



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.

TABLE OF CONTENTS

Government Finance Officers Association (GFOA) Award for Distinguished Budget Presentation	ii
Budget Message.....	iii
Section I – Orange Water and Sewer Authority Overview	
Orange Water and Sewer Authority Mission and Vision	1
Orange Water and Sewer Authority Board of Directors.....	2
Orange Water and Sewer Authority Management Team.....	3
Budget Preparation and Calendar for FY 2022.....	4
Rate Projections and Budgetary Forecast	5
Appropriations for FY 2022 (Statement of Income, Expense and Debt Service).....	6
Fund Balance Statements.....	8
Funds Flow Statement	13
Planned Operating Expenditures	14
Planned Capital Equipment Expenditures	17
Debt Service for Fiscal Years 2022-2041	18
Capital Improvements Program Budget	19
Capital Improvements Program, Five-Year Overview for FY 2022-2026	22
Section II – Overview of OWASA Departments	
Orange Water and Sewer Authority Staff – Department Structure.....	24
Office of Executive Director	25
Customer Service.....	27
Engineering and Planning.....	29
Human Resources	31
Finance	33
Information Technology	35
Water Supply and Treatment.....	37
Water Distribution	39
Wastewater Treatment.....	41
Wastewater Collection.....	44
Section III – Supplemental Information	
Budget Resolution and Ordinance	46
Personnel Authorizations by Department	52
10-Year Historical Performance	55
Miscellaneous Statistical Data	60
Service Area	61
Chapel Hill Statistical Data	64
Financial Management Policy	67
Glossary.....	72



GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished
Budget Presentation
Award*

PRESENTED TO

Orange Water & Sewer Authority

North Carolina

For the Fiscal Year Beginning

July 1, 2020

Christopher P. Morill

Executive Director

BUDGET MESSAGE

**To the
Board of Directors**

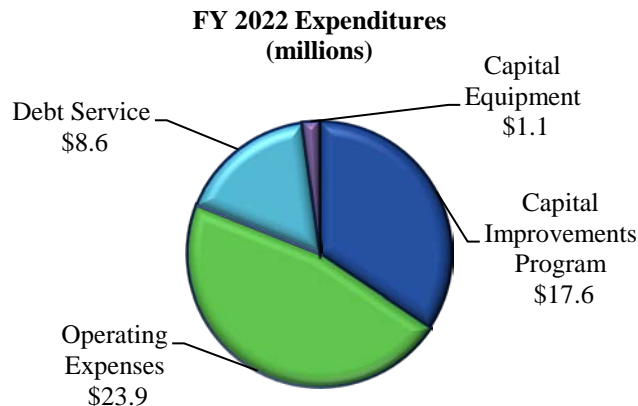
The Annual Budget for the fiscal year beginning July 1, 2021 and ending June 30, 2022 has been prepared in accordance with OWASA's *Financial Management Policy*, our *Amended and Restated Bond Order* adopted on September 13, 2001, and North Carolina's *Local Government Budget and Fiscal Control Act*.

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.

As the economic impact of the COVID-19 pandemic on the community dissipates, we are projecting water demand in the service area to return to a normal, pre-pandemic level. For the FY 2022 budget, we have projected drinking water sales to average 6.03 million gallons per day (MGD). The budget also includes a 5% increase in the rates charged for monthly water and sewer services.

OWASA's Finance Management Policy identifies nine financial management objectives for the organization. The FY 2022 budget is designed to meet all of these objectives.

The budget consists of projected operating revenues of \$38 million, capital project costs of \$17.6 million, operating expenses of \$23.9 million, debt service payments of \$8.6 million, and capital equipment purchases of \$1.1 million. The operating expense budget is about 2.1% greater than the original FY 2021 budget.



**Highlights of the
Budget**

Key elements of this budget include:

- Five percent increase in monthly water and wastewater rates.
- Continuation of the seasonal water conservation rate structure for customers other than individually metered residential, multi-family master-metered, and irrigation-only customers. Under the seasonal water conservation rates, the water commodity charge will be \$8.89 per thousand gallons of water consumed during the warmer peak water demand months of May through September 2022. The water commodity charge during the cooler, lower demand months of October 2021 through April 2022 will be \$4.68 per thousand gallons.
- Irrigation-only meters are charged a year-round water commodity rate of \$9.57 per thousand gallons.

- Multi-family master-metered customers are charged a uniform year-round water commodity rate of \$6.37 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	\$2.96
Block 2	3,000 to 5,000	\$7.18
Block 3	6,000 to 10,000	\$8.81
Block 4	11,000 to 15,000	\$12.31
Block 5	All use 16,000 and up	\$22.26

For an individually metered residential customer using 4,000 gallons of water per month, the monthly water and wastewater bill will be \$79.46. (Average monthly use for customers in this class is 4,000 gallons.)

- An annual operating budget of \$23.9 million, which is an increase of 2.1% from the FY 2021 budget. The FY 2022 budget includes funding for 135 personnel positions.
- The budget includes an average combined cost of labor and merit increase of 3.9% for employees. The Board bases cost of labor adjustments on market data and merit adjustments on market data and employee performance. These adjustments are scheduled to go into effect in July 2021.
- Capital improvement spending of \$17.6 million for FY 2022, as identified in the five-year CIP. For the five-year period FY 2022-26, approximately 76% of the planned \$87.3 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.

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 2022. Highlights and the status of the 2016 plan are summarized below.

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

		<p>However, work continues on this analysis.</p> <ul style="list-style-type: none"> • An evaluation of demand management strategies indicate that they do not meet our long-term needs. Cost-effective conservation strategies will be included in a Conservation Plan, which will be an appendix to the LRWSP.
	<ul style="list-style-type: none"> • Maintain our Jordan Lake water supply allocation. • New or amended water transfer agreements with Town of Cary and City of Durham for OWASA to access our Jordan Lake water supply allocation through those entities when needed. 	<ul style="list-style-type: none"> • On March 9, 2017, the North Carolina Environmental Management Commission approved OWASA’s request to maintain its allocation of 5% of Jordan Lake’s water supply pool. • 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. Triangle water utilities are interconnected and Cary wants to maintain flexibility to provide water to the utilities that need it most. We will evaluate new agreements with the Western Intake Partnership as part of the LRWSP update.

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 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 and offer 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. • Engage the community and stakeholders in the development of OWASA's Strategic Plan. • Continue to promote customer use of 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 improvement, 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 OWASA's <i>Financial Management Policy</i> in FY 2018 and made no modifications.
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"> • Solar panels have been installed at OWASA's Cane Creek Reservoir and Administration Building facilities through a solar lease agreement. • Implement Board-approved Energy Management Plan. Since 2010, OWASA has reduced its use of purchased electricity by 29%, greenhouse gas emissions by about 45%, and avoided over \$565,000 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, about 57% 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"> • Contractors working for OWASA conducted a timber harvest, a pre-commercial thinning, and a prescribed burn in FY 2021. In FY 2022, OWASA plans to begin implementing the stewardship plan for the Meadow Crest North and Meadow Crest South properties, following principles established by OWASA’s Board, for the Teer West property.

OWASA’s Budget Process

The budget for OWASA’s operating services and capital projects is developed in accordance 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 work 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 27, 2021, and the budget and rate schedule were adopted by the Board on June 10, 2021.

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 accordance 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 2022 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 2022 budget is \$7.9 million.
 - 20% of planned capital improvements for FY 2022 through FY 2024 is \$12.2 million.
 - The General Fund ending balance for FY 2022 is projected to be \$18.3 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 2022 through 2026.
- Debt service coverage ratio. Although OWASA's *Financial Management Policy* stipulates that our debt service coverage ratio goal is 2.0.

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 2023	7% Water	7% Wastewater
FY 2024	5% Water	5% Wastewater
FY 2025	5% Water	5% Wastewater

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

The Need for Rate Increases

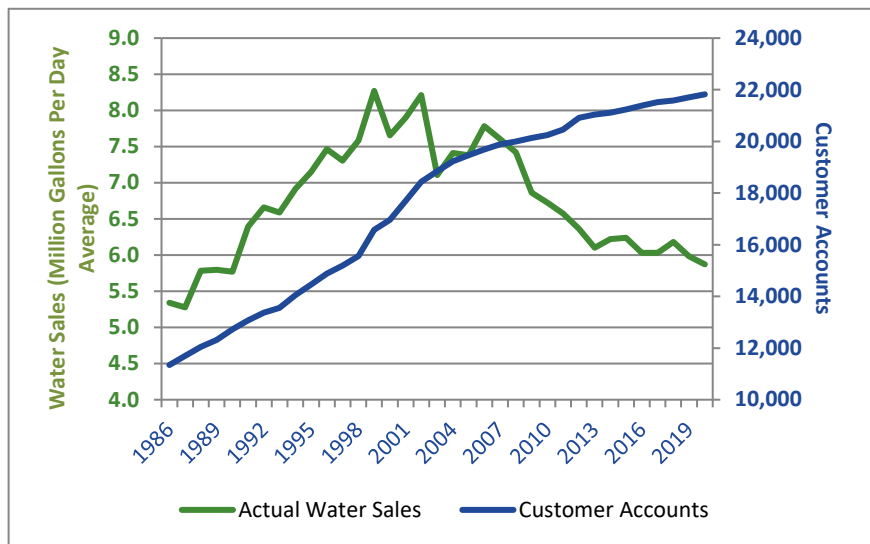
The projected rate increases are necessary for providing the funding required to meet the community’s water and wastewater needs.

- 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 30 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 2022 is about the same as it was in the early 1990s while the number of customers served has increased 71% 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.

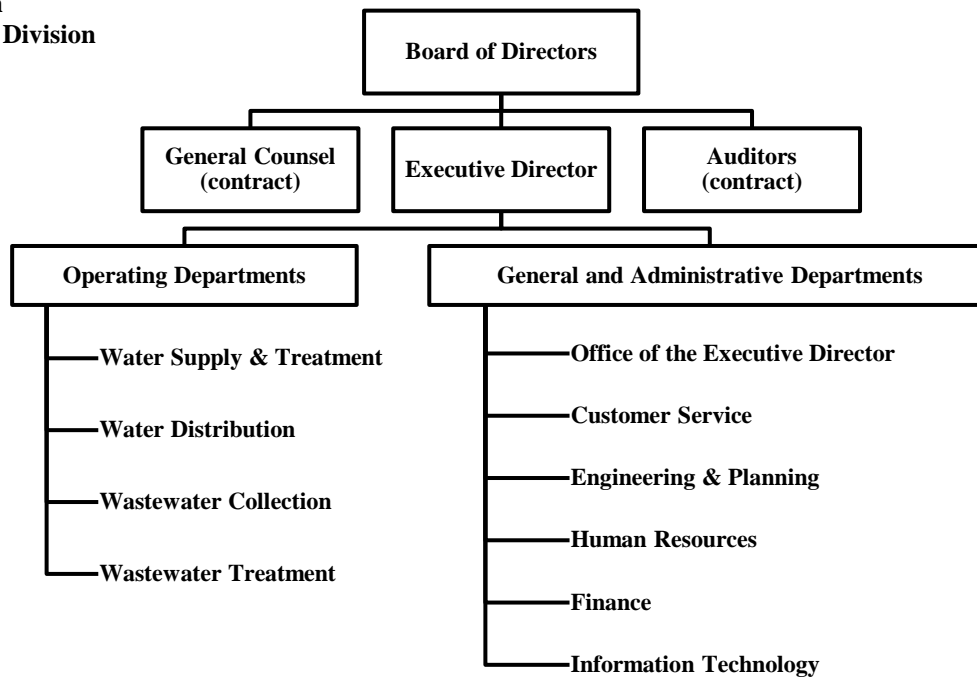


The following projections are based on historical trends.

- FY 2022 projections for drinking water demand and new connections are affected by several factors.

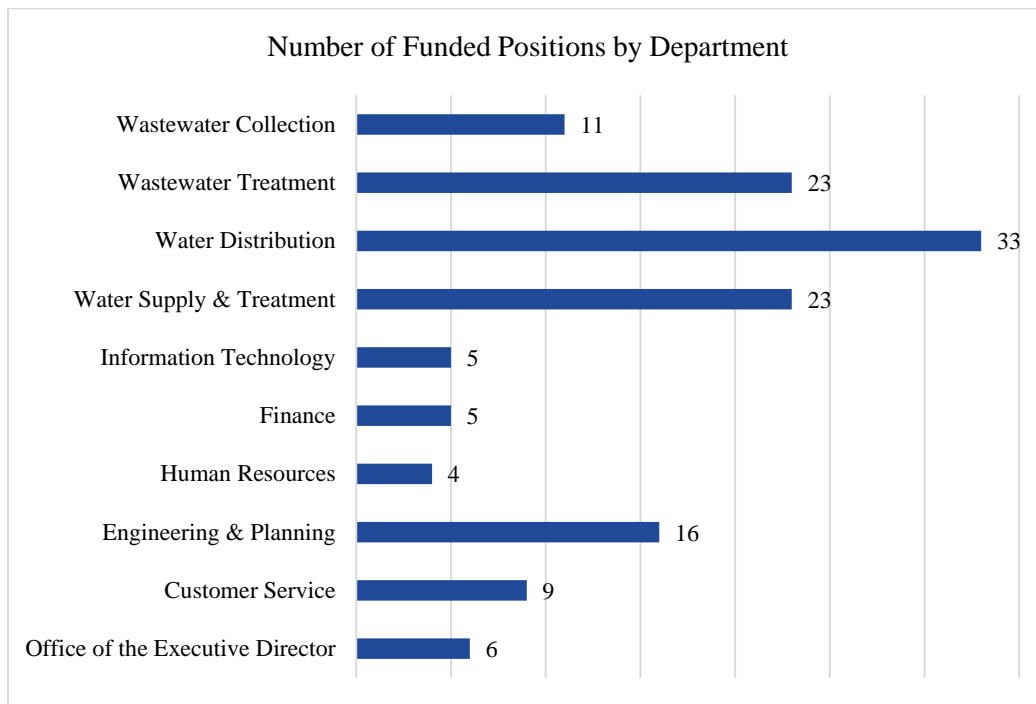
- As mentioned, the pandemic led to a reduction in water demand. With the economy rebounding, we are projecting water demand levels to return to normal. Average daily drinking water demand in FY 2022 is projected to be approximately 6.03 million gallons per day (MGD).
- Reclaimed water (RCW) sales are budgeted to be approximately the same as recent years. Estimated RCW use during FY 2022 is 0.8 MGD.
- Based on the development plans in OWASA’s service area, we expect to install 165 new 5/8” meter equivalents for the year.
- A construction cost inflation rate of 5.0% is assumed for FY 2023 and beyond.

**Organization
Overview by Division**



**Staffing
Summary**

The OWASA Board has authorized a total of 142 positions; 135 are funded for FY 2022. Funded staffing levels (full-time equivalents) are allocated by department as follows:



Summarized Annual Income and Expenses (Revenue Fund)

Description	Resources	Expenses	Balance
Total Operating Revenue	\$38,322,275		
Operating Expenses			
Net Expenses, General and Administrative		\$7,994,126	
Net Expenses, Operating		<u>15,675,466</u>	
Net Total Operating Expenses		23,669,592	
Net Operating Income			\$14,652,683
System Development Fees and Interest Earned	1,347,657		
Total Net Income			16,000,340
Total Debt Service		8,623,186	
Debt Coverage Ratio			1.9

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

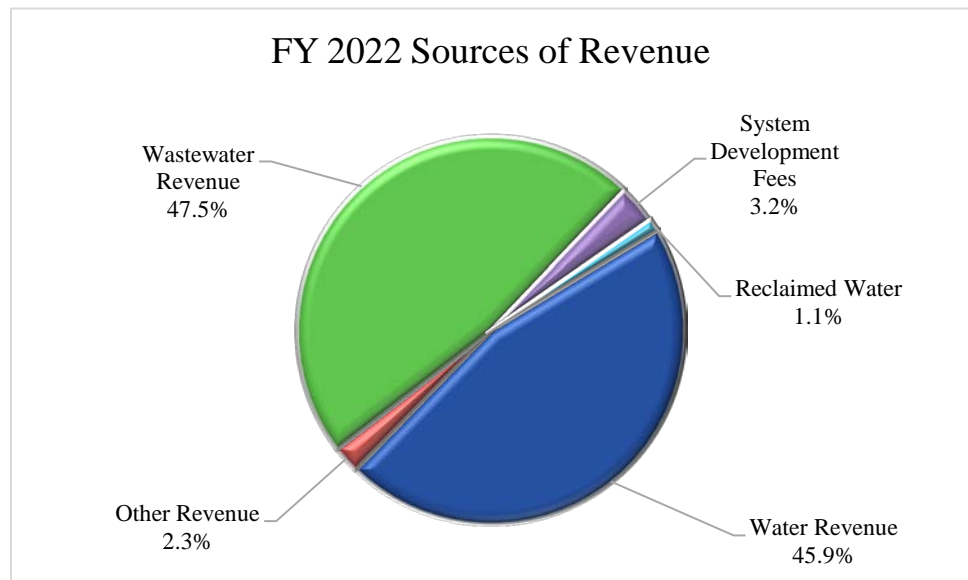
Description	Resources	Expenses	Balance
General Fund Beginning Balance (7/1/21)			\$19,376,928
Transfer from Revenue	7,377,153		
Loan proceeds	10,251,847		
Funds Available for Expenditures			37,005,928
Total Estimated Capital Expenditures		\$17,629,000	
General Fund Ending Balance (6/30/2022)			<u>\$18,319,678</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 2022, 47.0% of total budgeted revenue is anticipated from water and reclaimed water services while wastewater services are expected to generate 47.5%. 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 Calculated to recover a portion of the capital costs of providing water and wastewater system

system development fees 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 2022 is approximately 165, 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.

