sewer Authority (OWASA) for the Fiscal Year
July 1, 2019 Through June 30, 2020**

Whereas, Section 7.05 of the Bond Order and North Carolina G.S. Chapter 159 require that on or before the first day of July in each fiscal year OWASA will adopt a Budget for the ensuing fiscal year;

Whereas, such Budget is to include estimates of revenues of the water, sewer and reclaimed water systems, current operations expenses, interest income, debt service costs, and disbursements from the general fund for capital improvements and equipment purchases; and

Whereas, during the preparation of the Fiscal Year (FY) 2020 Budget, and after holding public hearings on May 23, 2019 concerning the FY 2020 Budget, the Board of Directors determined that it is necessary to increase the rates OWASA charges for monthly water and sewer services by 5% in order to provide sufficient revenues to fund ongoing operations, debt service and the Capital Improvements Program; and

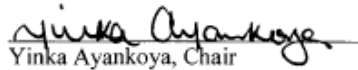
Whereas, certain other fees have been adjusted based on changes in the costs of providing the services; and

Whereas, due to increased workload in executing communication initiatives and other administrative tasks, the budget also includes increased funding for a new position, Communications Specialist;

Now, Therefore, Be It Resolved:

1. That pursuant to the provisions of North Carolina G.S. Chapter 159-13 the attached pages marked 3 through 7 be, and they hereby are, adopted as the official budget of Orange Water and Sewer Authority of the Fiscal Year beginning July 1, 2019 through June 30, 2020.
2. That a new Communications Specialist position, Salary Grade 615, shall be added to the Schedule of Employee Classification and Authorized Compensation.
3. That the appropriations for departments, functions, and projects as shown in the attached budget for the respective purposes and in the respective amounts therein specified are hereby made.
4. That the Executive Director shall administer the budget and is hereby authorized to expend the funds for the purposes set forth therein.

Adopted this 13th day of June 2019.


Yinka Ayankoya, Chair

ATTEST:


Raymond E. DuBose, Secretary

BUDGET RESOLUTION AND ORDINANCE

**ORANGE WATER AND SEWER AUTHORITY
STATEMENT OF INCOME, EXPENSE AND DEBT SERVICE
(OPERATING)**

	FY 2020
	<u>Annual Budget</u>
Operating Revenue	
Water	\$19,144,421
Sewer	18,157,612
Reclaimed Water	458,820
Service Initiation Fee	153,928
Other	969,168
Refunds and Adjustments	<u>(212,573)</u>
Total Operating Revenue	\$38,671,376
Operating Expense	
General and Administrative	8,055,734
Operations	<u>15,503,228</u>
Total Operating Expense	<u>23,558,962</u>
Net Operating Income	15,112,414
Non-operating Revenue	
Customer Fees	1,448,887
Interest	<u>46,403</u>
Total Net Income	<u><u>\$16,607,704</u></u>
Debt Service	
Existing	6,735,246
New	<u>1,312,016</u>
Total Debt Service	<u>8,047,262</u>
Net Income Less Debt Service	<u><u>\$8,560,442</u></u>

BUDGET RESOLUTION AND ORDINANCE

**ORANGE WATER AND SEWER AUTHORITY
STATEMENT OF INCOME AND EXPENSE
(CAPITAL/NON-OPERATING)**

		<u>FY 2020 Annual Budget</u>
General Fund		
Resources		
Transfer From Revenue	<u>\$8,560,442</u>	
Annual Income Available for Capital		8,560,442
Transfer from Construction Fund (Bond Proceeds)		<u>20,000,000</u>
Total Available for Capital		<u>28,560,442</u>
Capital Expenditures		
Project ordinances		
General Fund Contribution	6,423,000	
Funded by Bond Proceeds	<u>20,000,000</u>	
Total Project Resolutions		26,423,000
Capital Equipment		<u>989,700</u>
Total Capital Outlay		<u>27,412,700</u>
Annual General Fund Balance		1,147,742
General Fund Beginning Balance		<u>17,018,861</u>
General Fund Ending Balance		18,166,603
Project Funding	(1,719,299)	
Reserves		
Rate/Revenue Stabilization	1,865,102	
Capital Improvements	4,400,000	
Working Capital	<u>13,620,800</u>	<u>18,166,603</u>
Unallocated General Fund Balance		<u><u>\$0</u></u>

BUDGET RESOLUTION AND ORDINANCE

REVENUE FUND

	<u>Water</u>	<u>Sewer</u>	<u>Total</u>
Fund Balance July 1, 2019			-
Receipts			
Operating Revenue			
Customer Billings	19,144,421	18,157,612	37,302,033
Reclaimed Water	458,820	-	458,820
Service Initiation Fee	76,964	76,964	153,928
Other	484,584	484,584	969,168
Refunds and Adjustments	(106,287)	(106,286)	(212,573)
Total Operating Revenue	20,058,502	18,612,874	38,671,376
Non-operating Revenue			
Customer Fees	634,836	814,051	1,448,887
Interest Income	23,202	23,201	46,403
Total Non-operating Revenue	658,038	837,252	1,495,290
Total Receipts	20,716,540	19,450,126	40,166,666
Expenditures			
Current Expense	(12,177,627)	(11,381,335)	(23,558,962)
Debt Service	(4,753,142)	(3,294,120)	(8,047,262)
Total Expenditures	(16,930,769)	(14,675,455)	(31,606,224)
Net Revenue			8,560,442
To General Fund			(8,560,442)
Fund Balance June 30, 2020			-
Change in Available Balance			-

BUDGET RESOLUTION AND ORDINANCE

BOND SERVICE FUND

Fund Balance July 1, 2019		-
Receipts		
Transfers from Revenue Fund	8,047,262	
Interest	<u> </u>	
Total Receipts		8,047,262
Expenditures		
Debt Service	<u>8,047,262</u>	
Total Expenditures		<u>(8,047,262)</u>
Fund Balance June 30, 2020		<u>-</u>
Change in Available Balance		<u><u>-</u></u>

BUDGET RESOLUTION AND ORDINANCE

GENERAL FUND

Fund Balance July 1, 2019		\$17,018,861
Receipts		
Transfer from Revenue fund	8,560,442	
Transfer from Construction Fund (Loan Proceeds)	20,000,000	
Interest	-	
Assessments	-	
Grants and contributions	-	
	<hr/>	
Total Receipts		<hr/> 28,560,442
Total Balance Before Expenditures		45,579,303
Expenditures		
Capital Equipment/Leases	989,700	
Project Resolutions	26,423,000	
Transfer to Revenue Fund	0	
	<hr/>	
Total Expenditures		<hr/> (27,412,700)
Fund Balance June 30, 2020		<hr/> <hr/> \$18,166,603
Allocation of Fund Balance June 30, 2020		
Project Funding	(1,812,497)	
Capital Reserves	19,885,902	
	<hr/>	
Total Allocation		<hr/> <hr/> \$18,073,405
Unallocated General Fund Balance June 30, 2020		<hr/> -
Change in Available Balance		<hr/> <hr/> \$1,054,544

PERSONNEL AUTHORIZATIONS BY DEPARTMENT

Office of the Executive Director	FY 2018	FY 2019	FY 2020
Executive Director	1	1	1
General Manager of Operations	1	1	1
Sustainability Manager	1	1	1
Executive Assistant	1	1	1
Public Affairs Administrator	1	1	0
Communications and Community Relations Officer	0	0	1
Administrative Assistant	1	1	2
Communications Specialist	0	0	1
Totals	6	6	7

Customer Service

Customer Service Manager	1	1	1
Billing Supervisor	1	1	1
Senior Customer Service Representative	1	1	1
Customer Service Representative	3	3	5
Clerk/Cashier	2	2	0
Administrative Assistant/Reception	1	1	1
Totals	9	9	9

Engineering and Planning

Director of Engineering and Planning	1	1	1
Planning and Development Manager	1	1	1
Engineering Manager	2	2	2
Utilities Engineer	3	3	4
Geographic Information Systems Coordinator	1	1	1
Construction Inspector	2	2	2
Engineering Associate	2	2	2
Engineering Technician	2	2	2
Asset Management and Facilities Engineer	1	1	1
Totals	15	15	16

