



**Internal Audit Committee of
Brevard County, Florida**

Financial Condition Review of Utility Services

**Prepared By:
Internal Auditor**



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The Audit Committee of
 Brevard County, Florida
 Viera, Florida 32940-6699

Pursuant to the approved 2022/2023 internal audit plan, we hereby submit our internal audit report, representing a financial condition review of Utility Services. We will be presenting this report to the Audit Committee at the next scheduled meeting on May 22, 2024.

Our report is organized into the following sections:

Executive Summary	This provides a summary of the results of our financial condition review of Utility Services.
Utility Services Financial Overview	This provides an overview of Utility Services.
Countywide Water and Sewer System	This provides an overview of Countywide Water and Sewer and discusses the results of the analysis.
Barefoot Bay Water and Wastewater System	This provides an overview of Barefoot Bay Water and Sewer and discusses the results of the analysis.
Capital Improvements Program (CIP)	This provides an overview of the Capital Improvement Projects needed by the department.
Long-Term Debt Service Requirements	This provides an overview of the current debt and debt service requirements.

We would like to thank Utility Services personnel and all others who were involved in assisting the Internal Auditors in connection with the financial condition review of Utility Services.

Respectfully Submitted,

INTERNAL AUDITORS

Carr, Riggs & Ingram, L.L.C.

Executive Summary

Executive Summary

Brevard County's Utility Services department (the "department") administers the County's water and wastewater (sewer) programs and provides drinking water treatment and distribution services, wastewater collection and treatment services, and reclaimed water throughout the County. The department's mission is to provide for the protection of the public health through the operation and maintenance of publicly owned water and wastewater systems.

Utility Services operates as an enterprise fund, which by definition is intended to be self-sustaining and receives revenue primarily from user fees; a small portion of revenue is also derived from sewer, water and reuse connection fees and interest income. Only connection fees, capacity reservation and other application related fees are collected from new users. All operating, maintenance and capital expenses are paid for from user fees collected from all users of these services. The department is a County agency, operating under the control and authority of the Brevard County Board of County Commissioners.

The County's Utility Services Department has two separate programs - the Countywide Water and Sewer and the Barefoot Bay Water and Sewer, a district under Section 198.07, Florida Statutes. The Barefoot Bay system was purchased in 2000 from the Florida Governmental Utility Authority. As such, it is separate from the County system, and is accounted for separately. Each system has operations and maintenance and each system is responsible for long-term debt service and capital improvements. The Long-Term Debt Service and Capital Improvements Program areas are analyzed separately in this report. Summary data about the programs is as follows:

<p>Countywide Water and Sewer System</p>	<p>The FY2023 final budgeted expenditures are \$121.9M. FY2023 budget includes \$13.1M in compensation and benefits, \$33.6M in operating expenditures, \$4.4M in debt service payments and \$1.8M in indirect costs/dispatch charges. The remaining \$69M is designated for capital assets. This system includes:</p> <ul style="list-style-type: none"> • Treatment of groundwater to meet drinking water standards • Maintenance of well field production to meet seasonal demand, and • Maintenance of water distribution system and mechanical equipment.
<p>Barefoot Bay Water and Sewer System</p>	<p>The FY2023 final budgeted expenditures are \$9M. FY2023 budget includes \$1.1M in compensation and benefits, \$4.2M million in operating expenditures, \$1.1M in debt service payments and \$102K in indirect costs/dispatch charges. The remainder of \$2.4M is designated for capital assets. This system includes:</p> <ul style="list-style-type: none"> • Treatment of groundwater to meet drinking water standards • Maintenance of well field production to meet seasonal demand, and • Maintenance of water distribution system and mechanical equipment • Well fields
<p>Capital Improvements Program</p>	<p>The department's Capital Improvements Program expenditures are included in the Countywide and Barefoot Bay Water and Sewer programs noted above. The FY2023 final budget for the Capital Improvements Program includes approximately \$71.5 million in capital outlay for major equipment, land and construction and engineering costs. These budgeted projects include:</p> <ul style="list-style-type: none"> • Multiple lift station rehab or replacement, and • Infrastructure improvements.

Executive Summary

Long-Term Debt Service	<p>The Utility Services department has three revenue bond issues that were used to purchase and modernize the Countywide’s utility systems. The bonded debt includes:</p> <ul style="list-style-type: none"> • Water and Wastewater Utility Revenue bonds, Series 2014 • Barefoot Bay Utility System bonds, Series 2018 • Barefoot Bay Sales Tax Revenue Bond, Series 2009A <p>In addition, the Utility Services department has three state revolving funds:</p> <ul style="list-style-type: none"> • WW051100 – South Central Plant Expansion • WW051130 – Riverside Force Main Replacement • WW051170 – West Cocoa System Improvements Phase 1
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2012 Internal Audit Report Update

Since the Internal Audit Financial Condition Assessment performed in 2012, the department has made many changes and great strides towards addressing the areas for improvement that were outlined in the report. Some of the recommendations implemented were as follows:

- Increase revenue sources;
- Complete the utility rate study;
- Develop short and long-term plan to address the concerns of the aging infrastructure

A rate study was conducted during 2021 by Raftelis to understand the need to increase rates that had remained stagnant for several years, as well as to understand the County’s needs for capital improvement funding and to obtain the funding whether through increased fees, issuing debt or other avenues. See the results of the study in the body of this report.

In addition to the rate study mentioned above, the County also had a study performed by Raftelis to determine Utilities Services future funding needs over the next five years to complete projects, meet their targets and determine an estimate of the amount of debt needed to fund the projects. Since the study, other unexpected sources of funding, such as grants, were received by the County that were not considered in the study.

In 2012 when the internal audit report was written, deferred maintenance costs for the utility system were determined by the department based on the useful life of the assets, however, with investment in and changes in technology the department now has in place a more efficient and effective method for accessing and prioritizing the most critical maintenance needs. They now rank the needs and address the most critical ones first.

Ability to operate within an approved budget:

Based on our analysis, the department is managing the operating budgets within reasonable limits and is using competitive bidding for significant purchases. In FY2023, compensation and benefits made up 24.4% of the actual operating expenditures. The department operated within the limits of their approved budget.

Executive Summary

Accomplishing more with fewer people:

Like many County departments, Utility Services is a ‘staff-driven’ department due to the maintenance component and regulatory monitoring. The department has 193 positions, of which 30 or 15.5% are currently vacant and are in the process of being filled. The FTEs have increased since FY2020 with future FTEs anticipated for upcoming fiscal years. The increase in FTEs are associated with the need to address more stringent State requirements for maintaining a utility operation along with increasing capacity due to growth in the County.

In order to have enough manpower to implement the departments plans, the Department will need to fill the vacant positions and/or hire outside vendors to provide the support needed. As capital improvements ramp up, the department will need to consider expanding project management capabilities and determine the need for project managers, inspectors and engineers to oversee the planning and management of capital projects, as well as manage the renewal and replacement program reserves.

Status and update on infrastructure:

Revenues have been increasing with the rate increases approved by the Board, and the department has been addressing aging infrastructure. The department also has a plan for the sustainability of the systems’ assets however, the department plans have not been fully implemented since these are multi-year projects and are budgeted as such. In the last 3-4 years, the department has been assessing every asset in regards to the functionality of the utility system and from that assessment has developed a timeline to address the needs based on an international grading system, NASSCO, which is a scale of 1-5 with 1 being most critical. Based on this assessment, the County and Barefoot Bay utility systems currently have lift stations, various assets and other plant assets that are over their suggested useful lives, and will need to be addressed with capital spending in the near future. Outlined below are the projects, for both the treatment plants and lift stations, the Department anticipates budgeting for in the next 10 years. This plan includes a total of 106 treatment plant projects. Each project requires anywhere from one to two years to design, bid, and award with another one to two years to complete construction. The plan also includes 91 lift stations scheduled that take approximately 12 months to design and bid and an additional one to two years to complete construction.

Treatment Plant Projects			
Plant	Number of Projects	Total Cost	Total Cost with 20% Inflation
North Brevard (NB) WWTP	19	\$ 23,800,000	\$ 28,600,000
Mims WTP	16	\$ 18,900,000	\$ 22,700,000
South Central (SC) WWTP	23	\$ 17,400,000	\$ 20,900,000
South Beaches (SB) WWTP	31	\$ 84,200,000	\$ 101,100,000
Sykes Creek (MI) WWTP	17	\$ 33,100,000	\$ 39,800,000
	Total Cost	\$ 177,400,000	\$ 213,100,000

Assumed Inflation = 20%

*Source: BREVARD COUNTY | Utility Services Department Data (Unaudited)

Executive Summary

Lift Station Projects (Score <= 3)		
Service Area	Number of Projects	Total Cost ¹
North Brevard	9	\$ 9,900,000
South Central	39	\$ 42,900,000
South Beaches	14	\$ 15,400,000
Merritt Island	26	\$ 28,600,000
Barefoot Bay	3	\$ 3,300,000
	Total	\$ 100,100,000

Notes:

1. Assumed each lift station cost \$1,100,000 for design, construction, and CEI.

*Source: BREVARD COUNTY | Utility Services Department Data (Unaudited)

As shown, management’s estimate of the total cost to renew and/or replace (R&R) the areas of critical need total about \$31M a year for the next 10 years, which includes an assumed inflation rate of 20% for the wastewater and water treatment plants. In addition to the major projects estimated to be completed, the department also plans to include air release valves, manholes, and hydrants over the next two to three years as part of maintenance-type projects at an estimated cost of an additional \$2M for each of the next 3 years.

Grant funding:

In order to proceed with planned capital expenditures for FY2024 and beyond, Utility Services, as mentioned above, will need an estimated approximately \$33M a year, over 10 years, to continue with the current plan. Along with the money received from the rate increase, the department has also been the recipient of several grants that will assist with funding these projects. The Federal American Rescue Plan Act (ARPA) grant was awarded to the County and the portion allocated to Utility Services was \$37M, net of the statutory reduction, for both Countywide and Barefoot Bay. In addition, the department was also awarded a grant from the FDEP for approximately \$28M.