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. Therefore, annual revenue from these fees is significantly lower than in years prior to implementing Agua Vista.

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.

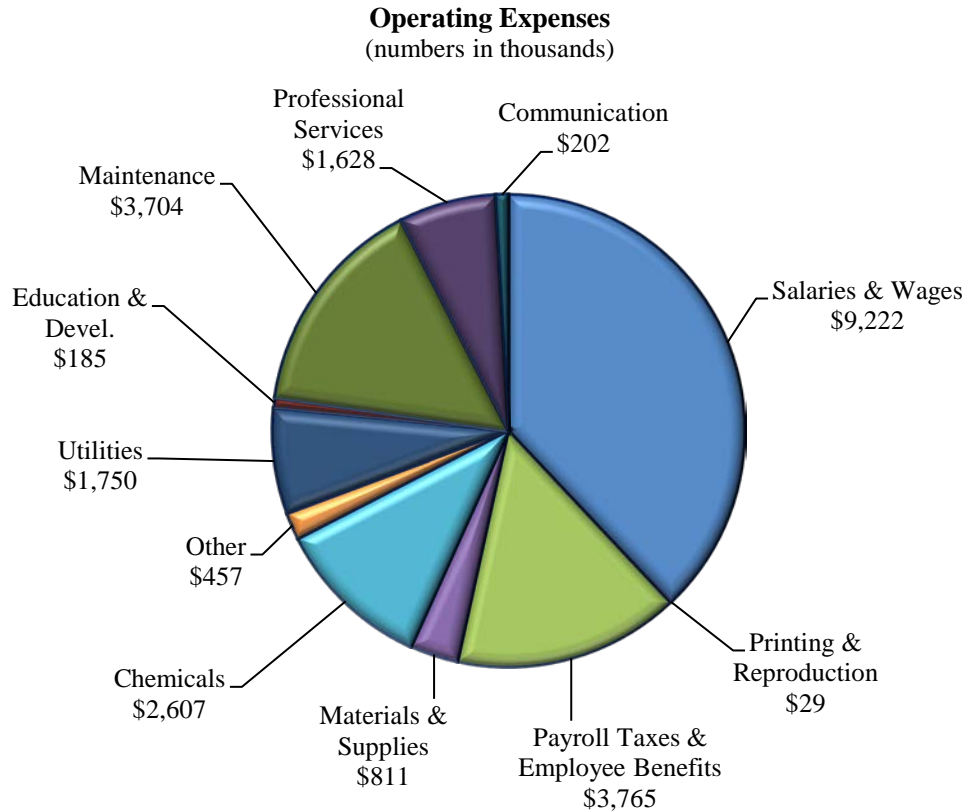
The following graph summarizes the historical trend of OWASA's primary revenue stream compared to our budget for those revenues.

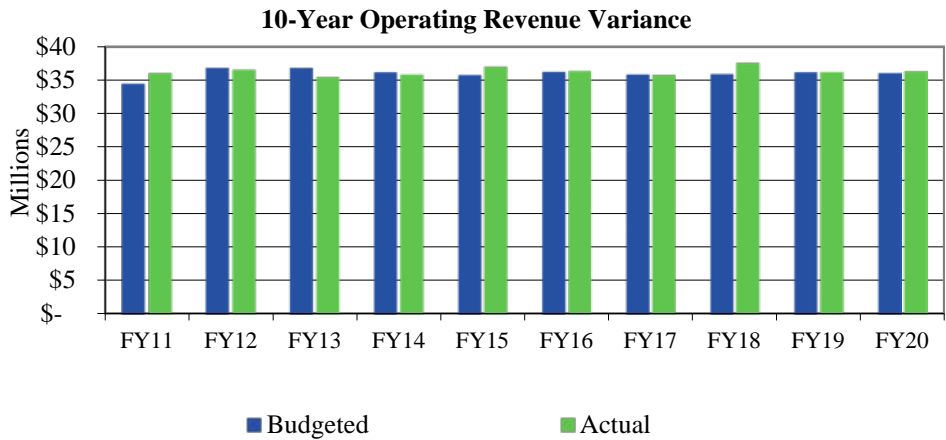
**Planned
Operating
Expenses
Summary**

The chart below shows the planned operating expenses for FY 2022. 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 2022**

	General and Administrative	Operating Departments	Total Budget
Salaries & Wages	\$3,877,481	\$5,344,904	\$9,222,385
Payroll Taxes & Employee Benefits	1,547,139	2,217,901	3,765,040
Materials & Supplies	168,503	642,847	811,350
Chemicals	-	2,607,254	2,607,254
Utilities	178,820	1,571,144	1,749,964
Maintenance	536,755	3,167,105	3,703,860
Professional Services	1,434,267	194,127	1,628,394
Communication	193,206	9,240	202,446
Printing & Reproduction	25,900	3,500	29,400
Education & Development	96,835	88,135	184,970
Other	<u>239,795</u>	<u>216,809</u>	<u>456,604</u>
Total	<u>\$8,298,701</u>	<u>\$16,062,966</u>	<u>\$24,361,667</u>
Construction Credits	(304,575)	(387,500)	(692,075)
Total After Construction Credits	<u>\$7,994,126</u>	<u>\$15,675,466</u>	<u>\$23,669,592</u>





Debt and Debt Policy

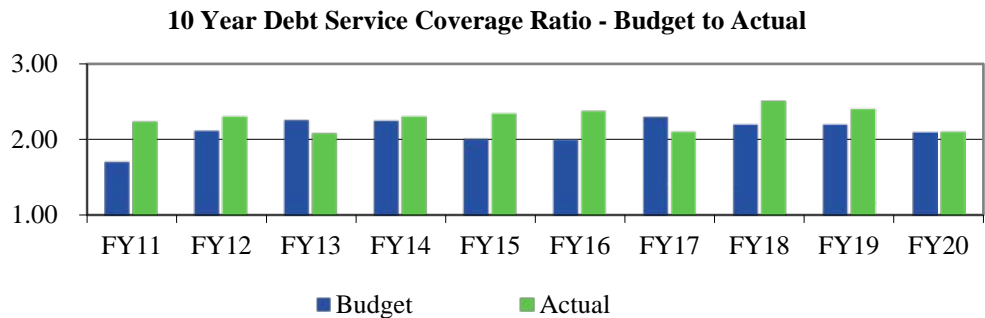
Revenue Bonds and low-interest loans from the State of North Carolina have been used to finance a significant portion of OWASA's capital improvements. The remainder has been funded with annual revenues, grants and fund balance.

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 2021, OWASA's debt burden to asset value was 24%.

OWASA's bond ratings are AAA, AA+, and Aa1 from Standard & Poor's, Fitch, and Moody's, respectively.

Outstanding debt was \$88.8 million as of June 30, 2021. The debt outstanding for each bond issue or loan is: Series 2014 refunding bonds - \$11.6 million, Series 2018 refunding bonds - \$17.0 million, Series 2019 revenue bonds - \$16.2 million, Series 2020 refunding bonds - \$7.7 million, Series 2021 revenue bonds - \$18.9 and low-interest and interest-free loans from the state of North Carolina - \$17.4 million. Principal and interest payments on these balances will be approximately \$8.6 million in FY 2022.

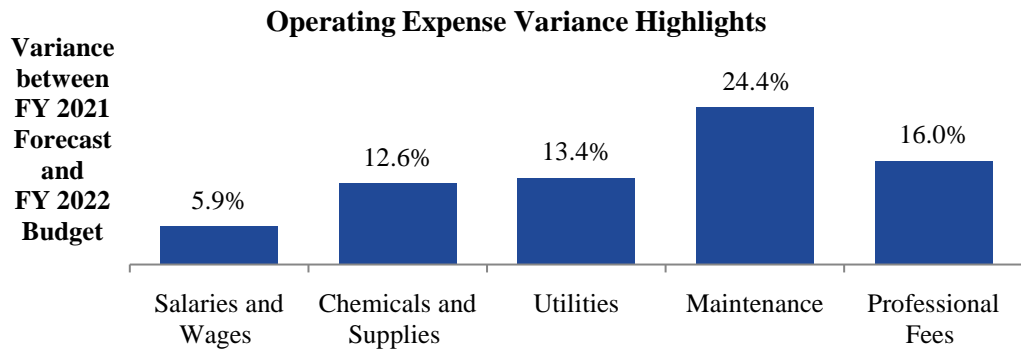
The ratio of net income to debt payments is an important measure of OWASA's financial performance. OWASA's Bond Order sets the minimum required debt coverage ratio at 1.2. The OWASA Board of Directors has set a goal of 2.0.



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 2022 Budget and FY 2021 Forecast.



Salaries and Wages

The budget for salaries and wages is approximately \$487,000 or 5.9% higher than the amount forecasted for FY 2021. The increase in salaries and wages expense is due to a projected average combined cost of labor and merit increase of 3.9% for employees and position vacancies in FY 2021 which reduced FY 2021 expense.

Chemicals and Supplies

The FY 2022 budget for chemicals to treat drinking water and wastewater is approximately \$382,000 or 12.6% greater than the FY 2021 forecast. We expect unit price increases, and we project we will treat more water in FY 2022 than in FY 2021.

Utilities

The FY 2022 budget for utilities expense is approximately \$207,000 or 13.4% greater than the FY 2021 forecast. We expect the price of electricity to increase, and we project to use more energy due to treating more water in FY 2022 than in FY 2021.

Maintenance

The budget for maintenance expense is approximately \$726,000 or 24.4% greater than the forecast for FY 2021. Due to the economic impact of the pandemic, we deferred certain planned maintenance activities from FY 2021 to FY 2022.

Professional Fees

The budget for professional services is approximately \$225,000 or 16.0% greater than the forecast for FY 2021. Again, due to the pandemic, several projects requiring consultant assistance were deferred from FY 2021 to FY 2022 and future years.

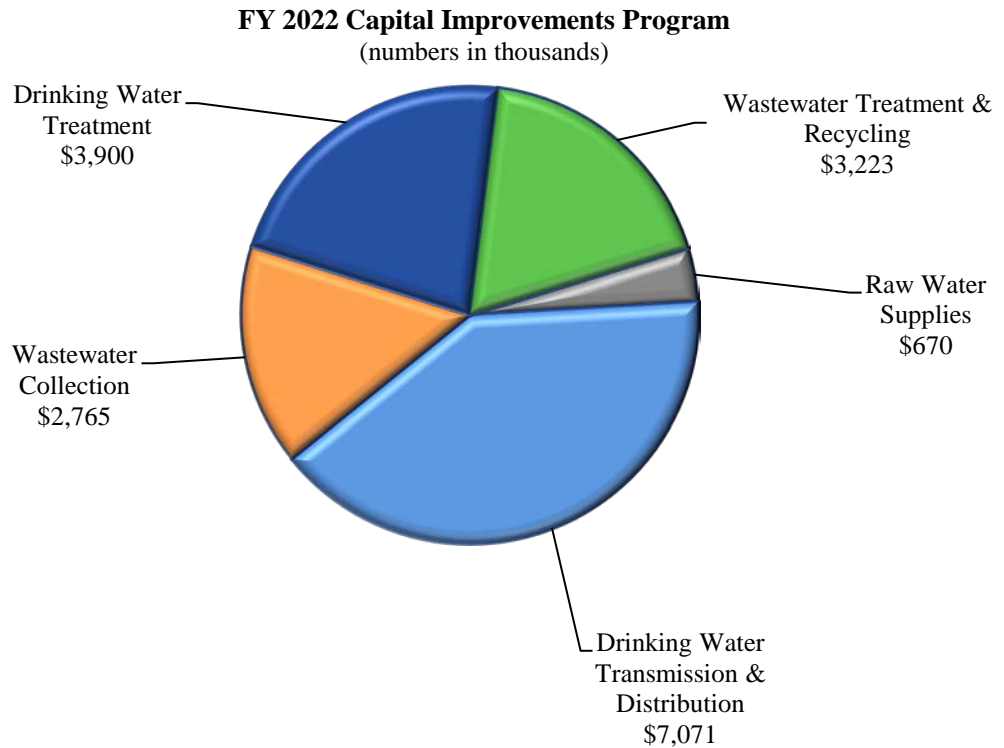
Capital Equipment

OWASA replaces capital equipment items that have exceeded their useful lives and purchases equipment to meet operational needs. Purchases planned for FY 2022 total \$1.1 million (see schedule on page 17).

Capital Improvements Program Summary

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

A five-year planning period is used to develop the CIP. Only the first year of the CIP is included in each fiscal year's budget ordinance. For FY 2022, capital improvements projects total \$17.6 million, as shown below. The improvements planned for FY 2022-2026 are approximately \$87.3 million.



**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:

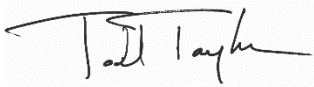
1. After a year in which water demand was below normal due to the pandemic, we project that drinking water and reclaimed water sales in FY 2022 will return to levels typically expected for OWASA's service area.
2. FY 2022 forecast for new construction and system growth is about 165 meter equivalents.
3. The existing seasonal rate fee structure remains in place for non-residential customers, the increasing block rate structure remains in place for individually metered residential customers, as does the year-round water commodity rate for master-metered multi-family customers.
4. The CIP budget for FY 2022 is sufficient 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 2022 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

Orange Water and Sewer Authority Mission and Vision [1](#)

Orange Water and Sewer Authority Board of Directors..... [2](#)

Orange Water and Sewer Authority Management Team..... [3](#)

Budget Preparation and Calendar for FY 2022..... [4](#)

Rate Projections and Budgetary Forecast [5](#)

Appropriations for FY 2022 (Statement of Income, Expense and Debt Service)..... [6](#)

Fund Balance Statements..... [8](#)

Funds Flow Statement [13](#)

Planned Operating Expenditures [14](#)

Planned Capital Equipment Expenditures [17](#)

Debt Service for Fiscal Years 2022-2041 [18](#)

Capital Improvements Program Budget [19](#)

Capital Improvements Program, Five-Year Overview for FY 2022-2026 [22](#)

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

Jody Eimers
3120 Landeau Drive
Hillsborough, NC 27278
Appointed by Orange County; Term Expires 6/30/24

VICE CHAIR

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

SECRETARY

John N. Morris
614 Beechtree Court
Chapel Hill, NC 27514
Appointed by Chapel Hill; Term Expires 6/30/23

MEMBERS

Todd BenDor
904 Coker Drive
Chapel Hill, NC 27517
Appointed by Chapel Hill; Term Expires 6/30/24

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

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

Kevin Leibel
105 Saint Andres Pl
Chapel Hill, NC 27517
Appointed by Orange County; Term Expires 6/30/23

As of June 2021, there were two vacancies on OWASA's Board of Directors. These vacancies are expected to be filled by the fall of 2021.

