



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, 2019

Christopher P. Morrill

Executive Director

BUDGET MESSAGE

**To the
Board of Directors**

The Annual Budget for the fiscal year beginning July 1, 2020 and ending June 30, 2021 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*.

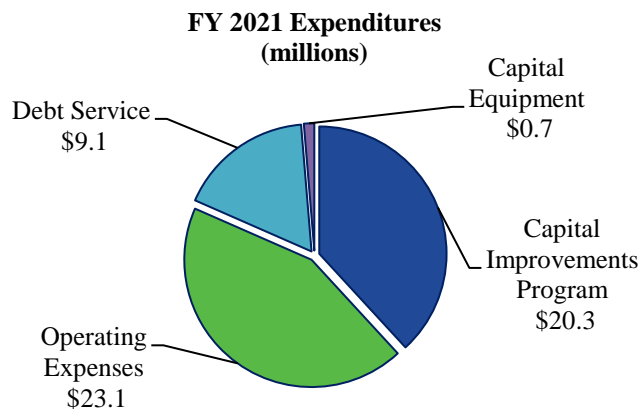
The primary drivers of this budget include the capital improvements project needs identified in OWASA's five-year Capital Improvements Program (CIP); projected drinking and reclaimed water demands; wastewater management needs; operating expenses required to sustain service levels; debt obligations; and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

Projected operating revenues for Fiscal Year (FY) 2021 reflect the impact of the COVID-19 pandemic on water demand in OWASA's service area. In mid-March 2020, the North Carolina governor issued a stay at home order. Many local businesses closed, and UNC essentially closed its campus resulting in a 12% reduction in customer water demand. Projected revenue has been reduced from original projections by 12% for the first six months of FY 2021.

The FY 2021 budget also does not include an increase in any of the rates and fees charged for services. Pre-pandemic budget planning indicated the need for a 5% rate increase to fund the operating and capital needs of the organization. To achieve a balanced budget without a rate increase, about \$5.4 in capital improvements projects have been deferred to future years. Additionally, reductions were made to the operating budget including eliminating cost of labor and merit pay increases for employees and deferring a project to implement a new computerized maintenance management system. These cuts and deferrals increase certain risks, but the organization considers the additional risks acceptable under the circumstances.

OWASA's Finance Management Policy identifies nine financial management objectives for the organization. The FY 2021 budget is designed to meet all but one of these objectives. The Policy sets the target for our debt service coverage ratio at 2.0; as designed, the FY 2021 budget results in a debt service coverage ratio of 1.5 (OWASA's bond order requires it to be at least 1.2). Given the extraordinary circumstances related to the COVID-19 pandemic and since the other financial management objects are expected to be met, the organization does not believe missing our debt service coverage ratio objective this year will have a significant negative impact on our financial position or our ability to issue bonds or borrow.

The budget consists of projected revenues of \$37 million, capital project costs of \$20.3 million, operating expenses of \$23.2 million, debt service payments of \$9.1 million, and capital equipment purchases of \$704,500. The operating expense budget is about 1.6% less than the original FY 2020 budget.



**Highlights of the
Budget**

Key elements of this budget include:

- No increase in monthly water and wastewater rates or any other fees or charges.
- 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 remain \$8.47 per thousand gallons of water consumed during the warmer peak water demand months of May through September 2021. The water commodity charge during the cooler, lower demand months of October 2020 through April 2021 will remain \$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 will remain \$75.62. (Average monthly use for customers in this class is 4,000 gallons.)

- An annual operating budget of \$23.2 million, which is a decrease of 1.6% from the original FY 2020 budget. The FY 2021 budget includes funding for 135 personnel positions.
- The budget does not include any increases in employee compensation. 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. To achieve a balanced budget with lower than expected water and sewer revenue and without the initially planned 5% rate increase, employee compensation increases were eliminated for FY 2021.
- Capital improvement spending of \$20.3 million for FY 2021, as identified in the five-year CIP. For the five-year period FY 2021-25, approximately 75% of the planned \$101 million 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 \$16 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 and we expect to develop a new strategic plan in FY 2021. Highlights and the status of the 2016 plan are summarized below.

Initiative	Goals	Status
<p>Provide reliable and high-quality supply of water for the next 50 years</p>	<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. <hr/> <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"> • 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. The Board is currently evaluating supply and demand management alternatives to meet our long-term water needs. <hr/> <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. • As part of the LRWSP update, staff evaluated updated mutual aid agreements. The Town of Cary wishes to operate within the provisions of existing mutual aid agreements as opposed to new agreements which would guarantee OWASA's access to its allocation. Cary recognizes that the Triangle water utilities are more interconnected than before and want to maintain flexibility to provide water to the utilities that need it most.

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 engage stakeholders through various communications channels, community partnerships, and activities with diverse communities of Carrboro and Chapel Hill • Continue to promote customer engagement with Agua Vista Web Portal • Enhance virtual communication opportunities with the community, including increased presence on social media, more dynamic features on the website, and the use of other online media • Proactively engage the community in the planning and implementation of capital, system development, and forest management projects
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"> • Install solar panels on three to four OWASA facilities through a solar lease agreement • Implement Board-approved Energy Management Plan. Since 2010, OWASA has reduced its use of purchased electricity by 28%, greenhouse gas emissions by 40%, and avoided 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, almost 45% 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 drafted forest stewardship plans for two tracts and the plans follow its guiding principles recently established by OWASA's Board. These two plans are currently being reviewed by neighboring landowners and will be finalized later in the 2020 calendar year.

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 28, 2020, and the budget and rate schedule were adopted by the Board on June 11, 2020.

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 2021 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 2021 budget is \$7.7 million.
 - 20% of planned capital improvements for FY 2021 through FY 2023 is \$12.2 million.
 - The General Fund ending balance for FY 2021 is projected to be \$18.7 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 34% cash funding of capital projects during fiscal years 2021 through 2025.
- Debt service coverage ratio. Although OWASA's *Financial Management Policy* stipulates that our debt service coverage ratio goal is 2.0, the debt service coverage ratio for FY 2021 is projected to be 1.5.

Projected operating revenues for FY 2021 reflect the impact of the COVID-19 pandemic on water demand in OWASA's service area. Water demand during pandemic has been about 12% less than normal and FY 2021 budgeted revenue has been reduced from original projections by 12% for the first six months of the fiscal year. Pre-pandemic budget planning indicated the need for a 5% rate increase to fund the operating and capital needs of the organization. Due to the pandemic's impact on the local economy, the projected FY 2021 rate increase has been deferred.

Given the extraordinary circumstances related to the COVID-19 pandemic and since the other financial management objects are expected to be met, the organization does not believe

missing our debt service coverage ratio objective this year will have a significant negative impact on our financial position or our ability to issue bonds or borrow.

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 2022	7% Water	7% Wastewater
FY 2023	5% Water	5% Wastewater
FY 2024	5% Water	5% Wastewater

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

The Need for Rate Increases

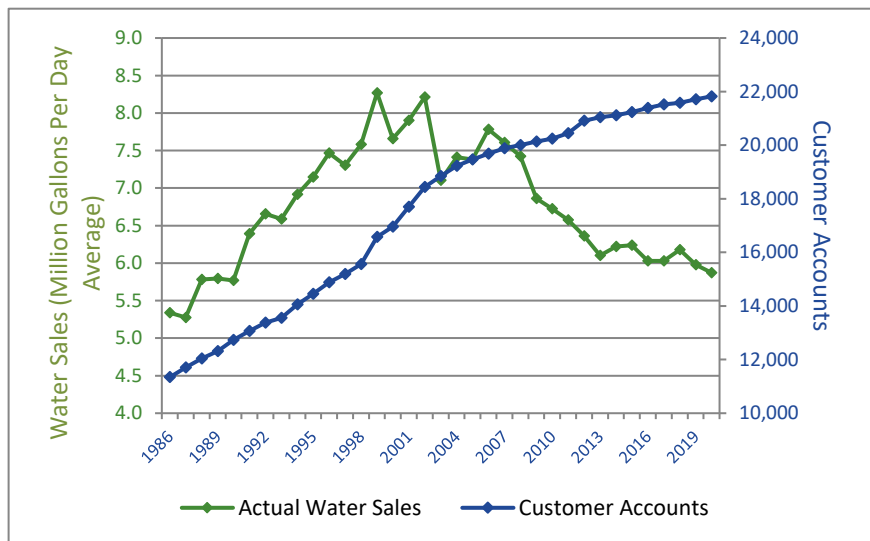
The projected rate increases are necessary for providing the funding required to meet the community’s water and wastewater needs.

- 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.

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.

Customer Demand and Service Levels

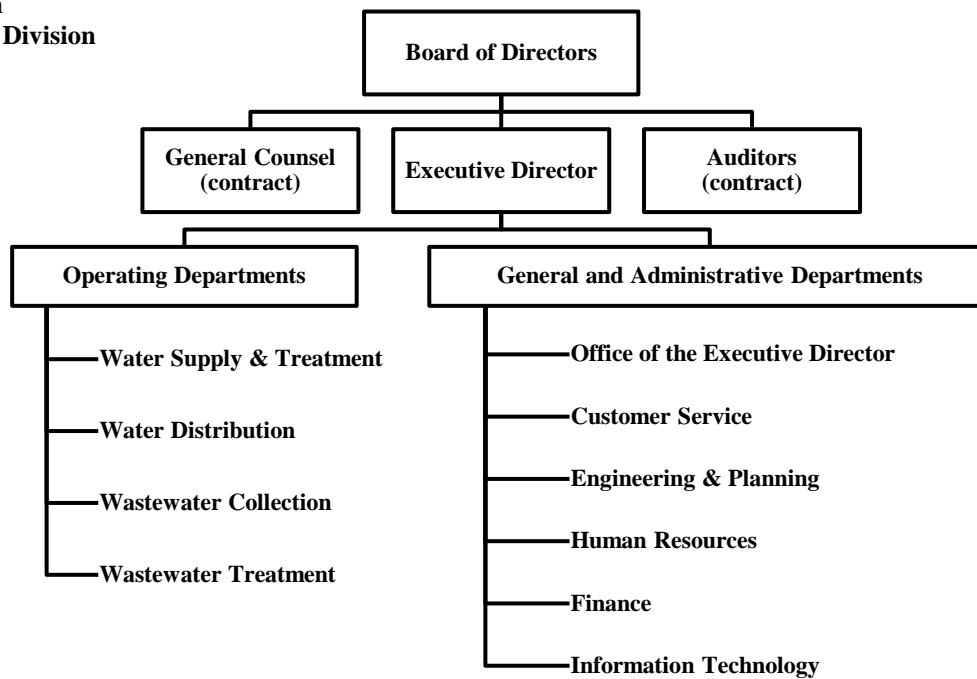
Over the last 20 years, drinking water demand in OWASA’s service area has declined substantially even as the number of customers served has increased (see chart below). Projected water demand for FY 2021 is about the same as it was in the early 1990s while the number of customers served has increased 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 2021 projections for drinking water demand and new connections are affected by several factors including:
 - As mentioned, due to the COVID-19 pandemic, drinking water sales in FY 2021 are expected to be less than they have been for the last several years. Average daily drinking water demand in FY 2021 is projected to be approximately 5.98 million gallons per day (MGD).
 - Reclaimed water (RCW) sales are budgeted to be approximately the same as recent years. Estimated RCW use during FY 2021 is 0.8 MGD.
- Based on the development plans in OWASA’s service area, we expect to install 216 new 5/8” meter equivalents for the year.
- A construction cost inflation rate of 5.0% is assumed for FY 2022 and beyond.

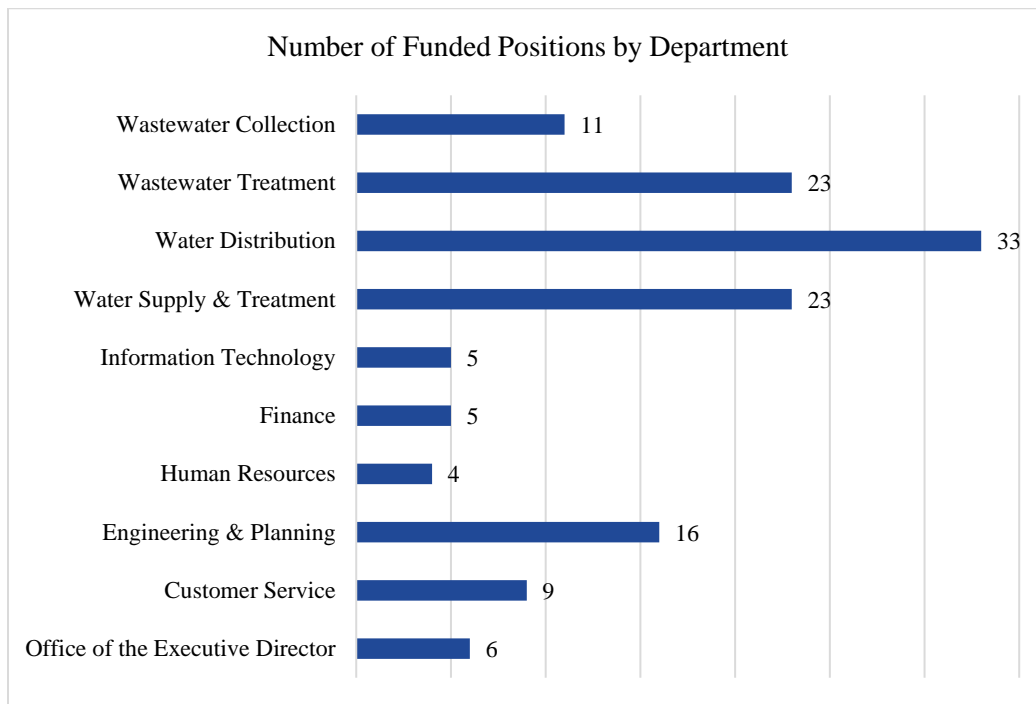
**Organization
Overview by Division**



**Staffing
Summary**

In June 2019, OWASA’s Executive Director, Ed Kerwin, announced he would retire in June 2020. Mr. Kerwin served as Executive Director for over 24 years. The Board of Directors engaged a consultant to help recruit Ed’s replacement and after a thorough process that included a nationwide search promoted OWASA’s General Manager of Operations, Todd Taylor, P.E. to the Executive Director position. Mr. Taylor assumed the position on July 6, 2020.