FEDERAL AMERICAN RESCUE PLAN ACT (ARPA) GRANT	FY 2022-23 Budget	FY 2022-23 Actual	FY 2021-22 Actual	FY 2020-21 Actual
Grant Revenues:				
Federal ARPA Grant	\$ 38,920,193	\$ 8,048,280	\$ 904,603	\$ -
Statutory Reduction	(1,946,011)	-	-	-
Total Grant Revenues	<u>\$ 36,974,182</u>	<u>\$ 8,048,280</u>	<u>\$ 904,603</u>	<u>\$ -</u>
Expenditures:				
Capital Renovations	\$ 7,724,570	\$ 1,770,675	\$ -	\$ -
Land	3,000,000	-	-	-
Construction	26,249,612	6,277,605	904,603	-
	<u>\$ 36,974,182</u>	<u>\$ 8,048,280</u>	<u>\$ 904,603</u>	<u>\$ -</u>

*Source: BREVARD COUNTY | Utility Services Department Data 2023 Budget and 2023 Actual (Unaudited). 2022 (Audited)

Conclusion

The Utility Service department’s rate increases have helped the department operationally and the grants awarded to the department provide an additional source of revenue to accomplish the department’s current project plans over the next several years. The total costs of the proposed projects may increase if inflation continues to rise. The department has also experienced staffing

Executive Summary

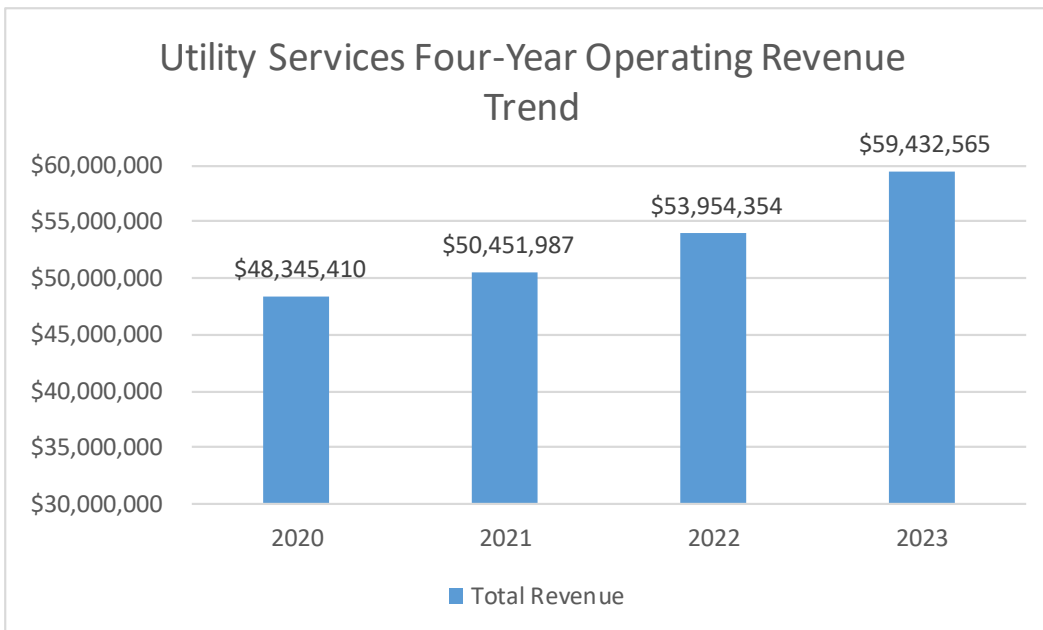
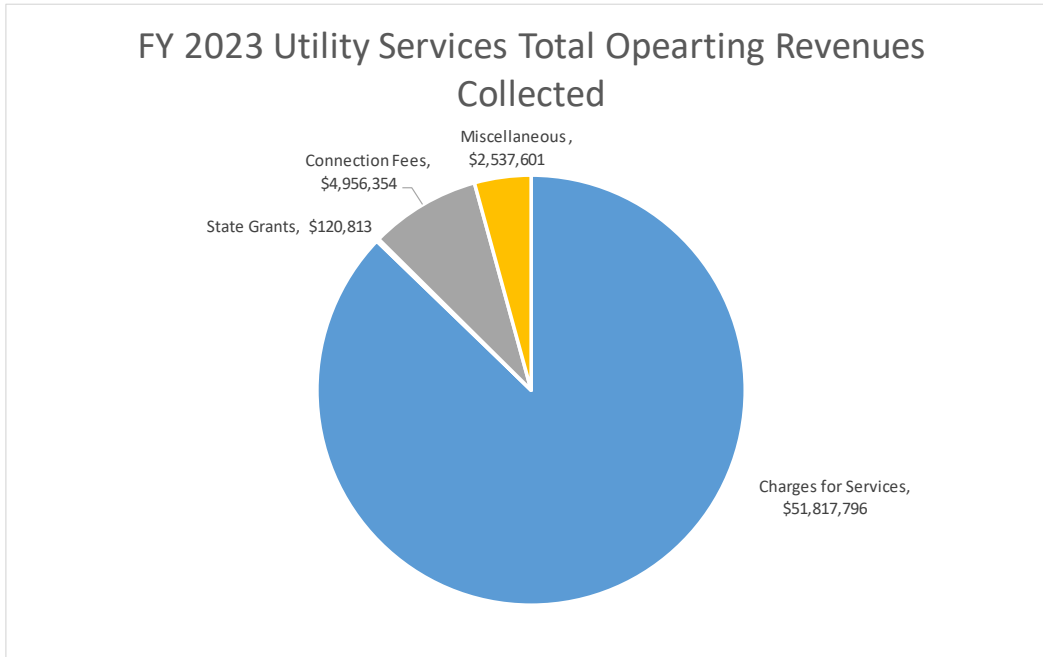
shortages and not been able to complete the infrastructure projects as quickly as they had intended. The Utility department now has a method for prioritizing the utilities needed improvements and has been making progress on these improvements. The department is currently in the process of having the capital improvement plan updated by Raftelis, a local government and utility management consultant, to determine where they stand compared to the last study that was done and to ensure they have adequate CPI built in the updated study to cover the unexpectedly high inflation rates that have been occurring.

Barefoot Bay is growing rapidly and is in need of additional infrastructure to increase its capacity. The department plans to build a Water and Wastewater system (new system) outside the Barefoot Bay District. The District will be decommissioned when this new system is completed, about 5 to 6 years from now. Costs are estimated to be around \$100M to \$125M for the new system. Once the new system is operational, the District's requirements will be provided by the new system. The department has issued a Request for Qualification (RFQ) for the Engineering, Design, and Construction Oversight of the New System as of the date of this report. The District's debt will be retired in 2030 when the new system will be online. The department will maintain and complete all renewal and replacement required of the District. However, there are no plans to upgrade the current Barefoot Bay Water and Wastewater system as it will be replaced by the new system.

Utility Services Financial Overview

Revenue Trend Analysis

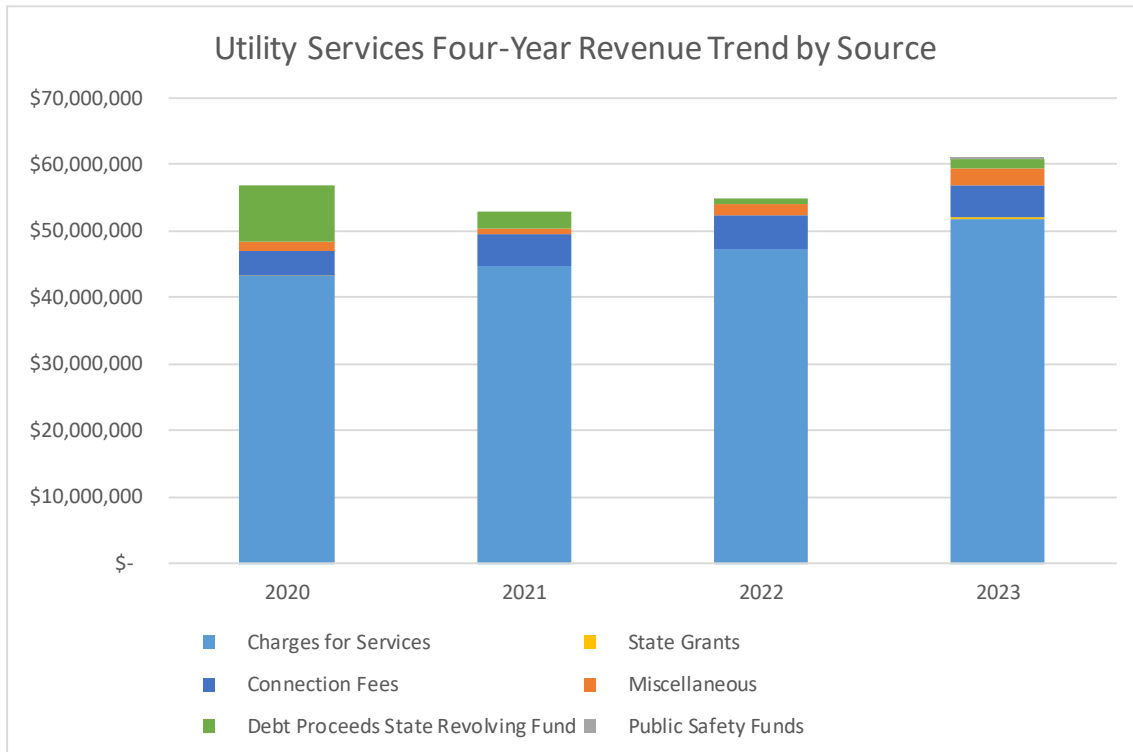
Utility Services operates as an enterprise fund, which by definition is intended to be self-sustaining and receives revenue primarily from user fees; a small portion of revenue is also derived from sewer connection fees and interest income. The department’s revenues have been increasing since FY2013 when a rate increase plan was put into place. In FY2018, the earlier rate increase was reverted to only a CPI increase. In FY2021 a rate study was completed by Raftelis with a recommendation to immediately increase water and wastewater systems rates, see below for details. No tax revenues are received by Utility Services, nor do they receive general government transfers.