Human Resources

Director of Human Resources and Safety	1	1	1
Safety and Risk Manager	0	1	1
Human Resources Generalist	1	1	1
Administrative Assistant	1	1	1
Totals	3	4	4

PERSONNEL AUTHORIZATIONS BY DEPARTMENT

Finance	FY 2018	FY 2019	FY 2020
Director of Finance and Customer Service	1	1	1
Finance and Procurement Manager	1	1	1
Financial Analyst	1	1	1
Accounting Technician II	3	2	2
Totals	6	5	5

Information Technology

Director of Information Technology	1	1	1
Network/Database Administrator	2	2	2
Business Systems Analyst	1	1	1
Information Services Technical Specialist	1	1	1
Totals	4	5	5

Water Supply and Treatment

Water Supply and Treatment Manager	1	1	1
Operations Supervisor	1	1	1
Treatment Plant Operator	8	8	8
Lake Warden	1	1	1
Senior Lake Warden	1	1	1
Assistant Lake Warden	2	2	2
Maintenance Supervisor	1	1	1
Senior Maintenance Mechanic	2	0	0
Maintenance Coordinator	1	1	1
Maintenance Mechanic	4	4	4
Laboratory Supervisor	1	1	1
Laboratory Analyst	3	3	3
Administrative Assistant	1	1	1
Totals	26	25	25

Water Distribution

Distribution and Collection Systems Manager	1	1	1
Assistant Distribution and Collection System Manager	1	1	1
Crew Leader	4	4	4
Utility Mechanic I/II/III	25	27	25
Vehicle and Equipment Maintenance Mechanic	0	0	2
Administrative Assistant	1	1	0
Distribution and Collection System Coordinator	0	0	1
Warehouse-Cross Connection Coordinator	1	1	1
Totals	33	35	35

PERSONNEL AUTHORIZATIONS BY DEPARTMENT

Wastewater Treatment	FY 2018	FY 2019	FY 2020
Wastewater Treatment and Biosolids Recycling Manager	1	1	1
Operations Supervisor	1	1	1
Treatment Plant Operator	8	8	8
Solids Handling Supervisor	1	1	1
Solids Handler	3	3	3
Maintenance Supervisor	1	1	1
Senior Maintenance Mechanic	4	4	4
Laboratory Supervisor	1	1	1
Laboratory Analyst	3	3	3
Administrative Assistant	0	0	0
Totals	23	23	23
Wastewater Collections			
Crew Leader	2	2	2
Utility Mechanic I/II/III	11	11	11
Totals	13	13	13
Total Positions	<u>139</u>	<u>139</u>	<u>142</u>

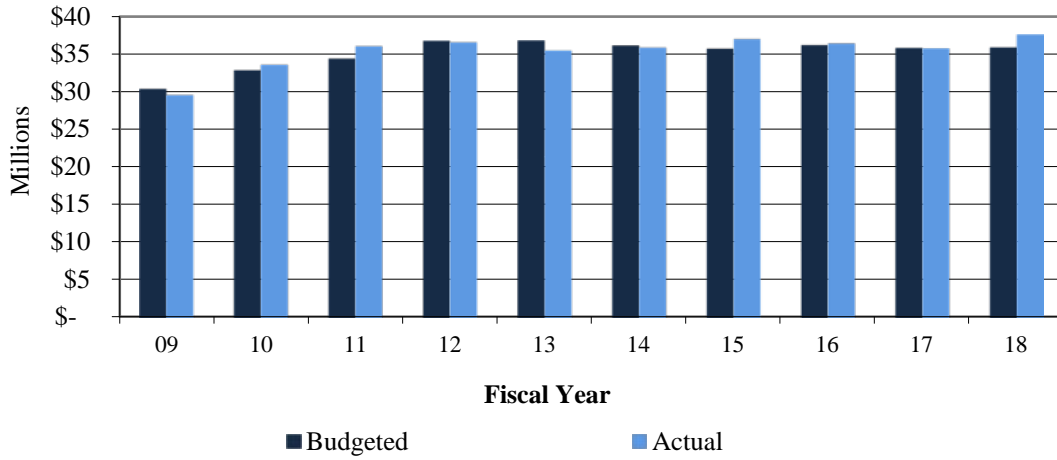
Position Changes from FY 2019 to FY 2020

To improve operations and better meet the community’s water and wastewater needs, we made the following position changes for FY 2020:

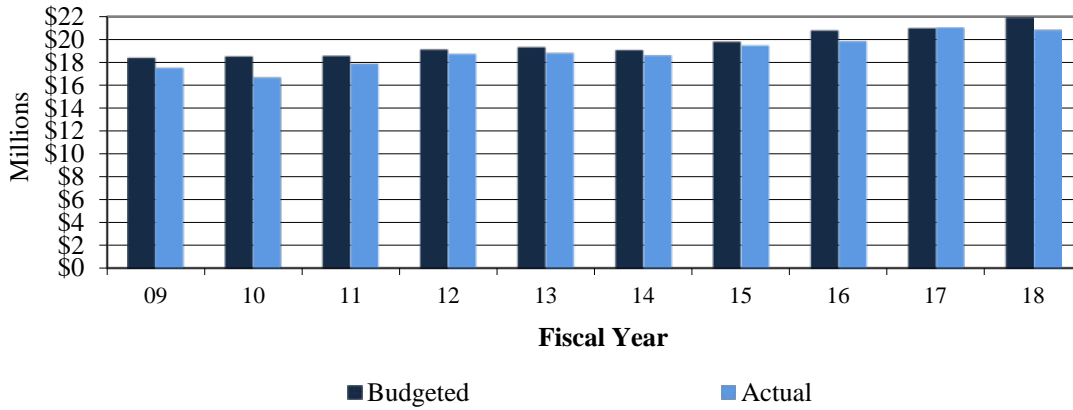
- To meet our goal of improving communications and community relations, a Communications Specialist position was added to the Office of the Executive Director.
- A Utilities Engineer position was added as a project manager in the Engineering and Planning department to meet increased workload.
- In the Water Distribution department, two Utility Mechanic positions were reclassified to Vehicle and Equipment Maintenance Mechanic positions.