The OWASA Board has authorized a total of 142 positions; 135 are funded for FY 2021. 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	\$35,926,184		
Operating Expenses			
Net Expenses, General and Administrative		\$7,836,615	
Net Expenses, Operating		<u>15,353,729</u>	
Net Total Operating Expenses		23,190,344	
Net Operating Income			\$12,735,840
System Development Fees and Interest Earned	1,162,786		
Total Net Income			13,898,626
Total Debt Service		9,068,258	
Debt Coverage Ratio			1.5

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

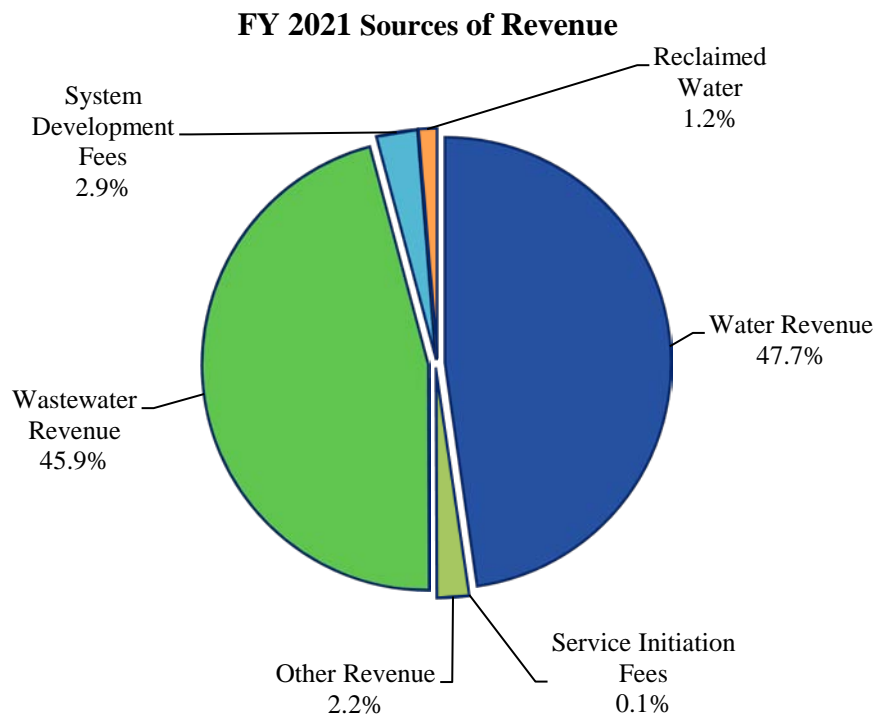
Description	Resources	Expenses	Balance
General Fund Beginning Balance (7/1/20)			\$19,368,140
Transfer from Revenue	4,830,368		
Loan proceeds	15,488,632		
Funds Available for Expenditures			39,687,140
Total Estimated Capital Expenditures		\$21,023,500	
General Fund Ending Balance (6/30/2021)			<u>\$18,663,640</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 2021, 48.9% of total budgeted revenue is anticipated from water and reclaimed water services while wastewater services are expected to generate 45.9%. System development (new connection) fees, plan review and construction observation fees, rents, royalties, administrative fees, and interest income contribute the remaining 5.2% of total projected revenues.



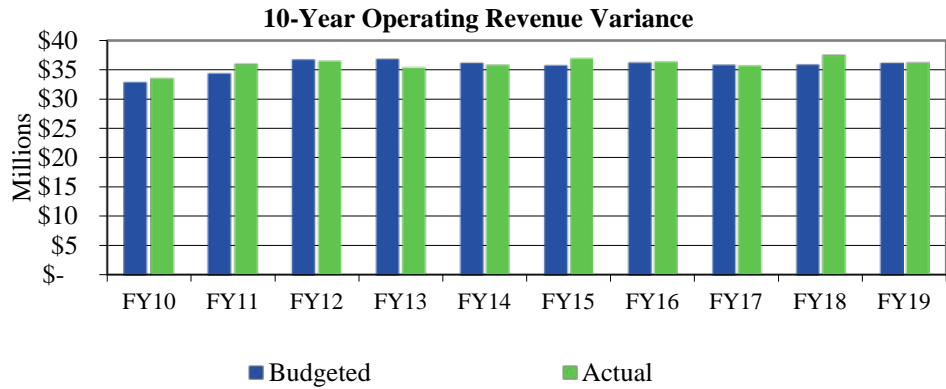
OWASA collects fees for delivery of reclaimed water services through a reclaimed water utility that became operational in 2009. The system primarily serves UNC for non-drinking purposes such as irrigation and cooling tower make-up water on campus.

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 2021 is approximately 216, 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. FY 2021 revenue from these fees is projected to be significantly lower than in previous years. With the implementation of the Agua Vista advanced metering infrastructure system, in most circumstances we no longer need to visit a customer's property to turn meters on or off. Since we do not have to travel to a customer's location, there are no associated costs to be recovered.
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.



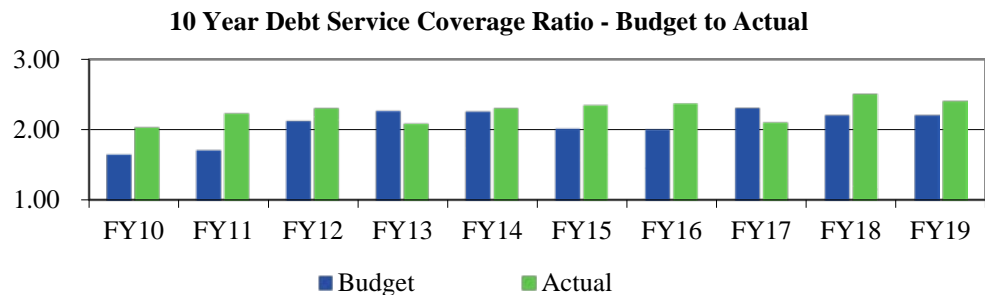
Debt and Debt Policy

Revenue Bonds and low-interest loans from the State of North Carolina 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 2020, OWASA's debt burden to asset value was 26%.

Outstanding debt was \$74.2 million as of June 30, 2020. The debt outstanding for each bond issue or loan is: Series 2010 refunding bonds - \$1.8 million, Series 2014 refunding bonds - \$13.4 million, Series 2015 refunding bonds - \$1.4 million, Series 2018 refunding bonds - \$18.0 million, Series 2019 revenue bonds - \$16.7 million, Series 2020 refunding bonds - \$9.5 million, and low-interest and interest-free loans from the state of North Carolina - \$13.4 million. Principal and interest payments on these balances will be approximately \$9.1 million in FY 2020. 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 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.

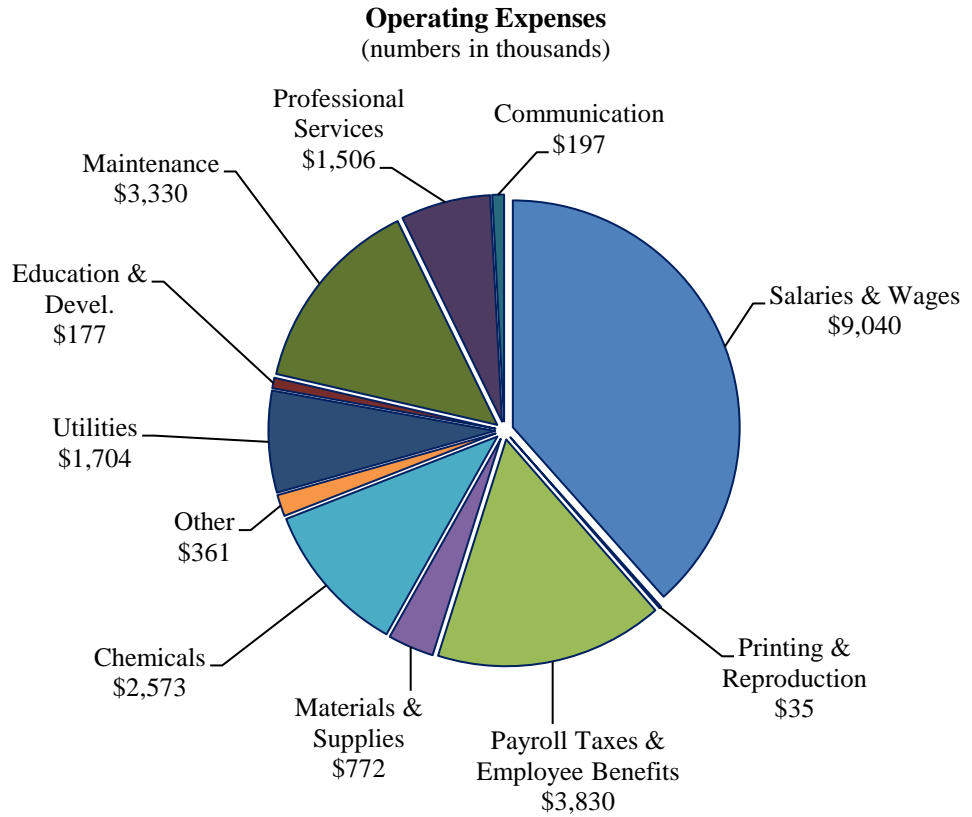


**Planned
Operating
Expenses
Summary**

The chart below shows the planned operating expenses for FY 2021. 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 2021**

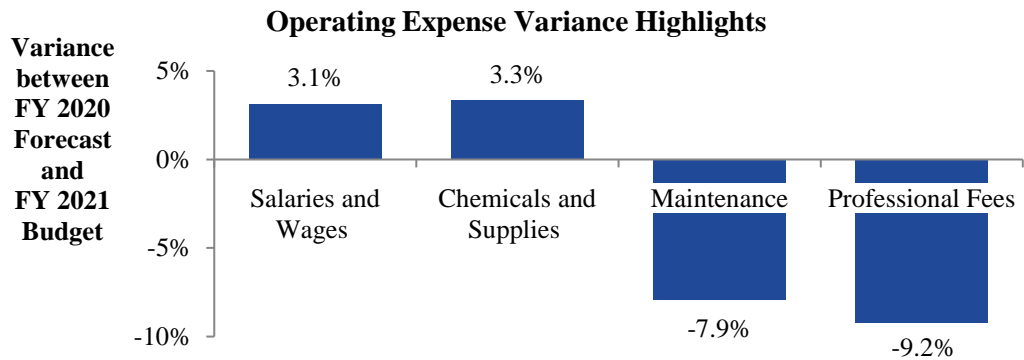
	General and Administrative	Operating Departments	Total Budget
Salaries & Wages	\$3,777,553	\$5,262,328	\$9,039,881
Payroll Taxes & Employee Benefits	1,601,088	2,228,474	3,829,562
Materials & Supplies	143,613	628,410	772,023
Chemicals	-	2,572,564	2,572,564
Utilities	190,800	1,513,021	1,703,821
Maintenance	468,853	2,861,627	3,330,480
Professional Services	1,316,886	188,821	1,505,707
Communication	187,746	9,500	197,246
Printing & Reproduction	26,700	8,500	35,200
Education & Development	95,010	82,075	177,085
Other	<u>175,545</u>	<u>185,659</u>	<u>361,204</u>
Total	<u>\$7,983,794</u>	<u>\$15,540,979</u>	<u>\$23,524,773</u>
Construction Credits	(147,179)	(187,250)	(334,429)
Total After Construction Credits	<u>\$7,836,615</u>	<u>\$15,353,729</u>	<u>\$23,190,344</u>



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 2021 Budget and FY 2020 Forecast.



Salaries and Wages

The budget for salaries and wages is approximately \$274,000 or 3.1% higher than the amount forecasted for FY 2020. As a way to reduce costs to help offset revenue reductions due to the impact of the COVID-19 pandemic, OWASA chose to forego employee compensation increases for FY 2021. The increase in salaries and wages expense is due to position vacancies which reduced FY 2020 expense and funding an addition of a Maintenance Mechanic position for FY 2021.

Chemicals and Supplies

The FY 2021 budget for chemicals to treat drinking water and wastewater is approximately \$108,000 or 3.3% greater than the FY 2020 forecast; we expect increases in unit costs.

Maintenance

The budget for maintenance expense is approximately \$288,000 or 7.9% lower than the forecast for FY 2020. To reduce FY 2021 costs, we deferred certain planned maintenance activities.

Professional Fees

The budget for professional services is approximately \$153,000 or 9.2% lower than the forecast for FY 2020. A project to replace our computerized maintenance management system was postponed.

Capital Equipment

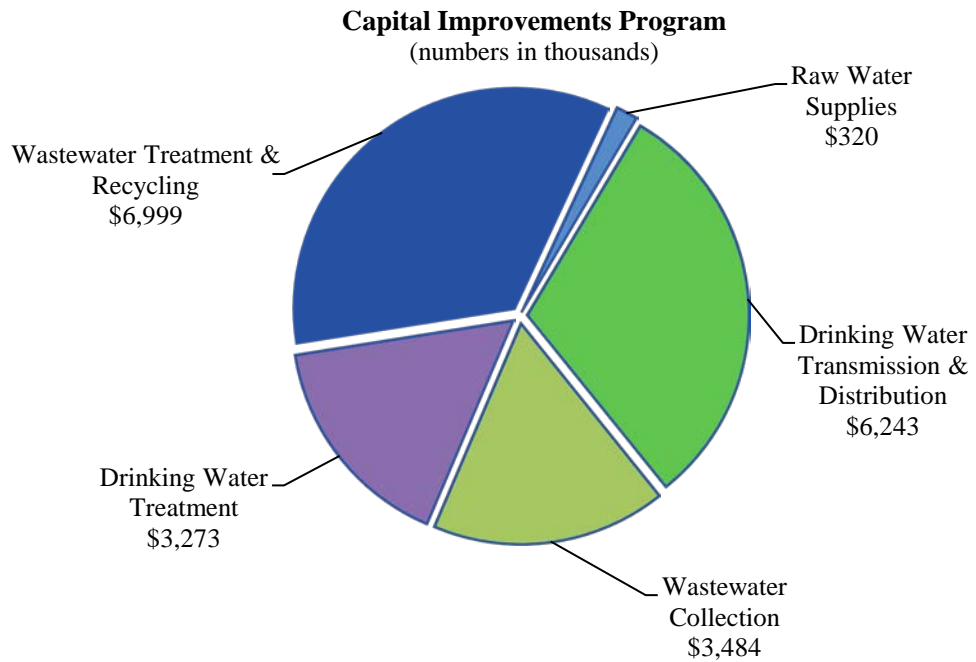
OWASA replaces capital equipment items that has exceeded its useful life and purchases equipment to meet operational needs. Purchases planned for FY 2021 total \$704,500 (see schedule on page 17).

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 2021, capital improvements projects total \$20.3 million, as shown below.

The improvements planned for FY 2021-2025 is approximately \$101 million. To balance our budget without a rate increase and lower than expected revenue, about \$5 million of CIP projects were deferred until FY 2026 or later. While these deferrals increase certain risks, we believe the risks are acceptable in the circumstances.



**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:

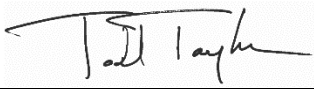
1. The COVID-19 pandemic is having an impact on the economy in OWASA’s service area. Many area businesses have closed or are operating at reduced capacity and the University of North Carolina is conducting classes online.
2. Drinking water and reclaimed water sales in FY 2021 are expected to be about 6% less than recent years.
3. FY 2021 forecast for new construction and system growth is about 216 meter equivalents.
4. 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.
5. The CIP budget for FY 2021 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.

Conclusion

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.

We believe the FY 2021 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.



Todd Taylor, P.E.
Executive Director



Stephen Winters, CPA
Director of Finance and Customer Service

SECTION I

ORANGE WATER AND SEWER AUTHORITY OVERVIEW

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Capital Improvements Program, Five-Year Overview for FY 2021-2025 [23](#)

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

Ray DuBose
103 Easy Street
Chapel Hill, NC 27516
Appointed by Orange County; Term Expires 6/30/23

VICE CHAIR

Ruchir Vora
522 Dogwood Drive
Chapel Hill, NC 27516
Appointed by Chapel Hill; Term Expires 11/30/20*

SECRETARY

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

MEMBERS

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

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 11/30/20*

Bruce L. Runberg
601 MLK Jr. Blvd., Unit #1
Chapel Hill, NC 27514
Appointed by Chapel Hill; Term Expires 6/30/22

* Member's term has been extended. Chapel Hill Town Council has extended the board member terms originally scheduled to end in June 2020 and plans to make appointments in the fall.

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)
Kenneth Loflin, Water Supply and Treatment Manager
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, Executive Director
Mary Tiger, Sustainability Manager
Vacant, General Manager of Operations
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 2021

Basis of Accounting

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

Budget Process

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.