*Source: BREVARD COUNTY | Utility Services Department Data 2023 (Unaudited). 2020 – 2022 (Audited) Both Charts

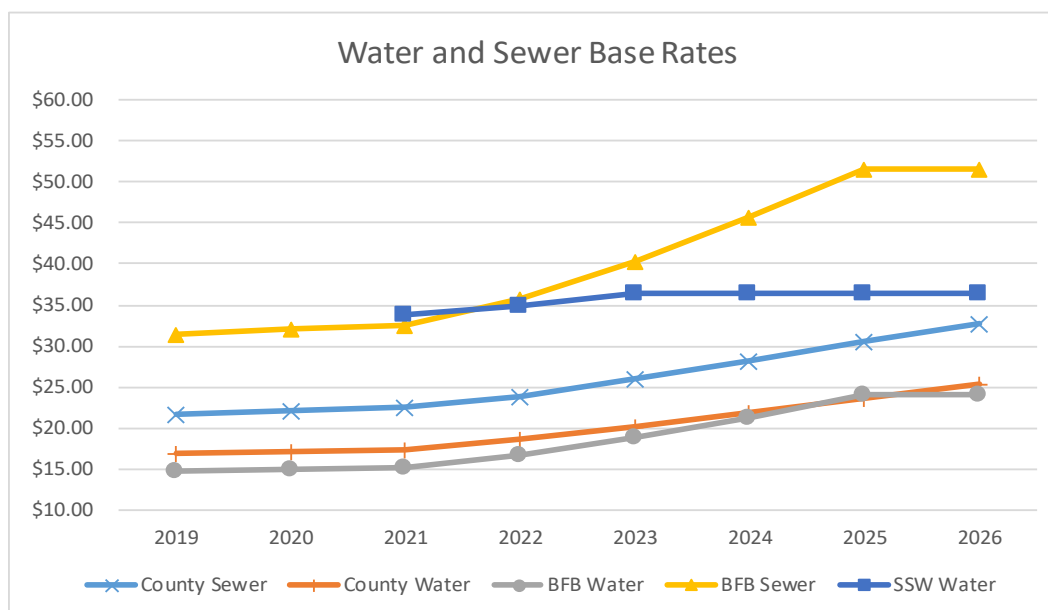
* Note: Both charts above are excluding Debt Proceeds and Public Safety Funds

Utility Services Financial Overview



*Source: BREVARD COUNTY | Utility Services Department Data 2023 (Unaudited), 2020 – 2022 (Audited)

The Board of County Commissioners establishes water and sewer rates at a level sufficient to cover the cost of system operations, maintenance, and debt service. Except as required by law, fees collected are used solely for the benefit of the water and wastewater system. The trend in the approved base water and sewer rates is shown below.



*Source: BREVARD COUNTY | Utility Services Department Data (Unaudited)

Prior to FY2021, rates for the County system had been fairly consistent with increases related only to CPI as illustrated above. In FY2021 a rate study was performed. The purpose of the study was to

Utility Services Financial Overview

evaluate the ability of the operating revenues produced by each respective utility system to fund i) the cost of operations and maintenance; ii) annual debt service requirements including associated covenant requirements of the trust indenture; iii) capital improvement renewals and replacements; iv) payments-in-lieu-of-taxes (“PILOT”); and v) sufficient reserves to meet the identified financial targets recognized in the study and promote the overall creditworthiness of the respective Systems. As a result of the rate study, a rate schedule was implemented with the first increase for the County at 6.5% and Barefoot Bay at 10%, effective in fiscal year 2022. These rates were approved via Resolution No. 22-008 for the County and Resolution 22-01 for Barefoot Bay.

The rate increase schedule approved in the aforementioned resolutions for the Countywide Water and Sewer and Barefoot Bay Water and Sewer was as follows:

	<u>County</u>	<u>Barefoot Bay</u>
2022	6.50%	10.0%
2023	8.50%	13.0%
2024	8.50%	13.0%
2025	8.50%	13.0%
2026	7.50%	N/A

N/A – no rate included in the resolution for that year.

**Source: BREVARD COUNTY | Resolution No. 22-008 and Resolution No. 22-01*

After 2026 for Countywide Water and Sewer and after 2025 for Barefoot Bay Water and Sewer, the water and sewer user rates are to automatically adjust based on the actual change in the Consumer Price Index Sewer and Water Maintenance Index (SWMI)(U) based on the average of the index from the previous 12 months (November to November).

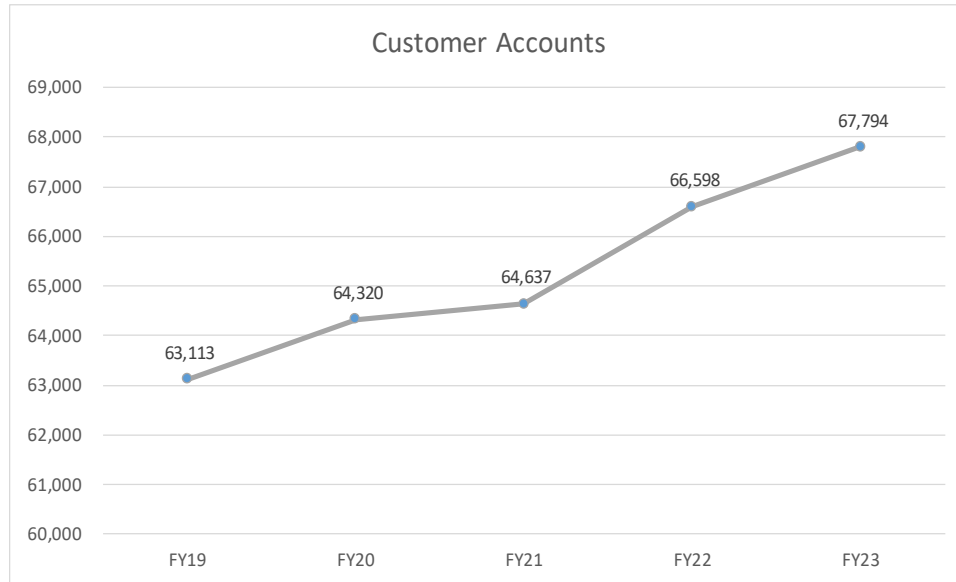
The primary reasons noted in the rate study for the recommended rate adjustments to the respective systems were due to:

- a. Continued inflationary pressure on the cost of operation and maintenance;
- b. Funding of the capital improvement program, including the issuance of additional bonds;
- c. The need to develop a dedicated capital improvement funding program which would improve the creditworthiness of the System but also provide some surety as to having funds available for capital to benefit the existing ratepayers;
- d. The requirement to comply with the rate covenants as defined in the County System’s Bond Resolution which authorized the issuance of the outstanding bonds for the County System as well as the anticipated bond resolution issued in support of the issuance of the County Series 2013 Bonds and the Trust Indenture which authorized the issuance of the outstanding bonds for the District System; and
- e. Maintain minimum cash balances (reserves) and meet the financial objectives delineated in the study with the purpose of promoting the creditworthiness of the utility and improving the overall rating of the utility in support of the issuance of additional bonds which are deemed necessary to finance the identified capital needs of the respective Systems.

Utility Services Financial Overview

Customer Accounts Trend

The chart below depicts the trends in the number of residential utility accounts served by the County.



*Source: BREVARD COUNTY | Utility Services Department Data (Unaudited)

The billed accounts total, on the chart, shows a steady increase in customers year over year. As new residential and commercial construction continues in the County the customer accounts served will continue to grow year over year requiring additional infrastructure to be able to service the increased capacity needed.

Full-Time Equivalent

Like many County departments, Utility Services is a “staff-driven” department due to the maintenance component and regulatory monitoring requirements. The department has 193 positions, of which 30 or 15.5% are currently vacant and are in the process of being filled.

The FTEs have increased since FY2020 with future FTEs anticipated for upcoming fiscal years. The increase in FTEs are associated with the need to address increasing State requirements for maintaining a utility operation along with more stringent penalties from the State when violations occur. In order to accomplish this, the department will need to fill the vacancies and/or also increase the need for outside vendors to provide the support needed due to current vacant positions.

Fund Balance

Brevard County, like all governments, is required to present a balanced budget. A positive fund balance is created when revenues exceed expenditures or temporarily restricted or designated cash has not yet been spent.

Utility Services has a fund balance that is primarily set aside for capital improvements, as well as a portion restricted for debt service. Fund balance represents actual cash on hand.

Utility Services Financial Overview

Four-Year Overview

The following chart below illustrates the operating and cash flow trends for Utility Services for the last four fiscal years and the budget for FY2023. The unspent balances that carry forward from one fiscal year to the next are referred to as the fund balance. The fund balance has been steadily increasing year over year as budgeted and planned to carry out non-operating activities, such as multi-year funding capital projects and renewal and replacement of its capital assets. These funds will be needed for future planned capital projects that are currently in the bid or design phase.

The following is a summary of the Utility:

Utility Services - Overview	FY 2022-23 Budget	FY 2022-23 Actual	FY 2021-22 Actual	FY 2020-21 Actual	FY 2019-20 Actual
Revenues:					
Charges for Services	\$ 52,866,343	\$ 51,817,796	\$ 47,297,345	\$ 44,732,499	\$ 43,253,277
State Grants	29,684,211	120,813	-	-	13,459
Connection Fees	3,872,628	4,956,354	5,045,084	4,812,740	3,629,186
Miscellaneous	680,878	2,537,601	1,611,925	906,748	1,449,487
Statutory Reduction	(4,355,203)	-	-	-	-
Debt Proceeds State Revolving Fund	1,900,000	1,259,996	946,217	2,438,483	8,416,556
Public Safety Funds	-	-	212,888	-	-
Total Revenues	84,648,857	60,692,561	55,113,459	52,890,470	56,761,966
Expenditures:					
Compensation and Benefits	14,157,396	12,015,751	11,204,467	11,284,932	11,215,653
Operating Expenditures	37,876,673	21,312,159	16,841,634	13,931,401	14,077,799
Machinery and Equipment	1,187,750	586,040	768,778	2,597,429	2,180,485
Capital Renovations	2,489,000	677,602	166,376	331,792	393,859
Land	200,000	-	42,675	347,761	521,678
Construction	67,589,412	7,378,899	6,522,147	10,487,349	14,346,775
Bond and SRF Loan Debt Service	5,436,527	5,360,137	5,125,435	4,536,584	4,518,862
Indirect Cost/Dispatch Charges	1,909,405	1,909,540	1,869,255	1,653,616	1,658,654
	<u>130,846,163</u>	<u>49,240,129</u>	<u>42,540,767</u>	<u>45,170,865</u>	<u>48,913,765</u>
Net Change in Fund Balance	(46,197,306)	11,452,431	12,572,692	7,719,605	7,848,201
Beginning Fund Balance	80,322,837	80,322,837	67,750,146	60,030,541	52,182,340
Ending Fund Balance	\$ 34,125,531	\$ 91,775,269	\$ 80,322,837	\$ 67,750,146	\$ 60,030,541

*Source: BREVARD COUNTY | Utility Services Department Data 2023 Budget and Actual (Unaudited). 2020 – 2022 (Audited)

Expenditures Analysis

The expenditures analysis focuses on the reasonableness of the FY2023 budget, given certain assumptions and known changes that will occur, as well as provides an analysis of cash flow for meeting debt service requirements and capital outlay needs. Our analysis primarily focused on the variances between the FY2023 budget and the FY2023 actual expenditures, as well as the FY2022, FY2021 and FY2020 expenditures from a historical perspective. It should be noted that the FY2023 budget is the budget, as amended, and varies from the adopted budget as a result of Board approved amendments. Based on our analysis, the department is managing the operating budgets within approved limits and is using competitive bidding. For further details, see pages 14-16 for the Countywide Water and Sewer and page 19 for Barefoot Bay Water and Sewer.