10-YEAR HISTORICAL PERFORMANCE

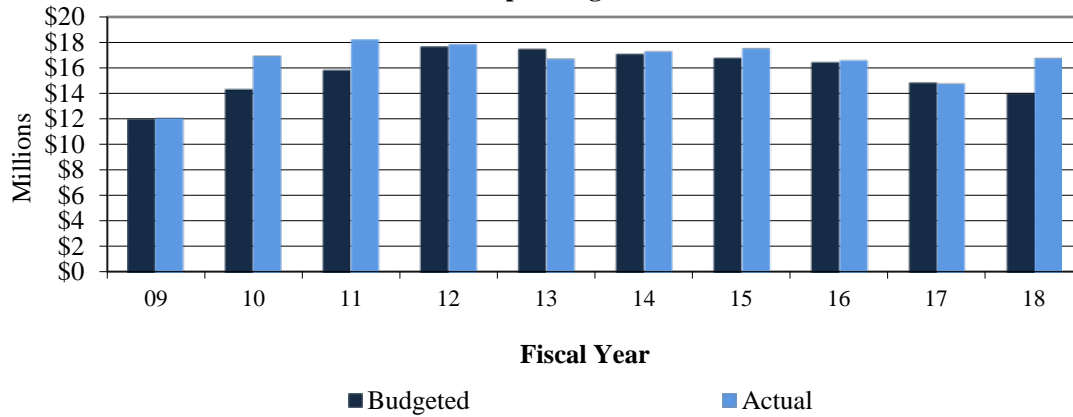
10-Year Operating Revenue Variance



10-Year Operating Expense Variance



10-Year Net Operating Income Variance



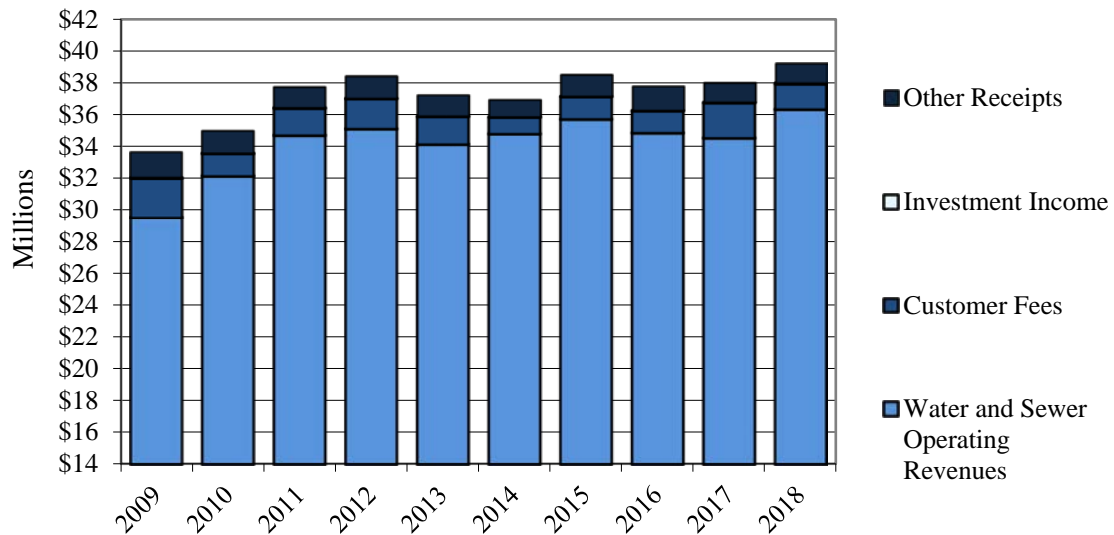
10-YEAR HISTORICAL PERFORMANCE

ORANGE WATER AND SEWER AUTHORITY

**Revenues by Source
Last 10 Fiscal Years**

Fiscal Year	Water and Sewer Operating Revenues	Customer Fees	Investment Income	Other Receipts	Total
2009	29,537,290	2,498,459	80,343	1,582,736	33,698,828
2010	32,153,848	1,436,564	29,169	1,404,924	35,024,505
2011	34,701,751	1,713,417	29,261	1,302,079	37,746,508
2012	35,107,350	1,899,056	17,964	1,381,799	38,406,169
2013	34,133,521	1,769,883	15,664	1,324,092	37,243,160
2014	34,789,219	1,069,551	14,756	1,076,285	36,949,811
2015	35,705,629	1,429,242	15,133	1,351,139	38,501,143
2016	34,852,086	1,397,652	20,663	1,517,284	37,787,685
2017	34,532,508	2,219,227	32,802	1,207,886	37,992,423
2018	36,323,113	1,599,382	56,524	1,220,130	39,199,149

**Revenue by Source
Last 10 Fiscal Years**

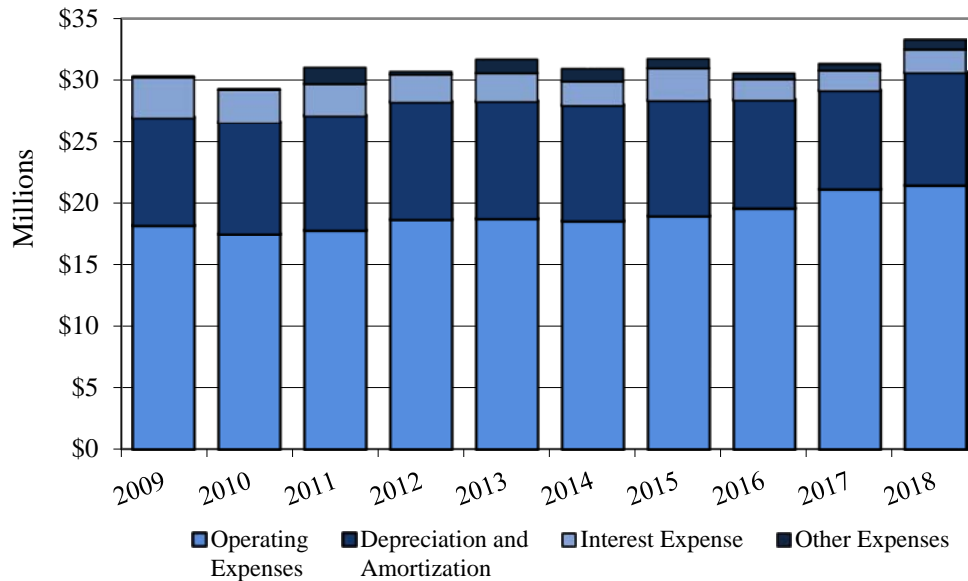


10-YEAR HISTORICAL PERFORMANCE

**ORANGE WATER AND SEWER AUTHORITY
Expenses by Function
Last 10 Fiscal Years**

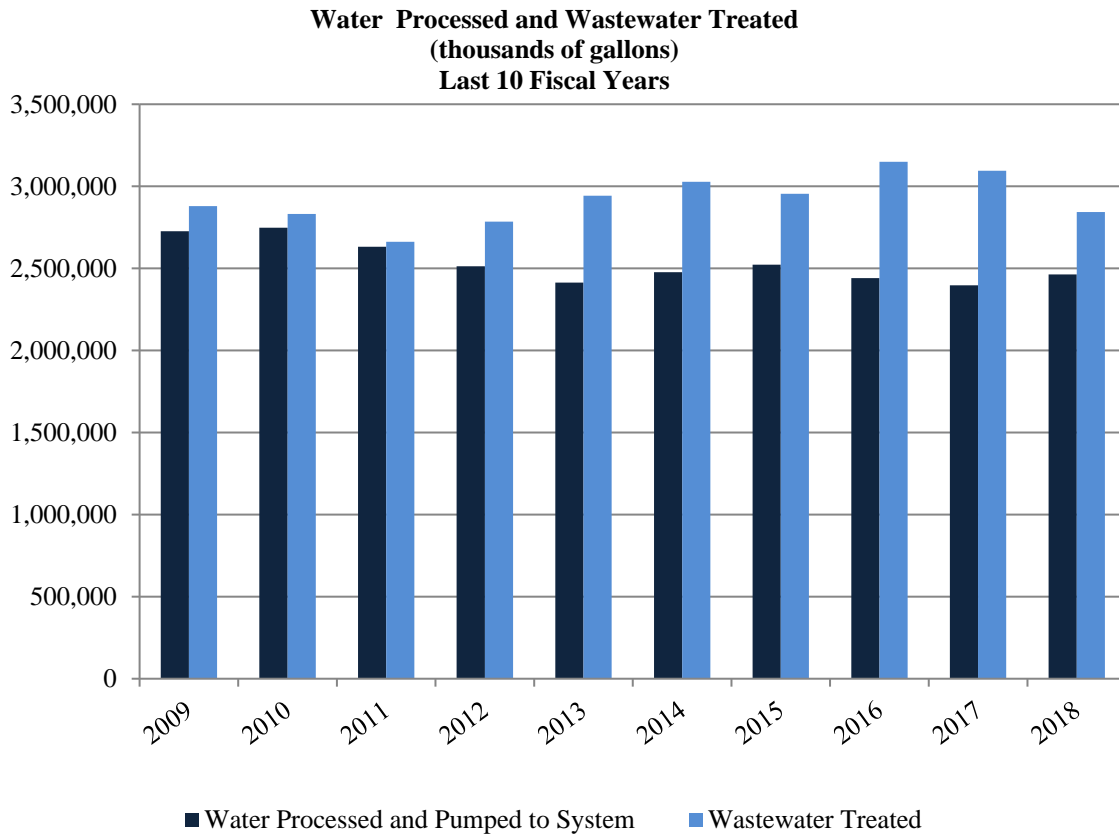
Fiscal Year	Operating Expenses	Depreciation and Amortization	Interest Expense	Other Expenses	Total
2009	18,225,142	8,765,924	3,305,193	83,338	30,379,597
2010	17,532,938	9,053,691	2,702,687	92,613	29,381,929
2011	17,836,397	9,310,159	2,623,208	1,320,156	31,089,920
2012	18,713,083	9,539,846	2,274,113	235,552	30,762,594
2013	18,781,423	9,514,909	2,334,944	1,033,149	31,664,425
2014	18,597,655	9,393,739	1,979,647	1,012,532	30,983,573
2015	18,999,642	9,384,310	2,637,681	695,287	31,716,920
2016	19,624,902	8,798,343	1,729,871	466,573	30,619,689
2017	21,173,235	7,994,438	1,668,138	493,193	31,329,004
2018	21,485,454	9,123,415	1,863,061	765,944	33,237,874