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.

Budget Calendar

December 2019	Distributed templates for the preparation of operating expense appropriations, capital equipment requests and departmental budget narratives.
January 23, 2020	Board of Directors Meeting – reviewed FY 2021 Budget Calendar and Assumptions
January 23, 2020	Submission of Capital Equipment Request Forms, Budget Narratives and Departmental Operating Budget Requests to Budget Officer.
February 13, 2020	Board of Directors Work Session – managers of the Water Supply and Treatment, Water Distribution and Wastewater Collection, and Wastewater Treatment departments presented information about key drivers, opportunities and challenges of their departments' preliminary budgets.
March 12, 2020	Board of Directors Work Session – reviewed preliminary FY 2021 budget information.
March 26, 2020	Board of Directors Meeting (the first conducted remotely during the pandemic) – discussed FY 2021 budget and rate adjustment information and decided to pursue a budget without a rate increase.
April 9, 2020	Board of Work Session – reviewed of FY 2021 budget and rate adjustment options.
April 23, 2020	Board of Directors Meeting – set the date for public hearings.
May 14, 2020	Board of Directors Meeting – authorized staff to publicize budget and rates information.
May 28, 2020	Board of Directors Meeting – Public Hearing on the Draft Annual Budget, Capital Improvements Budget and proposed adjustments to rates, fees, and charges.
June 11, 2020	Board of Directors Work Session – adopt FY 2021 Annual Budget and Schedule of Rates, Fees and Charges.
August 2020	Distribution of FY 2021 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 5% and 7%. 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 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Rate increase	7%	5%	5%	5%	5%	5%	5%	5%	5%	5%
	(numbers below in thousands)									
Revenue	\$41,597	\$44,088	\$46,548	\$49,170	\$51,954	\$54,283	\$57,742	\$60,872	\$64,197	\$67,799
Operating expenses	23,637	24,509	25,417	26,363	27,348	28,374	29,443	30,557	31,718	32,929
Capital Improvements Projects	20,258	20,841	19,831	19,771	19,977	30,589	33,263	35,416	20,593	26,798
Debt service coverage ratio	2.0	1.9	2.1	1.9	2.0	2.1	2.3	2.1	2.7	2.6

STATEMENT OF INCOME, EXPENSE AND DEBT SERVICE (OPERATING)

	FY 2019 Actual	FY 2020 Budget	FY 2020 Forecast	FY 2020 Forecast to FY 2020 Budget	FY 2021 Budget	FY 2021 Budget to FY 2020 Forecast
Operating Revenue						
Water	\$17,666,257	\$17,659,996	\$17,659,996	0.00%	\$17,701,102	0.23%
Sewer	17,289,359	17,005,095	17,005,095	0.00%	17,018,502	0.08%
Reclaimed Water	456,926	489,911	489,911	0.00%	463,200	-5.45%
Service Initiation Fee	98,625	34,817	34,817	0.00%	18,820	-45.95%
Other	905,997	950,923	950,923	0.00%	922,685	-2.97%
Refunds and Adjustments	<u>(231,323)</u>	<u>(135,054)</u>	<u>(135,054)</u>	0.00%	<u>(198,125)</u>	46.70%
Total Operating Revenue	<u>36,185,841</u>	<u>36,005,688</u>	<u>36,005,688</u>	0.00%	<u>35,926,184</u>	-0.22%
Operating Expense						
General and Administrative	7,425,834	7,815,823	7,815,823	0.00%	7,836,615	0.27%
Operations	<u>15,246,688</u>	<u>14,219,916</u>	<u>14,219,916</u>	0.00%	<u>15,353,729</u>	7.97%
Total Operating Expense	<u>22,672,522</u>	<u>22,035,739</u>	<u>22,035,739</u>	0.00%	<u>23,190,344</u>	5.24%
Net Operating Income	13,513,319	13,969,949	13,969,949	0.00%	12,735,840	-8.83%
Non-operating Revenue						
System Development Fees	1,593,210	1,371,223	1,371,223	0.00%	1,081,490	-21.13%
Interest	<u>64,843</u>	<u>66,532</u>	<u>66,532</u>	0.00%	<u>81,296</u>	22.19%
Total Net Income	<u>15,171,372</u>	<u>15,407,704</u>	<u>15,407,704</u>	0.00%	<u>13,898,626</u>	-9.79%
Debt Service						
Existing	7,229,278	6,735,246	8,047,262	19.48%	7,568,498	-5.95%
New	<u>-</u>	<u>1,312,016</u>	<u>-</u>		<u>1,499,760</u>	
Total Debt Service	<u>7,229,278</u>	<u>8,047,262</u>	<u>8,047,262</u>	0.00%	<u>9,068,258</u>	12.69%
Net Income Less Debt Service	<u>\$7,942,094</u>	<u>\$7,360,442</u>	<u>\$7,360,442</u>	0.00%	<u>\$4,830,368</u>	-34.37%
Debt Coverage Ratio	2.1	1.9	1.9		1.5	

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 2019 Actual	FY 2020 Budget	FY 2020 Forecast	FY 2020 Forecast to FY 2020 Budget	FY 2021 Budget	FY 2021 Budget to FY 2020 Forecast
General Fund						
Resources						
Transfer from Revenue	\$7,942,094	\$7,360,442	\$7,360,442	0.00%	\$4,830,368	-34.37%
Assessments	-	-	-		-	0.00%
Grants and Contributions	-	-	-		-	0.00%
Annual Income Available for Capital	<u>7,942,094</u>	<u>7,360,442</u>	<u>7,360,442</u>	0.00%	4,830,368	-34.37%
Transfer from Construction Fund (Bond/Loan Proceeds)	<u>-</u>	<u>20,000,000</u>	<u>20,580,967</u>	0.00%	<u>15,488,632</u>	0.00%
Total Available for Capital	<u>7,942,094</u>	<u>27,360,442</u>	<u>27,941,409</u>	2.12%	<u>20,319,000</u>	-27.28%
Capital Expenditures						
Project Ordinances						
General Fund Contribution	14,342,252	5,223,000	11,707,752	124.16%	4,830,368	-58.74%
Funded by Bond/Loan Proceeds	<u>2,956,898</u>	<u>20,000,000</u>	<u>13,863,248</u>	0.00%	<u>15,488,632</u>	0.00%
Total Project Resolutions	17,299,150	25,223,000	25,571,000	1.38%	20,319,000	-20.54%
Capital Equipment	<u>899,487</u>	<u>989,700</u>	<u>473,960</u>	-52.11%	<u>704,500</u>	48.64%
Total Capital Outlay	<u>18,198,637</u>	<u>26,212,700</u>	<u>26,044,960</u>	-0.64%	<u>21,023,500</u>	-19.28%
Annual General Fund Balance	<u>(\$10,256,543)</u>	<u>\$1,147,742</u>	<u>\$1,896,449</u>	65.23%	<u>(\$704,500)</u>	-137.15%
General Fund Beginning Balance		17,284,220	17,284,220	0.00%	19,368,140	12.06%
General Fund Ending Balance	17,284,220	18,431,962	19,180,669	4.06%	18,663,640	-2.70%
Project Funding	329,220	(1,453,940)	1,896,570	-230.44%	(81,500)	-104.30%
Reserves						
Rate/Revenue Stabilization	1,750,000	1,865,102	1,774,470	-4.86%	1,759,140	-0.86%
Capital Improvements	3,600,000	4,400,000	4,000,000	-9.09%	4,800,000	20.00%
Working Capital	<u>11,605,000</u>	<u>13,620,800</u>	<u>11,509,629</u>	-15.50%	<u>12,186,000</u>	5.88%
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	-	\$37,088,970	(\$37,088,970)	-	-
Bond Service Fund	0	9,068,258	(9,068,258)	0	-
General Fund	<u>19,368,140</u>	<u>20,319,500</u>	<u>(21,023,500)</u>	<u>18,663,640</u>	<u>(704,500)</u>
Total	<u>\$19,368,140</u>	<u>\$66,476,728</u>	<u>(\$67,180,728)</u>	<u>\$18,663,640</u>	<u>(\$704,500)</u>

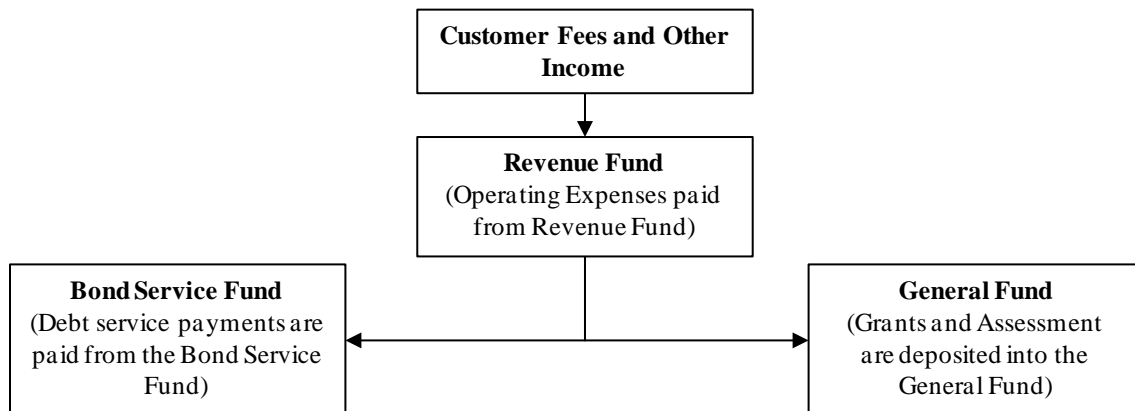
OWASA's Fund Accounting Structure

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

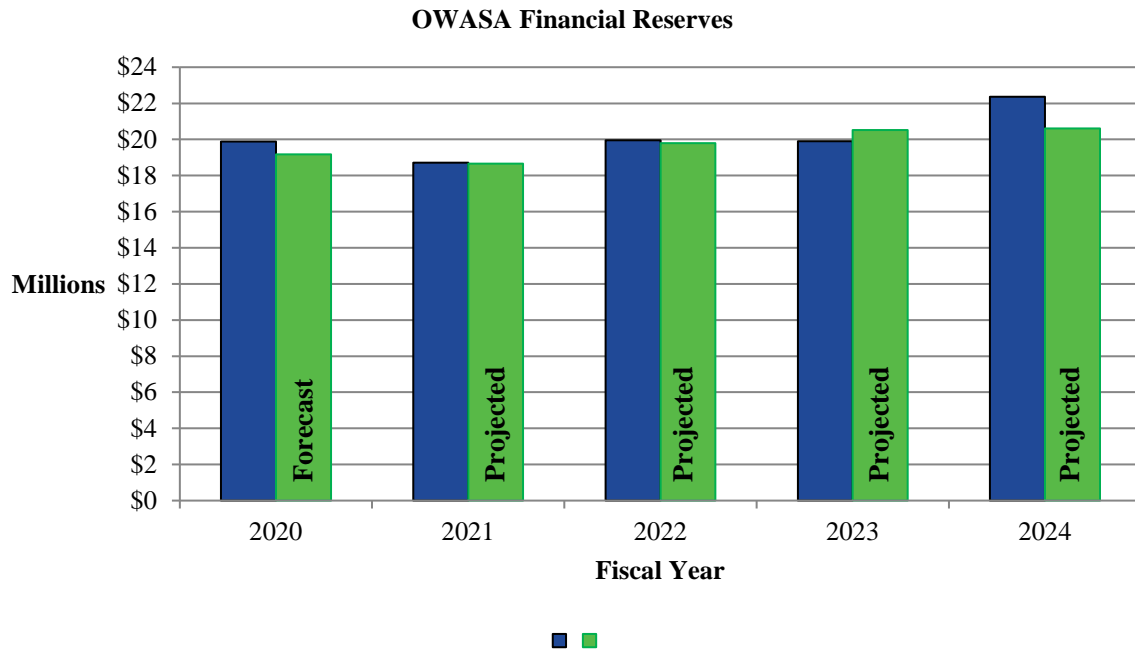
OWASA’s *Financial Management Policy* (see Section III) includes certain financial performance objectives which are intended to help management and other stakeholders monitor the organization’s financial condition. One of the objectives is to maintain adequate financial reserves and OWASA has established 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 2019, 2% of depreciated capital assets was about \$5.3 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 \$4.8 million at the end of FY 2021.

Rate/Revenue Stabilization – At least 5% of projected water and wastewater revenue. The balance in this reserve is projected to be about \$1.7 million at the end of FY 2021.

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, 2020			-
Receipts			
Operating Revenue			
Customer Billings	17,701,102	17,018,502	34,719,604
Reclaimed Water	463,200	-	463,200
Service Initiation Fee	9,410	9,410	18,820
Other	461,343	461,342	922,685
Refunds and Adjustments	(99,063)	(99,062)	(198,125)
Total Operating Revenue	18,535,992	17,390,192	35,926,184
Non-operating Revenue			
Customer Fees	466,825	614,665	1,081,490
Interest Income	40,648	40,648	81,296
Total Non-operating Revenue	507,473	655,313	1,162,786
Total Receipts	19,043,465	18,045,505	37,088,970
Expenditures			
Current Expense	(12,754,689)	(10,435,655)	(23,190,344)
Debt Service	(5,168,907)	(3,899,351)	(9,068,258)
Total Expenditures	(17,923,596)	(14,335,006)	(32,258,602)
Net Revenue			4,830,368
To General Fund			(4,830,368)
Fund Balance June 30, 2021			-
Change in Available Balance			-

FUND BALANCE STATEMENTS

BOND SERVICE FUND

Fund Balance July 1, 2020		-
Receipts		
Transfers from Revenue Fund	9,068,258	
Interest	<u> </u>	
Total Receipts		9,068,258
Expenditures		
Debt Service	<u>9,068,258</u>	
Total Expenditures		<u>(9,068,258)</u>
Fund Balance June 30, 2021		<u>-</u>
Change in Available Balance		<u><u>-</u></u>

FUND BALANCE STATEMENTS

GENERAL FUND

Fund Balance July 1, 2020		\$19,368,140
Receipts		
Transfer from Revenue fund	4,830,368	
Transfer from Construction Fund (Loan Proceeds)	15,488,632	
Interest	-	
Assessments	-	
Grants and contributions	-	
	<hr/>	
Total Receipts		<hr/> 20,319,000
Total Balance Before Expenditures		39,687,140
Expenditures		
Capital Equipment/Leases	704,500	
Project Resolutions	20,319,000	
Transfer to Revenue Fund	0	
	<hr/>	
Total Expenditures		<hr/> (21,023,500)
Fund Balance June 30, 2021		<hr/> <hr/> \$18,663,640
Allocation of Fund Balance June 30, 2021		
Project Funding		
Capital Reserves	18,663,640	
	<hr/>	
Total Allocation		<hr/> <hr/> \$18,663,640
Unallocated General Fund Balance June 30, 2021		<hr/> -
Change in Available Balance		<hr/> <hr/> (\$704,500)

FUNDS FLOW STATEMENT

Revenue Fund

Operating Revenue	\$35,926,184	
Customer Fees	1,081,490	
Interest Income	<u>81,296</u>	
Total Revenues		37,088,970
Operating and Maintenance Expense	(23,190,344)	
Bond Service Fund (transfers to)	<u>(9,068,258)</u>	
Total Expenditures		<u>(32,258,602)</u>
Excess operating revenue (to be transferred to the General Fund)		4,830,368

