



BOARD OF COUNTY COMMISSIONERS

**Utility Services Department**

2725 Judge Fran Jamieson Way

Building A, Room 213

Viera, Florida 32940

**Inter-Office Memo**

**TO:** Frank Abbate, County Manager

**THRU:** John Denninghoff, Assistant County Manager

**FROM:** Edward Fontanin, Utility Services Director

**DATE:** January 14, 2022

**SUBJECT:** Utility Services – Rate Resolution for the Barefoot Bay Water & Sewer District  
Additional Information Referenced in Agenda Report

The information contained in this memo is referenced in the agenda report under section “Summary Explanation and Background”. This memorandum provides a more in-depth analysis of the rationale and requirements mentioned in the Agenda Report for the need of the water and sewer rate adjustments.

As mentioned in the agenda report, the proposed rate adjustment will provide the funds necessary in order: (1) to provide investments to comply with Section 403.064 and 403.086, Florida Statutes, (2) to replace treatment plant facilities that are beyond their useful life and increase capacity for future development in Barefoot Bay, and (3) to increase the operations and maintenance effort to continue reliability throughout the District’s utility system.

Provided below is the rationale of the needs of the rate adjustments along with this Department’s approach to achieving the objectives and estimated cost to do so:

**(1) to provide investments to comply with F.S. 403.064 and 403.086 under Chapter 403  
Environmental Control**

In 2021, the State of Florida passed Section 403.064, Florida Statutes – Reuse of Reclaimed Water. The purpose of the legislation is for “those wastewater treatment plants permitted and operated under an approved reuse program by the Florida Department of Environmental Protection (FDEP), the reclaim water shall be considered environmentally acceptable and not a threat to the public health and safety.”

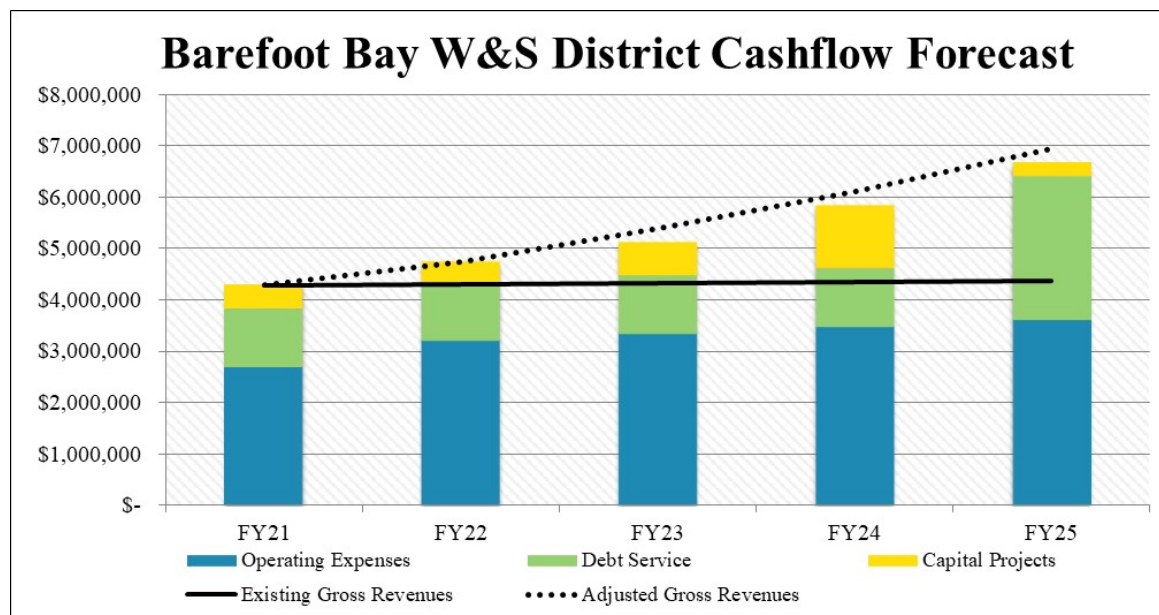
Section 17 of the Section 403.064, Florida Statute states that “by November 1, 2021, domestic wastewater utilities that dispose of effluent, reclaimed water, or reuse water by surface water discharge shall submit to the department for review and approval a plan for eliminating nonbeneficial

surface water discharge by January 1, 2032, subject to the requirements of this section. The plan must include the average gallons per day of effluent, reclaimed water, or reuse water that will no longer be discharged into surface waters and the date of such elimination, the average gallons per day of surface water discharge which will continue in accordance with the alternatives provided for in subparagraphs (a)2. and 3., and the level of treatment that the effluent, reclaimed water, or reuse water will receive before being discharged into a surface water by each alternative.”