**Expenses by Function
Last 10 Fiscal Years**



10-YEAR HISTORICAL PERFORMANCE

ORANGE WATER AND SEWER AUTHORITY		
Water Processed and Wastewater Treated (thousands of gallons) Last 10 Fiscal Years		
Fiscal Year	Water Processed and Pumped to System	Wastewater Treated
2009	2,726,421	2,879,000
2010	2,747,719	2,832,000
2011	2,631,963	2,662,290
2012	2,513,230	2,784,486
2013	2,412,966	2,942,331
2014	2,476,834	3,027,879
2015	2,522,099	2,954,345
2016	2,440,937	3,149,225
2017	2,397,093	3,094,963
2018	2,463,021	2,843,422



10-YEAR HISTORICAL PERFORMANCE

ORANGE WATER AND SEWER AUTHORITY

**Mason Farm Wastewater Treatment Plant
Plant Loading and Performance
Last 10 Years**

Fiscal Year	Average Daily Flow (million gallons)	Influent Measurements				Effluent Measurements			
		CBOD	TSS	NH3-N	TP	CBOD	TSS	NH3-N	TP
		(Milligram per Liter)				(Milligram per Liter)			
2009	7.9	208	296	47.6	12.1	<2.0	0	0.1	0.3
2010	7.8	268	322	29.3	7.4	<2.0	0	0.1	0.4
2011	7.2	260	283	33.1	7.3	<2.0	0	0.0	0.4
2012	7.6	232	275	31.2	7.1	<2.0	0	0.0	0.3
2013	8.1	226	272	30.9	6.5	<2.0	0	0.1	0.2
2014	8.3	206	233	30.1	6.0	<2.0	0	0.1	0.4
2015	8.1	241	283	30.3	6.0	<2.0	0	0.1	0.3
2016	8.6	232	272	28.5	6.0	<2.0	<2.5	0.1	0.4
2017	8.5	240	274	29.3	6.2	<2.0	<2.5	0.0	0.5
2018	7.8	244	274	31.9	6.4	<2.0	<2.5	0.1	0.3

Effluent Maximum Limits Set in NPDES Permit

	Winter (Nov. - March)	Summer (April - Oct.)
CBOD5 (Carbonaceous Biochemical Oxygen Demand)	8 mg/l	4 mg/l
TSS (Total Suspended Solids)	30 mg/l	30 mg/l
NH3-N (Ammonia Nitrogen)	2.0 mg/l	1.0 mg/l
TP (Total Phosphorus - Mass Load Limit)	10,188 pounds per year	

mg/l=Milligrams per Liter

This information is shown in graphs on page 44.

MISCELLANEOUS STATISTICAL DATA

**ORANGE WATER AND SEWER AUTHORITY
For the Fiscal Year Ended June 30, 2019**

Year Incorporated	1975
Size of Service Area:	
Square miles	31
Miles of Water Pipe (includes 14 miles of raw water and 5 miles of reclaimed water pipe)	402
Miles of Wastewater Collection Pipe (includes 14 miles of force main)	348
Customer Accounts	21,712
Full-time Equivalent Employees:	
Approved Positions	142
Budgeted Positions	135
Water Treatment Plant Capacity (millions of gallons per day (MGD)):	
Capacity	20.0
Production Average Day	6.6
Production Peak Day	14.4
Wastewater Treatment Plant Capacity (MGD):	
Capacity	14.5
Average Daily Flow	7.8
Number of Water Supply Resources	4
Total Capacity of Water Supply Resources (millions of gallons):	
Cane Creek Reservoir	3,000
University Lake	450
Quarry Reservoir	200
Jordan Lake Allocation (approximate MGD)	5 MGD

SERVICE AREA

General. OWASA provides water, wastewater and reclaimed water services to the residents, businesses and institutions in the Chapel Hill-Carrboro community and outlying areas. The term “service area” refers to the area presently being served and those proximate areas that may reasonably be served by extensions of the water and wastewater system in the future (refer to back cover). The present service area lies almost wholly within Chapel Hill and Carrboro in Orange County; however, there are contiguous extensions of the water and wastewater system into southwestern Durham County.

The developed portions of the service area are composed of the University of North Carolina at Chapel Hill (UNC) campus, UNC Healthcare, commercial downtown areas and shopping centers, and residential areas comprised of single-family and multi-family residences. Most of the development in the service area to date has consisted of residential development, including single-family residences, townhouses, condominiums, apartments, and related commercial development, including office buildings, shopping facilities, restaurants and motels. Industrial development in the service area is limited.

Relative Location and Features of the Service Area. The area served by OWASA’s water and wastewater system is located predominantly within the southeastern portion of Orange County. Orange County is located in the north central part of the state. Originally formed in 1752, Orange County covers an area of approximately 400 square miles. There are four incorporated towns in Orange County. Hillsborough, the county seat, is located near the center of the County; Chapel Hill and Carrboro, adjoining communities which comprise the major urbanized area of Orange County, are located in the southeast corner of Orange County; and Mebane is located on the western boundary. The remainder of Orange County is rural and largely agricultural.

Located on a plateau approximately 500 feet above sea level, the Chapel Hill-Carrboro area is surrounded by gently rolling land. The climate is mild, with an average January temperature of approximately 41 degrees and an average temperature in July of approximately 79 degrees. The area receives an average of approximately 46 inches of rainfall per year.

The Towns of Chapel Hill and Carrboro are located southwest of Durham and approximately 25 miles northwest of Raleigh. The regional transportation system connects the area with the major North Carolina population centers of Charlotte, Durham, Raleigh, Greensboro, Winston-Salem and Wilmington. U.S. and state highways connect Chapel Hill-Carrboro with Durham, the Research Triangle Park (“RTP”), Cary, Raleigh and Raleigh-Durham International Airport. The region is served by Interstate 85 extending northeasterly from Durham to Petersburg, Virginia where it intersects Interstate 95, and southwesterly through Greensboro to Charlotte and Atlanta, Georgia. Interstate 40, which extends from Raleigh through Orange County, connects the region directly to both the Atlantic and Pacific coasts of the United States. Rail service is provided by a branch of the Norfolk Southern Railway which extends north from Carrboro to a connection with the railroad west of Durham. Amtrak passenger rail service is available in Durham. Commercial air service is provided by Raleigh-Durham International Airport, located 16 miles from Chapel Hill.

The Chapel Hill-Carrboro area comprises one portion of the metropolitan area which includes the City of Durham, Town of Cary, and the City of Raleigh and is commonly known as the “Research Triangle.” Major universities located in these communities include UNC, Duke University, North Carolina Central University, and North Carolina State University. The proximity of these universities makes the RTP area suited for many types of academic research and advanced research-oriented industrial activities. There are many other colleges and universities in the area.

The dominant economic sectors in the Chapel Hill-Carrboro area are education and medical services, including research activities, primarily through UNC and UNC Healthcare. The RTP, located ten miles east of Chapel Hill, contains approximately 7,000 acres which have been reserved for research and research-oriented manufacturing. Since its inception in the 1950s, over 200 private and governmental organizations have located facilities in the RTP. The RTP is not served by OWASA; however, its impact on OWASA and the economy of the surrounding area is significant because of the companies and residents brought into the area directly and indirectly by the RTP.

Demographic Characteristics. The United States Department of Commerce, Bureau of the Census has recorded the populations of the Town of Chapel Hill, the Town of Carrboro and Orange County to be as follows:

<u>Year</u>	<u>Chapel Hill</u>	<u>Carrboro</u>	<u>Orange County</u>
1980	32,421	8,118	77,055
1990	38,711	12,134	93,622
2000	48,715	16,782	118,227
2010	57,233	19,891	132,951

The growth in population during this period reflects several factors, including the growth of student enrollment at UNC, increased economic activity in the area and the relocation of retirees attracted by the climate and amenities of the area.