General Fund

Beginning Balance July 1, 2018	19,368,140	
Transfer from Revenue Fund	4,830,368	
Assessments	0	
Grants and Contributions	<u>0</u>	
Total General Fund Balance (available for allocation)		24,198,508
Construction Fund - Loan Proceeds		15,488,632
Total General Fund and Loan Proceeds		39,687,140
Project Resolutions	20,319,000	
Capital Equipment and Leases	<u>704,500</u>	
Total General Fund Expenditures		21,023,500
General Fund Ending Balance June 30, 2019		<u><u>\$18,663,640</u></u>
Project Resolutions	0	
Reserves	<u>18,663,640</u>	
Total Allocation of General Fund Balance		<u><u>\$18,663,640</u></u>

PLANNED OPERATING EXPENDITURES

EXPENDITURES BY CATEGORY

Category	FY19 Actual	FY20 Budget (as amended)	FY20 Forecast	FY20 Forecast to FY20 Budget Variance	FY21 Budget	FY21 Budget to FY20 Forecast Variance
Personnel	\$12,312,457	\$12,675,353	\$12,519,453	-1.2%	\$12,869,443	2.8%
Chemicals	2,586,487	2,052,461	2,501,546	21.9%	2,572,564	2.8%
Materials & Supplies	745,968	739,311	734,795	-0.6%	772,023	5.1%
Utilities	1,752,779	1,581,700	1,620,101	2.4%	1,703,821	5.2%
Maintenance	2,994,802	2,942,329	3,617,830	23.0%	3,330,480	-7.9%
Professional Services	1,429,385	1,476,696	1,659,114	12.4%	1,505,707	-9.2%
Communication	288,147	235,561	270,375	14.8%	197,246	-27.0%
Printing & Reproduction	3,129	10,300	9,210	-10.6%	35,200	282.2%
Education and Development	136,709	184,616	179,032	-3.0%	177,085	-1.1%
Other	395,322	327,413	411,439	25.7%	361,204	-12.2%
Total	22,645,185	22,225,740	23,522,895	5.8%	23,524,773	0.0%
Construction Credits	(410,487)	(190,000)	(189,990)	0.0%	(334,429)	76.0%
Net Expense	\$22,234,698	\$22,035,740	\$23,332,905	5.9%	\$23,190,344	-0.6%

**EXPENDITURES BY DIVISION
FISCAL YEAR 2021**

	General and Administrative	Operating Departments	Total Budget
Personnel	\$5,378,641	\$7,490,801	\$12,869,442
Chemicals		2,572,564	2,572,564
Materials & Supplies	143,613	628,411	772,024
Utilities	190,800	1,513,021	1,703,821
Maintenance	468,853	2,861,627	3,330,480
Professional Services	1,316,886	188,821	1,505,707
Communication	187,746	9,500	197,246
Printing & Reproduction	26,700	8,500	35,200
Education and Development	95,010	82,075	177,085
Other	175,545	185,659	361,204
Total	\$7,983,794	\$15,540,979	\$23,524,773
Construction Credits	(147,179)	(187,250)	(334,429)
Net Expense	\$7,836,615	\$15,353,729	\$23,190,344

PLANNED OPERATING EXPENDITURES

GENERAL AND ADMINISTRATIVE

Category	FY19 Actual	FY20 Budget (as amended)	FY20 Forecast	FY20 Forecast to FY20 Budget Variance	FY21 Budget	FY21 Budget to FY20 Forecast Variance
Executive Director						
Personnel Costs	\$936,522	\$944,774	\$932,374	-1.3%	\$893,533	-4.2%
Operating Expenditures	525,343	670,765	710,129	5.9%	624,947	-12.0%
Total Expenditures	1,461,865	1,615,539	1,642,503	1.7%	1,518,480	-7.6%
Customer Service						
Personnel Costs	694,730	668,455	673,154	0.7%	667,789	-0.8%
Operating Expenditures	162,667	136,000	148,374	9.1%	147,900	-0.3%
Total Expenditures	857,397	804,455	821,528	2.1%	815,689	-0.7%
Engineering						
Personnel Costs	1,632,971	1,881,613	1,853,430	-1.5%	1,971,750	6.4%
Operating Expenditures	169,950	286,695	277,385	-3.2%	238,300	-14.1%
Total Expenditures	1,802,921	2,168,308	2,130,815	-1.7%	2,210,050	3.7%
Human Resources						
Personnel Costs	555,897	671,655	689,265	2.6%	699,350	1.5%
Operating Expenditures	439,128	259,850	462,823	78.1%	335,510	-27.5%
Total Expenditures	995,025	931,505	1,152,088	23.7%	1,034,860	-10.2%
Finance						
Personnel Costs	553,457	551,087	548,120	-0.5%	554,501	1.2%
Operating Expenditures	318,825	332,531	345,828	4.0%	308,065	-10.9%
Total Expenditures	872,282	883,618	893,948	1.2%	862,566	-3.5%
Information Technology						
Personnel Costs	583,482	584,366	583,269	-0.2%	591,719	1.4%
Operating Expenditures	814,186	861,353	884,784	2.7%	950,430	7.4%
Total Expenditures	1,397,668	1,445,719	1,468,053	1.5%	1,542,149	5.0%
Total G&A	7,387,158	7,849,144	8,108,935	3.3%	7,983,794	-1.5%
Construction Credit	(\$209,611)	(\$70,000)	(\$69,983)	0.0%	(\$147,179)	110.3%
Net Expense	\$7,177,547	\$7,779,144	\$8,038,952	3.3%	\$7,836,615	-2.5%

PLANNED OPERATING EXPENDITURES

OPERATING DEPARTMENTS

Category	FY19 Actual	FY20 Budget (as amended)	FY20 Forecast	FY20 Forecast to FY20 Budget Variance	FY21 Budget	FY21 Budget to FY20 Forecast Variance
Water Supply and Treatment						
Personnel Costs	\$1,916,483	\$2,060,203	\$2,010,369	-2.4%	\$2,077,561	3.3%
Operating Expenditures	3,161,205	2,739,052	3,289,364	20.1%	3,135,355	-4.7%
Total Expenditures	5,077,688	4,799,255	5,299,733	10.4%	5,212,916	-1.6%
Water Distribution						
Personnel Costs	2,558,902	2,446,663	2,379,173	-2.8%	2,476,005	4.1%
Operating Expenditures	899,410	884,662	1,000,804	13.1%	892,885	-10.8%
Total Expenditures	3,458,312	3,331,325	3,379,977	1.5%	3,368,890	-0.3%
Wastewater Treatment						
Personnel Costs	2,139,663	2,038,097	2,070,253	1.6%	2,136,705	3.2%
Operating Expenditures	3,383,829	2,916,337	3,253,031	11.5%	3,387,838	4.1%
Total Expenditures	5,523,492	4,954,434	5,323,284	7.4%	5,524,543	3.8%
Wastewater Collection						
Personnel Costs	740,450	828,442	780,046	-5.8%	800,531	2.6%
Operating Expenditures	458,185	463,143	630,919	36.2%	634,099	0.5%
Total Expenditures	1,198,635	1,291,585	1,410,965	9.2%	1,434,630	1.7%
Total Operating Departments	15,258,127	14,376,599	15,413,959	7.2%	15,540,979	0.8%
Construction Credit	(106,548)	(120,000)	(89,505)	-25.4%	(187,250)	109.2%
Net Expense	\$15,151,579	\$14,256,599	\$15,324,454	7.5%	\$15,353,729	0.2%

PLANNED CAPITAL EQUIPMENT EXPENDITURES

FISCAL YEAR 2021

Capital Equipment Summary

Vehicles and heavy equipment	\$355,000
Generators	35,000
Computer equipment	93,000
Laboratory equipment	36,000
Process monitoring equipment	25,000
Security equipment	160,500
	<hr/>
Total	<u>\$704,500</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 2021-2040

Schedule of Existing Long-term Bonds and Loans

	Issue Dates	Interest Rates (Avg. Coupon)	Outstanding at 06/30/20
Series 2010 Revenue Refunding Bonds	9/30/2010	4.887%	\$1,835,000
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
Series 2019 Revenue Bonds	11/15/2019	4.265%	16,640,000
Series 2020 Revenue Refunding Bonds	4/7/2020	5%	9,500,000
Total Bonded Debt			\$45,055,000
Loan from the State of North Carolina	10/4/2014	0%	\$4,592,000
Loans from the State of North Carolina	Various	1.53%	8,808,502
			\$13,400,502

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
2021	\$7,798,048	\$1,270,210	\$9,068,258
2022	7,891,547	1,282,048	9,173,595
2023	7,934,904	2,224,974	10,159,878
2024	7,984,250	2,227,560	10,211,810
2025	8,023,846	4,070,052	12,093,898
2026	8,028,442	4,072,638	12,101,080
2027	6,230,613	5,968,930	12,199,543
2028	6,228,585	5,971,515	12,200,100
2029	6,221,481	8,528,803	14,750,284
2030	3,617,427	8,531,389	12,148,816
2031	3,603,373	9,920,167	13,523,540
2032	2,150,819	9,922,753	12,073,572
2033	2,142,165	13,463,465	15,605,630
2034	2,131,761	13,466,051	15,597,812
2035	1,791,607	17,359,497	19,151,104
2036	1,785,403	17,543,856	19,329,260
2037	1,772,800	17,543,856	19,316,656
2038	1,762,346	17,543,856	19,306,202
2039	1,701,714	17,543,856	19,245,570
2040	1,370,537	17,543,856	18,914,393
Total	\$90,171,668	\$195,999,332	\$286,171,000

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 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 2021-2025 CIP budget totals about \$101 million. The Board has approved a CIP budget for FY 2021 for almost 50 projects totaling \$20,319,000.

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 2021.

CAPITAL IMPROVEMENTS PROJECTS FUNDED IN FY 2021

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	\$5,000
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	80,000
Cane Creek pump station improvements		10,000
University Lake fishing pier and boat launch	Replace aging facility	70,000
Western Intake Partnership projects	Participation in developing an intake on Lake Jordan	50,000
Cane Creek raw water transmission main capacity study	Condition assessment of raw water main	100,000
Water Transmission and Distribution		
Near-term Funding for Water Facility Assets	Replacement of facilities due to age and condition	465,000

Project Description	Purpose of Project	Amount
Dobbins Drive water main replacement	Replacement due to age and condition	312,000
West Cameron Avenue water main replacement	Planning, design, and construction; majority of construction to occur in subsequent year	1,085,000
Water distribution system hydraulic model	Analysis of the water distribution system hydraulic capacity	30,000
Distribution system condition assessment	Assess the condition of water distribution pipelines	100,000
Kensington Drive water main replacement	Rehabilitation due to age and condition	1,453,000
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.	204,000
Jones Ferry Road water main replacements	Replacement due to age, condition and design	1,500,000
Bolinwood Bridge water main replacement	Replacement due to damage from high-water event	250,000
Water main replacement – Group 1	Replacement due to age and condition	759,000
Water main replacement – Group II	Replacement due to age and condition	60,000
Legion Road water main replacement	Replacement due to age and condition	25,000
Water Treatment and Supply		
WTP belt filter press replacement	Replacement due to age and condition	43,000
WTP concrete condition assessment	Comprehensive and prioritized evaluation of concrete facilities	50,000
WTP finished water pump improvements	Improvements to pumps, motors and electrical components	550,000
WTP chemical facility upgrades	Upgrades to chemical feed systems to improve reliability and treatment	2,200,000
WTP and WWTP SCADA master plan	Replacement of critical process control equipment	150,000
HVAC controls for operations center and administration building	Age, condition, and energy efficiency-based equipment replacement based on advanced energy audit	130,000
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	150,000

Project Description	Purpose of Project	Amount
Wastewater Collection, Treatment and Disposal		
Sanitary sewer rehabilitation	Design and rehabilitation of deteriorated wastewater mains and manholes	1,235,000
Bolinwood Drive sewer interceptor replacement	Replacement due to age and condition	200,000
Dobbins Drive interceptor replacement	Replacement due to age, condition, and capacity limitations	1,390,000
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
Prince Street common service replacement	Replacement of common (shared by more than one property) service lateral that is in poor condition	25,000
Rogerson Drive pump station rehabilitation	Rehabilitation due to age and condition	147,000
Rocky Branch interceptor replacement	Rehabilitation due to age and condition	62,000
Collection system flow monitors	Assess collection system performance	60,000
Pump station operational assessments	Motor and pump efficiency assessments at identified pump stations	80,000
Wastewater pump station rehabilitation	Rehabilitation due to age and condition	235,000
WWTP solids thickening system improvements	Replacement of equipment due to age and condition	3,879,000
WWTP secondary clarifier rehabilitation	Evaluation of the condition of aging assets	1,017,000
WWTP fermenter tank and pumping rehabilitation	Cleaning, draining, inspection and recommendations for fermenter tank rehabilitation	540,000
WWTP headworks rehabilitation	Rehabilitation due to age and condition	113,000
WWTP security improvements	Enhance security of the facility	50,000
Near-term Funding for Wastewater Facilities Rehabilitation	Replacement of facilities due to age and condition	150,000
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	450,000
Offsite Biosolids Storage Improvements	Improve process monitoring capabilities and evaluate potential improvements to the storage tank mixing system	75,000
WWTP facilities planning	Assess long-term needs	100,000

Project Description	Purpose of Project	Amount
WWTP various rehabilitation projects	Rehabilitation due to age and condition	400,000
WWTP clarifier No. 4 conversion	Improvements to the clarifier's effluent troughs to alleviate operational and maintenance concerns and increase its useful life.	125,000
WWTP administration building planning study	Evaluation of space utilization and improvements to address lack of storage, office, meeting space, and deteriorated and/or outdated features.	25,000
Reclaimed water valve/coupling rehabilitation	Rehabilitation due to age and condition	75,000
Total Capital Improvements Projects Funded in FY 2021		
		\$20,319,000

OWASA CAPITAL IMPROVEMENTS PROGRAM FIVE-YEAR OVERVIEW FOR FY 2021-2025

Project Category:	Annual Totals					5-Year Total
	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2021-25
	\$220,000	\$2,230,000	\$760,000	\$584,000	\$2,528,000	\$6,322,000
Raw Water Supply Sources	100,000	25,000	75,000			200,000
Raw Water Transmission	3,273,000	3,759,000	8,011,000	1,257,000	2,097,000	18,397,000
Water Treatment Facilities						
Finished Water Pumping		100,000	100,000			200,000
Finished Water Storage	6,243,000	8,415,000	6,755,000	5,629,000	3,544,000	30,586,000
Water Transmission and Distribution	3,022,000	2,390,000	3,125,000	5,370,000	6,000,000	19,907,000
Wastewater Collection Lines	462,000	400,000		365,000	100,000	1,327,000
Wastewater Pump Stations	6,924,000	2,714,000	1,865,000	6,451,000	5,502,000	23,456,000
Wastewater Treatment and Disposal	75,000	225,000	100,000			400,000
Reclaimed Water Facility Rehabilitation			50,000	175,000		225,000
Central Office and Operations	220,000	2,230,000	760,000	584,000	2,528,000	6,322,000
FY 2021 - 2025 CIP	\$20,319,000	\$20,258,000	\$20,841,000	\$19,831,000	\$19,771,000	\$101,020,000