Countywide Water and Sewer System

The Countywide Water and Sewer system is made up of two water treatment plants and five wastewater treatment plants. One water treatment and wastewater treatment plant is located in Mims and the second water treatment plant is located in San Sebastian Woods. The other plants are located in Port St. John, Merritt Island, Viera, and Melbourne Beach. FY2023 budgeted expenditures include \$69M in capital outlay expenditures and \$4.4M in debt service payments. This area includes:

- Treat groundwater to meet drinking water standards
- Maintain water distribution system and mechanical equipment
- Test water quality
- Collect wastewater and pump to treatment plants
- Maintain equipment and lines
- Test wastewater quality
- Correct aging infrastructure problems with Renewal and Replacement (R&R) projects

Four-Year Overview

The table on page 13 illustrates the operating and cash flow trends for the County system for the last four fiscal years and the current budget for FY2023. The results show that the department uses the fund balance as expected and planned to carry out non-operating activities, such as multi-year funding capital projects and renewal and replacement of its capital assets. The department also has available to them grant revenue from the Federal American Rescue Plan Act (ARPA). In FY2023 there was \$37.7M in ARPA grant funds allocated to the Countywide system, less a statutory reduction of \$1.9M for a net of \$35.8M. In order to proceed with planned capital expenditures for FY2024, the Countywide system will need approximately \$32M of the fund balance or a combination of fund balance and available ARPA funding. Refer to the Capital Improvements Program section of this report on page 25 for more analysis on needed capital improvements.

Countywide Water and Sewer System

Countywide Water and Sewer System	FY 2022-23 Budget	FY 2022-23 Actual	FY 2021-22 Actual	FY 2020-21 Actual	FY 2019-20 Actual
Revenues:					
Charges for Services	\$47,552,689	\$46,356,076	\$42,658,816	\$40,337,417	\$38,943,823
State Grants	29,684,211	120,813	-	-	13,459
Connection Fees	3,814,668	4,592,567	4,763,214	4,711,883	3,465,799
Miscellaneous	623,878	2,279,438	1,502,235	830,035	1,353,670
Statutory Reduction	(4,083,772)	-	-	-	-
Debt Proceeds State Revolving Fund	1,900,000	1,259,996	946,217	2,438,483	8,416,556
Public Safety Funds	-	-	212,888	-	-
Total Revenues	79,491,674	54,608,890	50,083,370	48,317,818	52,193,308
Countywide Water and Sewer System	FY 2022-23 Budget	FY 2022-23 Actual	FY 2021-22 Actual	FY 2020-21 Actual	FY 2019-20 Actual
Expenditures:					
Compensation and Benefits	13,052,863 A	10,891,747	10,228,449	10,300,129	10,183,200
Operating Expenditures	33,636,626 B	19,758,145	15,687,452	12,767,530	12,904,228
Machinery and Equipment	1,159,550 C	543,322	723,865	2,372,986	2,109,346
Capital Renovations	2,095,000 C	480,374	61,465	312,825	338,199
Land	200,000 C	-	42,675	347,761	521,678
Construction	65,593,412 C	6,910,385	6,387,460	10,304,674	14,020,451
Bond and SRF Loan Debt Service	4,355,147 D	4,274,358	4,060,051	3,473,905	3,448,162
Indirect Cost/Dispatch Charges	1,807,244	1,807,594	1,765,180	1,549,892	1,554,725
	<u>121,899,842</u>	<u>44,665,924</u>	<u>38,956,597</u>	<u>41,429,703</u>	<u>45,079,989</u>
Net Change in Fund Balance	(42,408,168)	9,942,966	11,126,773	6,888,115	7,113,319
Beginning Fund Balance	74,155,551	74,155,551	63,028,778	56,140,663	49,027,345
Ending Fund Balance	\$31,747,383	\$84,098,517	\$74,155,551	\$63,028,778	\$56,140,663

FEDERAL AMERICAN RESCUE PLAN ACT (ARPA) GRANT	FY 2022-23 Budget	FY 2022-23 Actual	FY 2021-22 Actual	FY 2020-21 Actual
Grant Revenues:				
Federal ARPA Grant	\$37,675,982	8,048,280	\$ 904,603	\$ -
Statutory Reduction	(1,883,800)	-	-	-
Total Grant Revenues	<u>\$35,792,182</u>	<u>8,048,280</u>	<u>904,603</u>	<u>-</u>
Expenditures:				
Capital Renovations	\$ 6,542,570	1,770,675	-	-
Land	3,000,000	-	-	-
Construction	26,249,612	6,277,605	904,603	-
	<u>\$35,792,182</u>	<u>\$ 8,048,280</u>	<u>\$ 904,603</u>	<u>\$ -</u>

*Source: BREVARD COUNTY | Utility Services Department Data 2023 Budget and Actual (Unaudited), 2020 – 2022 (Audited)

Countywide Water and Sewer System

Expenditure Analysis

Below is a high-level summary of the total operating and nonoperating expenditures analysis for the Countywide Water and Sewer system. The FY2023 operating expenditures, including compensation and benefits, budget is \$16M or 66% higher than the FY2023 actual operating expenditures and compensation and benefits. The primary reasons for this increase are expected increases in compensation, other contracted services, repair and maintenance and other current charges. FY2023 budget-to-actual expenditures and the FY2023 actual expenditures to FY2022 actual expenditures with variances of greater than \$100K and 10% were considered significant and identified with a blue letter. See below for further analysis of these line items.

General Observations
<p>The FY2023 total actual expenditures were \$77.2M less than budgeted. Per discussion with management, this is due to budgeting an additional \$28M of Florida Department of Environmental Protection grant funded projects and \$48M in ARPA projects. Since these projects have a duration period longer than one year, the carryover to FY2024 was needed. All grant projects funded are time intensive with vendor procurement. Compensation was \$2.1M under the budget as there were many vacancies during the year. As of the date of this report, the department has 193 positions, of which 30 or 15.5% are currently vacant and are in the process of being filled. All available FTEs are budgeted for and included.</p>
<p>In FY2023, compensation and benefits made up 24.4% of the actual expenditures. There were pay increases approved in FY2022 to keep up with the cost of living and provide competitive wages. This provided the Department more financial flexibility based on the upcoming environmental requirements required by the State and to continue its level of service for water, wastewater and reuse for anticipated growth.</p>
<p>The main reason for the operating expenditure budget exceeding actual was due to the Repairs & Maintenance 2023 budget increasing over the prior year budget of \$9.M by 95% in an effort to assess the needs for repair and as a means of establishing a replacement program and to address known assets that were beyond their useful life and needed meter replacements. The increase also was focused on complying with State law on the integrity and reliability of the system. It should be noted this area is budgeted as a worst case scenario for potential events that may arise during the year.</p>
<p>As more fully described in the Capital Improvements Program section of this report, the County system has lift stations, force mains and other assets over their suggested useful lives, which will need to be addressed with capital spending in the near future. Although the Department was approved for the rate adjustments in FY2022, there is a concern of the Department being able to fund all the projects anticipated in the future. Per the rate analysis performed by Raftelis Consulting, the rate consultant, the rates were calculated at a CPI mostly in the range of 3% per year with the new CPI estimated to be over 4%. Recent CPI has exceeded over 7%, and construction costs have been exceeding over 20% of estimates. The cost increases could reduce the Department’s capability to fully fund projects. The County has hired Raftelis to look at where the County currently is with the projects and factor in current inflationary rates and determine if, and how much, additional funding will be needed in the future.</p>
Specific Account Observations
<p>A: Compensation and Benefits: There were vacant positions which resulted in lower than expected costs. The FY2023 budget includes funding for 187.5 positions and any vacancies that are in the process of being filled. These are operational field positions as well as administrative and customer</p>

Countywide Water and Sewer System

service related positions. The actual expenditures for the year should be less than the expected budget due to the vacancies not being filled. The increasing State mandates for the system require additional staffing. The combination of these staffing needs along with the vacancies has resulted in the department having to pay staff overtime.

B: Operating Expenditures:

- **Other Contracted Services:** This line item includes accounts for the administrative services fees paid to the cities of Cocoa and Melbourne for providing service, billing and collection to County customers within their water service areas. It also includes the costs for manhole and sewer inspections, groundwater monitoring, payments to the City and sludge disposal services. Per discussion with the department, this can fluctuate year over year. The department has issued several purchase orders dedicated to assessing all assets (i.e. sewer assessment, valve assessment, smoke testing, pressure pipe) within the department’s water, sewer and reuse. Implementation has been slower than expected due to unknown issues impacting the logistics and implementation of the specified scope of the work. Per discussion with management, a focus has been made to progress past these obstacles going forward. In addition, these delays have resulted in other contracts being delayed thereby pushing them into subsequent fiscal periods.
- **Utility Services:** This account is made up primarily of electricity charges, but also includes water and solid waste assessments paid through the Tax Collector. There is only one electricity vendor – Florida Power & Light – and the rates are nonnegotiable. The department budgets consistently from year to year, but monitors legislative changes and reports of rate changes. There was a \$192k increase between the actual 2023 expenditures and budgeted expenditures primarily due to an approved rate settlement agreement from FPL for 2022-2025. There was also a \$318k or 17% increase between 2023 actual expenditures and 2022 due to the department receiving new lift stations (6) that came into service during the year which contributed to additional utility costs of running the stations. New lift stations are donated and the department is unaware of these items at the time of the budget creation. Additional efficiencies may be gained as part of a rejuvenated capital improvements program to replace older assets with newer efficiently operating assets when funding becomes available.
- **Repairs and Maintenance:** Repairs and Maintenance expenditures had a 24% increase in actual expenditures from FY2022 to FY2023 primarily due to emergency purchase orders for unexpected utility asset failures. The budget for FY2023 was 57% more than actual expenditures due to the department budgeting for water meter replacements and also as a result of conservatively budgeting for emergency repair and maintenance needs that might arise.
- **Other Current Charges:** This line item includes both licenses and permits and indirect costs. Indirect costs are allocated based on the County’s cost allocation plan which is updated every 2 years by an outside consulting firm used to determine the allocation. In FY2023, State and County permit fees were \$543k under expected budgeted expenditures due to project delays from supply chain issues.