Education. An important factor in the economy and growth characteristics of OWASA’s service area and the immediately surrounding area is UNC. Fall enrollment at UNC is shown in the following table:

<u>Fall</u>	<u>UNC Enrollment</u>
2009	28,916
2010	29,390
2011	29,137
2012	29,278
2013	29,197
2014	29,135
2015	29,084
2016	29,479
2017	29,912
2018	30,011

Together, UNC’s health-related schools form one of the nation’s major academic medical centers. Among the specialized medical programs are the Health Services Research Center, the Hand Rehabilitation Center, the Child Development and Mental Retardation Institute, and the North Carolina Jaycees Burn Center. The Schools of Government, Cancer Research, Environmental Studies, Urban Studies, Marine Sciences, and Social Sciences conduct multi-disciplinary research and public service programs.

Employment. The U.S. Bureau of Labor Statistics has estimated the percentage of unemployment in Orange County to be as follows:

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
January	5.8%	7.1%	6.4%	6.2%	6.2%	4.6%	4.5%	4.4%	4.3%	3.5%
February	6.5	7.1	6.3	6.2	5.7	4.4	4.4	4.3	4.0	3.6
March	6.1	6.8	6.1	5.9	5.4	4.6	4.3	4.3	3.9	3.3
April	6.0	6.4	5.9	5.7	5.0	4.0	4.1	3.9	3.4	3.0
May	6.9	6.5	6.2	6.2	5.5	4.9	5.0	4.1	3.6	3.6
June	7.3	6.9	7.3	7.1	6.0	4.8	5.1	4.7	4.0	3.7
July	7.4	6.9	7.2	7.2	5.9	5.3	5.3	4.6	4.2	3.6
August	7.2	6.7	7.5	6.6	5.5	5.4	5.0	4.8	4.3	3.5
September	6.6	5.9	6.8	5.7	4.7	4.5	4.2	4.1	3.5	2.7
October	6.5	5.7	6.2	5.9	4.8	4.0	4.5	4.1	3.4	3.0
November	6.6	6.0	5.8	5.8	4.4	3.9	4.3	3.9	3.6	3.0
December	6.6	5.9	6.1	5.9	4.2	3.9	4.3	4.0	3.6	3.1

UNC is the largest employer in Orange County. UNC Healthcare System, a major medical facility located adjacent to UNC; and the Chapel Hill/Carrboro City Schools (both located in Chapel Hill) are the second and third largest employers, respectively. The following table lists the ten largest employers in Orange County for 2018 and 10 years prior:

Company or Institution	Service or Product	Number of Employees 2018	Number of Employees 2009
UNC	Education and Health Services	1,000+	1,000+
UNC Healthcare System	Education and Health Services	1,000+	1,000+
Chapel Hill/Carrboro City Schools	Education and Health Services	1,000+	1,000+
UNC Physicians Network	Education and Health Services	1,000+	
Orange County Schools	Education and Health Services	1,000+	1,000+
Orange County Government	Public Administration	1,000+	500-999
Town of Chapel Hill	Public Administration	500-999	500-999
Industrial Connections and Solutions	Manufacturing	500-999	
Sports Endeavors (dba Eurosport)	Trade	500-999	500-999
Wal-Mart	Trade	500-999	
Blue Cross/Blue Shield of NC	Insurance		1,000+
Hr Prime	Professional & Business Services		500-999
Harris Teeter	Retail Food		500-999

Source: Orange County Economic Development Commission.

CHAPEL HILL STATISTICAL DATA

**Town of Chapel Hill
Property Tax Levies and Collections
Last 10 Fiscal Years**

Fiscal Year	Taxes Levied for the Fiscal Year	Collected within the Fiscal Year of the Levy		Collections in Subsequent Years	Total Collections to Date		Outstanding Delinquent Taxes
		Amount	Percentage of Original Levy		Amount	Percentage of Adjusted Levy	
2009	33,972,050	33,779,873	99.43%	139,190	33,918,874	99.84%	53,716 (1)
2010	35,119,150	34,836,717	99.20%	254,454	35,091,171	99.92%	27,979
2011	35,604,158	35,284,111	99.10%	258,936	35,543,047	99.83%	61,111
2012	35,887,926	35,604,067	99.21%	-	35,604,067	99.21%	283,859
2013	36,084,217	35,809,148	99.24%	-	35,809,148	99.24%	275,069
2014	38,361,125	38,115,148	99.36%	-	38,115,148	99.36%	245,977
2015	39,009,200	38,849,950	99.59%	-	38,849,550	99.59%	159,250
2016	39,789,825	39,638,269	99.62%	-	39,638,269	99.62%	151,556
2017	39,471,449	39,314,757	99.60%	-	39,314,757	99.60%	156,692
2018	40,816,019	40,679,175	99.66%	-	40,679,175	99.66%	136,844

* Data not available. The Town contracts with the counties to maintain tax records and must rely on the information provided.

(1) Amount represents the cumulative delinquent taxes for years 2008 and prior.

CHAPEL HILL STATISTICAL DATA

**Town of Chapel Hill
Assessed Value and Actual Value of Taxable Property
Last 10 Fiscal Years**

Fiscal Year	Residential Property	Commercial Property	Combined Real Property	Personal Property	Public Service Companies	Total Taxable Assessed Value	Total Direct Tax Rate	Estimated Actual Taxable Value	Ratio of Assessed Value to Estimated Actual Value
					(2)	(3)	(4)	(5)	(6)
2009	3,945,477,182	1,354,733,971	5,300,211,153	471,708,077	63,678,158	5,835,597,388	0.581	5,896,329,583	98.97%
2010	(1) 4,855,643,567	1,667,252,143	6,522,895,710	455,030,840	67,647,776	7,045,574,326	0.494	7,141,991,207	98.65%
2011	5,133,443,183	1,762,638,471	6,896,081,654	452,486,487	62,491,249	7,411,059,390	0.494	7,477,610,120	99.11%
2012	*	*	6,730,528,993	471,001,413	63,232,013	7,264,762,419	0.049	7,200,106,033	99.11%
2013	*	*	6,701,285,738	536,958,587	66,253,143	7,304,497,468	0.494	7,583,529,271	103.82%
2014	*	*	6,823,181,920	573,309,679	66,762,306	7,463,253,905	0.514	7,188,606,161	96.32%
2015	*	*	6,862,387,124	519,383,543	65,246,662	7,447,017,329	0.524	7,290,629,965	97.90%
2016	*	*	6,893,114,610	541,047,846	85,443,691	7,519,606,147	0.524	7,894,665,291	99.01%
2017	*	*	6,902,832,865	546,117,755	83,768,622	7,532,719,242	0.524	7,532,719,242	100.00%
2018	(1) *	*	7,399,771,971	550,409,864	84,467,574	8,034,649,409	0.508	8,062,060,414	99.66%

* The breakdown between residential and commercial property is not available for fiscal years after 2011.

(1) Revaluation year.

(2) Public service companies' valuations are provided by the North Carolina Department of Revenue. These amounts include both real and personal property.

(3) Source is the State Department of Revenue final report of assessed valuations of NC Municipalities for the 2010-2011 fiscal year.

(4) Per \$100 of value. Includes taxes for general fund, debt service fund, and transit fund.

(5) The estimated market value is calculated by dividing the assessed value by an assessment-to-sales ratio determined by the NC Department of Revenue. The ratio is based on actual property sales which took place during the fiscal year.

(6) Source is the Property Tax Division of the North Carolina Department of Revenue.