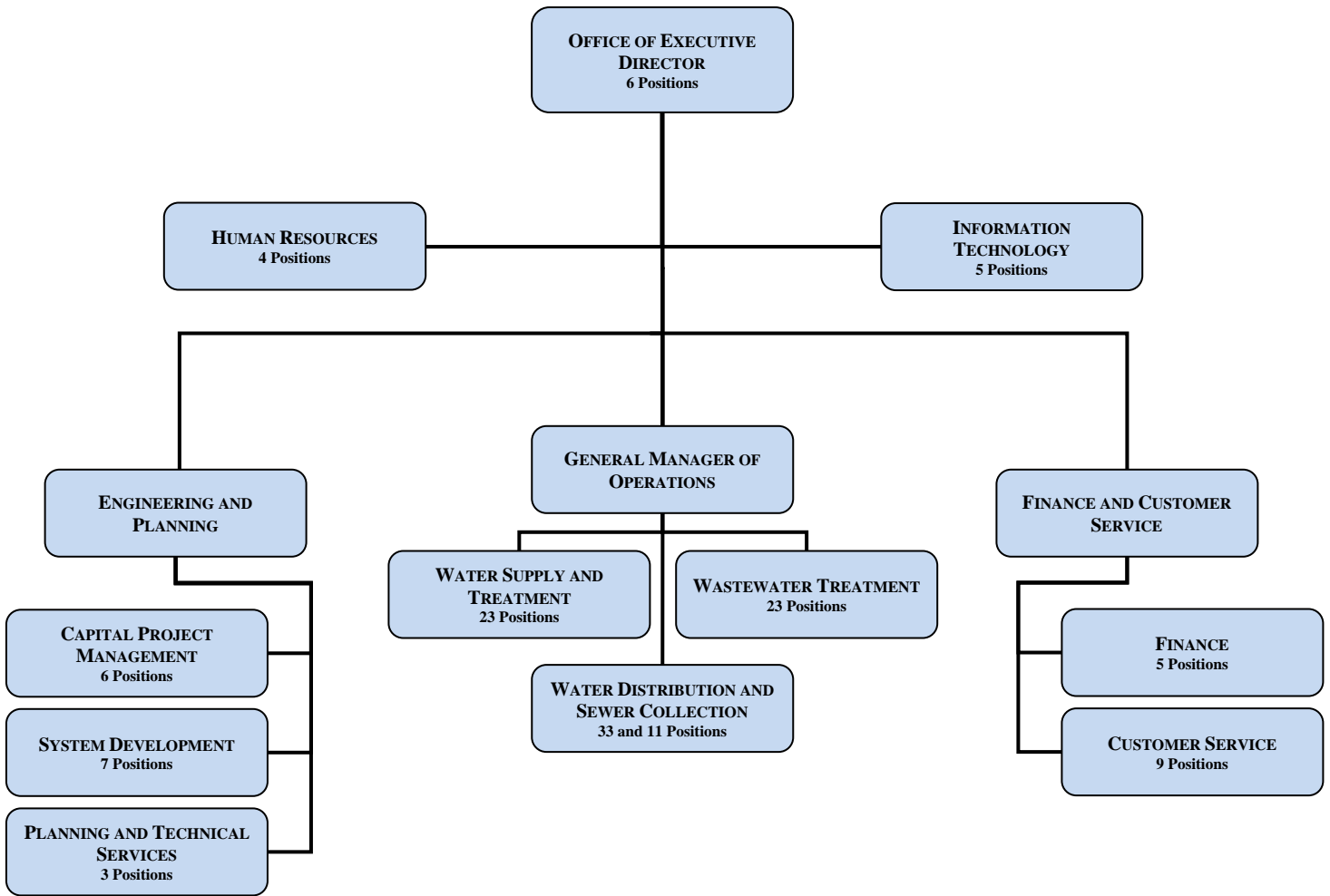
SECTION II

OVERVIEW OF OWASA DEPARTMENTS

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ORANGE WATER AND SEWER AUTHORITY STAFF - DEPARTMENT STRUCTURE

(Number of Positions Funded for FY 2021 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 2021

Strategic Initiative	Objective
Provide High Quality and Reliable Services	<ul style="list-style-type: none">• Support addressing the findings of the study of the resiliency and reliability of our infrastructure• Support strategy identified to meet 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">• Pursue public-private partnership to install solar photovoltaics on OWASA facilities

Strategic Initiative	Objective
	<ul style="list-style-type: none"> Provide resources to implement the Board-approved plan Update plan to meet Board-established objectives
Manage OWASA Response to COVID-19 Pandemic	<ul style="list-style-type: none"> Ensure service is maintained and employees are safe throughout the evolution of the event

OFFICE OF THE EXECUTIVE DIRECTOR

**Three-year Comparison
Fiscal Years 2019 - 2021**

	FY 2019 Actual	FY 2020 Budget	FY20 Budget to FY19 Actual	FY 2020 Forecast	FY20 Forecast to FY20 Budget	FY 2021 Budget	FY21 Budget to FY20 Forecast
Personnel Costs							
Salaries and Wages	\$700,007	\$707,843		\$704,712		\$676,048	
Fringe Benefits	<u>236,515</u>	<u>236,932</u>		<u>227,662</u>		<u>217,485</u>	
Total Personnel Costs	936,522	944,774	1%	932,374	-1%	893,533	-4%
Other Operating Expense							
Materials and Supplies	5,733	7,950		8,170		2,680	
Utilities	40,151	47,100		42,939		44,800	
Maintenance	0	0		0		0	
Professional Services	363,255	458,900		489,731		461,231	
Communication	58,126	111,496		95,873		44,396	
Printing and Reproduction	340	1,250		1,250		21,650	
Education and Development	25,090	22,480		22,480		16,300	
Other	<u>32,648</u>	<u>21,589</u>		<u>49,686</u>		<u>33,890</u>	
Total Operating Expenditures	525,343	670,765	28%	710,129	6%	624,947	-12%
Total Expenditures	<u>1,461,865</u>	<u>1,615,539</u>	11%	<u>1,642,503</u>	2%	<u>1,518,480</u>	-8%
Construction Credit	(176,944)	(70,000)		(69,983)		(147,179)	
Net Expense	<u>\$1,284,921</u>	<u>\$1,545,539</u>	20%	<u>\$1,572,520</u>	2%	<u>\$1,371,301</u>	-13%

Personnel Summary			
	FY 2019	FY 2020	FY 2021
Positions funded	6	7	6

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 2021

Strategic Initiative	Objective
Continue to 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. • 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.
Help customers arrange a plan to pay past due balances that built-up during the COVID-19 pandemic moratorium on service terminations for nonpayment	<ul style="list-style-type: none"> • Support development and execution of communications strategy. • Work with customers to establish payment arrangements in compliance with NC Governor’s directives.

CUSTOMER SERVICE

**Three-year Comparison
Fiscal Years 2019 - 2021**

	FY 2019 Actual	FY 2020 Budget	FY20 Budget to FY19 Actual	FY 2020 Forecast	FY20 Forecast to FY20 Budget	FY 2021 Budget	FY21 Budget to FY20 Forecast
Personnel Costs							
Salaries and Wages	\$485,286	\$466,809		\$475,611		\$472,498	
Fringe Benefits	<u>209,444</u>	<u>201,645</u>		<u>197,543</u>		<u>195,291</u>	
Total Personnel Costs	694,730	668,455	-4%	673,154	1%	667,789	-1%
Other Operating Expense							
Materials and Supplies	2,478	3,000		2,881		2,000	
Utilities	1,750	1,500		1,500		900	
Maintenance	1,367	0		0		0	
Professional Services	27,148	40,000		40,000		40,000	
Communication	84,989	45,000		67,531		70,000	
Printing and Reproduction	0	500		0		0	
Education and Development	18,715	15,000		8,888		5,000	
Other	<u>26,220</u>	<u>31,000</u>		<u>27,575</u>		<u>30,000</u>	
Total Operating Expenditures	162,667	136,000	-16%	148,374	9%	147,900	-4%
Total Expenditures	<u>857,397</u>	<u>804,455</u>	-6%	<u>821,529</u>	2%	<u>815,689</u>	-2%
Construction Credit	0	0		0		0	
Net Expense	<u>\$857,397</u>	<u>\$804,455</u>	-6%	<u>\$821,529</u>	2%	<u>\$815,689</u>	-2%

Personnel Summary			
	FY 2019	FY 2020	FY 2021
Positions funded	9	9	9

Key Performance Measurements				
	Goal	FY 2018	FY 2019	FY 2020
Workload				
Customer accounts	N/A	21,585	21,712	21,823
Number of calls received	N/A	29,081	28,818	25,373
Effectiveness				
Bill accuracy	100%	99.8%	99.8%	99.9%
Call handle ratio (calls answered vs. calls received)	90%	90%	91%	94%

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 2021

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

ENGINEERING AND PLANNING

**Three-year Comparison
Fiscal Years 2019 - 2021**

	FY 2019 Actual	FY 2020 Budget	FY20 Budget to FY19 Actual	FY 2020 Forecast	FY20 Forecast to FY20 Budget	FY 2021 Budget	FY21 Budget to FY20 Forecast
Personnel Costs							
Salaries and Wages	\$1,218,867	\$1,406,840		\$1,391,954		\$1,474,272	
Fringe Benefits	<u>414,104</u>	<u>474,773</u>		<u>461,477</u>		<u>497,478</u>	
Total Personnel Costs	1,632,971	1,881,613	15%	1,853,430	-1%	1,971,750	-2%
Other Operating Expense							
Materials and Supplies	11,008	17,115		13,992		23,005	
Utilities	9,100	10,800		10,800		11,700	
Maintenance	1,296	1,500		2,584		2,000	
Professional Services	124,446	192,500		185,899		152,500	
Communication	279	650		417		850	
Printing and Reproduction	1,713	2,050		2,050		2,050	
Education and Development	12,000	28,545		23,964		34,140	
Other	<u>10,108</u>	<u>33,535</u>		<u>37,679</u>		<u>12,055</u>	
Total Operating Expenditures	169,950	286,695	69%	277,385	-3%	238,300	-2%
Total Expenditures	<u>1,802,921</u>	<u>2,168,308</u>	20%	<u>2,130,816</u>	-2%	<u>2,210,050</u>	-2%
Construction Credit	(32,667)	0		0		0	
Net Expense	<u>\$1,770,254</u>	<u>\$2,168,308</u>	22%	<u>\$2,130,816</u>	-2%	<u>\$2,210,050</u>	-2%

Personnel Summary			
	FY 2019	FY 2020	FY 2021
Positions funded	15	16	16

Key Performance Measurements				
	Goal	FY 2018	FY 2019	FY 2020
Actual capital project expenditures as a percentage of budget	>90%	127%	83%	97%
Average plan review time (working days)	<15.0	8.1	7.8	7.1
Capital projects communication plans' effectiveness rating (on a scale of 1 to 5 with 5 the highest)	>4.0	3.4	3.45	3.8

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 2021

Strategic Initiative	Objective
Assure compliance with Human Resource and Safety applicable federal, state and local laws and ordinances.	<ul style="list-style-type: none"> • Maintain written policies, procedures and files.
Evaluate employee compensation, benefits, and performance evaluation systems and implement improvements	<ul style="list-style-type: none"> • Maintain OWASA's pay for performance system • Evaluate benefits, incentives and disciplinary actions
Diversity and Inclusion program	<ul style="list-style-type: none"> • Work to achieve the program's goals: <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. • Serve as the organization's Non-Discrimination Coordinator

HUMAN RESOURCES

**Three-year Comparison
Fiscal Years 2019 - 2021**

	FY 2019 Actual	FY 2020 Budget	FY20 Budget to FY19 Actual	FY 2020 Forecast	FY20 Forecast to FY20 Budget	FY 2021 Budget	FY21 Budget to FY20 Forecast
Personnel Costs							
Salaries and Wages	\$232,155	\$292,767		\$285,545		\$298,642	
Fringe Benefits	<u>323,742</u>	<u>378,888</u>		<u>403,720</u>		<u>400,708</u>	
Total Personnel Costs	555,897	671,655	21%	689,265	3%	699,350	-2%
Other Operating Expense							
Materials and Supplies	1,533	8,500		8,125		9,300	
Utilities	1,975	2,800		2,800		1,800	
Maintenance	0	400		400		400	
Professional Services	260,926	150,250		296,250		193,255	
Communication	125,566	54,000		83,999		70,000	
Printing and Reproduction	66	1,000		1,000		1,000	
Education and Development	6,005	12,900		10,883		13,000	
Other	<u>43,057</u>	<u>30,000</u>		<u>59,366</u>		<u>46,755</u>	
Total Operating Expenditures	439,128	259,850	-41%	462,823	78%	335,510	-2%
Total Expenditures	<u>995,025</u>	<u>931,505</u>	-6%	<u>1,152,088</u>	24%	<u>1,034,860</u>	-2%
Construction Credit	0	0		0		0	
Net Expense	<u>\$995,025</u>	<u>\$931,505</u>	-6%	<u>\$1,152,088</u>	24%	<u>\$1,034,860</u>	-2%

Personnel Summary			
	FY 2019	FY 2020	FY 2021
Positions funded	4	4	4

Key Performance Measurements				
	Goal	FY 2018	FY 2019	FY 2020
Vacancies as a percentage of total authorized positions	<8.0%	10.0%	10.5%	8.4%
At fault EEOC complaints	0	0	0	0
Diversity percentages				
Racial minorities	25-30%	26%	27%	25%
Female gender	25-30%	23%	25%	23%
Number of injuries, illnesses or lost workdays compared to a common exposure base of 100 full-time workers	<3.5	3.0	4.67	3.85

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 2021

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
Complete transition to new banking institutions (selected in RFP process in FY 2020)	<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.
Support the organization with financial planning through the financial challenges presented by the COVID-19 pandemic	<ul style="list-style-type: none">• Ensure sufficient funding for investments in operations and capital improvements

FINANCE

**Three-year Comparison
Fiscal Years 2019 - 2021**

	FY 2019 Actual	FY 2020 Budget	FY20 Budget to FY19 Actual	FY 2020 Forecast	FY20 Forecast to FY20 Budget	FY 2021 Budget	FY21 Budget to FY20 Forecast
Personnel Costs							
Salaries and Wages	\$426,619	\$417,017		\$417,738		\$414,778	
Fringe Benefits	<u>126,838</u>	<u>134,070</u>		<u>130,382</u>		<u>139,723</u>	
Total Personnel Costs	553,457	551,087	0%	548,120	-1%	554,501	-2%
Other Operating Expense							
Materials and Supplies	6,922	11,500		6,780		6,500	
Utilities	5,496	5,500		4,649		4,300	
Maintenance	0	0		0		0	
Professional Services	292,578	294,086		312,805		281,900	
Communication	1,833	4,000		4,066		2,500	
Printing and Reproduction	974	2,000		2,000		2,000	
Education and Development	6,278	9,600		9,548		4,620	
Other	<u>4,744</u>	<u>5,845</u>		<u>5,980</u>		<u>6,245</u>	
Total Operating Expenditures	318,825	332,531	4%	345,828	4%	308,065	-2%
Total Expenditures	<u>872,282</u>	<u>883,618</u>	1%	<u>893,947</u>	1%	<u>862,566</u>	-2%
Construction Credit	0	0		0		0	
Net Expense	<u><u>\$872,282</u></u>	<u><u>\$883,618</u></u>	1%	<u><u>\$893,947</u></u>	1%	<u><u>\$862,566</u></u>	-2%

Personnel Summary			
	FY 2019	FY 2020	FY 2021
Positions funded	5	5	5

Key Performance Measurements				
	Goal	FY 2018	FY 2019	FY 2020
Working capital reserve	\$13.6M (FY20)	\$9.6M	\$11.5M	\$12.1M
Debt service coverage ratio	2.0	2.3	2.1	2.1
Debt to asset value	<50%	21%	24%	26%
Service affordability	1.5	1.4	1.4	1.3