ORANGE WATER AND SEWER AUTHORITY
MANAGEMENT TEAM

Denise Battle, Customer Service Manager
Mary Darr, P.E., General Manager of Operations
Monica Dodson, Wastewater Treatment and Biosolids Recycling Manager
Jesse DuClau, Water Distribution and Wastewater Collection Systems Manager
Vishnu Gangadharan, P.E., Director of Engineering and Planning
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)
Chris Giesting, 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, P.E., Executive Director
Mary Tiger, Strategic Initiatives Manager
Allison Spinelli, P.E., Engineering Manager (Capital Projects)
Stephen Winters, CPA, Director of Finance and Customer Service

GENERAL COUNSEL

Robert Epting, Esquire
Epting and Hackney, Attorneys at Law

BUDGET PREPARATION AND CALENDAR

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 2020	Distributed templates for the preparation of operating expense appropriations, capital equipment requests and departmental budget narratives.
January 28, 2021	Board of Directors Meeting – reviewed FY 2022 Budget Calendar and Assumptions
January 29, 2021	Submission of Capital Equipment Request Forms, Budget Narratives and Departmental Operating Budget Requests to Budget Officer.
February 11, 2021	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 11, 2021	Board of Directors Work Session – reviewed preliminary FY 2022 budget information.
March 25, 2021	Board of Directors Meeting – discussed FY 2022 budget and rate adjustment information.
April 8, 2021	Board of Work Session – reviewed of FY 2022 budget and rate adjustment options.
April 22, 2021	Board of Directors Meeting – set the date for public hearings authorize staff to publicize budget and rates information.
May 27, 2021	Board of Directors Meeting – Public Hearing on the Draft Annual Budget, Capital Improvements Budget and proposed adjustments to rates, fees, and charges.
June 10, 2021	Board of Directors Work Session – adopt FY 2022 Annual Budget and Schedule of Rates, Fees and Charges.
July 2021	Distribution of FY 2022 Annual Budget.

Rate Projections and Budgetary Forecast

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

Annual rate increases over the 15-year planning horizon are expected to be between 4% and 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 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
Rate increase	7%	5%	5%	4%	4%	4%	4%	4%	4%	4%
	(numbers below in thousands)									
Operating revenue	\$40,957	\$43,369	\$45,725	\$47,877	\$50,020	\$52,264	\$54,610	\$57,070	\$59,642	\$62,336
Operating expenses	25,209	26,127	27,083	28,078	29,113	30,192	31,315	32,485	33,703	34,973
Capital Improvements Projects	18,624	16,291	17,955	16,767	25,512	22,792	39,601	41,831	24,145	24,227
Debt service coverage ratio	1.8	2.0	1.8	1.9	1.9	2.0	1.6	2.0	1.8	2.0

STATEMENT OF INCOME, EXPENSE AND DEBT SERVICE (OPERATING)

	FY 2020 Actual	FY 2021 Budget	FY 2021 Forecast	FY 2021 Forecast to FY 2021 Budget	FY 2022 Budget	FY 2022 Budget to FY 2021 Forecast
Operating Revenue						
Water	\$17,893,981	\$17,701,102	\$17,608,199	-0.52%	\$18,194,238	3.33%
Sewer	16,948,606	17,018,502	16,687,308	-1.95%	18,856,847	13.00%
Reclaimed Water	480,547	463,200	478,144	3.23%	463,200	-3.13%
Service Initiation Fee	24,680	18,820	15,655	-16.82%	16,510	5.46%
Other	1,084,879	922,685	853,399	-7.51%	898,581	5.29%
Refunds and Adjustments	<u>(126,499)</u>	<u>(198,125)</u>	<u>(137,896)</u>	-30.40%	<u>(107,101)</u>	-22.33%
Total Operating Revenue	<u>36,306,194</u>	<u>35,926,184</u>	<u>35,504,809</u>	-1.17%	<u>38,322,275</u>	7.94%
Operating Expense						
General and Administrative	7,872,083	7,836,615	7,692,532	-1.84%	7,994,126	3.92%
Operations	<u>14,929,860</u>	<u>15,353,729</u>	<u>14,594,634</u>	-4.94%	<u>15,675,466</u>	7.41%
Total Operating Expense	<u>22,801,943</u>	<u>23,190,344</u>	<u>22,287,166</u>	-3.89%	<u>23,669,592</u>	6.20%
Net Operating Income	13,504,251	12,735,840	13,217,643	3.78%	14,652,683	10.86%
Non-operating Revenue						
System Development Fees	1,393,871	1,081,490	2,046,869	89.26%	1,249,897	-38.94%
Interest and Other	<u>100,151</u>	<u>81,296</u>	<u>3,676</u>	-95.48%	<u>97,759</u>	2559.39%
Total Net Income	<u>14,998,273</u>	<u>13,898,626</u>	<u>15,268,188</u>	9.85%	<u>16,000,339</u>	4.80%
Debt Service						
Existing	7,213,125	7,568,498	8,425,562	11.32%	7,945,522	-5.70%
New	<u>-</u>	<u>1,499,760</u>	<u>53,550</u>		<u>677,664</u>	
Total Debt Service	<u>7,213,125</u>	<u>9,068,258</u>	<u>8,479,112</u>	-6.50%	<u>8,623,186</u>	1.70%
Net Income Less Debt Service	<u>\$7,785,148</u>	<u>\$4,830,368</u>	<u>\$6,789,076</u>	40.55%	<u>\$7,377,153</u>	8.66%
Debt Coverage Ratio	2.1	1.5	1.8		1.9	

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 2020 Actual	FY 2021 Budget	FY 2021 Forecast	FY 2021 Forecast to FY 2021 Budget	FY 2022 Budget	FY 2022 Budget to FY 2021 Forecast
General Fund						
Resources						
Transfer from Revenue	\$7,785,148	\$4,830,368	\$6,789,076	40.55%	\$7,377,153	8.66%
Assessments	-	-	-		-	0.00%
Grants and Contributions	-	-	-		-	0.00%
Annual Income Available for Capital	7,785,148	4,830,368	6,789,076	40.55%	7,377,153	8.66%
Transfer from Construction Fund (Bond/Loan Proceeds)	18,452,042	15,488,632	20,698,207	0.00%	887,073	0.00%
Total Available for Capital	26,237,190	20,319,000	27,487,283	35.28%	8,264,226	-69.93%
Capital Expenditures						
Project Ordinances						
General Fund Contribution	23,717,309	4,830,368	15,003,735	210.61%	11,185,000	-25.45%
Funded by Bond/Loan Proceeds	1,853,691	15,488,632	2,245,265	0.00%	6,444,000	0.00%
Total Project Resolutions	25,571,000	20,319,000	17,249,000	-15.11%	17,629,000	2.20%
Capital Equipment	473,960	704,500	622,486	-11.64%	1,057,250	69.84%
Total Capital Outlay	26,044,960	21,023,500	17,871,486	-14.99%	18,686,250	4.56%
Annual General Fund Balance	\$192,230	(\$704,500)	\$9,615,797		(\$10,422,024)	
General Fund Beginning Balance		18,432,781	18,432,781	0.00%	28,048,578	52.17%
General Fund Ending Balance	18,432,781	17,728,281	28,048,578	58.21%	17,626,554	-37.16%
Project Funding		(1,016,859)	9,326,598			
Reserves						
Rate/Revenue Stabilization	1,865,102	1,759,140	1,735,980	-1.32%	1,852,554	6.72%
Capital Improvements	4,400,000	4,800,000	4,800,000	0.00%	5,200,000	8.33%
Working Capital	12,167,679	12,186,000	12,186,000	0.00%	10,574,000	-13.23%
Unallocated General Fund Balance	-	-	-		-	

FUND BALANCE STATEMENTS

**CONSOLIDATED SUMMARY - INTRAGOVERNMENTAL SERVICE FUNDS
Fiscal Year 2022**

	Beginning Balance	Revenues	Expenditures	Ending Balance	Change in Balance
Revenue Fund	-	\$39,669,931	(\$39,669,931)	-	-
Bond Service Fund	-	8,623,186	(8,623,186)	-	-
General Fund	<u>28,048,578</u>	<u>8,264,226</u>	<u>(18,686,250)</u>	<u>17,626,554</u>	<u>(10,422,024)</u>
Total	<u><u>\$28,048,578</u></u>	<u><u>\$56,557,343</u></u>	<u><u>(\$66,979,367)</u></u>	<u><u>\$17,626,554</u></u>	<u><u>(\$10,422,024)</u></u>

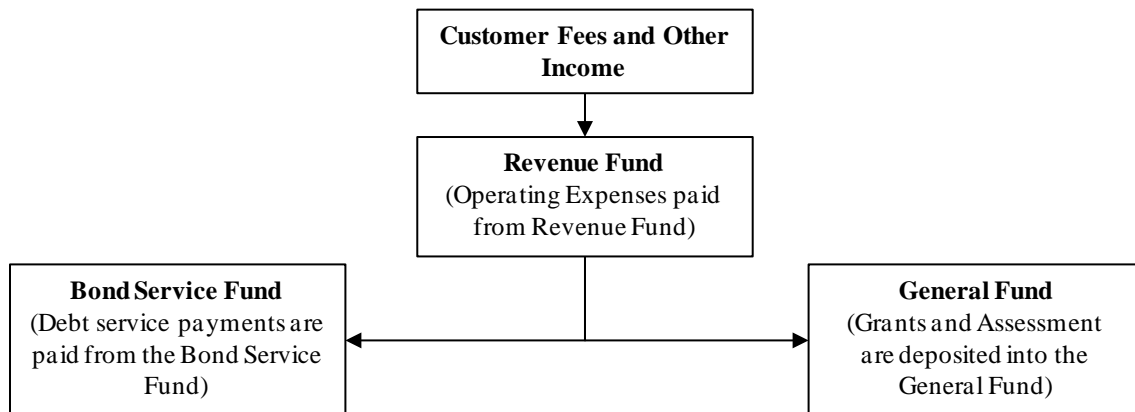
OWASA's Fund Accounting Structure

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

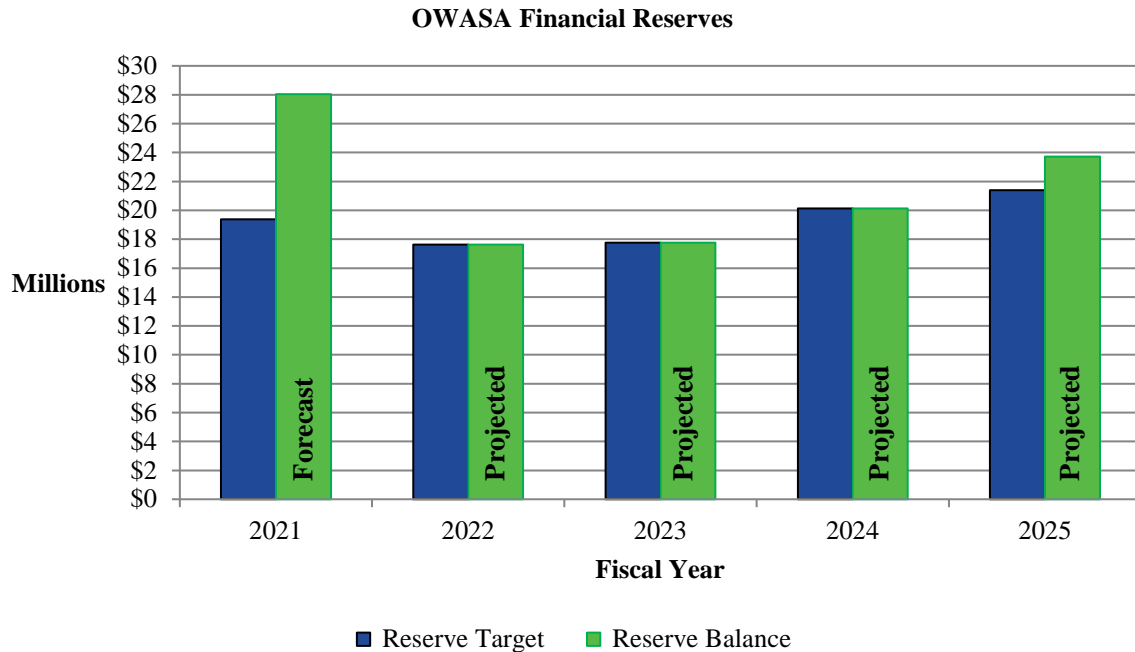
OWASA’s *Financial Management Policy* (see Section III) includes certain financial performance objectives which are intended to help management and other stakeholders monitor the organization’s financial condition. One of the objectives is to maintain adequate financial reserves and OWASA has established 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 2021, 2% of depreciated capital assets was about \$5.5 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 \$5.2 million at the end of FY 2022.

Rate/Revenue Stabilization – At least 5% of projected water and wastewater revenue. The balance in this reserve is projected to be about \$1.9 million at the end of FY 2022.

The graph below depicts the combined balance of the Working Capital, Capital Improvements, and Rate/Revenue Stabilization Reserve funds compared to the target. The forecasted balance for the end of FY 2021 includes bond proceeds that will be used to fund capital improvements projects in FY 2022.



FUND BALANCE STATEMENTS

REVENUE FUND

	<u>Water</u>	<u>Sewer</u>	<u>Total</u>
Fund Balance July 1, 2021			-
Receipts			
Operating Revenue			
Customer Billings	18,194,238	18,856,847	37,051,085
Reclaimed Water	463,200	-	463,200
Service Initiation Fee	8,255	8,255	16,510
Other	449,290	449,291	898,581
Refunds and Adjustments	(53,551)	(53,550)	(107,101)
Total Operating Revenue	19,061,432	19,260,843	38,322,275
Non-operating Revenue			
Customer Fees	516,165	733,732	1,249,897
Interest Income	48,880	48,879	97,759
Total Non-operating Revenue	565,045	782,611	1,347,656
Total Receipts	19,626,477	20,043,454	39,669,931
Expenditures			
Current Expense	(11,969,713)	(11,699,879)	(23,669,592)
Debt Service	(4,360,745)	(4,262,441)	(8,623,186)
Total Expenditures	(16,330,458)	(15,962,320)	(32,292,778)
Net Revenue			7,377,153
To General Fund			(7,377,153)
Fund Balance June 30, 2022			-
Change in Available Balance			-

FUND BALANCE STATEMENTS

BOND SERVICE FUND

Fund Balance July 1, 2021		-
Receipts		
Transfers from Revenue Fund	8,623,186	
Interest	<u> </u>	
Total Receipts		8,623,186
Expenditures		
Debt Service	<u>8,623,186</u>	
Total Expenditures		<u>(8,623,186)</u>
Fund Balance June 30, 2022		<u>-</u>
Change in Available Balance		<u><u>-</u></u>

FUND BALANCE STATEMENTS

GENERAL FUND

Fund Balance July 1, 2021		\$28,048,578
Receipts		
Transfer from Revenue fund	7,377,153	
Transfer from Construction Fund (Loan Proceeds)	2,936,040	
Interest	-	
Assessments	-	
Grants and contributions	-	
Total Receipts		<u>10,313,193</u>
Total Balance Before Expenditures		38,361,771
Expenditures		
Capital Equipment/Leases	1,057,250	
Project Resolutions	17,629,000	
Transfer to Revenue Fund	-	
Total Expenditures		<u>(18,686,250)</u>
Fund Balance June 30, 2022		<u><u>\$19,675,521</u></u>
Allocation of Fund Balance June 30, 2022		
Project Funding		
Capital Reserves	17,626,554	
Total Allocation		<u><u>\$17,626,554</u></u>
Unallocated General Fund Balance June 30, 2022		<u>-</u>
Change in Available Balance		<u><u>(\$10,422,024)</u></u>

FUNDS FLOW STATEMENT

Revenue Fund

Operating Revenue	\$38,322,275	
Customer Fees	1,249,897	
Interest Income	<u>97,759</u>	
 Total Revenues		 39,669,931
 Operating and Maintenance Expense	 (23,669,592)	
Bond Service Fund (transfers to)	<u>(8,623,186)</u>	
 Total Expenditures		 <u>(32,292,778)</u>
 Excess operating revenue (to be transferred to the General Fund)		 7,377,153

General Fund

Beginning Balance July 1, 2021	28,048,578	
Transfer from Revenue Fund	7,377,153	
Assessments	-	
Grants and Contributions	<u>-</u>	
 Total General Fund Balance (available for allocation)		 35,425,731
 Construction Fund - Loan Proceeds		 887,073
 Total General Fund and Loan Proceeds		 36,312,804
 Project Resolutions	17,629,000	
Capital Equipment and Leases	<u>1,057,250</u>	
 Total General Fund Expenditures		 18,686,250
 General Fund Ending Balance June 30, 2022		 <u><u>\$17,626,554</u></u>
 Project Resolutions	-	
Reserves	<u>17,626,554</u>	
 Total Allocation of General Fund Balance		 <u><u>\$17,626,554</u></u>