CHAPEL HILL STATISTICAL DATA

**Town of Chapel Hill
NC Demographic and Economic Statistics
Last 10 Fiscal Years**

Calendar Year	Population (1)	Personal Income (in thousands) (2)	Per Capita Personal Income (3)	Median Age (3)	Education Level in Years of Schooling (4)	School Enrollment (4)	Unemployment Rate % (5)
2009	55,616	5,450,187	43,844	24.2	15.82	40,316	4.5
2010	56,778	5,976,341	47,063	25.6	15.82	39,428	5.6
2011	57,233	6,186,352	47,925	25.6	15.82	41,139	5.4
2012	57,757	6,268,886	46,713	25.6	15.82	41,059	5.6
2013	58,424	6,608,945	48,683	25.6	15.82	41,402	5.6
2014	59,271	7,131,776	51,702	25.3	15.82	41,242	4.4
2015	59,653	7,345,876	52,339	25.3	15.82	41,176	4.9
2016	59,753	7,440,708	52,989	25.8	15.82	41,490	5.2
2017	59,569	7,822,299	55,338	25.7	15.82	41,199	4.9
2018	59,903	8,286,315	58,438	26.2	15.82	42,038	4.3

- (1) Town of Chapel Hill Department of Planning, Office of State Budget and Management.
- (2) U.S. Department of Commerce, Bureau of Economic Analysis. Data available for Orange County only. Most recent available census data.
- (3) U.S. Department of Commerce, most recent available census data.
- (4) Chapel Hill-Carrboro City Schools and the University of North Carolina at Chapel Hill.
- (5) N.C. Employment Security Commission, Local Area Unemployment Statistics.

FINANCIAL MANAGEMENT POLICY

ORANGE WATER AND SEWER AUTHORITY

SUMMARY

The purpose of this document is to describe a comprehensive and systematic approach to strategic financial planning, related policy decisions, and measurements of financial performance that collectively guide Orange Water and Sewer Authority (OWASA) in its ongoing efforts to provide its customers with high quality water, wastewater and reclaimed water services through responsible, sustainable and creative stewardship of the resources and assets it manages.

The following excerpt from OWASA's *Mission Statement* provides the framework for development of this approach and related policies.

- *Efficiency and Value - we will perform all services in a financially sound and responsible manner with sufficient revenues to properly operate and fully maintain the water and wastewater system. As OWASA relies solely on user fees, we will continue to be guided by cost-of-service principles with regards to our rates, fees, and charges, and operate the water and sewer system at the lowest rates consistent with our obligation to provide proper and efficient services, now and in the future. We remain committed to continuous improvement in all of our services and will provide high value to our customers.*
- *Sustainability - we will proactively plan, construct, operate, maintain, and finance the water and wastewater system in a manner consistent with the principles of environmental, social and economic sustainability.*

FINANCIAL PERFORMANCE OBJECTIVES		
Measurement	Objective	Section
Working Capital Reserves	The greater of 4 months of O&M budget or 20% of the succeeding 3 years of CIP budget	A.1
Capital Improvements Reserve Fund	Minimum fund balance target of 2% of annual depreciated capital costs	B.1
Debt Service Coverage Ratio	≥ 2.0	D.1
Debt Burden to Asset Value	≤ 50%	D.2
Sufficiency of Revenues Above Debt Requirements	Annual Debt service shall not exceed 35% of annual gross revenues	D.3
Credit Ratings	Aa2 – Moody's; AA+ – Standard & Poor's; AA+ – Fitch	D.4
Cash Financing of Capital	Annual revenues and cash reserves shall provide not less than 30% of CIP funding	E.1
Rate/Revenue Stabilization Fund	Minimum fund balance target of 5% of projected water and sewer revenue	E.2
Service Affordability	Average annual residential bill divided by real median household income shall be ≤ 1.5%.	F.2

In recognition of the dynamic environment in which OWASA operates, the desired results of policy decisions identified in the *Financial Management Policy* may not always be achievable within short-term operating cycles. These policy decisions should be viewed as guidance for long-term sustainable fiscal performance, with success measured against the entire planning horizon rather than to individual reporting periods.

Although not necessarily explicitly expressed in this document, the *Financial Management Policy* recognizes OWASA's major legal requirements and obligations arising from State laws and regulations, contractual agreements with bondholders and other stakeholders and OWASA's Sale and Purchase Agreements under which the organization was formed. If not specifically addressed herein, adherence to such requirements is mandated elsewhere.

This document categorizes policy considerations for sound, sustainable financial policies into the categories of general financial; asset management; investment management; debt management; rates, fees and charges; customer care; and annual budgeting process.

SECTION A. GENERAL FINANCIAL POLICIES

- A.1. **Working Capital Reserves:** OWASA shall maintain a fund balance at a level to sufficiently provide cash flow for daily financial needs in addition to adequate reserves to counter revenue instability and unanticipated expenses. The budgeted minimum reserve balance shall be equal to the larger of the following: a) 33% (four months) of the Operations & Maintenance (O&M) Budget, or b) 20% of the total estimated cost of the Capital Improvements Program (CIP) identified for the succeeding three years.
- A.2. OWASA shall make conservative, but reasonable estimates of revenues and costs.
- A.3. To the extent practical, the cost of system expansion shall be recovered from parties responsible for the expansion (“growth should pay for growth”).
- A.4. If the Executive Director deems it necessary at any time to submit any Budget or other proposal to the Board that does not comply with the parameters set forth in this document, he/she shall seek specific approval from the Board for such a proposal.

SECTION B. ASSET MANAGEMENT POLICIES

- B.1. **Capital Improvements Reserve Fund:** OWASA shall maintain a Capital Improvements Reserve Fund with a minimum fund balance target of 2% of the annual depreciated capital costs. The Capital Improvements Reserve Fund shall be an unrestricted reserve that is a component of the General Fund balance. The purpose of this reserve fund is to: ensure more sustainable funding for rehabilitation and replacement of the water and sewer systems and capital equipment; cover major unplanned increases in capital project costs; pay for previously unplanned capital needs; and provide funding flexibility needed in the Annual Budget to adjust for CIP costs carry-over adjustments.
- B.2. The annual budget shall provide 100% funding for maintenance activities required to ensure the operational integrity and safety of facilities and facility components.
- B.3. OWASA shall use a comprehensive approach to properly maintain all capital facilities, equipment, vehicles, etc.
- B.4. An amortization schedule shall be established for each physical asset to reflect the reasonable useful life of the asset.
- B.5. The costs of this comprehensive maintenance and rehabilitation program shall be reflected in OWASA’s annual budget and five-year CIP budget.

SECTION C. INVESTMENT MANAGEMENT POLICIES

- C.1. Cash management and treasury activities shall be managed in a manner that reflects efficient use of interest rates and maximizes fund performance balanced against investment risk and cash flow needs.
- C.2. OWASA shall attempt to reduce investment risk and maximize return on investments by participating in a variety of authorized investment instruments and financial institutions.
- C.3. Investment of OWASA funds shall not expose the assets to undue or unreasonable risk.

SECTION D. DEBT MANAGEMENT POLICIES

- D.1. **Debt Service Coverage Ratio:** OWASA’s Bond Order requires a minimum annual required Debt Service Coverage Ratio of 1.2. The minimum annual debt service coverage ratio shall be 2.0; provided, however, that the minimum coverage ratio for any single year when severe weather anomalies or other unforeseen

circumstances occur which negatively impact revenues and/or expenses shall not be less than 1.5 during the Fiscal Year.

- D.2. ***Debt Burden to Asset Value:*** The comparison of outstanding debt to infrastructure value is a reasonable indicator of debt capacity. OWASA's debt to plant ratio (outstanding debt divided by the book value of fixed assets) shall not exceed 0.5 (50%).
- D.3. ***Sufficiency of Revenues above Debt Requirements:*** OWASA shall maintain debt service as a percent of revenue at or below 35% of revenues.
- D.4. ***Credit Ratings:*** OWASA shall maintain Credit Ratings of at least Aa2, AA+ and AA+ from Moody's, Standard & Poor's and Fitch, respectively.
- D.5. Debt issuance shall be limited to financing the costs of capital asset project planning and design, land acquisition, buildings, permanent structures, attached fixtures and equipment, and the cost of debt issuance and capital reserves as may be required by creditors.
- D.6. The repayment of debt shall be structured in such a manner that the repayment period does not exceed the expected useful life of the assets acquired with the debt proceeds.