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 2021

Strategic Initiative	Objective
Implement new phone system	<ul style="list-style-type: none">• Replace our Cisco Voice over Internet Protocol (VoIP) system (which is end of life) with a cloud-hosted phone and call center solution.
Remote Site Security	<ul style="list-style-type: none">• Implement video surveillance and access control at remote sites
Utility Billing/CRM	<ul style="list-style-type: none">• Investigate possible solutions to replace the current utility billing and customer service management system.
Cybersecurity	<ul style="list-style-type: none">• Implement 2-factor authentication• Implement Mobile Device Management• Implement Local Administrator Password Solution

INFORMATION TECHNOLOGY

**Three-year Comparison
Fiscal Years 2019 - 2021**

	FY 2019 Actual	FY 2020 Budget	FY20 Budget to FY19 Actual	FY 2020 Forecast	FY20 Forecast to FY20 Budget	FY 2021 Budget	FY21 Budget to FY20 Forecast
Personnel Costs							
Salaries and Wages	\$437,339	\$439,045		\$438,932		\$441,315	
Fringe Benefits	<u>146,143</u>	<u>145,321</u>		<u>144,337</u>		<u>150,404</u>	
Total Personnel Costs	583,482	584,366	0%	583,269	0%	591,719	-2%
Other Operating Expense							
Materials and Supplies	99,158	88,600		88,591		100,128	
Utilities	116,947	126,700		126,758		127,300	
Maintenance	390,380	429,003		453,768		466,453	
Professional Services	135,057	149,000		147,351		188,000	
Communication	0	0		0		0	
Printing and Reproduction	0	0		0		0	
Education and Development	21,510	22,050		22,050		21,950	
Other	<u>51,134</u>	<u>46,000</u>		<u>46,267</u>		<u>46,600</u>	
Total Operating Expenditures	814,186	861,353	6%	884,784	3%	950,431	-2%
Total Expenditures	<u>1,397,668</u>	<u>1,445,718</u>	3%	<u>1,468,053</u>	2%	<u>1,542,149</u>	-2%
Construction Credit	0	0		0		0	
Net Expense	<u>\$1,397,668</u>	<u>\$1,445,718</u>	3%	<u>\$1,468,053</u>	2%	<u>\$1,542,149</u>	-2%

Personnel Summary			
	FY 2019	FY 2020	FY 2021
Positions funded	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 2021

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 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 chemical feed improvement project• Finish upgrades to finished water pump station
Forest Management	<ul style="list-style-type: none">• Effectively manage forest assets to fulfill OWASA's mission
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 2019 - 2021

	FY 2019 Actual	FY 2020 Budget	FY20 Budget to FY19 Actual	FY 2020 Forecast	FY20 Forecast to FY20 Budget	FY 2021 Budget	FY21 Budget to FY20 Forecast
Personnel Costs							
Salaries and Wages	\$1,324,357	\$1,457,662		\$1,420,487		\$1,471,741	
Fringe Benefits	<u>592,126</u>	<u>602,541</u>		<u>589,881</u>		<u>605,820</u>	
Total Personnel Costs	1,916,483	2,060,203	7%	2,010,368	-2%	2,077,561	-2%
Other Operating Expense							
Materials and Supplies	203,000	210,834		210,502		186,992	
Chemicals	1,374,327	1,116,829		1,465,914		1,413,495	
Utilities	351,814	378,045		368,813		372,206	
Maintenance	1,025,869	854,515		1,077,726		963,953	
Professional Services	122,174	84,000		76,002		77,300	
Communication	2,963	3,200		2,730		3,000	
Printing and Reproduction	0	0		0		0	
Education and Development	4,338	12,150		8,444		9,600	
Other	<u>76,720</u>	<u>79,479</u>		<u>79,233</u>		<u>108,809</u>	
Total Operating Expenditures	3,161,205	2,739,052	-13%	3,289,364	20%	3,135,355	-2%
Total Expenditures	<u>5,077,688</u>	<u>4,799,255</u>	-5%	<u>5,299,732</u>	10%	<u>5,212,916</u>	-2%
Construction Credits	0	0		0		0	
Net Expense	<u>\$5,077,688</u>	<u>\$4,799,255</u>	-5%	<u>\$5,299,732</u>	10%	<u>\$5,212,916</u>	-2%

Personnel Summary			
	FY 2019	FY 2020	FY 2021
Positions funded	23	23	23

Key Performance Measurements				
	Goal	FY 2018	FY 2019	FY 2020
Workload				
Finished water pumped to the distribution system	N/A	2.5B	2.4B	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	0.03	0.02	0.03

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 2021

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 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 2019 - 2021**

	FY 2019 Actual	FY 2020 Budget	FY20 Budget to FY19 Actual	FY 2020 Forecast	FY20 Forecast to FY20 Budget	FY 2021 Budget	FY21 Budget to FY20 Forecast
Personnel Costs							
Salaries and Wages	\$1,720,525	\$1,681,740		\$1,631,183		\$1,721,815	
Fringe Benefits	<u>838,377</u>	<u>764,922</u>		<u>747,990</u>		<u>754,190</u>	
Total Personnel Costs	2,558,902	2,446,662	-4%	2,379,173	-3%	2,476,005	-2%
Other Operating Expense							
Materials and Supplies	107,531	85,868		88,101		105,143	
Utilities	204,576	201,341		199,994		210,306	
Maintenance	488,478	549,626		644,380		539,436	
Professional Services	8,052	7,680		8,041		6,900	
Communication	4,316	5,000		3,784		5,000	
Printing and Reproduction	36	1,500		910		1,500	
Education and Development	16,614	23,416		19,778		23,100	
Other	<u>69,807</u>	<u>10,230</u>		<u>35,815</u>		<u>1,500</u>	
Total Operating Expenditures	899,410	884,661	-2%	1,000,803	13%	892,885	-2%
Total Expenditures	<u>3,458,312</u>	<u>3,331,323</u>	-4%	<u>3,379,976</u>	1%	<u>3,368,890</u>	-2%
Construction Credits	(106,548)	(90,000)		(89,505)		(187,250)	
Net Expense	<u>\$3,351,764</u>	<u>\$3,241,323</u>	-3%	<u>\$3,290,471</u>	2%	<u>\$3,181,640</u>	-2%

Personnel Summary			
	FY 2019	FY 2020	FY 2021
Positions funded	35	35	35

Key Performance Measurements				
	Goal	FY 2018	FY 2019	FY 2020
Workload				
Miles of finished water pipe maintained	N/A	382	383	384
Effectiveness				
Volume of water billed vs. volume pumped to the system	90.0%	91.5%	89.7%	89.3%
Number of main breaks per 100 miles of pipe	<7.00	7.6	9.2	11.2

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 2021

Strategic Initiative	Objective
Begin work on action items identified in the Phase 3 Assessment of American Water Works Association's Partnership for Clean Water program for Mason Farm WWTP	<ul style="list-style-type: none">• Improve water quality, operational efficiency, reliability, and resiliency.
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
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 2019 - 2021**

	FY 2019 Actual	FY 2020 Budget	FY20 Budget to FY19 Actual	FY 2020 Forecast	FY20 Forecast to FY20 Budget	FY 2021 Budget	FY21 Budget to FY20 Forecast
Personnel Costs							
Salaries and Wages	\$1,507,700	\$1,437,342		\$1,470,607		\$1,525,274	
Fringe Benefits	<u>631,963</u>	<u>600,754</u>		<u>599,647</u>		<u>611,431</u>	
Total Personnel Costs	2,139,663	2,038,096	-5%	2,070,254	2%	2,136,705	-2%
Other Operating Expense							
Materials and Supplies	277,718	265,945		268,519		285,594	
Chemicals	1,012,434	805,632		805,632		929,069	
Utilities	898,536	681,580		747,422		793,535	
Maintenance	998,235	964,240		1,214,240		1,167,944	
Professional Services	88,391	92,600		96,221		97,721	
Communication	9,944	11,715		11,715		1,000	
Printing and Reproduction	0	0		0		5,000	
Education and Development	19,817	27,000		41,657		38,625	
Other	<u>78,754</u>	<u>67,625</u>		<u>67,625</u>		<u>69,350</u>	
Total Operating Expenditures	3,383,829	2,916,337	-14%	3,253,031	12%	3,387,838	-2%
Total Expenditures	<u>5,523,492</u>	<u>4,954,433</u>	-10%	<u>5,323,285</u>	7%	<u>5,524,543</u>	-2%
Construction Credits	0	0		0		0	
Net Expense	<u>\$5,523,492</u>	<u>\$4,954,433</u>	-10%	<u>\$5,323,285</u>	7%	<u>\$5,524,543</u>	-2%

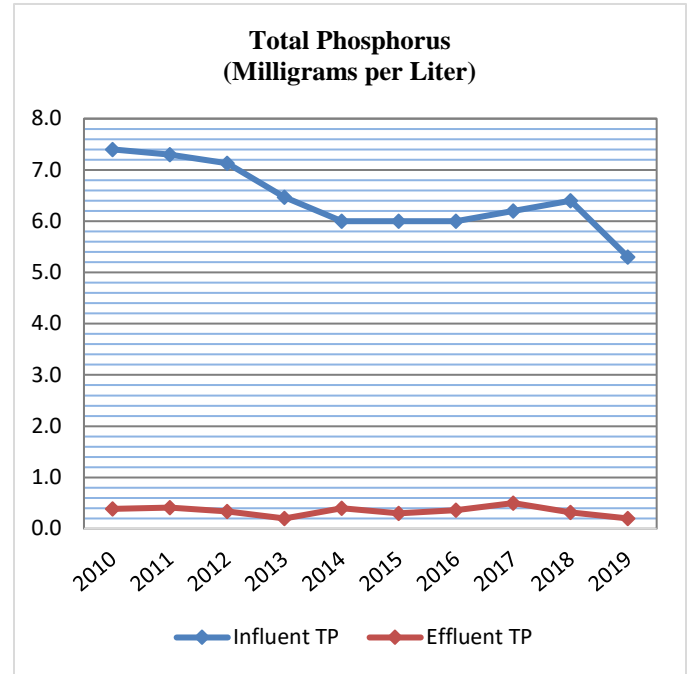
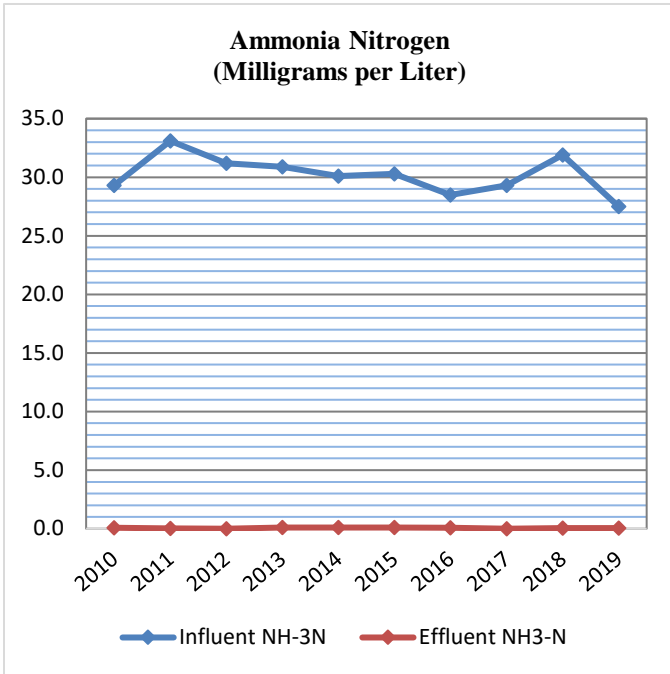
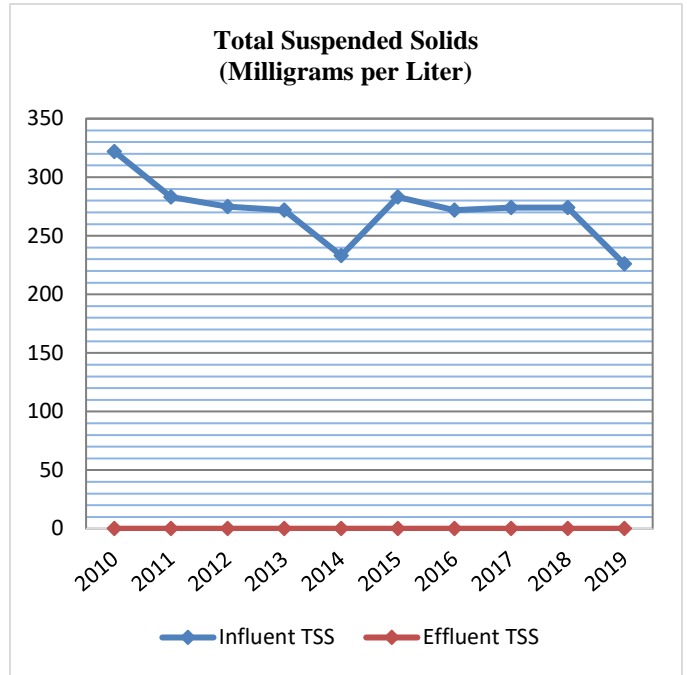
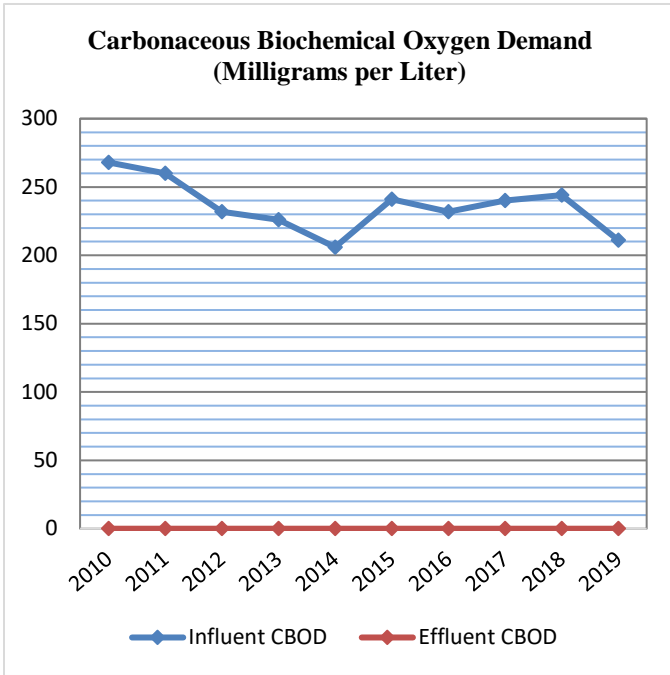
Personnel Summary			
	FY 2019	FY 2020	FY 2021
Positions funded	22	23	23

Key Performance Measurements				
	Goal	FY 2018	FY 2019	FY 2020
Workload				
Number of gallons of wastewater treated	N/A	2.8B	3.0B	2.7B
Effectiveness				
Events of permit noncompliance	0	0	0	0
Wastewater overflows	0	0	0	1
Odor events	0	0	1	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 2021