PLANNED OPERATING EXPENDITURES

EXPENDITURES BY CATEGORY

Category	FY20 Actual	FY21	FY21 Forecast	FY21 Forecast to FY21 Budget Variance	FY22 Budget	FY22 Budget to FY21 Forecast Variance
Personnel	\$12,743,092	\$12,869,443	\$12,690,669	-1.4%	\$12,987,425	2.3%
Chemicals	2,318,121	2,572,564	2,385,708	-7.3%	2,607,254	9.3%
Materials & Supplies	614,998	772,023	650,723	-15.7%	811,350	24.7%
Utilities	1,660,393	1,703,821	1,542,826	-9.4%	1,749,964	13.4%
Maintenance	3,406,244	3,330,480	2,978,316	-10.6%	3,703,860	24.4%
Professional Services	1,513,295	1,505,707	1,403,252	-6.8%	1,628,394	16.0%
Communication	230,629	197,246	192,905	-2.2%	202,446	4.9%
Printing & Reproduction	4,817	35,200	25,064	-28.8%	29,400	17.3%
Education and Development	96,716	177,085	84,358	-52.4%	184,970	119.3%
Other	327,456	361,204	362,188	0.3%	456,604	26.1%
Total	22,915,761	23,524,773	22,316,009	-5.1%	24,361,667	9.2%
Construction Credits	(113,818)	(334,429)	(327,948)	-1.9%	(692,075)	111.0%
Net Expense	\$22,801,943	\$23,190,344	\$21,988,061	-5.2%	\$23,669,592	7.6%

**EXPENDITURES BY DIVISION
FISCAL YEAR 2022**

	General and Administrative	Operating Departments	Total Budget
Personnel	\$3,877,481	\$5,344,904	\$9,222,385
Payroll Taxes & Employee Benefits	1,547,139	2,217,901	3,765,040
Chemicals		2,607,254	2,607,254
Materials & Supplies	168,503	642,847	811,350
Utilities	178,820	1,571,144	1,749,964
Maintenance	536,755	3,167,105	3,703,860
Professional Services	1,434,267	194,127	1,628,394
Communication	193,206	9,240	202,446
Printing & Reproduction	25,900	3,500	29,400
Education and Development	96,835	88,135	184,970
Other	239,795	216,809	456,604
Total	\$8,298,701	\$16,062,966	\$24,361,667
Construction Credits	(304,575)	(387,500)	(692,075)
Net Expense	\$7,994,126	\$15,675,466	\$23,669,592

PLANNED OPERATING EXPENDITURES

GENERAL AND ADMINISTRATIVE

Category	FY20 Actual	FY21 Budget	FY21 Forecast	FY21 Forecast to FY21 Budget Variance	FY22 Budget	FY22 Budget to FY21 Forecast Variance
Executive Director						
Personnel Costs	\$989,529	\$893,533	\$855,354	-4.3%	\$904,637	5.8%
Operating Expenditures	667,614	624,947	566,315	-9.4%	688,246	21.5%
Total Expenditures	1,657,143	1,518,480	1,421,669	-6.4%	1,592,883	12.0%
Customer Service						
Personnel Costs	686,300	667,789	670,144	0.4%	679,664	1.4%
Operating Expenditures	113,733	147,900	136,286	-7.9%	151,320	11.0%
Total Expenditures	800,033	815,689	806,430	-1.1%	830,984	3.0%
Engineering						
Personnel Costs	1,895,121	1,971,750	1,914,712	-2.9%	1,992,675	4.1%
Operating Expenditures	263,992	238,300	120,531	-49.4%	170,710	41.6%
Total Expenditures	2,159,113	2,210,050	2,035,243	-7.9%	2,163,385	6.3%
Human Resources						
Personnel Costs	649,067	699,350	694,973	-0.6%	658,930	-5.2%
Operating Expenditures	275,294	335,510	321,510	-4.2%	454,275	41.3%
Total Expenditures	924,361	1,034,860	1,016,483	-1.8%	1,113,205	9.5%
Finance						
Personnel Costs	575,582	554,501	559,500	0.9%	572,057	2.2%
Operating Expenditures	362,117	308,065	370,019	20.1%	322,815	-12.8%
Total Expenditures	937,699	862,566	929,519	7.8%	894,872	-3.7%
Information Technology						
Personnel Costs	604,011	591,719	595,992	0.7%	616,657	3.5%
Operating Expenditures	840,616	950,430	887,780	-6.6%	1,086,715	22.4%
Total Expenditures	1,444,627	1,542,149	1,483,772	-3.8%	1,703,371	14.8%
Total G&A	7,922,976	7,983,794	7,693,115	-3.6%	8,298,701	7.9%
Construction Credit	(\$50,893)	(\$147,179)	(\$136,352)	-7.4%	(\$304,575)	123.4%
Net Expense	\$7,872,083	\$7,836,615	\$7,556,764	-3.6%	\$7,994,126	5.8%

PLANNED OPERATING EXPENDITURES

OPERATING DEPARTMENTS

Category	FY20 Actual	FY21 Budget	FY21 Forecast	FY21 Forecast to FY21 Budget Variance	FY22 Budget	FY22 Budget to FY21 Forecast Variance
Water Supply & Treatment						
Personnel Costs	\$2,008,729	\$2,077,561	\$2,043,504	-1.6%	\$2,072,751	1.4%
Operating Expenditures	2,993,701	3,135,355	2,779,437	-11.4%	3,355,506	20.7%
Total Expenditures	5,002,430	5,212,916	4,822,941	-7.5%	5,428,257	12.6%
Water Distribution						
Personnel Costs	2,437,404	2,476,005	2,358,343	-4.8%	2,542,946	7.8%
Operating Expenditures	1,018,379	892,885	740,169	-17.1%	1,024,403	38.4%
Total Expenditures	3,455,783	3,368,890	3,098,512	-8.0%	3,567,349	15.1%
Wastewater Treatment						
Personnel Costs	2,123,127	2,136,705	2,210,411	3.4%	2,111,698	-4.5%
Operating Expenditures	3,093,778	3,387,838	3,159,487	-6.7%	3,408,372	7.9%
Total Expenditures	5,216,905	5,524,543	5,369,898	-2.8%	5,520,070	2.8%
Wastewater Collection						
Personnel Costs	774,222	800,531	787,739	-1.6%	835,410	6.1%
Operating Expenditures	543,445	634,099	543,804	-14.2%	711,880	30.9%
Total Expenditures	1,317,667	1,434,630	1,331,543	-7.2%	1,547,290	16.2%
Total Operating Departments	14,992,785	15,540,979	14,622,894	-5.9%	16,062,966	9.8%
Construction Credit	(62,925)	(187,250)	(191,599)	2.3%	(387,500)	102.2%
Net Expense	\$14,929,860	\$15,353,729	\$14,431,295	-6.0%	\$15,675,466	8.6%

PLANNED CAPITAL EQUIPMENT EXPENDITURES

FISCAL YEAR 2022

Capital Equipment Summary

Vehicles and heavy equipment	\$309,100
Generators	35,000
Computer equipment	143,950
Automotive repair equipment	17,000
Security equipment	76,700
Temporary containment berm	6,000
Road tractors *	312,000
Biosolids spreading equipment	85,000
Grounds maintenance equipment	15,700
Process monitoring equipment	25,000
Leak detector / correlator	16,800
Meter testing equipment	15,000
	<hr/>
Total	<u>\$1,057,250</u>

* Through the Volkswagen Clean Diesel settlement, OWASA will receive a reimbursement of \$240,000, bringing OWASA's net cost for the road tractors to about \$72,000.

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 2022-2041

Schedule of Existing Long-term Bonds and Loans

	Issue Dates	Interest Rates (Avg. Coupon)	Outstanding at 06/30/20
Series 2014 Revenue Refunding Bonds	12/18/2014	4.488%	11,630,000
Series 2018 Revenue Refunding Bonds	5/1/2018	3.746%	17,000,000
Series 2019 Revenue Bonds	11/15/2019	4.265%	16,250,000
Series 2020 Revenue Refunding Bonds	4/7/2020	5.000%	7,720,000
Series 2021 Revenue Refunding Bonds	4/7/2020	3.611%	18,840,000
Total Bonded Debt			\$71,440,000
Loan from the State of North Carolina	Various	0% to 1.53	\$17,402,000

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
2022	\$8,573,172	\$50,014	\$8,623,186
2023	9,023,814	1,770,670	10,794,484
2024	9,073,184	2,118,307	11,191,491
2025	9,111,554	4,103,928	13,215,482
2026	9,118,675	4,104,678	13,223,353
2027	7,316,870	6,674,014	13,990,884
2028	7,314,615	6,674,764	13,989,379
2029	7,310,786	10,861,566	18,172,352
2030	4,703,256	10,867,566	15,570,822
2031	4,689,226	12,740,095	17,429,322
2032	3,234,947	12,741,095	15,976,042
2033	3,230,417	14,498,786	17,729,203
2034	3,218,637	14,496,736	17,715,373
2035	2,876,808	21,094,130	23,970,938
2036	2,868,628	21,096,330	23,964,959
2037	2,858,748	21,096,331	23,955,079
2038	2,845,618	21,096,331	23,941,949
2039	2,787,011	21,096,331	23,883,342
2040	2,452,458	21,096,331	23,548,789
2041	2,107,638	21,096,331	23,203,968
Total	\$104,716,062	\$249,374,334	\$354,090,396

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 2022-2026 CIP budget totals about \$87.3 million. The Board has approved a CIP budget for FY 2022 for over 30 projects totaling \$17,629,000.

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 2022.

CAPITAL IMPROVEMENTS PROJECTS FUNDED IN FY 2022

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 Permanganate Facility	New chemical storage and feed facility to improve water treatment	300,000
Cane Creek dam rehabilitation	Spillway rehabilitation recommended by recent inspection	350,000
Water Transmission and Distribution		
Reimbursement for distribution system improvements	Reimbursements for water main upgrades constructed as part of external projects	564,000
Water distribution system rehabilitation	Water main replacement projects constructed by OWASA crews.	1,345,000
Water main replacement program FY 2018-2023	Rehabilitation due to age and condition	180,000
West Cameron Avenue water main replacement	Planning, design, and construction	3,249,000

Project Description	Purpose of Project	Amount
Water distribution system hydraulic model	Analysis of the water distribution system hydraulic capacity	30,000
Distribution system condition assessment management	Opportunistic and proactive condition assessment program: leak detection and pressure monitors	70,000
Jones Ferry Road water main replacements	Replacement due to age, condition and design	1,633,000
Water Treatment and Supply		
WTP flash mix basin improvements	Replacement of aging valves and improvements as recommended by FY 2018 study	50,000
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	2,500,000
WTP clearwell rehabilitation	Concrete repairs as recommended by a comprehensive FY 2020 inspection	100,000
HVAC replacement program	Replace aging HVAC units with higher efficiency equipment	150,000
WTP belt filter press replacement	Replacement due to age and condition	500,000
WTP finished water pump improvements	Improvements to pumps, motors and electrical components	50,000
WTP chemical facility improvements	Upgrades to chemical feed systems to improve reliability and treatment	50,000
WTP and WWTP SCADA master plan	Replacement of critical process control equipment	500,000
Wastewater Collection, Treatment and Disposal		
Gravity sewer rehabilitation program	Design and rehabilitation of deteriorated wastewater mains and manholes	670,000
Rogerson Drive force main and pump station rehabilitation	Rehabilitation due to age and condition	100,000
Rocky Branch interceptor replacement	Rehabilitation due to age and condition	350,000
Morgan Creek interceptor replacement	Rehabilitation due to age and condition	100,000
East Main Street Sewer Rehabilitation	Rehabilitation due to age and condition	1,165,000
Collection system asset management	Temporary flow monitoring to further assess inflow/infiltration sources	50,000
Rogerson Drive pump station grit removal evaluation	Evaluation of a range of alternatives to address problems related to grit accumulation	30,000

Project Description	Purpose of Project	Amount
Chapel Hill North pump station rehabilitation	Replacement and conversion to submersible pump station	300,000
WWTP fermenter improvements	Completion of construction for mixing improvements identified by FY 2019 inspection	883,000
WWTP facilities planning	Assess long-term needs	235,000
WWTP clarifier No. 4 conversion	Improvements to the clarifier's effluent troughs to alleviate operational and maintenance concerns and increase its useful life.	1,400,000
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.	55,000
Biogas removal system improvements	Replacement of aging components	250,000
Reclaimed water valve/coupling rehabilitation	Rehabilitation due to age and condition	325,000
Reclaimed water system water quality evaluation	Study to evaluate conductivity issues and the use of corrosion inhibitor	75,000
Total Capital Improvements Projects Funded in FY 2022		
		\$17,629,000

OWASA CAPITAL IMPROVEMENTS PROGRAM FIVE-YEAR OVERVIEW FOR FY 2022-2026

Project Category:	Annual Totals					5-Year Total
	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2022-26
Raw Water Supply Sources	\$670,000	\$2,513,000	\$123,000	\$297,000	\$2,061,000	\$5,664,000
Raw Water Transmission			75,000			75,000
Water Treatment Facilities	3,900,000	8,394,000	2,475,000	1,310,000	398,000	16,477,000
Finished Water Pumping						
Finished Water Storage		125,000				125,000
Water Transmission and Distribution	7,071,000	3,077,000	2,238,000	11,328,000	6,373,000	30,087,000
Wastewater Collection Lines	2,335,000	3,250,000	7,620,000	2,200,000	3,850,000	19,255,000
Wastewater Pump Stations	430,000	178,000	550,000	150,000	100,000	1,408,000
Wastewater Treatment and Disposal	2,823,000	1,087,000	3,210,000	2,670,000	3,985,000	13,775,000
Reclaimed Water Facility Rehabilitation	400,000					400,000
Central Office and Operations						
Totals	\$17,629,000	\$18,624,000	\$16,291,000	\$17,955,000	\$16,767,000	\$87,266,000

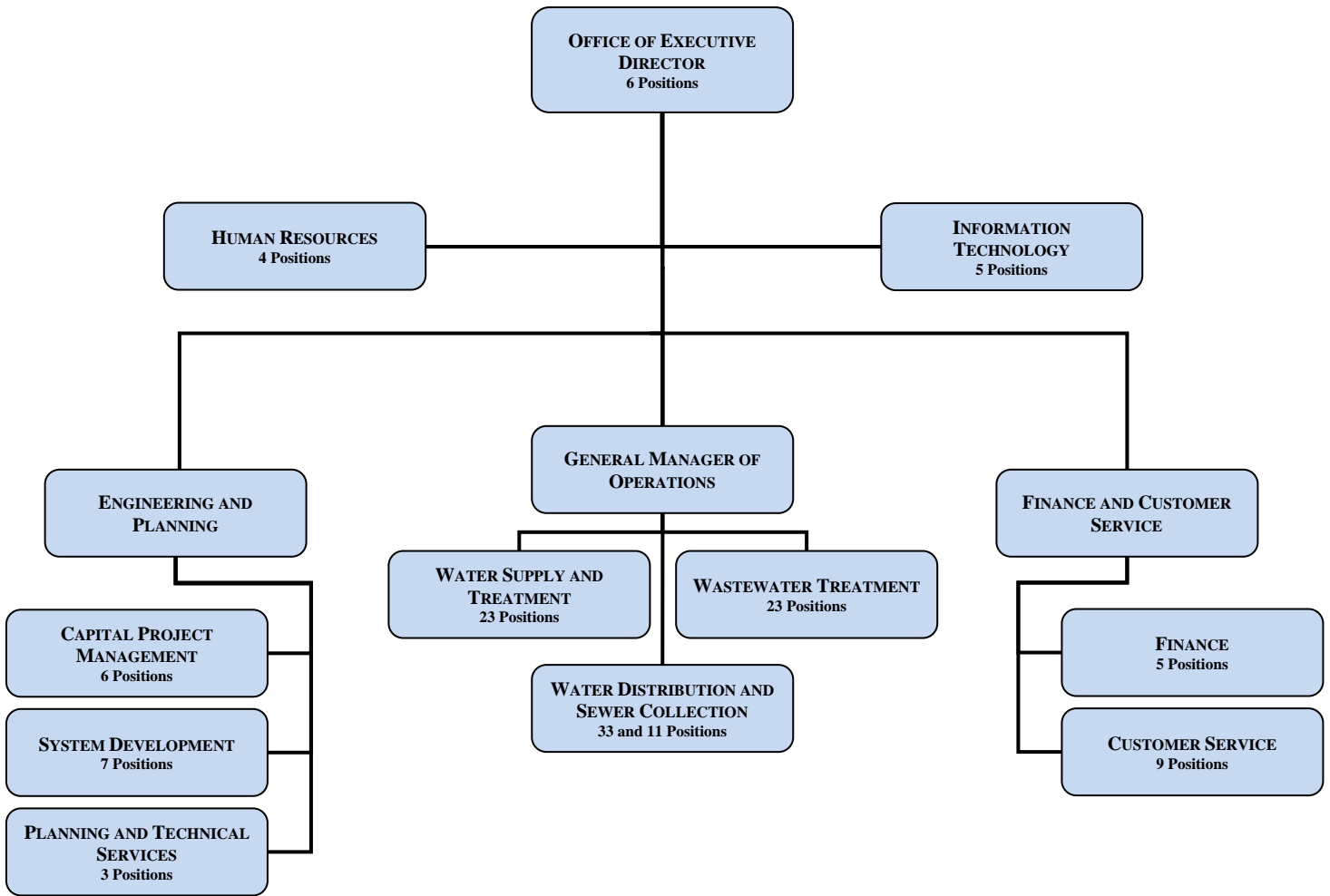
SECTION II

OVERVIEW OF OWASA DEPARTMENTS

Orange Water and Sewer Authority Staff/Department Structure	24
General and Administrative Departments	
Office of Executive Director	25
Customer Service	27
Engineering and Planning	29
Human Resources	31
Finance	33
Information Technology	35
Operating Departments	
Water Supply and Treatment	37
Water Distribution	39
Wastewater Treatment	41
Wastewater Collection	44