SECTION E. RATES, FEES AND CHARGES POLICIES

- E.1. ***Cash Financing of Capital:*** Annual revenues and cash reserves shall provide not less than 30% of the funds required for OWASA's CIP.
- E.2. ***Rate/Revenue Stabilization Fund:*** OWASA shall maintain a Rate/Revenue Stabilization Fund with a minimum fund balance target of 5% of the projected water and sewer revenue for the applicable year. The Rate/Revenue Stabilization Fund shall be an unrestricted reserve that is a component of the General Fund balance. The purpose of this reserve fund is to provide sufficient funding for the cost of maintaining, repairing and operating the water, wastewater and reclaimed water systems during extended periods when expenditures are higher and/or revenues are lower than budgeted while offsetting the need for rate increases and spending changes during the fiscal year.
- E.3. OWASA shall maintain a system of rates, fees and charges that effectively recovers allocated costs to customers and customer classes in reasonable proportion to their differing service requirements and their responsibility for the costs incurred by the utility. Adherence to the cost-of-service principle (benefiting party pays) as mandated by the Sale and Purchase Agreements and Bond Order shall be a primary guiding philosophy.
- E.4. OWASA's rates, fees, and charges shall be reviewed on an annual basis, and adjusted as necessary, to ensure that rate and revenue levels are adequately funding OWASA's financial, capital and operational goals, objectives and requirements.
- E.5. Rates shall be sufficient to generate income necessary to meet OWASA's revenue requirements. Revenue recovery from rates shall ensure financial stability as measured by adequate fund balance, operating reserves, debt service ratio, specified reserves and other measures established by OWASA.
- E.6. Rates should provide incentives for cost-effective use of facilities, conservation of water and efficient use and reuse of water resources, including rate surcharges during periods of water shortage.
- E.7. When OWASA determines that a rate increase is required, OWASA will strive to have such an increase be no higher than the general rate of inflation. However, OWASA shall set rates so that revenues will be sufficient at all times to provide for the cost of maintaining, repairing and operating the water, wastewater and reclaimed water systems, to pay the principal and interest on all issued or assumed debt, and to ensure the organization remains fiscally sound and financially sustainable.

- E.8. Although at times, operational or fiscal constraints may necessitate more aggressive or accelerated rate adjustments, rate levels and structures should be implemented through gradual programmed implementation of rate adjustments if possible.
- E.9. OWASA shall consider using the services of a qualified independent consultant to conduct a comprehensive rate study at approximately five-year intervals.

SECTION F. CUSTOMER CARE

- F.1. OWASA shall operate the water and sewer system at the lowest rates consistent with its obligation to provide proper and efficient services, now and in the future.
- F.2. *Service Affordability* is an important consideration for OWASA. The target for average annual residential water and sewer bill divided by real median household income is $\leq 1.5\%$.
- F.3. When setting rates and evaluating rate structures, OWASA will carefully consider the impact such rates and rate structures will have on low income customers, while ensuring that cost-of-service principles are met.
- F.4. OWASA endorses and will promote the Care to Share customer assistance program. Donations made to the program by OWASA customers shall be provided to the Inter-Faith Council to help customers in need to pay their OWASA bill.
- F.5. Customers, citizens, and elected officials shall be provided timely, clear and understandable information and opportunities for constructive citizen participation in OWASA’s rate decisions.

SECTION G. ANNUAL BUDGETING PROCESS

The preparation of the following documents on an annual basis is a key component of OWASA’s annual budgeting and rate setting process. Those documents followed by an asterisk (*) shall be presented for Board of Directors adoption.

Budget Calendar: The budget calendar shall include the proposed dates of all Board meetings and work sessions at which budget matters are to be discussed, and shall list the dates by which major budget tasks have been or are to be completed by staff.

Statement of Strategic Issues and Policies (SIP): The SIP shall identify the major issues, policies, and concerns that should be addressed in the upcoming annual budget and capital improvements deliberations.

Financial Planning Assumptions and Background Information Document: This document lists the major assumptions upon which the financial plans and budgets are to be based.

Five-Year CIP*: The CIP provides for the orderly repair and replacement of existing facilities, helps identify lead time for project planning, regulatory approvals, land acquisition, design, and construction, and provides a framework for strategically analyzing a wider range of acceptable alternatives, and for identifying, ranking, and executing projects.

15-Year Financial Planning Report: The planning report provides a long-term perspective for assessing the adequacy of rates and fees and the timing and amount of anticipated debt financing. It also provides a means of evaluating the economic feasibility of implementing the long-range CIP.

Annual Budget*: The annual budget provides the appropriation necessary to operate during the ensuing fiscal year.

The specific process and timeline for completing key components of OWASA’s annual budgeting and rate setting process will vary from year-to-year; however, the following table sets forth guidelines to which OWASA should generally adhere.

Task	Time Frame	Rationale
Review Strategic Issues, Policies and Economic Assumptions	November/December	Staff, the Finance Committee and Board shall review strategic issues, policies, and economic assumptions that are expected to impact and the preparation of budgets (O&M and CIP) and rates. The identification of these key issues will help shape the annual budgeting process.
Capital Improvements Program Review	February/March	The CIP provides for the orderly repair and replacement of existing facilities, lead time for project planning, regulatory approvals, land acquisition, design and construction, a framework for strategically analyzing a wider range of acceptable alternatives, and a framework for identifying, ranking, and executing projects. The Finance Committee and Board will review and comment on the draft CIP.
Operations and Maintenance Budget Review	February/March	The O&M budget provides funding for properly operating and maintaining OWASA's services and programs. The Finance Committee and Board will review the draft O&M budget to include cost containment and / or efficiency opportunities that may impact the O&M and CIP budgets.
Financial Planning and Rate Review	April	Upon completion of CIP and O&M budgets, this information and other planning assumptions shall inform OWASA's 15-year financial plan. Staff will review the financial plan with the Board and recommend increases or decreases in rates.
Conduct Public Hearings	May	The OWASA Board shall hold public hearings on the draft O&M budget; CIP budget; and proposed rates, fees and charges for the coming year.
Adopt Budgets and Rates	June	The OWASA Board shall adopt the O&M budget, CIP budget and rate schedule for the coming year.

GLOSSARY

ACCURAL BASIS OF ACCOUNTING – A basis of accounting under which increases and decreases in economic resources are recognized as soon as the underlying event or transaction occurs. Revenues are recognized when earned and expenses are recognized when incurred, regardless of the timing of related cash flows.

ALLOCATE – To set apart portions of budgeted expenditures which are specifically designated for special purposes.

ANNUAL BUDGET – A budget covering a single fiscal year (July 1 - June 30).

APPROPRIATION – A legal authorization to make expenditures and to incur obligations for specific purposes. An appropriation usually is limited in amount and the time it may be expended.

APPROPRIATION RESOLUTION – A resolution through which appropriations are given legal effect.

AUTHORITY – A public agency which performs a specified range of services that are usually financed from fees or service charges.

BALANCED BUDGET – A budget in which the sum of net revenues and appropriated fund balance is equal to appropriations.

BOND – A written promise to pay a specific amount of money with interest within a specific time period, usually long-term.

BUDGET – A financial plan containing projected expenditures and resources for a specified number of years.

BUDGET DOCUMENT – A formal document containing the organization's financial plan for a fiscal year. The budget document is divided into two major parts - the budget message and an operating budget. The operating budget section contains summaries of expenditures and resources. The budget document is presented in two phases, preliminary and final.

BUDGET MESSAGE – An overview of the proposed budget which discusses the major budget items and the organization's present and future financial condition.

BUDGETARY CONTROL – The control or management of a government or enterprise in accordance with an approved budget to keep expenditures within the limitations of available appropriations and available revenues.

CAPITAL IMPROVEMENT PROGRAM (CIP) – Capital projects that include construction, equipment purchases, major renovation of buildings, water and sewer lines, or other structures.

CAPITAL OUTLAYS – Expenditures budgeted to purchase or add to fixed assets with an estimated useful life greater than one year and costing \$5,000 or more.

CAPITAL PROJECT – A project expected to have a useful life of at least five years and an estimated total cost of \$10,000 or more. Capital projects include the construction, purchase, or major renovation of buildings, water and sewer lines, or other structures.

DEBT SERVICE – The payment of principal and interest on long-term debt.

DEBT SERVICE RATIO – A ratio that expresses the relationship of total net revenue to debt service.

DEFICIT – An excess of expenditures over revenues or expense over income.

DEPRECIATION – The allocation of the cost of a tangible asset over its useful life.

ENTERPRISE FUND – An accounting entity for reporting financial activity where a fee is charged to external customers for goods and services. Reporting of activities through an enterprise fund is required when the reporting entity's debt is backed solely by fees, or if a legal or policy requirement exists to recover costs through fees.