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 2019 - 2021

	FY 2019 Actual	FY 2020 Budget	FY20 Budget to FY19 Actual	FY 2020 Forecast	FY20 Forecast to FY20 Budget	FY 2021 Budget	FY21 Budget to FY20 Forecast
Personnel Costs							
Salaries and Wages	\$495,462	\$555,487		\$528,901		\$543,498	
Fringe Benefits	<u>244,988</u>	<u>272,955</u>		<u>251,145</u>		<u>257,033</u>	
Total Personnel Costs	740,450	828,442	12%	780,046	-6%	800,531	-2%
Other Operating Expense							
Materials and Supplies	30,887	39,999		39,135		50,681	
Chemicals	199,726	130,000		230,000		230,000	
Utilities	122,434	126,334		114,426		136,974	
Maintenance	89,177	143,045		224,733		190,294	
Professional Services	7,358	7,680		6,814		6,900	
Communication	131	500		259		500	
Printing and Reproduction	0	2,000		2,000		2,000	
Education and Development	6,342	11,475		11,340		10,750	
Other	<u>2,130</u>	<u>2,110</u>		<u>2,213</u>		<u>6,000</u>	
Total Operating Expenditures	458,185	463,143	1%	630,920	36%	634,099	-2%
Total Expenditures	<u>1,198,635</u>	<u>1,291,585</u>	8%	<u>1,410,966</u>	9%	<u>1,434,630</u>	-2%
Construction Credits	(94,328)	(30,000)		(30,502)		0	
Net Expense	<u>\$1,104,307</u>	<u>\$1,261,585</u>	14%	<u>\$1,380,464</u>	9%	<u>\$1,434,630</u>	-2%

Personnel Summary			
	FY 2019	FY 2020	FY 2021
Positions funded	11	11	11

Key Performance Measurements				
	Goal	FY 2018	FY 2019	FY 2020
Workload				
Miles of gravity wastewater collection piping maintained	N/A	329	335	349
Effectiveness				
Number of reportable wastewater overflows	0	4	19*	4
Total number of reportable overflows per 100 miles of wastewater pipe	0.0	1.2	5.6	1.2

- 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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**Resolution Adopting the Annual Budget For
Orange Water and Sewer Authority (OWASA) for the Fiscal Year
July 1, 2020 Through June 30, 2021**

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) 2021 Budget, and after holding public hearings on May 28, 2020 concerning the FY 2021 Budget, and in consideration of the significant impact on the community's economy due to the COVID-19 pandemic, the Board of Directors determined not to raise rates on any of OWASA services;

Now, Therefore, Be It Resolved:

1. That pursuant to the provisions of North Carolina G.S. Chapter 159-13 the attached pages marked 2 through 6 be, and they hereby are, adopted as the official budget of Orange Water and Sewer Authority for the Fiscal Year beginning July 1, 2020 through June 30, 2021.
2. 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.
3. That the Executive Director shall administer the budget and is hereby authorized to expend the funds for the purposes set forth therein.

Adopted this 11th day of June 2020.


Raymond E. DuBose, Chair

ATTEST:


Bruce Boehm, Secretary

BUDGET RESOLUTION AND ORDINANCE

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

	FY 2021 Annual Budget
Operating Revenue	
Water	\$17,701,102
Sewer	17,018,502
Reclaimed Water	463,200
Service Initiation Fee	18,820
Other	922,685
Refunds and Adjustments	<u>(198,125)</u>
Total Operating Revenue	\$35,926,184
Operating Expense	
General and Administrative	7,836,615
Operations	<u>15,353,729</u>
Total Operating Expense	<u>23,190,344</u>
Net Operating Income	12,735,840
Non-operating Revenue	
Customer Fees	1,081,490
Interest	<u>81,296</u>
Total Net Income	<u><u>\$13,898,626</u></u>
Debt Service	
Existing	7,568,498
New	<u>1,499,760</u>
Total Debt Service	<u>9,068,258</u>
Net Income Less Debt Service	<u><u>\$4,830,368</u></u>

BUDGET RESOLUTION AND ORDINANCE

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

		<u>FY 2021 Annual Budget</u>
General Fund		
Resources		
Transfer From Revenue	<u>\$4,830,368</u>	
Annual Income Available for Capital		4,830,368
Transfer from Construction Fund (Bond Proceeds)		<u>15,488,632</u>
Total Available for Capital		<u>20,319,000</u>
Capital Expenditures		
Project ordinances		
General Fund Contribution	4,830,368	
Funded by Bond Proceeds	<u>15,488,632</u>	
Total Project Resolutions		20,319,000
Capital Equipment		<u>704,500</u>
Total Capital Outlay		<u>21,023,500</u>
Annual General Fund Balance		(704,500)
General Fund Beginning Balance		<u>19,368,140</u>
General Fund Ending Balance		18,663,640
Project Funding	(81,500)	
Reserves		
Rate/Revenue Stabilization	1,759,140	
Capital Improvements	4,800,000	
Working Capital	<u>12,186,000</u>	<u>18,663,640</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, 2020			-
Receipts			
Operating Revenue			
Customer Billings	17,701,102	17,018,502	34,719,604
Reclaimed Water	463,200	-	463,200
Service Initiation Fee	9,410	9,410	18,820
Other	461,343	461,342	922,685
Refunds and Adjustments	(99,063)	(99,062)	(198,125)
Total Operating Revenue	18,535,992	17,390,192	35,926,184
Non-operating Revenue			
Customer Fees	466,825	614,665	1,081,490
Interest Income	40,648	40,648	81,296
Total Non-operating Revenue	507,473	655,313	1,162,786
Total Receipts	19,043,465	18,045,505	37,088,970
Expenditures			
Current Expense	(12,754,689)	(10,435,655)	(23,190,344)
Debt Service	(5,168,907)	(3,899,351)	(9,068,258)
Total Expenditures	(17,923,596)	(14,335,006)	(32,258,602)
Net Revenue			4,830,368
To General Fund			(4,830,368)
Fund Balance June 30, 2021			-
Change in Available Balance			-

BUDGET RESOLUTION AND ORDINANCE

BOND SERVICE FUND

Fund Balance July 1, 2020		-
Receipts		
Transfers from Revenue Fund	9,068,258	
Interest	<u> </u>	
Total Receipts		9,068,258
Expenditures		
Debt Service	<u>9,068,258</u>	
Total Expenditures		<u>(9,068,258)</u>
Fund Balance June 30, 2021		<u>-</u>
Change in Available Balance		<u><u>-</u></u>

BUDGET RESOLUTION AND ORDINANCE

GENERAL FUND

Fund Balance July 1, 2020		\$19,368,140
Receipts		
Transfer from Revenue fund	4,830,368	
Transfer from Construction Fund (Loan Proceeds)	15,488,632	
Interest	-	
Assessments	-	
Grants and contributions	-	
	<hr/>	
Total Receipts		<hr/> 20,319,000
Total Balance Before Expenditures		39,687,140
Expenditures		
Capital Equipment/Leases	704,500	
Project Resolutions	20,319,000	
Transfer to Revenue Fund	0	
	<hr/>	
Total Expenditures		<hr/> (21,023,500)
Fund Balance June 30, 2021		<hr/> <hr/> \$18,663,640
Allocation of Fund Balance June 30, 2021		
Project Funding		
Capital Reserves	18,663,640	
	<hr/>	
Total Allocation		<hr/> <hr/> \$18,663,640
Unallocated General Fund Balance June 30, 2021		<hr/> -
Change in Available Balance		<hr/> <hr/> (\$704,500)

PERSONNEL AUTHORIZATIONS BY DEPARTMENT

Office of the Executive Director	FY 2019	FY 2020	FY 2021
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	0	0
Communications and Community Relations Officer	0	1	1
Administrative Assistant	1	2	2
Communications Specialist	0	1	1
Totals	6	7	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	5	5
Clerk/Cashier	2	0	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	4	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	16	16

Human Resources

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

PERSONNEL AUTHORIZATIONS BY DEPARTMENT

Finance	FY 2019	FY 2020	FY 2021
Director of Finance and Customer Service	1	1	1
Finance and Procurement Manager	1	1	1
Financial Analyst	1	1	1
Accounting Technician II	2	2	2
Totals	5	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	5	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	0
Reservoir and Land Resources Supervisor	0	0	1
Assistant Lake Warden	2	2	2
Maintenance Supervisor	1	1	1
Senior Maintenance Mechanic	0	0	1
Maintenance Coordinator	1	1	1
Maintenance Mechanic	4	4	4
Laboratory Supervisor	1	1	1
Laboratory Analyst	3	3	3
Administrative Assistant	1	1	0
Totals	25	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	27	25	25
Vehicle and Equipment Maintenance Mechanic	0	2	2
Administrative Assistant	1	0	0
Distribution and Collection System Coordinator	0	1	1
Warehouse-Cross Connection Coordinator	1	1	1
Totals	35	35	35

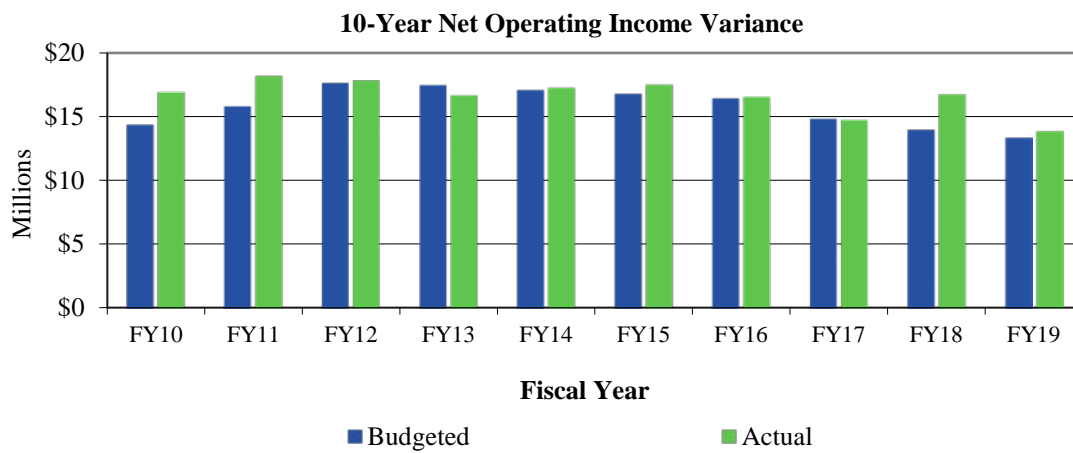
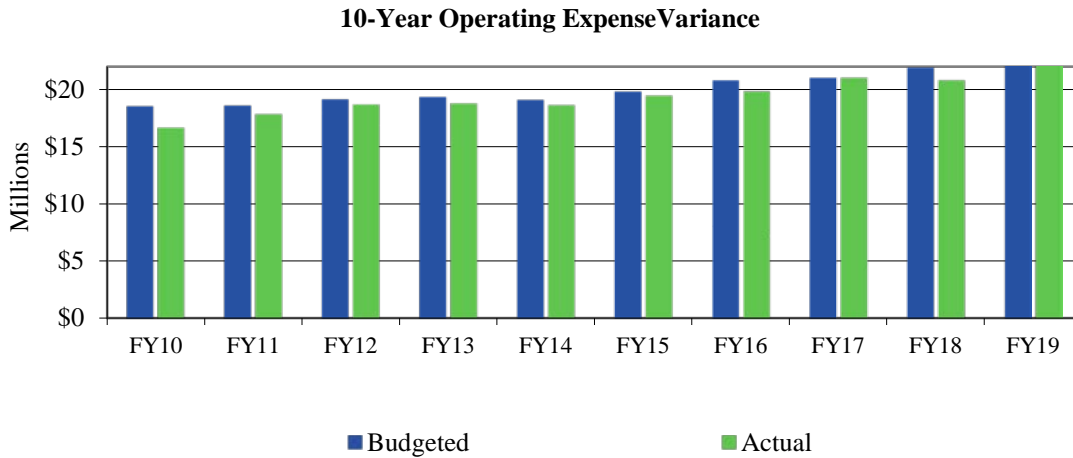
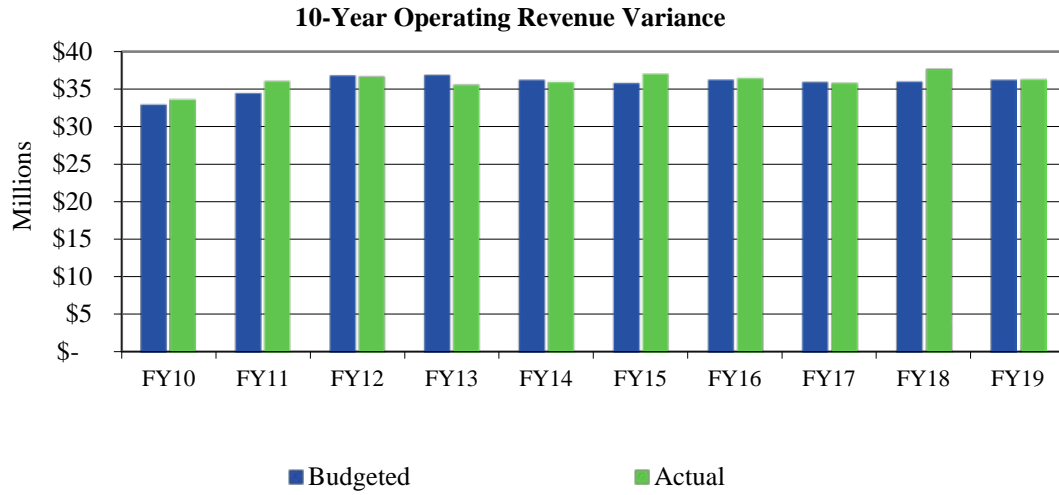
PERSONNEL AUTHORIZATIONS BY DEPARTMENT

Wastewater Treatment	FY 2019	FY 2020	FY 2021
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 2020 to FY 2021

To better reflect its duties and responsibilities, the position of Senior Lake Warden was reclassified as Reservoir and Land Resources Supervisor.