ORANGE WATER AND SEWER AUTHORITY STAFF - DEPARTMENT STRUCTURE

(Number of Positions Funded for FY 2022 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 Strategy, 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 2022

Strategic Initiative	Objective
Provide High Quality and Reliable Services	<ul style="list-style-type: none">• Support strategies identified to meet the long-range water needs of the community• Support participation in the Partnership for Safe/Clean Water Programs
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

Strategic Initiative	Objective
Implement Energy Management Program	<ul style="list-style-type: none"> • Continue implementation and support of solar photovoltaics on OWASA facilities • Provide resources to implement the Board-approved plan • Update plan to meet Board-established objectives
Update Strategic Plan	<ul style="list-style-type: none"> • Manage the development of a new Strategic Plan including, community engagement
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 • Reinstigate standard bill collection procedures

OFFICE OF THE EXECUTIVE DIRECTOR

**Three-year Comparison
Fiscal Years 2020 - 2022**

	FY 2020 Actual	FY 2021 Budget	FY21 Budget to FY20 Actual	FY 2021 Forecast	FY21 Forecast to FY21 Budget	FY 2022 Budget	FY22 Budget to FY21 Forecast
Personnel Costs							
Salaries and Wages	\$721,683	\$676,048		\$651,049		\$682,953	
Taxes and Benefits	<u>267,846</u>	<u>217,485</u>		<u>204,305</u>		<u>221,684</u>	
Total Personnel Costs	989,529	893,533	-10%	855,354	-4%	904,637	6%
Other Operating Expense							
Materials and Supplies	4,922	2,680		2,680		3,348	
Utilities	36,536	44,800		34,971		35,180	
Maintenance	0	0		0			
Professional Services	504,192	461,231		453,399		490,392	
Communication	77,658	44,396		20,482		35,956	
Printing and Reproduction	160	21,650		14,831		21,600	
Education and Development	8,632	16,300		11,800		21,500	
Other	<u>35,514</u>	<u>33,890</u>		<u>28,152</u>		<u>80,270</u>	
Total Operating Expenditures	667,614	624,947	-6%	566,315	-9%	688,246	22%
Total Expenditures	<u>1,657,143</u>	<u>1,518,480</u>	-8%	<u>1,421,669</u>	-6%	<u>1,592,883</u>	12%
Construction Credit	(46,587)	(147,179)		(136,350)		(304,575)	
Net Expense	<u>\$1,610,556</u>	<u>\$1,371,301</u>	-15%	<u>\$1,285,319</u>	-6%	<u>\$1,288,308</u>	0%

Personnel Summary			
	FY 2020	FY 2021	FY 2022
Positions funded	7	6	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.
- Enforce OWASA policies concerning customer service matters.
- Oversee OWASA’s participation in the North Carolina Debt Setoff Program.
- Promote the use of OWASA’s Agua Vista customer water use tracking portal.

KEY FOCUS AREAS FOR FY 2022

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.
Implement new phone system to improve customer experience	<ul style="list-style-type: none"> • Gain proficiency using the upgraded phone system.

CUSTOMER SERVICE

**Three-year Comparison
Fiscal Years 2020 - 2022**

	FY 2020 Actual	FY 2021 Budget	FY21 Budget to FY20 Actual	FY 2021 Forecast	FY21 Forecast to FY21 Budget	FY 2022 Budget	FY22 Budget to FY21 Forecast
Personnel Costs							
Salaries and Wages	\$480,645	\$472,498		\$473,609		\$485,731	
Taxes and Benefits	<u>205,655</u>	<u>195,291</u>		<u>196,535</u>		<u>193,933</u>	
Total Personnel Costs	686,300	667,789	-3%	670,144	0%	679,664	1%
Other Operating Expense							
Materials and Supplies	1,187	2,000		1,272		2,000	
Utilities	2,950	900		4,635		4,320	
Maintenance	1,435	0		0		0	
Professional Services	29,007	40,000		36,287		40,000	
Communication	54,531	70,000		71,042		70,000	
Printing and Reproduction	0	0		0		0	
Education and Development	5,888	5,000		1,000		5,000	
Other	<u>18,735</u>	<u>30,000</u>		<u>22,050</u>		<u>30,000</u>	
Total Operating Expenditures	113,733	147,900	30%	136,286	-8%	151,320	11%
Total Expenditures	<u>800,033</u>	<u>815,689</u>	2%	<u>806,430</u>	-1%	<u>830,984</u>	3%
Construction Credit	0	0		0		0	
Net Expense	<u>\$800,033</u>	<u>\$815,689</u>	2%	<u>\$806,430</u>	-1%	<u>\$830,984</u>	3%

Personnel Summary			
	FY 2020	FY 2021	FY 2022
Positions funded	9	9	9

Key Performance Measurements				
	Goal	FY 2019	FY 2020	FY 2021
Workload				
Customer accounts	N/A	21,712	21,823	21,921
Number of calls received	N/A	28,818	25,373	21,944
Effectiveness				
Bill accuracy	100%	99.8%	99.9%	99.9%
Call handle ratio (calls answered vs. calls received)	90%	91%	94%	96%

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 2022

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 2020 - 2022**

	FY 2020 Actual	FY 2021 Budget	FY21 Budget to FY20 Actual	FY 2021 Forecast	FY21 Forecast to FY21 Budget	FY 2022 Budget	FY22 Budget to FY21 Forecast
Personnel Costs							
Salaries and Wages	\$1,427,262	\$1,474,272		\$1,431,984		\$1,508,703	
Taxes and Benefits	<u>467,859</u>	<u>497,478</u>		<u>482,728</u>		<u>483,972</u>	
Total Personnel Costs	1,895,121	1,971,750	4%	1,914,712	-3%	1,992,675	4%
Other Operating Expense							
Materials and Supplies	9,364	23,005		17,574		15,565	
Utilities	11,600	11,700		8,125		7,680	
Maintenance	2,421	2,000		2,000		2,000	
Professional Services	201,495	152,500		42,150		105,000	
Communication	216	850		377		750	
Printing and Reproduction	1,609	2,050		1,000		1,300	
Education and Development	13,352	34,140		25,476		27,015	
Other	<u>23,935</u>	<u>12,055</u>		<u>23,829</u>		<u>11,400</u>	
Total Operating Expenditures	263,992	238,300	-10%	120,531	-49%	170,710	42%
Total Expenditures	<u>2,159,113</u>	<u>2,210,050</u>	2%	<u>2,035,243</u>	-8%	<u>2,163,385</u>	6%
Construction Credit	(4,306)	0		0		0	
Net Expense	<u>\$2,154,807</u>	<u>\$2,210,050</u>	3%	<u>\$2,035,243</u>	-8%	<u>\$2,163,385</u>	6%

Personnel Summary			
	FY 2020	FY 2021	FY 2022
Positions funded	16	16	16

Key Performance Measurements				
	Goal	FY 2019	FY 2020	FY 2021
Actual capital project expenditures as a percentage of budget	>90%	83%	97%	78%
Average plan review time (working days)	<15.0	7.8	7.1	5.2
Capital projects communication plans' effectiveness rating (on a scale of 1 to 5 with 5 the highest)	>4.0	3.45	3.8	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 2022

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 2020 - 2022**

	FY 2020 Actual	FY 2021 Budget	FY21 Budget to FY20 Actual	FY 2021 Forecast	FY21 Forecast to FY21 Budget	FY 2022 Budget	FY22 Budget to FY21 Forecast
Personnel Costs							
Salaries and Wages	\$292,053	\$298,642		\$306,072		\$309,770	
Taxes and Benefits	<u>357,014</u>	<u>400,708</u>		<u>388,901</u>		<u>349,160</u>	
Total Personnel Costs	649,067	699,350	8%	694,973	-1%	658,930	-5%
Other Operating Expense							
Materials and Supplies	6,075	9,300		6,924		10,000	
Utilities	2,500	1,800		2,060		1,920	
Maintenance	121	400		394		400	
Professional Services	151,160	193,255		171,343		294,500	
Communication	84,720	70,000		91,533		84,000	
Printing and Reproduction	0	1,000		300		1,000	
Education and Development	4,172	13,000		2,702		13,600	
Other	<u>26,546</u>	<u>46,755</u>		<u>46,254</u>		<u>48,855</u>	
Total Operating Expenditures	275,294	335,510	22%	321,510	-4%	454,275	41%
Total Expenditures	<u>924,361</u>	<u>1,034,860</u>	12%	<u>1,016,483</u>	-2%	<u>1,113,205</u>	10%
Construction Credit	0	0		0		0	
Net Expense	<u>\$924,361</u>	<u>\$1,034,860</u>	12%	<u>\$1,016,483</u>	-2%	<u>\$1,113,205</u>	10%

Personnel Summary			
	FY 2020	FY 2021	FY 2022
Positions funded	4	4	4

Key Performance Measurements				
	Goal	FY 2019	FY 2020	FY 2021
Vacancies as a percentage of total authorized positions	<8.0%	10.5%	8.4%	11.9%
At fault EEOC complaints	0	0	0	0
Diversity percentages				
Racial minorities	25-30%	27%	25%	26%
Female	25-30%	25%	23%	25%
Number of injuries, illnesses or lost workdays compared to a common exposure base of 100 full-time workers	<3.5	4.67	3.85	2.28

FINANCE

(General and Administrative)

MISSION

The Finance Department is responsible for maintaining the fiscal affairs of OWASA consistent with generally accepted accounting principles and statutory requirements. Areas of responsibility include accounts payable, accounts receivable, general ledger, asset records, investments, 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 pay expenditures timely.
- 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 2022

Strategic Initiative	Objective
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 institution	<ul style="list-style-type: none">• Successfully meet OWASA’s banking services needs
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 recovery from 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 2020 - 2022**

	FY 2020 Actual	FY 2021 Budget	FY21 Budget to FY20 Actual	FY 2021 Forecast	FY21 Forecast to FY21 Budget	FY 2022 Budget	FY22 Budget to FY21 Forecast
Personnel Costs							
Salaries and Wages	\$439,388	\$414,778		\$420,202		\$430,955	
Taxes and Benefits	<u>136,194</u>	<u>139,723</u>		<u>139,298</u>		<u>141,102</u>	
Total Personnel Costs	575,582	554,501	-4%	559,500	1%	572,057	2%
Other Operating Expense							
Materials and Supplies	6,781	6,500		6,023		6,000	
Utilities	3,973	4,300		5,073		4,900	
Maintenance	0	0		0		0	
Professional Services	329,899	281,900		344,452		296,375	
Communication	1,659	2,500		2,419		2,500	
Printing and Reproduction	2,774	2,000		1,433		2,000	
Education and Development	9,940	4,620		4,471		4,770	
Other	<u>7,091</u>	<u>6,245</u>		<u>6,148</u>		<u>6,270</u>	
Total Operating Expenditures	362,117	308,065	-15%	370,019	20%	322,815	-13%
Total Expenditures	<u>937,699</u>	<u>862,566</u>	-8%	<u>929,519</u>	8%	<u>894,872</u>	-4%
Construction Credit	0	0		0		0	
Net Expense	<u>\$937,699</u>	<u>\$862,566</u>	-8%	<u>\$929,519</u>	8%	<u>\$894,872</u>	-4%

Personnel Summary			
	FY 2020	FY 2021	FY 2022
Positions funded	5	5	5

Key Performance Measurements				
	Goal	FY 2019	FY 2020	FY 2021
Working capital reserve	\$13.6M (FY20)	\$11.5M	\$12.1M	\$22.7M
Debt service coverage ratio	2.0	2.1	2.1	2.0
Debt to asset value	<50%	24%	26%	29%
Service affordability	1.5	1.4	1.3	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 2022

Strategic Initiative	Objective
Upgrade physical security	<ul style="list-style-type: none">• Install additional cameras and access controls at OWASA facilities
Cybersecurity	<ul style="list-style-type: none">• Implement Intrusion Prevention/Detection solution.• Implement machine-learning based email spam/malware filtering software.• Implement additional Microsoft cybersecurity tools• Conduct SCADA and Payment Card Industry security assessments
IT Infrastructure Updates	<ul style="list-style-type: none">• Replace network switches across the network
Cloud-based storage	<ul style="list-style-type: none">• Implement cloud-based storage in Microsoft Azure to improve resilience, reliability and capability

INFORMATION TECHNOLOGY

**Three-year Comparison
Fiscal Years 2020 - 2022**

	FY 2020 Actual	FY 2021 Budget	FY21 Budget to FY20 Actual	FY 2021 Forecast	FY21 Forecast to FY21 Budget	FY 2022 Budget	FY22 Budget to FY21 Forecast
Personnel Costs							
Salaries and Wages	\$454,689	\$441,315		\$444,935		\$459,370	
Taxes and Benefits	<u>149,322</u>	<u>150,404</u>		<u>151,057</u>		<u>157,286</u>	
Total Personnel Costs	604,011	591,719	-2%	595,992	1%	616,656	3%
Other Operating Expense							
Materials and Supplies	65,812	100,128		89,922		131,590	
Utilities	125,639	127,300		107,510		124,820	
Maintenance	479,271	466,452		446,879		534,355	
Professional Services	102,854	188,000		183,747		208,000	
Communication	0	0		0		0	
Printing and Reproduction	0	0		0		0	
Education and Development	14,618	21,950		12,316		24,950	
Other	<u>52,422</u>	<u>46,600</u>		<u>47,406</u>		<u>63,000</u>	
Total Operating Expenditures	840,616	950,430	13%	887,780	-7%	1,086,715	22%
Total Expenditures	<u>1,444,627</u>	<u>1,542,149</u>	7%	<u>1,483,772</u>	-4%	<u>1,703,371</u>	15%
Construction Credit	0	0		0		0	
Net Expense	<u>\$1,444,627</u>	<u>\$1,542,149</u>	7%	<u>\$1,483,772</u>	-4%	<u>\$1,703,371</u>	15%

Personnel Summary			
	FY 2020	FY 2021	FY 2022
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 2022

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• Complete finished water resiliency improvement project• Complete 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 2020 - 2022**

	FY 2020 Actual	FY 2021 Budget	FY21 Budget to FY20 Actual	FY 2021 Forecast	FY21 Forecast to FY21 Budget	FY 2022 Budget	FY22 Budget to FY21 Forecast
Personnel Costs							
Salaries and Wages	\$1,406,878	\$1,471,741		\$1,439,326		\$1,474,731	
Taxes and Benefits	<u>601,851</u>	<u>605,820</u>		<u>604,178</u>		<u>598,020</u>	
Total Personnel Costs	2,008,729	2,077,561	3%	2,043,504	-2%	2,072,751	1%
Other Operating Expense							
Materials and Supplies	179,623	186,992		158,860		191,491	
Chemicals	1,288,512	1,413,495		1,325,083		1,466,645	
Utilities	423,158	372,206		359,299		433,234	
Maintenance	943,172	963,953		753,330		1,039,578	
Professional Services	76,202	77,300		72,258		92,639	
Communication	1,279	3,000		1,780		3,000	
Printing and Reproduction	0	0		0		0	
Education and Development	4,480	9,600		5,259		11,960	
Other	<u>77,275</u>	<u>108,809</u>		<u>103,568</u>		<u>116,960</u>	
Total Operating Expenditures	2,993,701	3,135,355	5%	2,779,437	-11%	3,355,507	21%
Total Expenditures	<u>5,002,430</u>	<u>5,212,916</u>	4%	<u>4,822,941</u>	-7%	<u>5,428,258</u>	13%
Construction Credits	0	0		0		0	
Net Expense	<u>\$5,002,430</u>	<u>\$5,212,916</u>	4%	<u>\$4,822,941</u>	-7%	<u>\$5,428,258</u>	13%