EXPENSE – Costs that occur as part of the organization's operating activities during a specified accounting period.

FINANCIAL MANAGEMENT POLICY – A Board adopted policy document describing a comprehensive and systematic approach to strategic financial planning, related policy decisions, and measurements of financial performance.

FISCAL YEAR – A 12-month period (July 1 - June 30) to which the annual operating budget applies and at the end of which an assessment is made of the organization's financial condition and performance of its operations.

FUND – An accounting entity created to record the financial activity for a selected financial grouping. A fund is set up to carry out a special function or attain certain objectives in accordance with set laws and regulations.

FUND BALANCE – An amount of resources set aside within a fund to provide adequate cash flow and reserves.

FUND TYPE – Any one of seven categories into which all funds are classified in governmental accounting. The seven fund types include; general, special revenue, debt service, capital projects, enterprise, internal service, and trust and agency.

GENERAL FUND – A fund which provides for the accounting of all financial resources except those designated to other funds.

GRANTS – A contribution or gift in cash or other assets from another government to be used for a specified purpose.

LONG-TERM DEBT – Debt with a maturity of more than one year after the date of issuance.

MGD – Millions of gallons per day. Used in measuring volume of water and wastewater flow. One (1) MGD = 1.5 cubic feet per second.

MODIFIED ACCRUAL BASIS OF ACCOUNTING – A basis of accounting under which increases and decreases in financial resources are recognized only to the extent that they reflect near-term inflows and outflows of cash. Revenues are recognized only if available to finance expenditures during the accounting period, and expenses are recognized when due and paid.

NONOPERATING EXPENSES – Expenses which are not directly related to the organization's primary activities.

NPDES – National Pollution Discharge Elimination System. Regulations that protect effluent receiving water (e.g., Morgan Creek) for swimming and fishing by limiting the amount of oxygen-consuming pollutants, primarily carbon and nitrogen, which can be discharged into the stream.

PUMP STATION – Structure containing pumps and accessory piping, valves and other mechanical and electrical equipment for pumping water, wastewater or other liquids. A pump station is used to pump wastewater from a sewer of lower elevation to a sewer of higher elevation.

PURCHASE AND SALE AGREEMENT – An agreement between the State of North Carolina on behalf of the University of North Carolina and the Orange Water and Sewer Authority that conveyed the water and wastewater treatment facilities previously owned by UNC to OWASA as of February 15, 1977. Similar and separate agreements were also executed with the Towns of Chapel Hill and Carrboro.

OPERATING BUDGET – A budget that applies to all outlays other than capital outlays and debt service.

OPERATING EXPENSE – Expenses which are directly related to the organization's primary activities other than capital outlays and debt service.

PERFORMANCE MEASURE – A measurement unit produced as a result of the activities carried out by a program (i.e., miles of pipe inspected, feet of water and sewer lines rehabilitated).

PROGRAM BUDGET – A plan whereby expenditures are budgeted by programs of work and grouped into specific service areas.

PROGRAM PERFORMANCE MEASURE – An indicator that reflects how effectively and efficiently a program is being carried out.

PROGRAM OBJECTIVE – A specific statement about what is to be accomplished or achieved (result) for a particular program during the fiscal year.

RECLAIMED WATER – wastewater that has gone through advanced treatment, such as occurs at OWASA's Mason Farm Wastewater Treatment Plant (WWTP), so that the water can be recycled back into the natural environment or used for allowable non-drinking purposes.

RESERVE – An account designated for a portion of the fund balance which is to be used for a specific purpose (e.g., maintenance reserve).

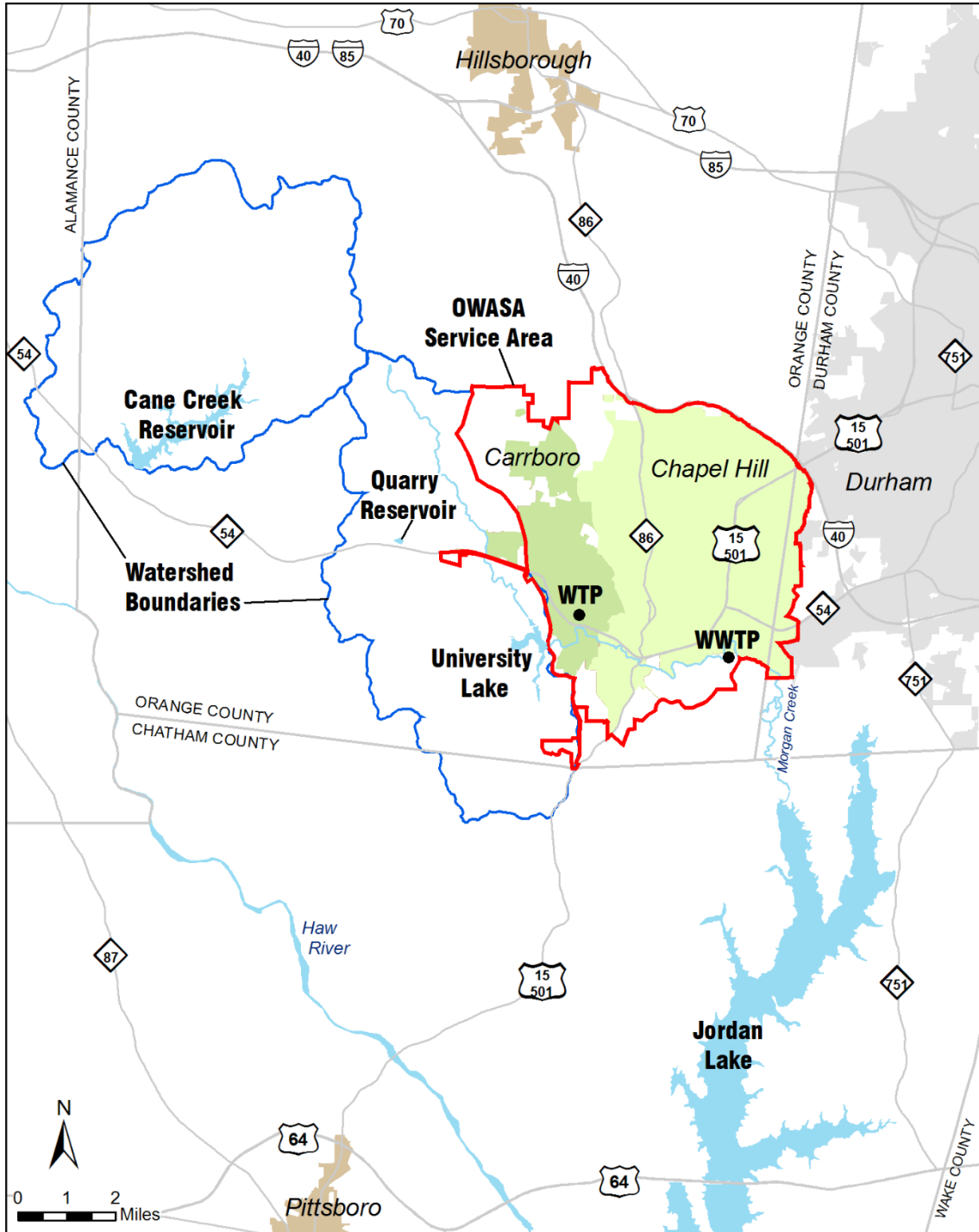
REVENUE BONDS – The primary method used by OWASA for long-term debt; they are repaid from user fees over the life of the assets. In general, these bonds have no claim on money derived from property taxes or special assessments.

REVENUES – Financial resources other than from bond issue proceeds.

SPECIAL ASSESSMENT – A levy on certain properties to defray part or all of the costs associated with improvements or services which will benefit those properties. For instance, a special assessment would be levied on property benefitting from the construction of water and sewer lines to serve a particular area.

SPECIAL REVENUE FUND – A fund used to account for the revenues from specific sources which are to be used for legally specified expenditures.

WORKING CAPITAL – The ratio of current assets to current liabilities. A measure of an organization's efficiency and short-term financial health.



Orange Water and Sewer Authority

OWASA is Carrboro-Chapel Hill's not-for-profit public service agency delivering high quality water, wastewater, and reclaimed water services.