Countywide Water and Sewer System

- **Operating Supplies:** This line item includes purchases of fuel, which piggyback on the Brevard County School Board's fuel contract with Glover Oil. Fuel purchases vary from year to year depending on whether or not there is an event that would drive additional fuel usage, such as needing generators due to power outages from hurricanes. Additionally, this line item includes chemical purchases, which are used at the treatment plants to meet regulatory requirements. Operating supplies are normally conservatively budgeted to ensure enough dollars are available to cover unexpected issues should they arise; however, 2023 was an unusual year and the supplies needed exceeded the budget. There are multiple chemical contracts for various different chemicals which are competitively bid at different times during the year, with the lowest bidder as the awarded vendor. There was a 17% or \$185K increase in chemical purchases in FY2023 over the budget. Per discussion with management these increases are due to inflation and the need for additional chemicals to provide better odor control at several locations mandated by the State as more homes were built closer to the plants and the chemical solution to neutralize the odor was significantly more expensive than what was used in prior years.

C: Capital Outlay: The department received and budgeted for many multi-year capital projects. The department received over \$28M in FDEP grants for Capital Improvement Projects that were not spent during the year since the funding is dedicated for construction projects but many of the projects were still in the design phase. The department has hired 2 additional engineers in FY2023 which should assist with the workload and shorten the timeline needed to get through the design phase and into the construction phase.

D: Bond and SRF Loan Debt Service: The FY2023 actual costs for bond and the SRF loan debt service was greater than FY2023 by \$224k, however; this increase is in line with the approved debt service schedule.

Barefoot Bay Water and Sewer System

The Barefoot Bay Water and Sewer system was purchased in 2000 from the Florida Governmental Utility Authority. As such, it is separate from the County system, and is accounted for separately. FY2023 budget expenditures were \$8.9M. The FY2023 operating budget included \$4.2M in operating expenditures and \$1.1M in debt service payments. The rest was reserved for capital programs. These variances are described in more detail below. This system includes:

- Treat groundwater to meet drinking water standards
- Maintain water distribution system and mechanical equipment
- Test water quality
- Collect wastewater and pump to treatment plants
- Maintain equipment and lines
- Test wastewater quality
- Correct aging infrastructure problems with Renewal and Replacement (R&R) projects

Four-Year Overview

The table below illustrates the operating and cash flow trends for the Barefoot Bay Water and Sewer system for the last four fiscal years and the current budget for FY2023. The results show that the department uses the fund balance as expected and planned for in order to carry out non-operating activities, such as funding capital projects and renewal and replacement of its capital assets.

Barefoot Bay Water & Sewer System	FY 2022-23 Budget	FY 2022-23 Actual	FY 2021-22 Actual	FY 2020-21 Actual	FY 2019-20 Actual
Revenues:					
Charges for Services	\$ 5,313,654	\$ 5,461,721	\$ 4,638,529	\$ 4,395,082	\$ 4,309,454
State Grants	-	-	-	-	-
Connection Fees	57,960	363,786	281,870	100,857	163,387
Miscellaneous	57,000	258,163	109,690	76,713	95,817
Statutory Reduction	(271,431)	-	-	-	-
Debt Proceeds State Revolving Fund	-	-	-	-	-
Public Safety Funds	-	-	-	-	-
Total Revenues	5,157,183	6,083,671	5,030,088	4,572,652	4,568,658
Expenditures:					
Compensation and Benefits	1,104,533	1,124,004	976,017	984,803	1,032,453
Operating Expenditures	4,240,047	1,554,014	1,154,183	1,163,871	1,173,570
Machinery and Equipment	28,200	42,718	44,913	224,443	71,139
Capital Renovations	394,000	197,229	104,911	18,967	55,659
Land	-	-	-	-	-
Construction	1,996,000	468,515	134,686	182,675	326,324
Bond Debt Service	1,081,380	1,085,779	1,065,384	1,062,679	1,070,700
Indirect Costs/Dispatch Charges	102,161	101,946	104,075	103,724	103,929
Total Expenditures	8,946,321	4,574,205	3,584,170	3,741,162	3,833,776
Net Change in Fund Balance	(3,789,138)	1,509,466	1,445,919	831,490	734,882
Beginning Fund Balance	6,167,287	6,167,287	4,721,368	3,889,878	3,154,996
Ending Fund Balance	\$ 2,378,149	\$ 7,676,752	\$ 6,167,287	\$ 4,721,368	\$ 3,889,878

*Source: BREVARD COUNTY | Utility Services Department Data 2023 Budget and Actual (Unaudited), 2020 – 2022 (Audited)

Barefoot Bay Water and Sewer System

It should be noted that approximately \$80,000 each year is paid to the County system for an interfund loan related to the purchase of the Snug Harbor utility in 2007. That amount is not included in the Debt Service numbers above. The Barefoot Bay District received \$1.2M of ARPA money, net of statutory reduction. The County owns land outside of the Barefoot Bay District and plans to build a system outside of this District to service the increased growth in that area. The cost of this project is estimated to be between \$100M and \$125M.

FEDERAL AMERICAN RESCUE PLAN ACT (ARPA) GRANT	FY 2022-23 Budget	FY 2022-23 Actual	FY 2021-22 Actual	FY 2020-21 Actual
Grant Revenues:				
Federal ARPA Grant	\$ 1,244,211	\$ -	\$ -	\$ -
Statutory Reduction	(62,211)	-	-	-
Total Grant Revenues	\$ 1,182,000	-	-	-
Expenditures:				
Capital Renovations	1,182,000	-	-	-
Land	-	-	-	-
Construction	-	-	-	-
	\$ 1,182,000	\$ -	\$ -	\$ -

**Source: BREVARD COUNTY | Utility Services Department Data (Unaudited)*

Barefoot Bay Water and Sewer System

Expenditure Analysis

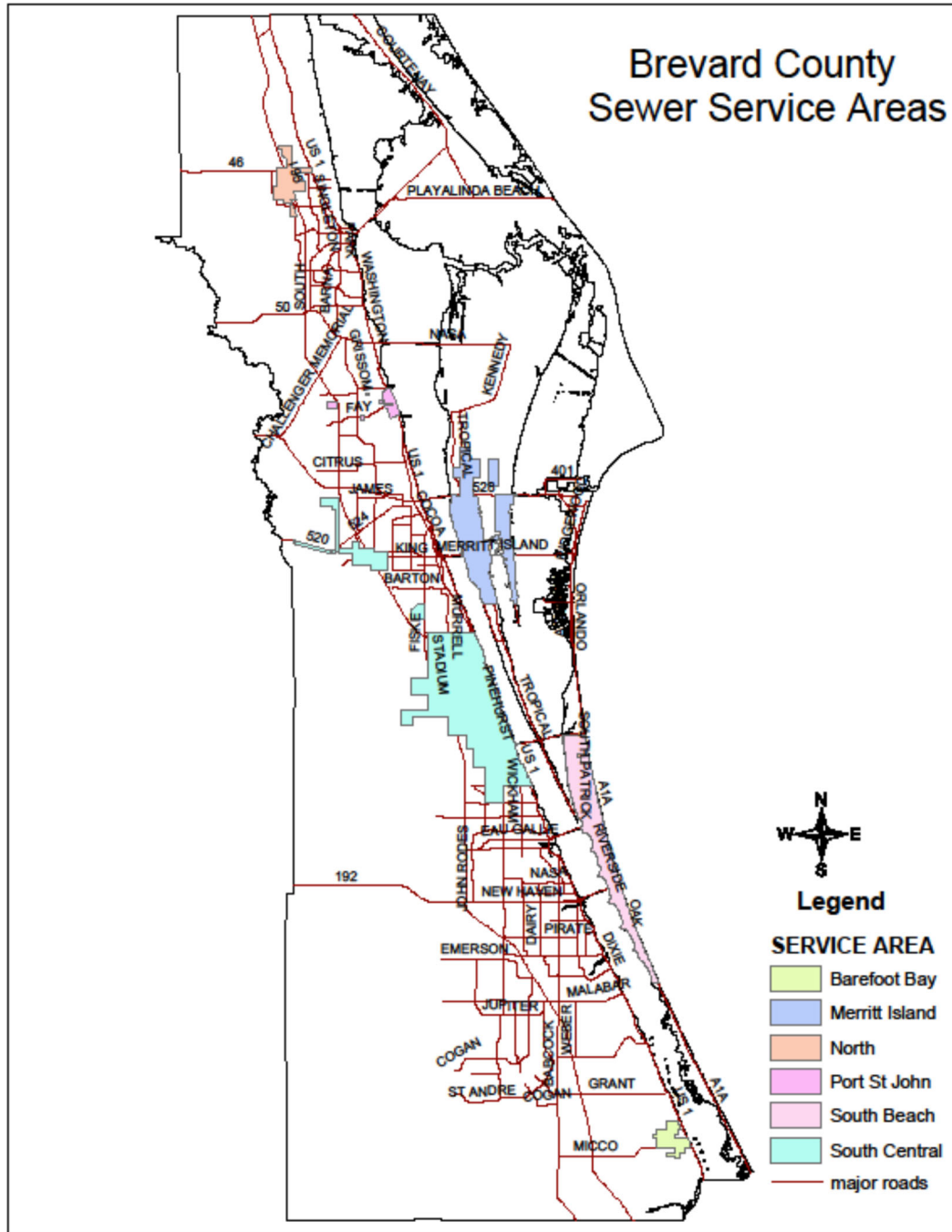
Below is a high-level summary of the total expenditures of the Barefoot Bay Water and Sewer system. It should be noted that the FY2023 Budget is the current budget, as amended, and varies from the adopted budget as a result of Board approved amendments. The FY2023 operating expenditure budget is \$2.7M or 273% higher than the FY2023 actual operating expenditures. This primarily relates to supply chain delays. FY2023 budget-to-actual expenditures and the FY2023 actual expenditures to FY2022 actual expenditures with a variances of greater than \$100K and 10% were considered significant and identified with a blue letter. See below for further analysis of these line items. These are discussed below.

General Observations
The FY2023 total actual expenditures were \$4.4M less than budgeted. Construction was also \$1.5M under budget and actual expenditures were higher than the prior year by about \$1M. The department has on-going projects in design that have been budgeted for capital outlay. They anticipate that these projects will be bid in FY23/24 and construction started.
Specific Account Observations
A: Compensation and Benefits: There was a \$147K increase (15%) in compensation and benefits in FY2023 in comparison to FY2022. Per discussion with the department there were more filled positions in FY2023 than in FY2022.
B: Operating Expenditures: <ul style="list-style-type: none"> • Other Contracted Services: Per discussion with the department the reason for the variance to budget was due to several system/infrastructure assessments that were delayed or taking longer than anticipated. There were also several purchase orders that remained opened at yearend for engineering assessments that will be carried into FY2024. • Repairs and Maintenance: Repairs and Maintenance expenditures increased from FY2022 to FY2023 by 127% and FY2023 was under budget by \$2M. The department attempted to initiate a meter replacement project in 2022 and again in 2023 however due to the lack of supplies and availability of the meters, most of the project was pushed into FY2024. • Operating Supplies: This line item includes purchases of fuel, which piggyback on the Brevard County School Board’s fuel contract with Glover Oil. Additionally, this line item includes chemical purchases, which are used at the treatment plants to meet regulatory requirements and are conservatively estimated by the department as it is hard to determine exact amounts and costs that will be needed. The contract for chemicals is also a major competitively bid contract, with the lowest bidder as the awarded vendor. Per discussion with management there were more chemicals needed to control odor at the Barefoot Bay location as there was \$20k more spent in FY2023 than in FY2022.
C: Capital Outlay: The expenditures in capital outlay were \$1.7M under budget as a result of several projects either postponed or the work was unable to be completed during the year. Per discussion from management the following projects were unable to be completed; Barefoot Bay Lift Station, Inflow and Filtration, Center Drive replacement, Carbon Dioxide replacement, EQ Basin project and Boost Pump Station for a total of about \$1.6M.