The FDEP has identified the Barefoot Bay Water Reclamation Facility as needing to meet the requirements of this law. This Department, through the support of our engineering consultant, has submitted a plan prior to the November 1<sup>st</sup> deadline. Permission to submit the plan was received from the Board at the October 12, 2021 Board of County Commissioners meeting.

The compliance plan submitted to the FDEP for the Barefoot Bay Water Reclamation Facility includes the construction of a new Advanced Wastewater Treatment Facility. Estimated project cost is \$40M. The Barefoot Bay Water and Sewer District is a special district and, thus, must operate as its own entity. That meaning, no County funds may be used to support the District. As such, currently the District does not generate enough revenue to fund day-to-day operations, current Capital Improvement Projects and the design and construction of the proposed Wastewater Treatment Facility.

Below is a chart showing total revenue versus current Barefoot Bay Water and Sewer District expenditures, debt service obligation and current CIPs:



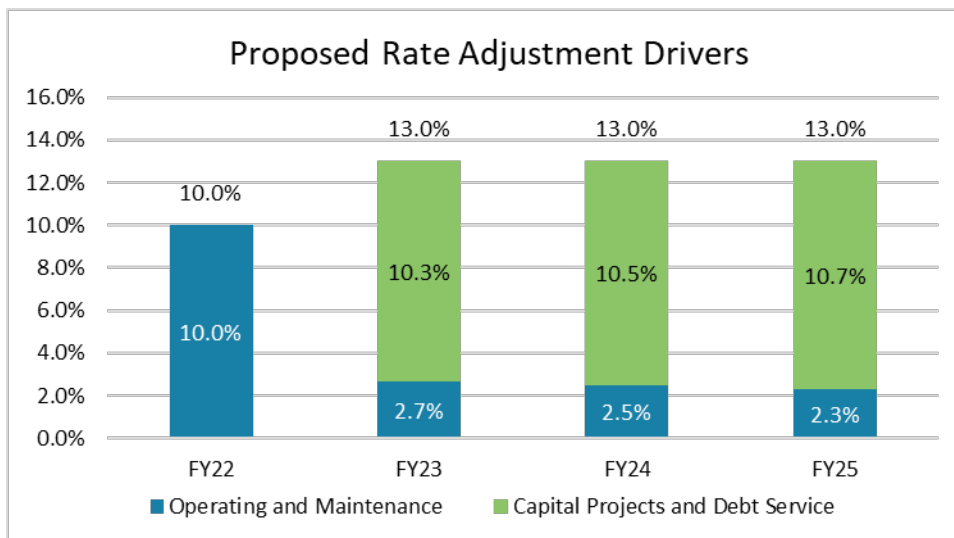
As the graph shows, without the proposed rate adjustments, there will not be sufficient funds to fully fund the required Advanced Wastewater Treatment Facility.

In order to utilize the new Facility for not only Barefoot Bay customers but also for unincorporated future development for the County, the decision was made to locate the new Facility outside of the Barefoot Bay Water & Sewer boundaries. This will make the new Facility part of the Countywide system. The advantage in this option is that the new Facility will be available to both future development in unincorporated County and the Barefoot Bay District. The County would finance the entire project with the proposed rate increase for Barefoot Bay to pay for their portion of both the capacity construction cost and for operations and maintenance cost. For example, if the Barefoot Bay District is currently using 700,000 gpd of treatment capacity, then the District will pay for that amount of the debt service to the County to pay for their portion of the project.

In 2021, the State of Florida passed Section 403.086, Florida Statutes – Sewage Disposal facilities; advanced and secondary treatment. The purpose of this law, is that beginning July 1, 2025, “... sewage disposal facilities may not dispose of any wastes into... the Indian River Lagoon, or into any river, stream, channel, canal, bay, bayou, sound, or other water tributary thereto, without providing advanced wastewater treatment...”.