Personnel Summary			
	FY 2020	FY 2021	FY 2022
Positions funded	23	23	23

Key Performance Measurements				
	Goal	FY 2019	FY 2020	FY 2021
Workload				
Finished water pumped to the distribution system	N/A	2.4B	2.4B	2.3B
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	0.02	0.03	0.02

B = billion

WATER DISTRIBUTION

(Operating)

MISSION

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

SUMMARY OF ACTIVITIES

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

KEY FOCUS AREAS FOR FY 2022

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 use of related equipment
Valve Maintenance	<ul style="list-style-type: none">• 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
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">• Identify 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
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

WATER DISTRIBUTION

**Three-year Comparison
Fiscal Years 2020 - 2022**

	FY 2020 Actual	FY 2021 Budget	FY21 Budget to FY20 Actual	FY 2021 Forecast	FY21 Forecast to FY21 Budget	FY 2022 Budget	FY22 Budget to FY21 Forecast
Personnel Costs							
Salaries and Wages	\$1,649,228	\$1,721,815		\$1,619,942		\$1,765,422	
Taxes and Benefits	<u>788,176</u>	<u>754,190</u>		<u>738,401</u>		<u>777,524</u>	
Total Personnel Costs	2,437,404	2,476,005	2%	2,358,343	-5%	2,542,946	8%
Other Operating Expense							
Materials and Supplies	95,158	105,144		77,580		117,241	
Utilities	210,258	210,306		167,494		244,015	
Maintenance	686,565	539,436		471,340		629,443	
Professional Services	8,541	6,900		8,025		6,403	
Communication	3,170	5,000		3,943		5,000	
Printing and Reproduction	274	1,500		500		1,500	
Education and Development	4,693	23,100		8,833		18,300	
Other	<u>9,720</u>	<u>1,500</u>		<u>2,455</u>		<u>2,500</u>	
Total Operating Expenditures	1,018,379	892,886	-12%	740,170	-17%	1,024,402	38%
Total Expenditures	<u>3,455,783</u>	<u>3,368,891</u>	-3%	<u>3,098,513</u>	-8%	<u>3,567,348</u>	15%
Construction Credits	(56,040)	(187,250)		(186,953)		(387,500)	
Net Expense	<u>\$3,399,743</u>	<u>\$3,181,641</u>	-6%	<u>\$2,911,560</u>	-8%	<u>\$3,179,848</u>	9%

Personnel Summary			
	FY 2020	FY 2021	FY 2022
Positions funded	35	35	35

Key Performance Measurements				
	Goal	FY 2019	FY 2020	FY 2021
Workload				
Miles of finished water pipe maintained	N/A	383	384	384
Effectiveness				
Volume of water billed vs. volume pumped to the system	90.0%	89.7%	89.3%	90.1%
Number of main breaks per 100 miles of pipe	<7.00	9.2	11.2	9.4

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 2022

Strategic Initiative	Objective
Continue 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 in-place, 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 2020 - 2022**

	FY 2020 Actual	FY 2021 Budget	FY21 Budget to FY20 Actual	FY 2021 Forecast	FY21 Forecast to FY21 Budget	FY 2022 Budget	FY22 Budget to FY21 Forecast
Personnel Costs							
Salaries and Wages	\$1,516,402	\$1,525,274		\$1,594,384		\$1,533,682	
Taxes and Benefits	<u>606,725</u>	<u>611,431</u>		<u>616,027</u>		<u>578,016</u>	
Total Personnel Costs	2,123,127	2,136,705	1%	2,210,411	3%	2,111,698	-4%
Other Operating Expense							
Materials and Supplies	219,875	285,593		259,444		270,964	
Chemicals	894,688	929,069		830,625		910,608	
Utilities	722,068	793,535		746,941		750,034	
Maintenance	1,047,066	1,167,944		1,146,015		1,248,920	
Professional Services	101,832	97,721		85,187		88,681	
Communication	7,054	1,000		1,009		740	
Printing and Reproduction	0	5,000		5,000		0	
Education and Development	27,759	38,625		5,962		47,075	
Other	<u>73,436</u>	<u>69,350</u>		<u>79,304</u>		<u>91,350</u>	
Total Operating Expenditures	3,093,778	3,387,837	10%	3,159,487	-7%	3,408,372	8%
Total Expenditures	<u>5,216,905</u>	<u>5,524,542</u>	6%	<u>5,369,898</u>	-3%	<u>5,520,070</u>	3%
Construction Credits	0	0		0		0	
Net Expense	<u>\$5,216,905</u>	<u>\$5,524,542</u>	6%	<u>\$5,369,898</u>	-3%	<u>\$5,520,070</u>	3%

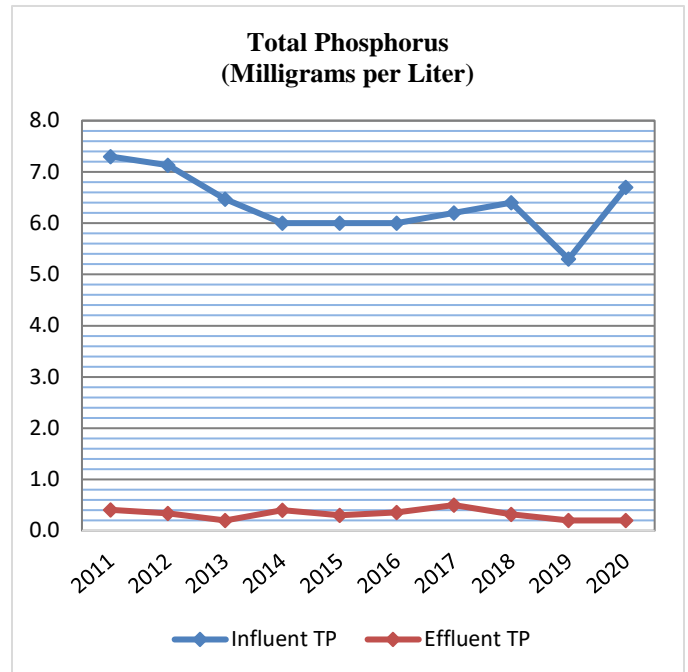
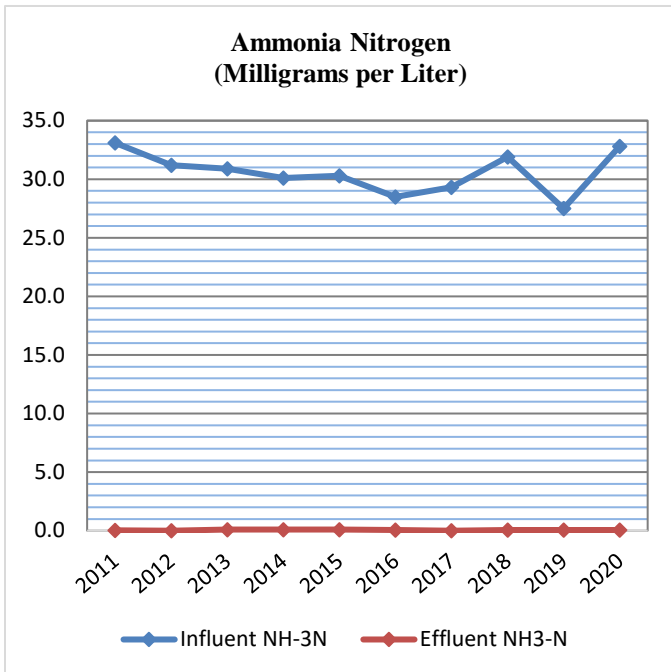
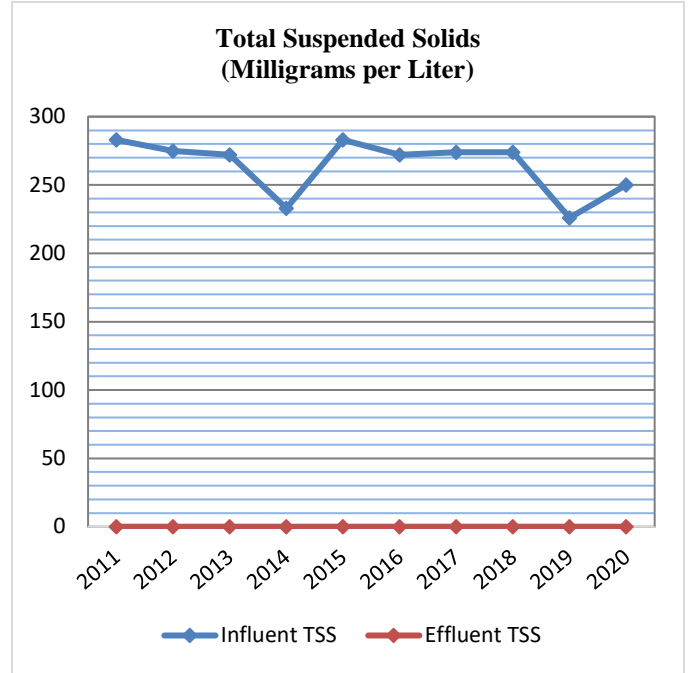
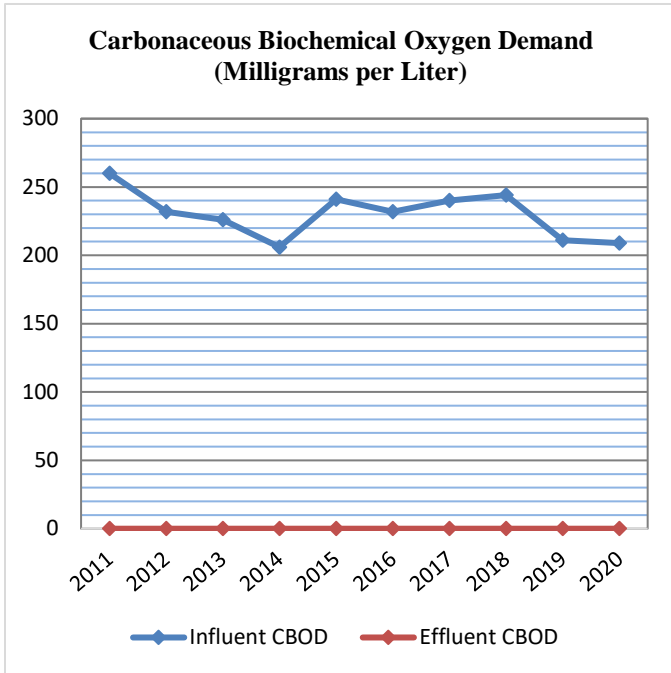
Personnel Summary			
	FY 2020	FY 2021	FY 2022
Positions funded	22	23	23

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

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 2022

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 use of related equipment
Reduce Sanitary Sewer Overflows	<ul style="list-style-type: none">• Perform preventative maintenance; sewer cleaning, CCTV inspections, and 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• Monitor and minimize easement encroachments
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
Fats, oils and grease (FOG) Program	<ul style="list-style-type: none">• Inspect, maintain, and enforce grease interceptors throughout the collection system• Maintain and expand 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

WASTEWATER COLLECTION

Three-year Comparison Fiscal Years 2020 - 2022

	FY 2020 Actual	FY 2021 Budget	FY21 Budget to FY20 Actual	FY 2021 Forecast	FY21 Forecast to FY21 Budget	FY 2022 Budget	FY22 Budget to FY21 Forecast
Personnel Costs							
Salaries and Wages	\$520,341	\$543,498		\$533,700		\$571,068	
Taxes and Benefits	<u>253,881</u>	<u>257,033</u>		<u>254,038</u>		<u>264,341</u>	
Total Personnel Costs	774,222	800,531	3%	787,738	-2%	835,409	6%
Other Operating Expense							
Materials and Supplies	26,201	50,681		30,444		63,153	
Chemicals	134,921	230,000		230,000		230,000	
Utilities	121,711	136,974		106,719		143,861	
Maintenance	246,193	190,294		158,358		249,164	
Professional Services	8,113	6,900		6,404		6,404	
Communication	342	500		320		500	
Printing and Reproduction	0	2,000		2,000		2,000	
Education and Development	3,182	10,750		6,539		10,800	
Other	<u>2,782</u>	<u>6,000</u>		<u>3,020</u>		<u>6,000</u>	
Total Operating Expenditures	543,445	634,099	17%	543,804	-14%	711,882	31%
Total Expenditures	<u>1,317,667</u>	<u>1,434,630</u>	9%	<u>1,331,542</u>	-7%	<u>1,547,291</u>	16%
Construction Credits	(6,885)	0		(4,646)		0	
Net Expense	<u>\$1,310,782</u>	<u>\$1,434,630</u>	9%	<u>\$1,326,896</u>	-8%	<u>\$1,547,291</u>	17%

Personnel Summary			
	FY 2020	FY 2021	FY 2022
Positions funded	11	11	11

Key Performance Measurements				
	Goal	FY 2019	FY 2020	FY 2021
Workload				
Miles of gravity wastewater collection piping maintained	N/A	349	349	349
Effectiveness				
Number of reportable wastewater overflows	0	19*	4	4
Total number of reportable overflows per 100 miles of wastewater pipe	0.0	5.6	1.2	0.9

- 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

Budget Resolution and Ordinance [46](#)

Personnel Authorizations by Department [52](#)

10-Year Historical Performance [55](#)

Miscellaneous Statistical Data [60](#)

Service Area [61](#)

Chapel Hill Statistical Data [64](#)

Financial Management Policy [67](#)

Glossary [72](#)

**Resolution Adopting the Annual Budget For
Orange Water and Sewer Authority (OWASA) for the Fiscal Year
July 1, 2021 Through June 30, 2022**

Whereas, North Carolina G.S. Chapter 159 and Section 7.05 of the Bond Order 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) 2022 Budget, and after holding public hearings on May 27, 2021 concerning the FY 2022 Budget, the Board of Directors determined that it is necessary to increase the rates OWASA charges for monthly water and sewer services by 5% in order to provide sufficient revenues to fund ongoing operations, debt service and the Capital Improvements Program; and;

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, 2021 through June 30, 2022.
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 10th day of June 2021.