Capital Improvements Program (CIP)

Overview

Utility Services manages three water plants (Mims, Barefoot Bay and San Sebastian Woods) and six wastewater treatment plants throughout the County, shown below. The geography of the County, and the municipal service areas that exist in addition to the County systems, require that there be separate plants for the County's service needs.



Capital Improvements Program (CIP)

The Capital Improvements Program (CIP) for Utility Services has historically been used to provide funding and staff services for the construction of capital improvements primarily related to aging infrastructure projects and concurrency needs. Concurrency refers to the process of working with real estate developers to ensure that there is adequate, appropriate and compliant infrastructure in place to support planned development. The CIP is also referred to as capital renewal and replacement (R&R), which is defined as a systematic management process to plan and budget for known cyclical repair and replacement requirements that extend the life and retain usable condition of facilities and systems. Renewal and replacement costs are normally not included in the annual operating budget and are a planned investment program that ensures facilities will function commensurate with an entity's priorities and missions. Included are major building and infrastructure systems and components that have a maintenance cycle in excess of one year.

The table below describes the major component groups of assets managed by Utility Services and their required use.

<p><u>Gravity Sewer:</u> The public gravity sewers are large diameter pipes constructed in road rights of way or utility easements. Sewage from each house flows through the down sloping pipe. At each change of direction or every 300 (approximate) feet, there is a manhole. Manholes provide access for the sewer system maintenance. Because these pipes flow by gravity, a leak in the pipe allows ground water to enter the sewer line. Leaking gravity lines do not leak out. Modern gravity sewers are made of PVC, while the traditional material for older lines is vitrified clay pipe. The Brevard County sewer system has 598 miles of gravity sewer pipeline.</p>
<p><u>Lift Station:</u> In order for gravity sewers to flow, they must be sloped downhill. At some point, the depth of the sewer becomes too great for practical installation and maintenance. In regions without hills, such as coastal Florida, pump stations are required periodically to elevate the water into a new gravity sewer. Sewage pump stations, also called lift stations, pump the water up to a new gravity sewer, thereby allowing gravity to transport the sewage downhill again. Utility Services operates 314 pumping stations.</p>
<p><u>Force Main:</u> Force mains are the pipes that carry the sewage away from their pump station to the next gravity sewer. They are sometimes as short as several hundred feet and sometimes several miles long. When force mains leak, they leak out rapidly. A force main leak, like a water main leak, becomes immediately evident by the flow of water from the ground. Force mains often carry the wastewater directly to the treatment plant. Utility Services operates 205 miles of force main.</p>
<p><u>Reclaim Main:</u> Reclaimed water or recycled water, is former wastewater (sewage) that is treated to remove solids and certain impurities, and used in sustainable landscaping irrigation or to recharge groundwater aquifers. The purpose of these processes is sustainability and water conservation, rather than discharging the treated water to surface waters such as rivers and oceans. A reclaimed water main is pipeline used to transport reclaimed water to designated areas. Utility Services began using reclaimed water in the late 1980s.</p>
<p><u>Water Main:</u> A water main is the principal pipeline used in a water supply system for conveying drinking water. Brevard County doesn't have many miles of water main pipeline due to the municipal water systems in place at the County, such as those at the City of Cocoa, Melbourne and Palm Bay. The County contracts with the cities to provide water service to the unincorporated areas for a fee.</p>

Capital Improvements Program (CIP)

Plant: A water and/or wastewater treatment plant is the facility used to remove pollutants and suspended solids from wastewater, ground runoff and other sources through a combination of biological, chemical and physical processes and then redistribute the filtered water according to federal and state guidelines. Utility Services operates two water treatment plants (Mims and Barefoot Bay) and six wastewater treatments plants. These plants consist of buildings, wells, tanks and other structures.

The plant and infrastructure assets supporting the County’s water and wastewater service areas includes about \$1.606 billion in costs with estimated lives ranging from 40 years to 95 years. The information provided in this section is based upon estimates made by the department and subject to change.

2023 Budgeted Projects

Through FY2027 and beyond it is estimated a total of \$188,461,383 of capital improvements will be needed with the funded projects being covered by charges for services, grant revenue, other finance sources or permit/fees revenue. The final budget for expenditures for capital projects was \$71.4M with \$8.7M in actual expenditures as seen on page 26.

Capital Improvement Plan by Department Fiscal Year 2022-2023 to Fiscal Year 2026-2027 Funded Projects

Utility Services Department	All Prior Fiscal Years	Fiscal Year 2021-2022	Fiscal Year 2022-2023	Fiscal Year 2023-2024	Fiscal Year 2024-2025	Fiscal Year 2025-2026	Fiscal Year 2026-2027 & Future	Total
Charges for Services Revenue	\$ 27,387,303	\$ 24,219,584	\$ 15,888,095	\$ 48,587,377	\$ 13,908,302	\$ 12,132,903	\$ 7,650,000	\$ 149,773,564
Other Finance Sources Revenue	\$ 9,915,297	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,915,297
Grant Revenue	\$ -	\$ -	\$ 10,681,603	\$ -	\$ -	\$ -	\$ -	\$ 10,681,603
Permit/Fees Revenue	\$ 179,799	\$ 711,120	\$ 1,400,000	\$ 14,000,000	\$ -	\$ -	\$ -	\$ 16,290,919
Unfunded	\$ -	\$ -	\$ 1,800,000	\$ -	\$ -	\$ -	\$ -	\$ 1,800,000
Total Revenue	\$ 37,482,399	\$ 24,930,704	\$ 29,769,698	\$ 62,587,377	\$ 13,908,302	\$ 12,132,903	\$ 7,650,000	\$ 188,461,383
Planned Expenditures:	\$ 35,202,576	\$ 2,375,704	\$ 51,063,603	\$ 65,613,570	\$ 14,423,027	\$ 12,132,903	\$ 7,650,000	\$ 188,461,383

**Source: BREVARD COUNTY | Annual Operating and Capital Budget Proposed FY 2022-2023 (Unaudited)*

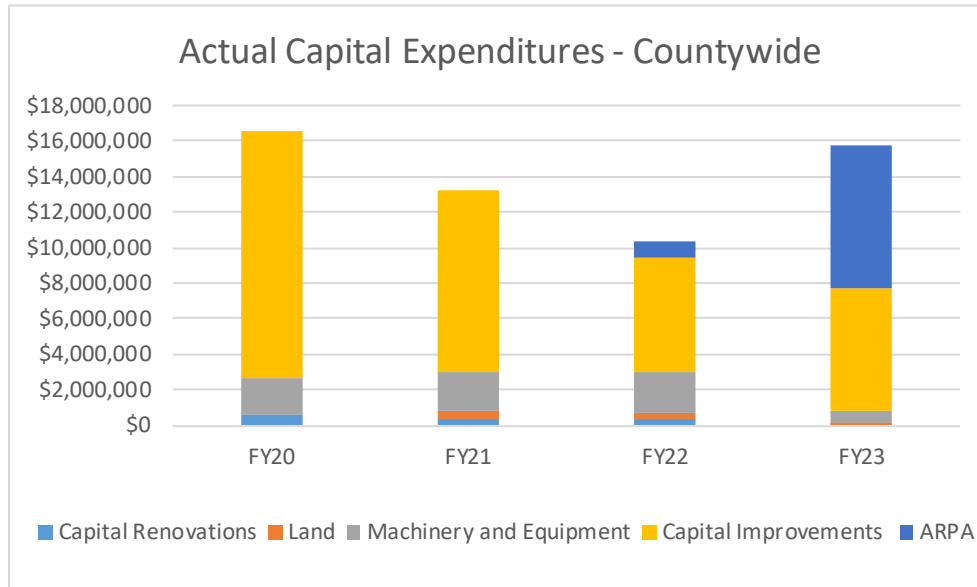
During FY2023 the department completed several projects and began several initiatives. The trends and issues identified going into 2023 were the following:

- The Florida Department of Environmental Protection Agency is providing stricter guidelines and penalties related to illicit discharges. This includes converting wastewater treatment plants adjacent to or feeding into the Indian River Lagoon to Advanced Wastewater Treatment (AWT).
- Reduce inflow and infiltration in the collection system
- Florida passed Section 403.064, Florida Statutes, for reuse of reclaimed water and Section 403.086, Florida Statutes, for sewage disposal facilities; advanced and secondary waste treatment which are anticipated to require significant investment to comply with the law
- Increase demand for irrigation in the reuse system and the need to control and maintain sufficient supply for users

Capital Improvements Program (CIP)

Expenditures and Aging of Assets

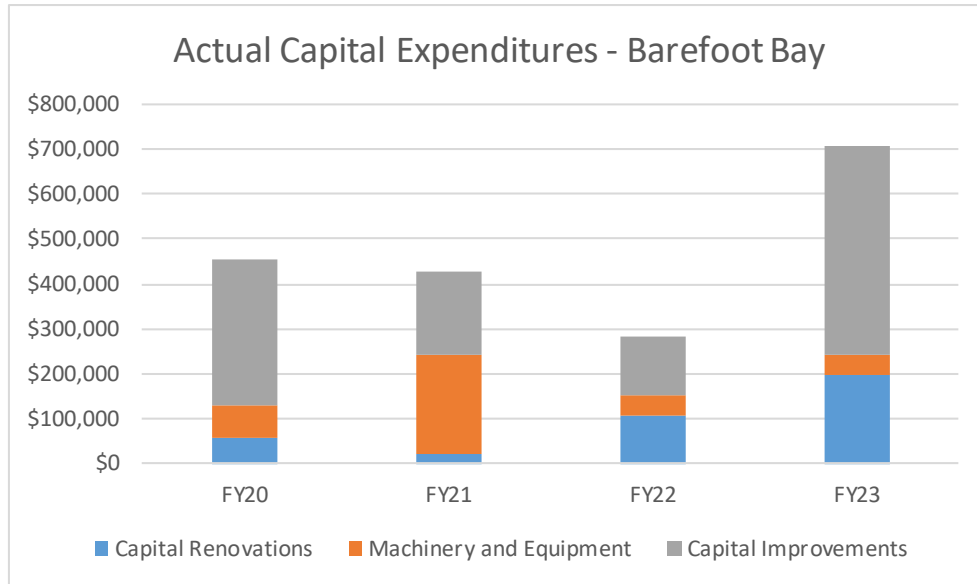
As illustrated in the chart below, the Utility Services department capital expenditures have decreased from FY2020 with significant increases seen for both the Countywide and Barefoot Bay systems in FY2023.