10-YEAR HISTORICAL PERFORMANCE

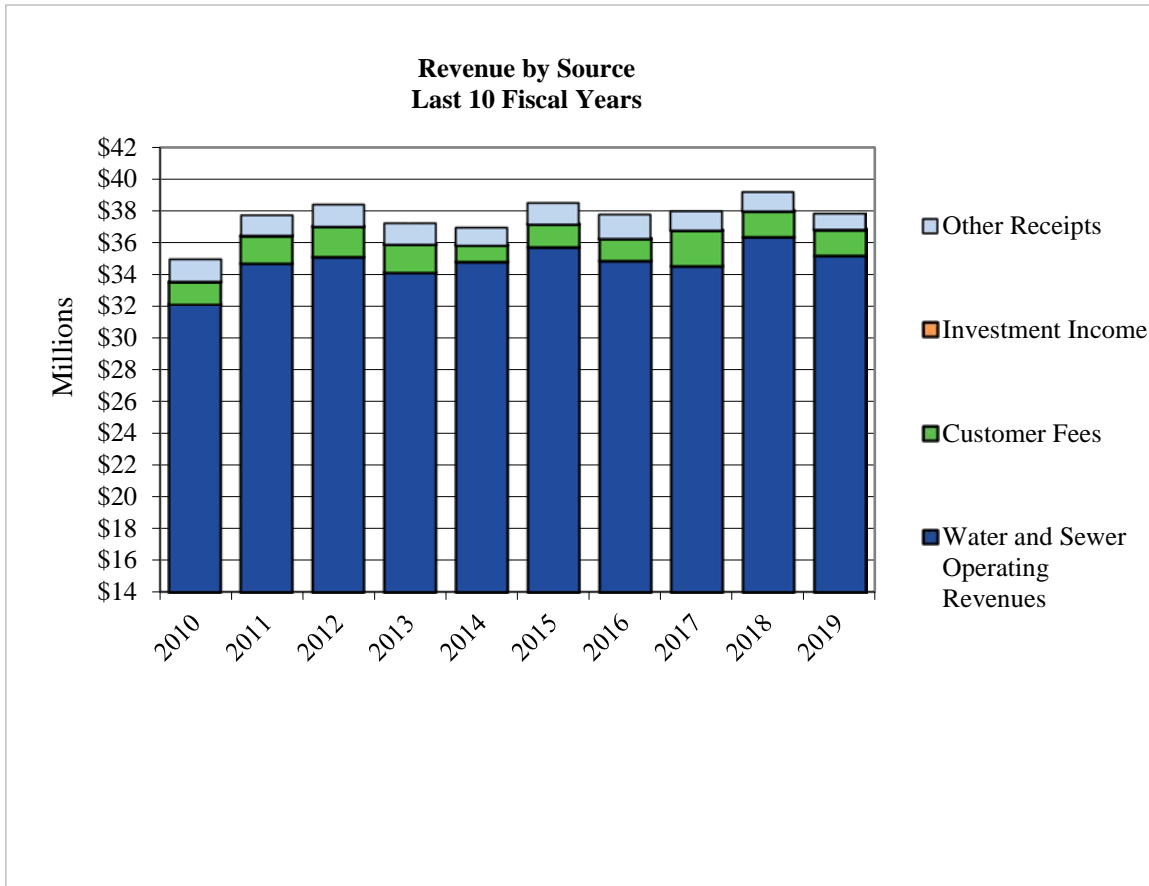


10-YEAR HISTORICAL PERFORMANCE

ORANGE WATER AND SEWER AUTHORITY

**Revenues by Source
Last 10 Fiscal Years**

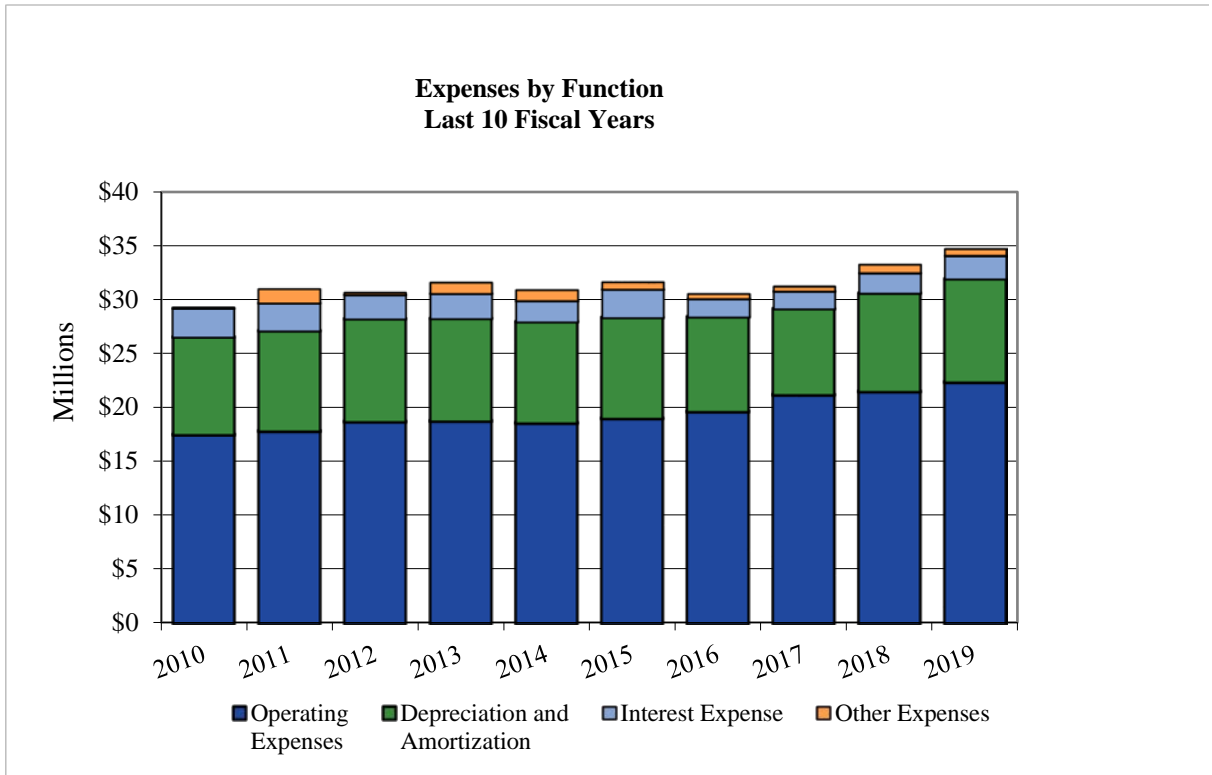
Fiscal Year	Water and Sewer Operating Revenues	Customer Fees	Investment Income	Other Receipts	Total
2010	32,153,848	1,436,564	29,169	1,404,924	35,024,505
2011	34,701,751	1,713,417	29,261	1,302,079	37,746,508
2012	35,107,350	1,899,056	17,964	1,381,799	38,406,169
2013	34,133,521	1,769,883	15,664	1,324,092	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
2019	35,181,219	1,593,210	64,842	1,004,621	37,843,892



10-YEAR HISTORICAL PERFORMANCE

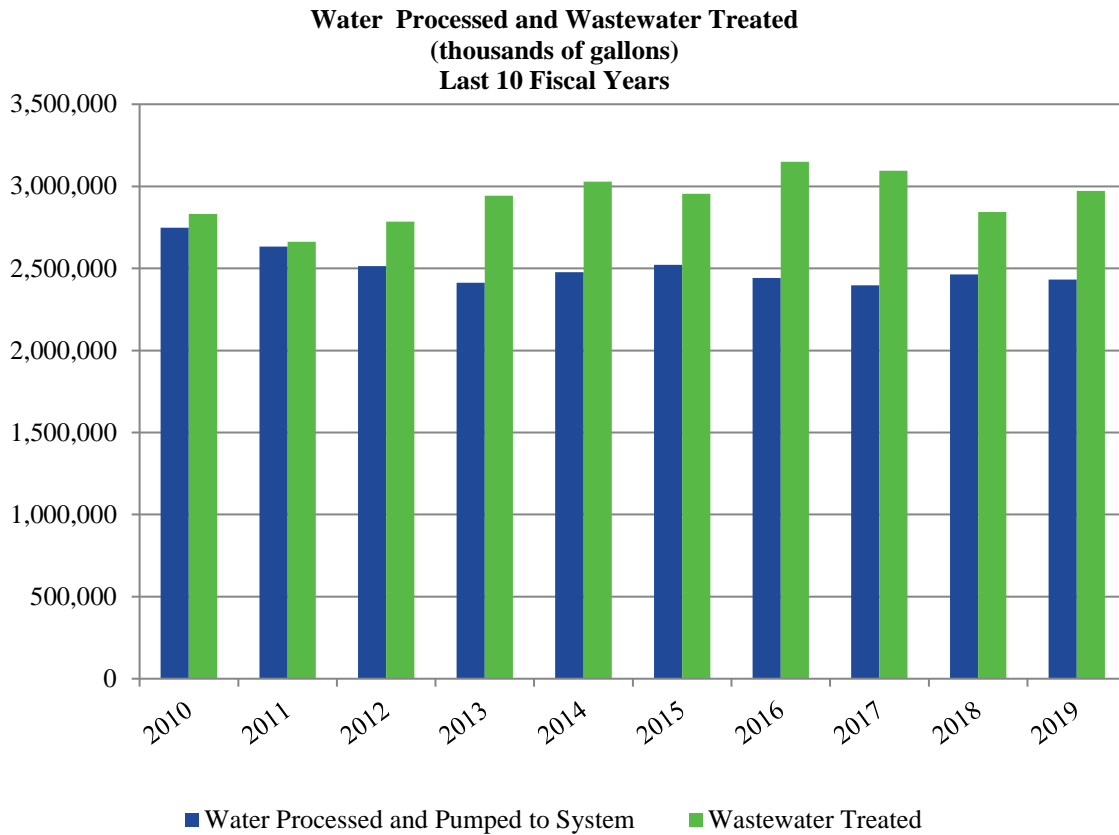
**ORANGE WATER AND SEWER AUTHORITY
Expenses by Function
Last 10 Fiscal Years**

Fiscal Year	Operating Expenses	Depreciation and Amortization	Interest Expense	Other Expenses	Total
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
2019	22,339,711	9,558,087	2,161,022	613,772	34,672,592



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
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
2019	2,432,215	2,971,517



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)			
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
2019	8.2	211	226	27.5	5.3	<2.0	<2.5	0.1	0.2

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)	403
Miles of Wastewater Collection Pipe (includes 14 miles of force main)	349
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	6.7
Production Peak Day	14.4*
* Peak day production in FY 2019 was unusually high due to a significant water line break near the water treatment plant.	
Wastewater Treatment Plant Capacity (MGD):	
Capacity	14.5
Average Daily Flow	8.2
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 estimated population for Orange County as of December 2019 was 142,938.

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>UNC</u>
<u>Fall</u>	<u>Enrollment</u>
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
2019	29,887

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>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>	<u>2019</u>
January	7.1%	6.4%	6.2%	6.2%	4.6%	4.5%	4.4%	4.3%	3.5%	3.7%
February	7.1	6.3	6.2	5.7	4.4	4.4	4.3	4.0	3.6	3.5
March	6.8	6.1	5.9	5.4	4.6	4.3	4.3	3.9	3.3	3.5
April	6.4	5.9	5.7	5.0	4.0	4.1	3.9	3.4	3.0	2.9
May	6.5	6.2	6.2	5.5	4.9	5.0	4.1	3.6	3.6	3.4
June	6.9	7.3	7.1	6.0	4.8	5.1	4.7	4.0	3.7	3.7
July	6.9	7.2	7.2	5.9	5.3	5.3	4.6	4.2	3.6	3.8
August	6.7	7.5	6.6	5.5	5.4	5.0	4.8	4.3	3.5	3.6
September	5.9	6.8	5.7	4.7	4.5	4.2	4.1	3.5	2.7	2.8
October	5.7	6.2	5.9	4.8	4.0	4.5	4.1	3.4	3.0	2.9
November	6.0	5.8	5.8	4.4	3.9	4.3	3.9	3.6	3.0	2.8
December	5.9	6.1	5.9	4.2	3.9	4.3	4.0	3.6	3.1	2.7

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 2019 and 10 years prior:

Company or Institution	Service or Product	Number of Employees 2019	Number of Employees 2010
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+
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
Eurosport	Trade	500-999	500-900
UNC Physicians Network	Education and Health Services	500-999	
General Electric	Manufacturing	250-499	
Wal-Mart	Trade	250-499	
Blue Cross Blue Shield	Health/Medical Insurer		1,000+
Employer Resource	Professional and 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			Total Collections to Date		Outstanding Delinquent Taxes
		Amount	Percentage of Original Levy	Collections in Subsequent Years	Amount	Percentage of Adjusted Levy	
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
2019	43,418,983	43,206,984	99.51%	-	43,206,984	99.51%	211,999

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)
2010	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	*	*	7,399,771,971	550,409,864	84,467,574	8,034,649,409	0.508	8,062,060,414	99.66%
2019	*	*	7,529,444,369	613,170,831	80,677,065	8,223,292,265	0.528	8,263,784,811	99.51%

* 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)
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
2019	63,178	9,015,914	62,202	26.4	15.82	42,138	3.9

- (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).

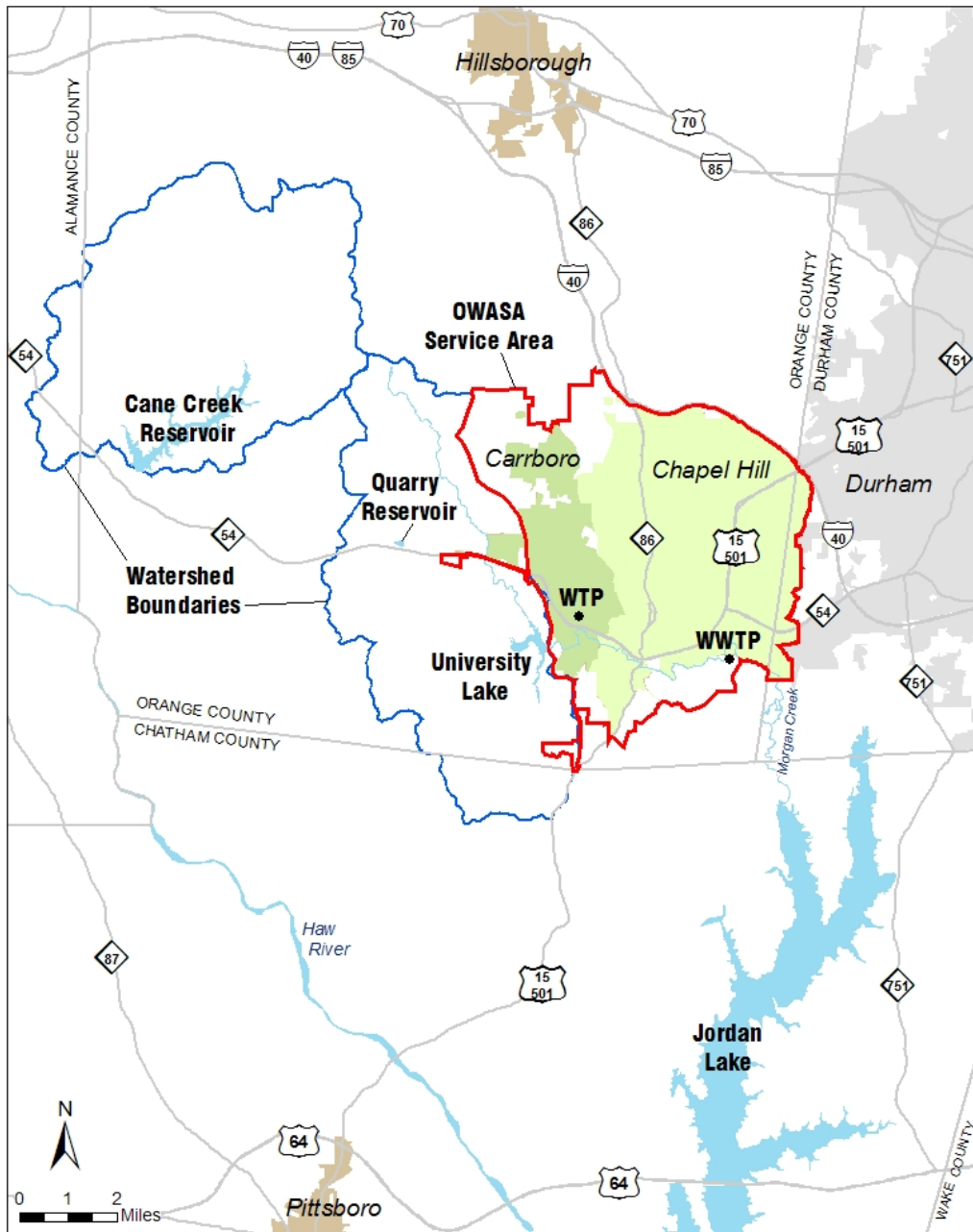
REVENUE BONDS – The primary method used by OWASA for long-term debt; they are repaid from user fees over the life of the assets. In general, these bonds have no claim on money derived from property taxes or special assessments.

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

A public, non-profit agency providing water, sewer and reclaimed water services to the Carrboro-Chapel Hill community.