Raymond E. DuBose, Chair

ATTEST:


Jo Leslie Eimers, Secretary

BUDGET RESOLUTION AND ORDINANCE

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

	FY 2022
	<u>Annual Budget</u>
Operating Revenue	
Water	\$18,194,238
Sewer	18,856,847
Reclaimed Water	463,200
Service Initiation Fee	16,510
Other	898,581
Refunds and Adjustments	<u>(107,101)</u>
Total Operating Revenue	\$38,322,275
Operating Expense	
General and Administrative	7,994,126
Operations	<u>15,675,466</u>
Total Operating Expense	<u>23,669,592</u>
Net Operating Income	14,652,683
Non-operating Revenue	
Customer Fees	1,249,897
Interest	<u>97,760</u>
Total Net Income	<u><u>\$16,000,340</u></u>
Debt Service	
Existing	7,945,522
New	<u>677,665</u>
Total Debt Service	<u>8,623,186</u>
Net Income Less Debt Service	<u><u>\$7,377,153</u></u>

BUDGET RESOLUTION AND ORDINANCE

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

		<u>FY 2022 Annual Budget</u>
General Fund		
Resources		
Transfer From Revenue	<u>\$7,377,153</u>	
Annual Income Available for Capital		7,377,153
Transfer from Construction Fund (Bond Proceeds)		<u>10,251,847</u>
Total Available for Capital		<u>17,629,000</u>
Capital Expenditures		
Project ordinances		
General Fund Contribution	7,377,153	
Funded by Bond Proceeds	<u>10,251,847</u>	
Total Project Resolutions		17,629,000
Capital Equipment		<u>1,057,250</u>
Total Capital Outlay		<u>18,686,250</u>
Annual General Fund Balance		(1,057,250)
General Fund Beginning Balance		<u>19,376,928</u>
General Fund Ending Balance		18,319,678
Project Funding	693,125	
Reserves		
Rate/Revenue Stabilization	1,852,554	
Capital Improvements	5,200,000	
Working Capital	<u>10,574,000</u>	<u>18,319,678</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, 2021			-
Receipts			
Operating Revenue			
Customer Billings	\$18,194,238	\$18,856,847	\$37,051,085
Reclaimed Water	463,200	-	463,200
Service Initiation Fee	8,255	8,255	16,510
Other	449,290	449,291	898,581
Refunds and Adjustments	(53,551)	(53,550)	(107,101)
Total Operating Revenue	19,061,432	19,260,843	38,322,275
Non-operating Revenue			
Customer Fees	516,165	733,732	1,249,897
Interest Income	48,880	48,879	97,759
Total Non-operating Revenue	565,045	782,611	1,347,656
Total Receipts	19,626,477	20,043,454	39,669,931
Expenditures			
Current Expense	(11,969,713)	(11,699,879)	(23,669,592)
Debt Service	(4,360,745)	4,262,441)	(8,623,186)
Total Expenditures	(16,330,458)	(15,962,320)	(32,292,778)
Net Revenue			7,377,153
To General Fund			(7,377,153)
Fund Balance June 30, 2022			-
Change in Available Balance			-

BUDGET RESOLUTION AND ORDINANCE

BOND SERVICE FUND

Fund Balance July 1, 2021		\$ -
Receipts		
Transfers from Revenue Fund	8,623,186	
Interest	<u> </u>	
Total Receipts		8,623,186
Expenditures		
Debt Service	<u>8,623,186</u>	
Total Expenditures		<u>(8,623,186)</u>
Fund Balance June 30, 2022		<u> </u> -
Change in Available Balance		<u><u> </u></u> \$ -

BUDGET RESOLUTION AND ORDINANCE

GENERAL FUND

Fund Balance July 1, 2021		\$19,376,928
Receipts		
Transfer from Revenue fund	7,377,153	
Transfer from Construction Fund (Loan Proceeds)	10,251,847	
Interest	-	
Assessments	-	
Grants and contributions	-	
	<hr/>	
Total Receipts		<hr/> 17,629,000
Total Balance Before Expenditures		37,005,928
Expenditures		
Capital Equipment/Leases	1,057,250	
Project Resolutions	17,629,000	
Transfer to Revenue Fund	-	
	<hr/>	
Total Expenditures		<hr/> (18,686,250)
Fund Balance June 30, 2022		<hr/> <hr/> \$18,319,678
Allocation of Fund Balance June 30, 2022		
Project Funding		
Capital Reserves	17,626,554	
	<hr/>	
Total Allocation		<hr/> <hr/> \$17,626,554
Unallocated General Fund Balance June 30, 2022		<hr/> -
Change in Available Balance		<hr/> <hr/> (\$693,124)

PERSONNEL AUTHORIZATIONS BY DEPARTMENT

Office of the Executive Director	FY 2020	FY 2021	FY 2022
Executive Director	1	1	1
General Manager of Operations	1	1	1
Strategic Initiatives Manager	1	1	1
Executive Assistant	1	1	1
Public Affairs Administrator	0	0	0
Communications and Community Relations Officer	1	1	1
Administrative Assistant	2	2	2
Communications Specialist	1	1	1
Totals	7	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	5	5	5
Clerk/Cashier	0	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	4	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	16	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 2020	FY 2021	FY 2022
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	0	0
Reservoir and Land Resources Supervisor	0	1	1
Assistant Lake Warden	2	2	2
Maintenance Supervisor	1	1	1
Senior Maintenance Mechanic	0	1	1
Maintenance Coordinator	1	1	1
Maintenance Mechanic	4	4	4
Laboratory Supervisor	1	1	1
Laboratory Analyst	3	3	3
Administrative Assistant	1	0	0
Totals	25	25	25

Water Distribution

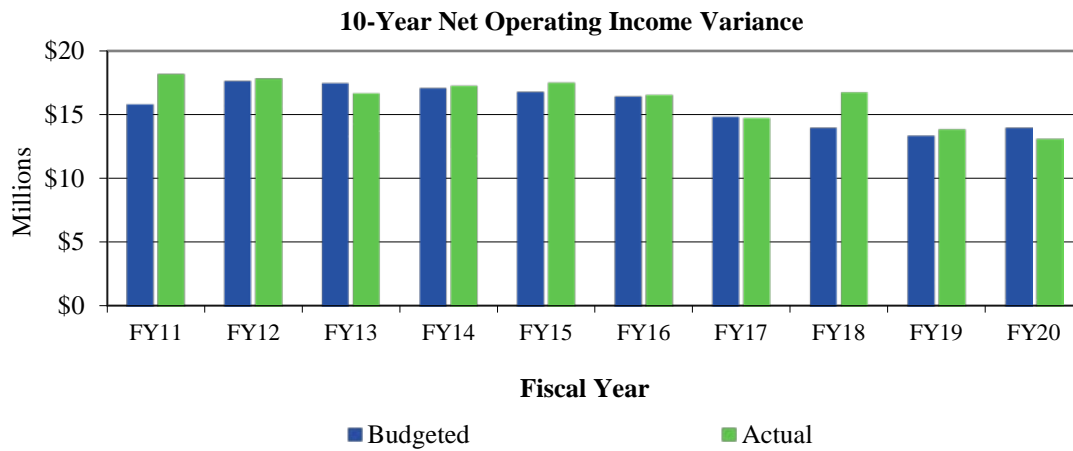
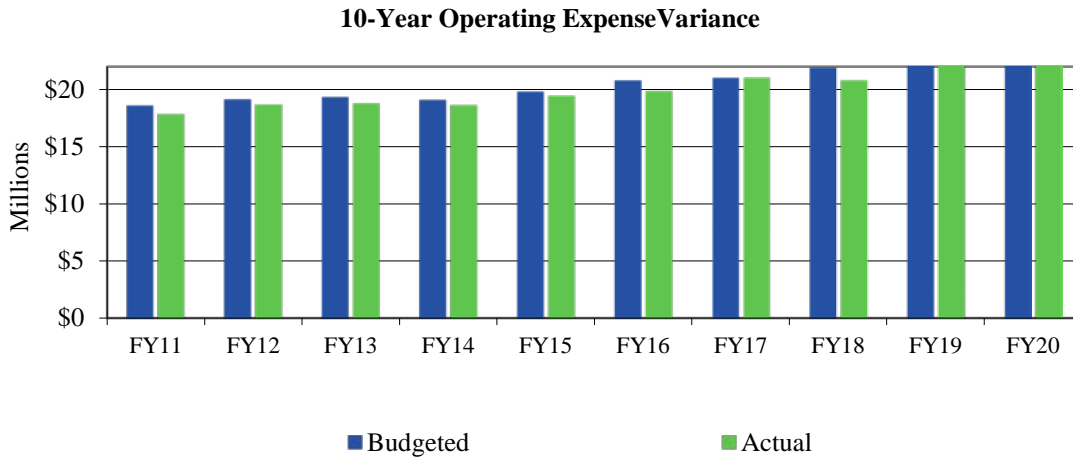
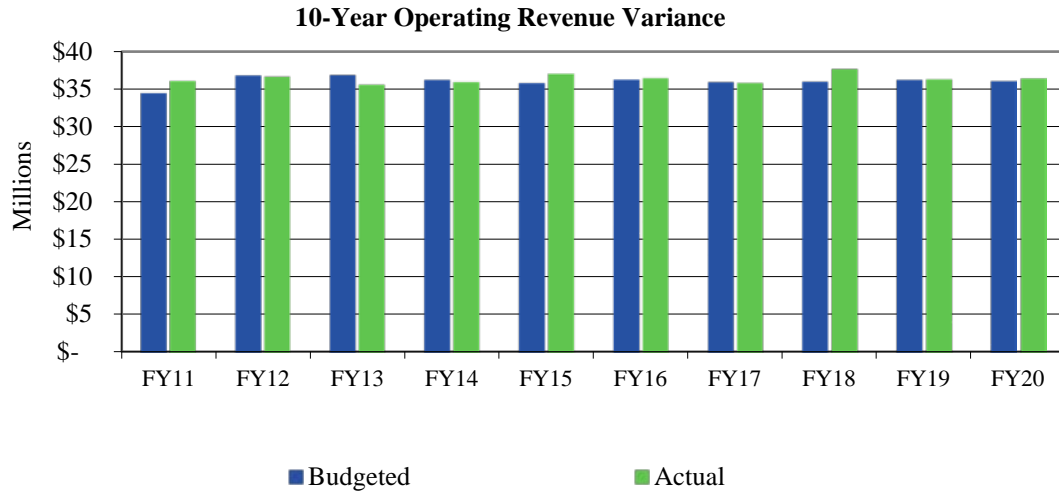
Distribution and Collection Systems Manager	1	1	1
Assistant Distribution and Collection System Manager	1	1	1
Crew Leader	4	4	4
Utility Mechanic I/II/III	25	25	25
Vehicle and Equipment Maintenance Mechanic	2	2	2
Administrative Assistant	0	0	0
Distribution and Collection System Coordinator	1	1	1
Warehouse-Cross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

PERSONNEL AUTHORIZATIONS BY DEPARTMENT

Wastewater Treatment	FY 2020	FY 2021	FY 2022
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 Collection			
Crew Leader	2	2	2
Utility Mechanic I/II/III	11	11	11
Totals	13	13	13
Total Positions	<u>139</u>	<u>142</u>	<u>142</u>

There are no position changes from FY 2021 to FY 2022.

10-YEAR HISTORICAL PERFORMANCE

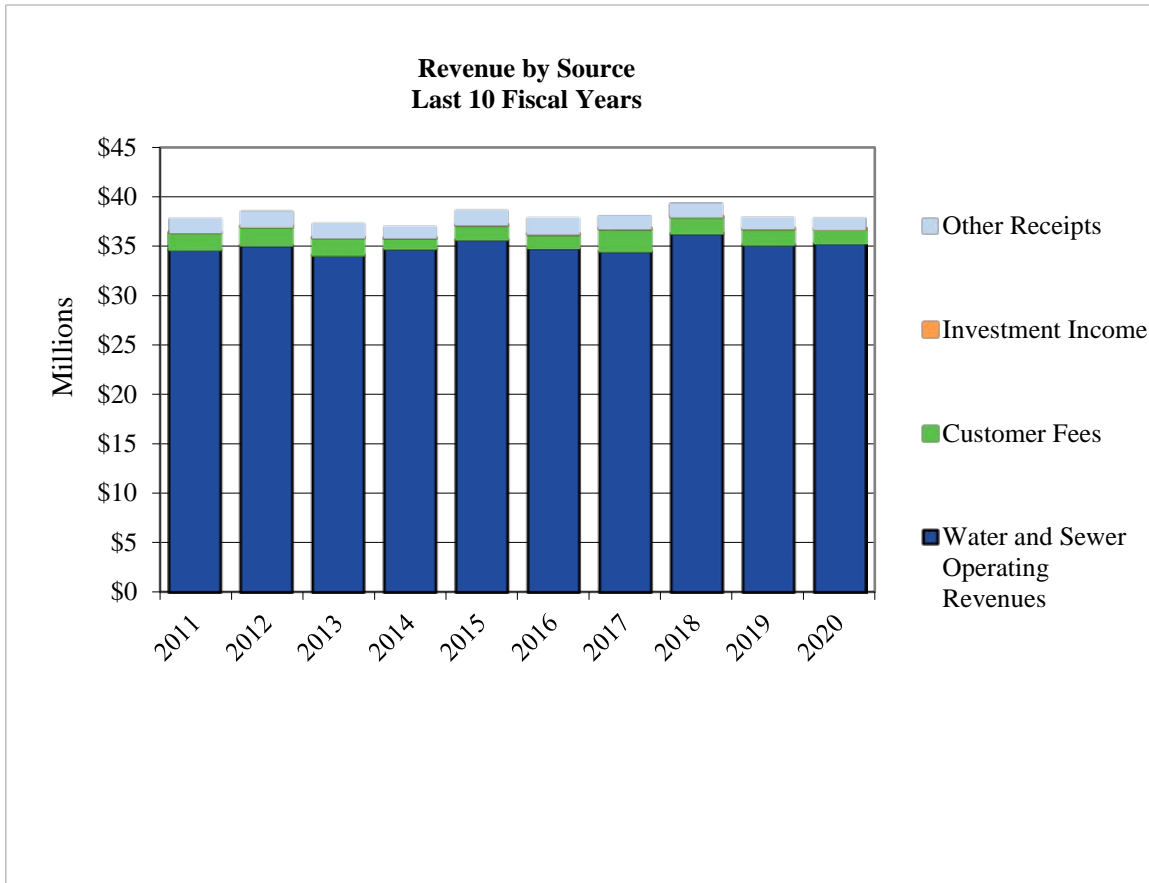


10-YEAR HISTORICAL PERFORMANCE

ORANGE WATER AND SEWER AUTHORITY

**Revenues by Source
Last 10 Fiscal Years**

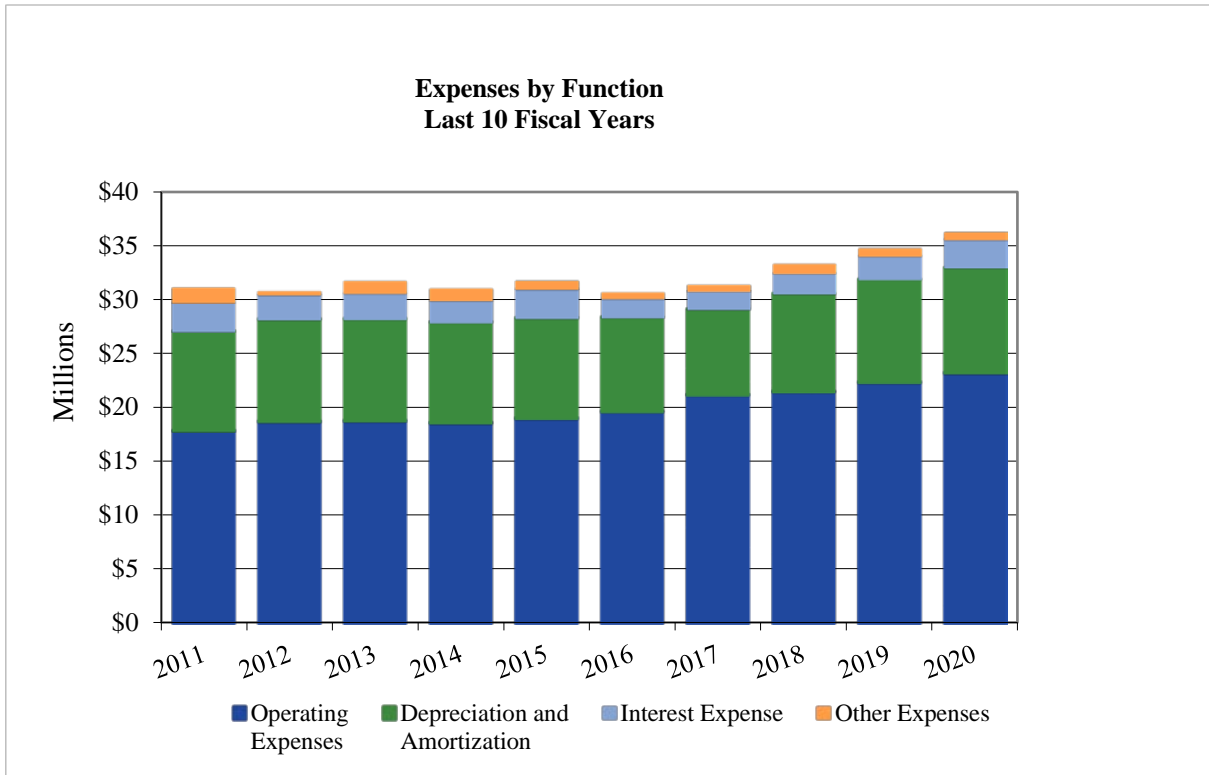
Fiscal Year	Water and Sewer Operating Revenues	Customer Fees	Investment Income	Other Receipts	Total
2011	34,701,751	1,713,417	29,261	1,302,079	37,746,508
2012	35,107,350	1,899,056	17,964	1,381,799	38,406,169
2013	34,133,521	1,769,883	15,664	1,324,092	37,243,160
2014	34,789,219	1,069,551	14,756	1,076,285	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
2020	35,323,134	1,393,871	63,207	983,060	37,763,272