*Source: BREVARD COUNTY | Utility Services Department Data 2023 (Unaudited). 2020 – 2022 (Audited)

Actual capital expenditures have decreased from 2020 through 2022 because of the departments focus on completing work from previous years and the receipt of ARPA and SOIRL funding. As shown above in FY2022, ARPA expenditures amounted to \$904,603. As of current trending in FY2023, the department’s ARPA expenditures are an estimated \$8M however the final number is not yet available. The work performed by the department on SOIRL, during FY2021-2023, projects has been significant but it is not tracked at the department level. This funding is not reflected in the department’s budget but encompasses their staff resources to complete the projects which delays the department funded projects.

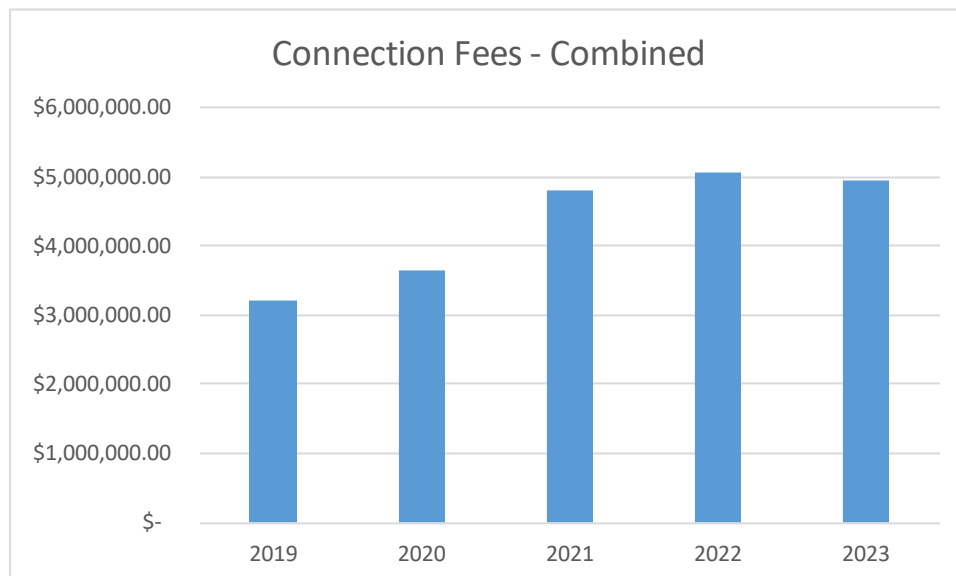
Capital Improvements Program (CIP)



*Source: BREVARD COUNTY | Utility Services Department Data 2023 (Unaudited). 2020 – 2022 (Audited)

From FY2020 to FY2022 capital expenditures decreased due to completion of several major projects including the South Central Plant expansion. The large increase in FY2023 was due to the clarifier rehab project being completed as well as half of the inflow and infiltration prevention work. There was also continued design effort for the equalization basin treatment plant.

The primary source of revenue for utilities capital projects over the past several years has been charges for services even though sewer connection fees have also increased. The 5 year trend for connection fees is illustrated below. A sewer connection fee only occurs when the property is first connected to the sewer lines.



*Source: BREVARD COUNTY | Utility Services Department Data 2023 (Unaudited). 2019 – 2022 (Audited)

Capital Improvements Program (CIP)

Future Assessed Plan

While revenues have increased as a result of the rate adjustments approved by the Board, the department's plans have not been fully implemented since these are multi-year projects and are budgeted as such. Over the course of the last 3-4 years, the department has put in place a process for assessing every asset in regards to its functionality and from that assessment has developed a timeline to address the needs. An international grading system, NASSCO, which utilizes a scale of 1-5 with 1 being most critical has been used to assess, categorize and prioritize repair and replacement to the department's existing assets. The Countywide and Barefoot Bay systems currently have lift stations, various assets and other plant assets over their suggested useful lives, which the County has identified will need to be addressed with capital spending in the near future. Outlined below are the projects, for both the treatment plants and lift stations, anticipated to be completed in the next 10 years. This plan includes a total of 106 treatment plant projects. These projects can take anywhere from one to two years to design, bid, and award with another one to two years to complete construction. The plan also includes 91 lift stations scheduled over the same period with about 12 months to design, bid and award with one to two years to complete construction. These assets identified received scores of less than or equal to 3 on the grading scale. As shown below, management's estimate of the total cost to renew and/or replace (R&R) the areas of critical need total about \$31M a year, which includes an assumed inflation rate of 20% for the wastewater and water treatment plants. In addition to the major projects estimated to be completed, the department also plans to include air release valves, manholes and hydrants over the next two to three years as part of ongoing maintenance-type projects at an estimated cost of an additional \$2M for each of the next 3 years.

Treatment Plant Projects			
Plant	Number of Projects	Total Cost	Total Cost with 20% Inflation
North Brevard (NB) WWTP	19	\$ 23,800,000	\$ 28,600,000
Mims WTP	16	\$ 18,900,000	\$ 22,700,000
South Central (SC) WWTP	23	\$ 17,400,000	\$ 20,900,000
South Beaches (SB) WWTP	31	\$ 84,200,000	\$ 101,100,000
Sykes Creek (MI) WWTP	17	\$ 33,100,000	\$ 39,800,000
	Total Cost	\$ 177,400,000	\$ 213,100,000

Assumed Inflation = 20%

Lift Station Projects (Score <= 3)		
Service Area	Number of Projects	Total Cost ¹
North Brevard	9	\$ 9,900,000
South Central	39	\$ 42,900,000
South Beaches	14	\$ 15,400,000
Merritt Island	26	\$ 28,600,000
Barefoot Bay	3	\$ 3,300,000
	Total	\$ 100,100,000

Notes:

1. Assumed each lift station cost \$1,100,000 for design, construction, and CEI.

*Source: BREVARD COUNTY | Utility Services Department Data (Unaudited)

Capital Improvements Program (CIP)

	2024	2025	2026	2027	2028 & Beyond
Treatment Plants	21,310,000	21,310,000	21,310,000	21,310,000	127,860,000
Lift Stations	10,010,000	10,010,000	10,010,000	10,010,000	60,060,000
Ongoing Maintenance	736,833	736,833	557,333	-	-
Total	32,056,833	32,056,833	31,877,333	31,320,000	187,920,000

**Source: BREVARD COUNTY | Utility Services Department Data (Unaudited)*

The department plans to build a Water and Wastewater system (new system) outside the Barefoot Bay District. The District will be decommissioned when this new system is completed, about 5 to 6 years from now. Costs are estimated to be around \$100M to \$125M for the new system. Once the new system is operational, the District’s requirements will be provided by the new system. The Department has issued a Request for Qualification (RFQ) for the Engineering, Design, and Construction Oversight of the New System as of the date of this report. The District’s debt will be retired in 2030 when the new system will be online. The department will maintain and complete all renewal and replacement required of the District. However, there are no plans to upgrade the current Barefoot Bay Water and Wastewater system as it will be replaced by the new system.

Capital Improvements Program (CIP)

A rate study was conducted by Raftelis during 2021 to understand the need to increase rates that had remained stagnant for several years, as well as understand the County's needs for capital improvement funding and various suggestions on obtaining the funding whether through increased fees, issuing debt or other ventures.

In addition to the rate study mentioned above, the County also had a study performed by Raftelis to determine Utilities Services funding needed over the next five years to complete projects, meet their targets and estimate the amount of debt needed to fund the projects. However at the time of the study other sources of funding, such as grants, were not part of the original calculation. As of the date of this report, Raftelis has been engaged to provide an updated report to adjust for current inflation rates and other factors. As of the date of this report, their new report is unavailable.

Effective FY2022, there was a new rate schedule approved by resolution for the County and Barefoot Bay to increase the rates through FY2026. These additional revenues could be used to help fund the capital improvement plan to help extend the life of assets or replace out-dated assets to improve efficiencies. Below is a snapshot of data utilized in the report to illustrate the County's capital improvement plan funding needs:

	2020	2021	2022	2023	2024	2025	2026 & Beyond	Total
CAPITAL PROJECTS - WATER SYSTEM								
Mims System	\$ 230,877	\$ 3,516,020	\$ 3,364,629	\$ 3,487,672	\$ 13,212,971	\$ 12,582,494	\$ 6,222,037	\$ 42,616,700
CAPITAL PROJECTS - WASTEWATER SYSTEM								
North Brevard	261,774	2,201,800	2,132,455	4,302,387	16,604,441	9,332,794	18,126,534	52,962,185
Port St. John	45,745	3,287,760	4,768,211	24,098,295	6,143,426	5,951,301	11,797,934	56,092,672
Sykes Creek (MI)	2,766,610	17,618,150	12,348,505	8,787,688	16,137,245	16,967,187	29,058,443	103,683,828
West Cocoa	362,788	3,413,008	1,299,603	4,611,308	3,399,037	1,483,871	3,420,195	17,989,810
South Central	760,283	9,127,860	21,049,480	9,971,705	10,557,860	19,034,337	10,329,169	80,830,694
South Beaches	12,513,228	7,051,858	5,321,967	15,871,346	16,841,567	8,884,114	10,260,590	76,744,670
Departmental Capital Fund 4150	1,743,769	-	-	-	-	-	-	1,743,769
	\$ 18,685,074	\$ 46,216,456	\$ 50,284,850	\$ 71,130,401	\$ 82,896,547	\$ 74,236,098	\$ 89,214,902	\$ 432,664,328

*Source: Brevard County Revenue Sufficiency and Financial Forecast Evaluation Rate Study (Modified)

The rate study provided useful information to County management and the Board of the costs needed to adequately fund the capital improvement plan. One item to note as previously mentioned is that the rates were calculated mostly in the range of 3% per year with new CPI estimated to be over 5%. In the U.S., the 2021 construction industry inflation jumped to 8% and in 2022 hit 12%^a. If inflation does not subside soon, the estimated costs for operating, maintaining and building the infrastructure could be substantially more.