To avoid discharges the following efforts need to be increased in comparison from previous years:

- Assessment of all sanitary sewers, force mains, sewer laterals and manholes to determine if leaks are present
- Increase in the amount of sewer repair and lining
- Rehabilitation of leaking sanitary manholes
- Repair of leaking sanitary laterals in the road right-of-way
- Increase maintenance to the sanitary lift stations
- Increase maintenance to the existing Barefoot Bay Water Reclamation Facility until the new plant is constructed and connected to the Barefoot Bay sewer system



The prior chart indicates that approximately 35% of the proposed rate adjustments are required to cover the rise in operating and maintenance expenses while the majority or remaining 65% is associated with the need for capital reinvestment.

Both Sections 403.064 and 403.086, Florida Statutes, include language subjecting violations to administrative and civil penalties pursuant to Sections 403.121, 403.131 and 403.141, Florida Statutes. By investing in the Barefoot Bay Water and Sewer District infrastructure today allows us to follow State law and avoid future fines and penalties that can be administered to the County by the State.

**(2) to replace treatment plant facilities that are beyond their useful life and increase capacity for future development in Barefoot Bay**

As mentioned in the previous section regarding Section 403.064, Florida Statutes, – Reuse of Reclaimed Water, the County has submitted to FDEP the County’s commitment to construct a new Water Reclamation Facility which will replace the existing Barefoot Bay Wastewater Treatment Plant. Barefoot Bay has both a water and wastewater treatment plant constructed in the 1960s. In our assessment of both facilities, not only do they not have enough capacity to support the growth in South Brevard, but the age and condition of these treatment plants have deemed them to be beyond their useful life.

The approach as mentioned above in our explanation of Section 403.064, Florida Statutes, – Reuse of Reclaimed Water, is that a new water and wastewater treatment facility would be constructed outside of the Barefoot Bay Water & Sewer District thus allowing the District and developments outside of the District access for water and sewer. By being outside of the District, new development connecting would not be required to be part of the Barefoot Bay Water & Sewer District.

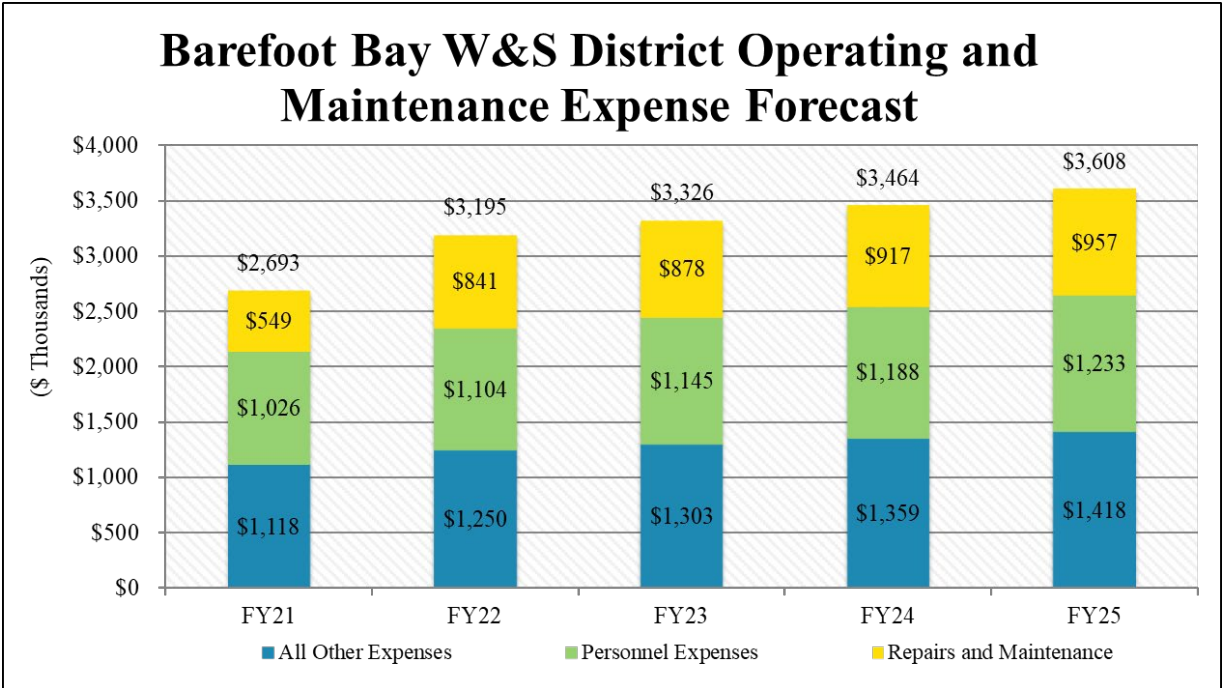
The estimated construction cost for two new facilities, not including land acquisition, would be between \$55M to \$65M. Through the allocation of ARPA funds, \$2M has been allocated for future land acquisition outside of the District boundary. As stated previously, the Barefoot Bay Water & Sewer District cannot fully fund this project for the water and wastewater treatment plants for the following reasons: (1) the District does not have the necessary revenue and, (2) the District’s current debt service payment from the County’s acquisition of the District plus the rehabilitation of the current wastewater treatment plant is too high to add more debt service to the District’s responsibility.