10-YEAR HISTORICAL PERFORMANCE

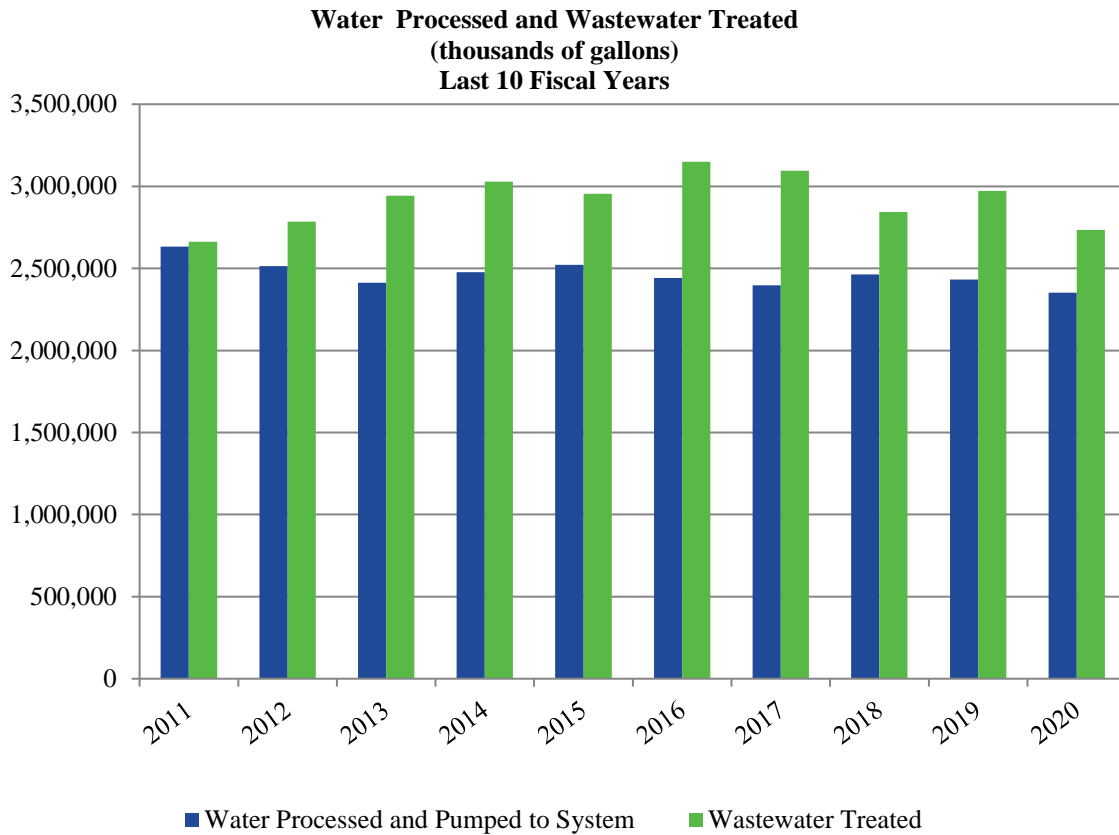
**ORANGE WATER AND SEWER AUTHORITY
Expenses by Function
Last 10 Fiscal Years**

Fiscal Year	Operating Expenses	Depreciation and Amortization	Interest Expense	Other Expenses	Total
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
2020	23,208,744	9,780,753	2,565,779	602,645	36,157,921



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
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
2020	2,352,007	2,734,725



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)			
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
2020	7.5	209	250	32.8	6.7	<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 43.

MISCELLANEOUS STATISTICAL DATA

**ORANGE WATER AND SEWER AUTHORITY
For the Fiscal Year Ended June 30, 2020**

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	21,823
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	6.4
Production Peak Day	8.1
Wastewater Treatment Plant Capacity (MGD):	
Capacity	14.5
Average Daily Flow	7.8
Number of Water Supply Resources	4
Total Capacity of Water Supply Resources (millions of gallons):	
Cane Creek Reservoir	3,000
University Lake	450
Quarry Reservoir	200
Jordan Lake Allocation (approximate MGD)	5 MGD

SERVICE AREA

General. OWASA provides water, wastewater and reclaimed water services to the residents, businesses and institutions in the Chapel Hill-Carrboro community. 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. The present service area lies almost wholly within Chapel Hill and Carrboro in Orange County with 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- and multi-family residences. Most of the development in the service area consists 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 and includes four incorporated towns. 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 the county, are located in the southeast corner of Orange County; 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.

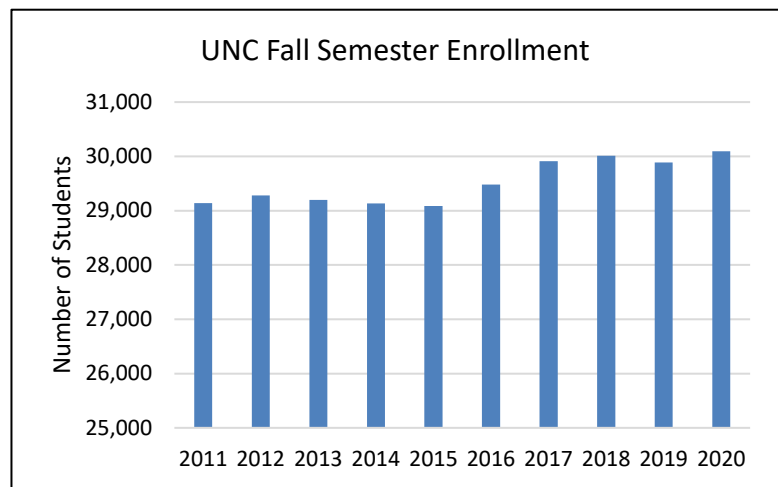
Demographic Characteristics. The United States Department of Commerce, Bureau of the Census has recorded the populations of the Town of Chapel Hill, the Town of Carrboro and Orange County to be as follows:

Year	Chapel Hill	Carrboro	Orange County
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
2020	63,705	21,239	149,077

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:

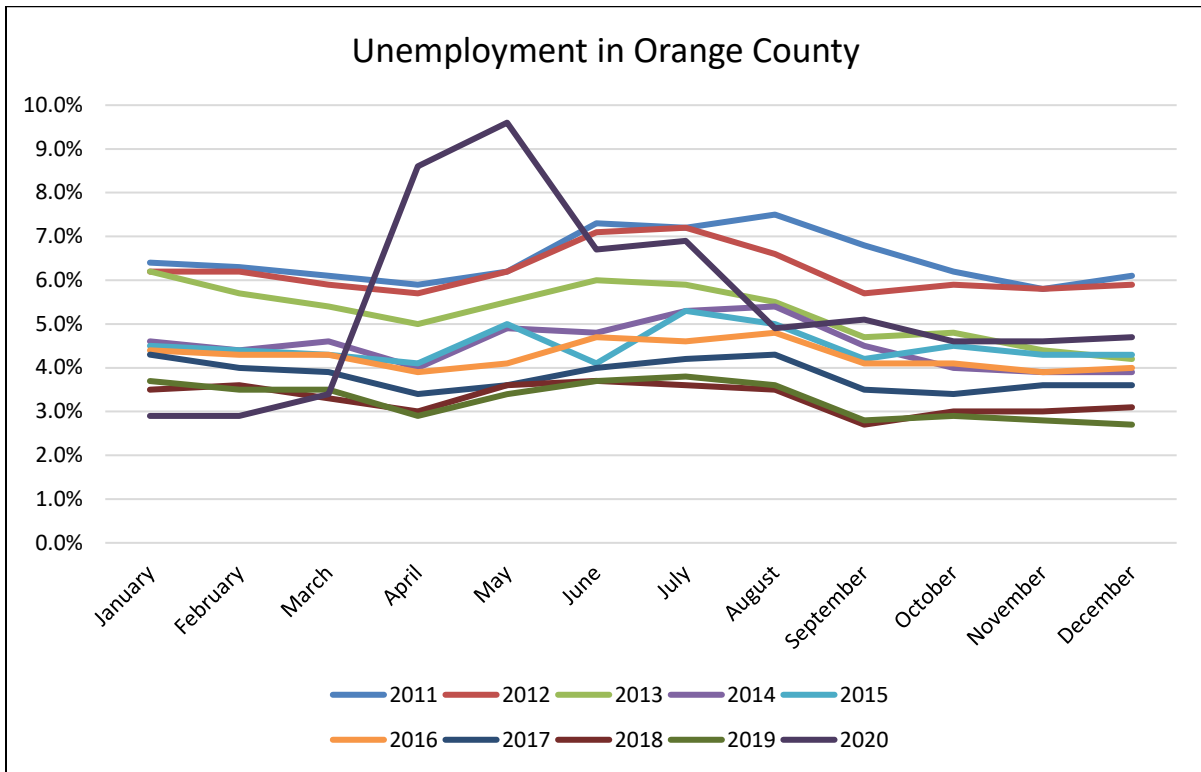
Fall	UNC Enrollment
2011	29,137
2012	29,278
2013	29,197
2014	29,135
2015	29,084
2016	29,479
2017	29,912
2018	30,011
2019	29,887
2020	30,092



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 chart and graph below show the U.S. Bureau of Labor Statistics unemployment estimates for Orange County:

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	6.4%	6.2%	6.2%	4.6%	4.5%	4.4%	4.3%	3.5%	3.7%	2.9%
February	6.3	6.2	5.7	4.4	4.4	4.3	4.0	3.6	3.5	2.9
March	6.1	5.9	5.4	4.6	4.3	4.3	3.9	3.3	3.5	3.4
April	5.9	5.7	5.0	4.0	4.1	3.9	3.4	3.0	2.9	8.6
May	6.2	6.2	5.5	4.9	5.0	4.1	3.6	3.6	3.4	9.6
June	7.3	7.1	6.0	4.8	5.1	4.7	4.0	3.7	3.7	6.7
July	7.2	7.2	5.9	5.3	5.3	4.6	4.2	3.6	3.8	6.9
August	7.5	6.6	5.5	5.4	5.0	4.8	4.3	3.5	3.6	4.9
September	6.8	5.7	4.7	4.5	4.2	4.1	3.5	2.7	2.8	5.1
October	6.2	5.9	4.8	4.0	4.5	4.1	3.4	3.0	2.9	4.6
November	5.8	5.8	4.4	3.9	4.3	3.9	3.6	3.0	2.8	4.6
December	6.1	5.9	4.2	3.9	4.3	4.0	3.6	3.1	2.7	4.7



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 2020 and 10 years prior:

Company or Institution	Service or Product	Number of Employees 2020	Number of Employees 2011
UNC	Educational Services	1,000+	1,000+
UNC Healthcare System	Health Care and Social Assistance	1,000+	1,000+
Chapel Hill/Carrboro City Schools	Educational Services	1,000+	1,000+
NC Health	Health Care and Social Assistance	1,000+	
Orange County Government	Public Administration	1,000+	500-999
Orange County Schools	Education and Health Services	1,000+	1,000+
Town of Chapel Hill	Public Administration	500-999	500-999
Eurosport	Trade	500-999	500-900
Wal-Mart	Trade	500-999	
Harris Teeter	Retail Food	250-499	500-999
Blue Cross Blue Shield	Health/Medical Insurer		1,000+
Employer Resource	Professional and Business Services		500-999

Source: North Carolina Department of Commerce.

CHAPEL HILL STATISTICAL DATA

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

Fiscal Year	Taxes Levied for the Fiscal Year	Collected within the Fiscal Year of the Levy		Collections in Subsequent Years	Total Collections to Date		Outstanding Delinquent Taxes
		Amount	Percentage of Original Levy		Amount	Percentage of Adjusted Levy	
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%	-	38,849,950	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
2020	45,060,958	44,871,448	99.58%	-	44,871,448	99.58%	189,510

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)
2011	4,956,322,691	1,701,821,709	6,658,144,400	452,486,487	62,491,249	7,173,122,136	0.494	7,237,536,208	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	*	*	6,913,283,131	541,047,846	85,443,691	7,539,774,668	0.524	7,599,047,236	99.22%
2017	*	*	6,902,832,865	546,117,755	83,768,622	7,532,719,242	0.524	7,532,719,242	100.00%
2018 (1)	*	*	7,399,771,971	550,409,864	84,467,574	8,034,649,409	0.508	8,062,060,414	99.66%
2019	*	*	7,529,444,369	613,170,831	80,677,065	8,223,292,265	0.528	8,263,784,811	99.51%
2020	*	*	7,601,209,365	598,051,765	84,003,208	8,283,264,338	0.544	8,318,200,781	99.58%

* 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)
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
2020	64,051	9,840,004	67,385	26.2	15.82	42,295	4.5

- (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 number 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).

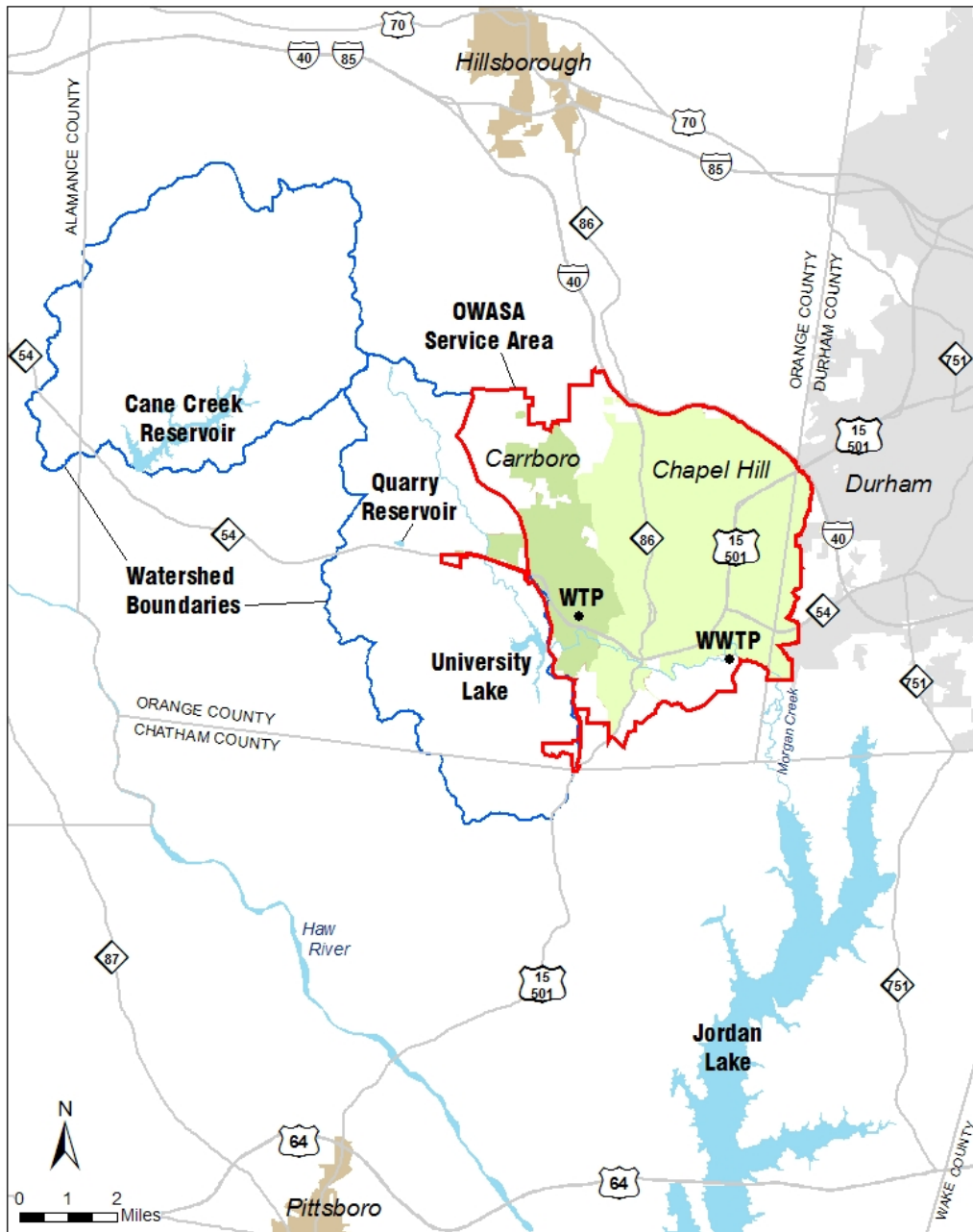
REVENUE BONDS – The primary method used by OWASA for long-term debt; they are repaid from user fees over the life of the assets. In general, these bonds have no claim on money derived from property taxes or special assessments.

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.