The rate study concluded that the only way to adequately address the capital needs of the water and wastewater system would be to issue bonds. See the next page for the rate study's five-year capital improvement funding plan.

^aSource: Construction Analytics: Economics Behind the Headlines by Ed Zarenski

Table 5

Brevard County, Florida
Water and Wastewater Utility System

Five-Year Capital Improvement Program (CIP) Funding Plan

Line No.	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
COMBINED WATER AND WASTEWATER SYSTEMS											
189	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
190	5,251,251	13,084,698	6,949,711	7,692,057	10,966,793	11,664,567	12,069,909	10,571,258	10,234,731	10,311,942	98,796,917
191	-	-	-	-	-	-	-	-	-	-	-
192	580,148	6,231,500	742,630	13,385,906	1,821,057	1,839,268	-	-	-	-	24,600,508
193	1,838,300	361,750	80,000	80,000	80,000	80,000	80,000	80,000	80,000	80,000	2,840,050
194	-	-	-	-	-	-	-	-	-	-	-
195	10,557,871	3,258,508	-	-	-	-	-	-	-	-	13,816,379
196	232,934	12,887,300	10,357,187	3,108,641	562,754	579,637	-	-	-	-	27,728,453
197	-	5,551,700	22,492,574	12,403,940	-	-	-	-	-	-	40,448,214
198	-	-	9,662,749	32,138,326	38,019,944	-	-	-	-	-	79,821,019
199	-	-	-	-	6,794,613	7,504,758	-	-	-	-	14,299,371
200	-	-	-	-	-	4,746,647	4,745,251	4,887,608	-	-	14,379,506
201	224,570	4,841,000	-	-	-	-	-	-	-	-	5,065,570
202	-	-	-	2,321,531	10,538,718	10,854,880	-	-	-	-	23,715,129
203	-	-	-	-	2,813,772	27,485,178	-	-	-	-	30,298,950
204	-	-	-	-	-	-	8,765,957	8,724,682	8,947,339	-	26,437,978
205	-	-	-	-	11,298,895	9,481,164	9,636,224	-	-	-	30,416,283
206	-	-	-	-	-	-	-	-	-	-	-
207	\$ 18,685,074	\$ 46,216,456	\$ 50,284,850	\$ 71,130,401	\$ 82,896,547	\$ 74,236,098	\$ 35,297,340	\$ 24,263,548	\$ 19,262,070	\$ 10,391,942	\$ 432,664,327

Source: Brevard County Revenue Sufficiency and Financial Forecast Evaluation Rate Study (Modified)

Long-Term Debt Service Requirements

Revenue Bonds

Governments issue bonds for many reasons, including allowing assets to be acquired as needed rather than when enough cash is saved; spreading costs of capital over time and smoothing out cash flow imbalances. In FY2023, the Utility Services department had three revenue bond issues outstanding that were used to finance the acquisition, construction and equipping of various capital improvements to the County's utility system.

Water and Wastewater Utility Revenue Bonds, Series 2014

Revenue bonds used to finance the County water and wastewater projects were originally issued in 2014. These bonds are due in annual installments of \$635,000 to \$1,205,000 through September 1, 2040 with interest ranging from 2.50% to 5.00%. The term bonds maturing on September 1, 2044 are subject to mandatory redemption in the amount of \$1,260,000 to \$1,415,000 from September 1, 2041 to final maturity of interest at 4.00%. The balance at September 30, 2023 was \$20,660,000. The bonds are secured by the net revenues and connection fee revenue.

Below is the Waste and Wastewater Utility debt service requirement schedule for the next four years:

	Debt Service Requirements					
	FY 24	FY 25	FY 26	FY 27	Beyond	Total
Principal	\$ 665,000	\$ 700,000	\$ 735,000	\$ 755,000	\$ 17,805,000	\$ 20,660,000
Interest	806,681	773,431	738,431	720,056	7,241,525	10,280,125
Total	\$ 1,471,681	\$ 1,473,431	\$ 1,473,431	\$ 1,475,056	\$ 25,046,525	\$ 30,940,125

**Source: Bond Documents and Related Amortization Schedules*

Barefoot Bay System Revenue Bonds

The Utility Refunding Revenue Notes, Series 2018 (Barefoot Bay Utility System), were issued for \$9,700,000 with interest at 2.58%. These bonds were issued to refund all of the outstanding 2000 Utility Bonds (Barefoot Bay Utility System) and pay certain costs of issuance. The original Series 2000, were issued for \$17,135,000 with variable interest ranging from 4.15% to 5.25% over a series of term bonds set to expire in October 2011, 2018 and 2029. These bonds were issued to acquire the Barefoot Bay public utility system, which was owned and operated by the Florida Governmental Utility Authority prior to the County acquisition in 2000. As of September 30, 2023, the principal balance due on these bonds was \$6,170,000.

Long-Term Debt Service Requirements - continued

The Barefoot Bay utility also has a Subordinated Sales Tax Revenue Bond, Series 2009A, through December 2029. The original issue was \$1,547,000 at a 4.18% interest rate but was refunded in 2018 to lower the interest rate to 3.37%. The bond was issued to repair and renovate the Barefoot Bay Wastewater Treatment Plant. The revenue is secured by a subordinate lien on the sales tax revenues along with a covenant to budget and appropriate from legally available non-ad valorem revenues. The annual principal and interest payments are approximately \$113,000. This debt is payable from the revenues/user fees of the Barefoot Bay utility system. As of September 30, 2023, the principal balance due on these bonds for that fiscal year was \$698,000.

Below is the Barefoot Bay debt service requirement schedule for the next four years:

	Debt Service Requirements					
	FY 24	FY 25	FY 26	FY 27	Beyond	Total
Principal	\$ 908,000	\$ 926,000	\$ 955,000	\$ 979,000	\$ 3,100,000	\$ 6,868,000
Interest	170,648	146,282	121,283	95,568	125,415	659,195
Total	\$ 1,078,648	\$ 1,072,282	\$ 1,076,283	\$ 1,074,568	\$ 3,225,415	\$ 7,527,195

*Source: Bond Documents and Related Amortization Schedules

Bond Coverage

The County is required by bond resolutions to fix, establish and maintain such user rates that will always provide sufficient revenue for debt service, operations and maintenance, and all other reserve requirements pertinent to the bond issues within the affected enterprise funds. Where the bond resolution provides for more than one financial coverage test, the covenant shown is the most restrictive.

The following tabulation indicates the degree of compliance with the bond resolution covenant in the Barefoot Bay Water and Sewer District and the Water and Wastewater Utility System at September 30, 2022. This coverage test compares the required debt coverage against the revenue available after operating and maintenance expenses, as defined by the bond covenants.

	Barefoot Bay Water and Sewer District	Water and Wastewater Utility System
Gross revenues available for compliance	\$ 4,522,684	\$ 40,734,028
Operating and maintenance expense	2,346,877	26,005,730 (1)
Amount of revenue over operating and maintenance expense	\$ 2,175,807	\$ 14,728,298
Debt coverage required	\$ 954,697	\$ 1,618,276
Percent coverage for the year ended September 30, 2022	228%	910%

(1) Excludes payments in lieu of taxes in the amount of \$1,760,889

Source: 2022 Brevard County Annual Financial Audit

Note: FY 2023 amounts are not available at this time due to audit not being complete

Long-Term Debt Service Requirements - continued

State Revolving Loans Payable

In December 2015, the County began participation in the Clean Water State Revolving Fund Construction Loan Program with the State of Florida Department of Environmental Protection. Loan proceeds are being utilized by the Water and Wastewater Utility System Department to finance various projects of the water and wastewater system. Pledged revenues are those pledged as security by the County in its loan agreement, after payment of operation and maintenance expenses and satisfaction of the yearly payment obligation for outstanding system revenue bonds. The County has covenanted to maintain rates and charges for system services, which will be sufficient each fiscal year after payment of senior parity obligations, to provide pledged revenues of at least 1.15 times the sum of all Loan Program payments due in the fiscal year.

In December 2015, a loan (WW051100) was approved to finance regional wastewater treatment facilities expansion and improvement projects in the initial amount of \$40,972,625 and reduced by costs not expended in August 2020 to \$39,134,615 to reflect the final project cost. The loan bears an interest rate of 1.04%, with forty semi-annual payments due in January and July of each fiscal year beginning July 15, 2020. The amount of the loan payable at September 30, 2023 is \$32,774,332.

In February 2019, a loan (WW051130) was approved to finance a force main replacement in the initial amount of \$10,997,913. The loan bears an interest rate of 1.01%, with forty semi-annual payments due in March and September of each fiscal year beginning September 15, 2021. The amount of the loan payable at September 30, 2023 is \$9,570,348.

In June 2019, a loan (WW051170) was approved to finance a major sewer rehabilitation in the initial amount of \$3,163,600 and reduced by costs not expended in April 2021 to \$2,292,885 to reflect the adjustment to estimated final project cost. The project was further reduced to a funding amount of \$2,219,279 in a subsequent amendment. The loan bears an interest rate of 0.00%, with forty semi-annual payments due in May and November of each fiscal year beginning May 15, 2024. The amount of the loan payable at September 30, 2023 is \$2,219,279.

Below is the State Revolving Funds future debt payment schedule for the next four years and beyond:

WW051100	2024	2025	2026	2027	Beyond	Total
Principal	\$ 1,830,663	\$ 1,849,751	\$ 1,869,039	\$ 1,888,528	\$ 25,336,352	\$ 32,774,332
Interest	336,106	317,018	297,730	278,241	1,748,260	2,977,355
Payment	\$ 2,166,769	\$ 2,166,769	\$ 2,166,769	\$ 2,166,769	\$ 27,084,612	\$ 35,751,687

WW051130	2024	2025	2026	2027	Beyond	Total
Principal	\$ 502,612	\$ 507,700	\$ 512,842	\$ 518,034	\$ 7,529,160	\$ 9,570,348
Interest	95,394	90,306	85,164	79,972	543,927	894,763
Payment	\$ 598,006	\$ 598,006	\$ 598,006	\$ 598,006	\$ 8,073,087	\$ 10,465,111

WW051170	2024	2025	2026	2027	Beyond	Total
Principal	\$ 12,206	\$ 113,183	\$ 113,183	\$ 113,183	\$ 1,867,524	\$ 2,219,279
Fees	44,386	-	-	-	-	44,386
Payment	\$ 56,592	\$ 113,183	\$ 113,183	\$ 113,183	\$ 1,867,524	\$ 2,263,665

*Source: Loan Agreements and Related Amortization Schedules