**(3) to increase the operations and maintenance effort to continue reliability throughout the District’s utility system.**

In addition to the additional operations and maintenance effort needed as discussed in the above-mentioned Section 403.086, Florida Statutes, – Sewage Disposal facilities, there is still additional effort needed on the water and reuse distribution assets. As stated previously, the Barefoot Bay utility assets

are approximately 60 years old. At this age, water mains and any apparatuses need maintenance and replacement. Performing this effort will improve water quality, reliability and functionality. Since Barefoot Bay has no other water utility in the area for an emergency connect it is critical to maintain the water assets. Failure at the treatment plant, pump stations or distribution lines cause a concern for fire prevention and public access to water.

As part of the proposed rate increase we propose to increase the operations and maintenance budget for the District by approximately 20% in FY 22 followed by annual increases of 4% through FY 25.



Please note, all other expenses include: FP&L, treatment chemicals, indirect cost allocation.

**Proposed Rate Adjustment**

The above provides further detail on the justification and specifics for the need of the rate adjustment and how the additional revenue would be implemented.

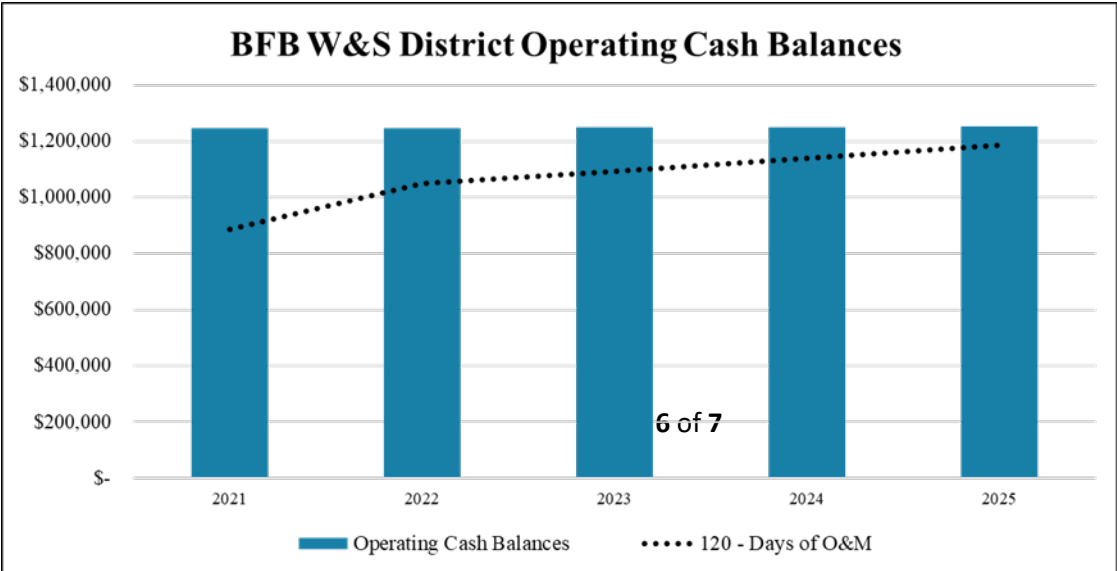
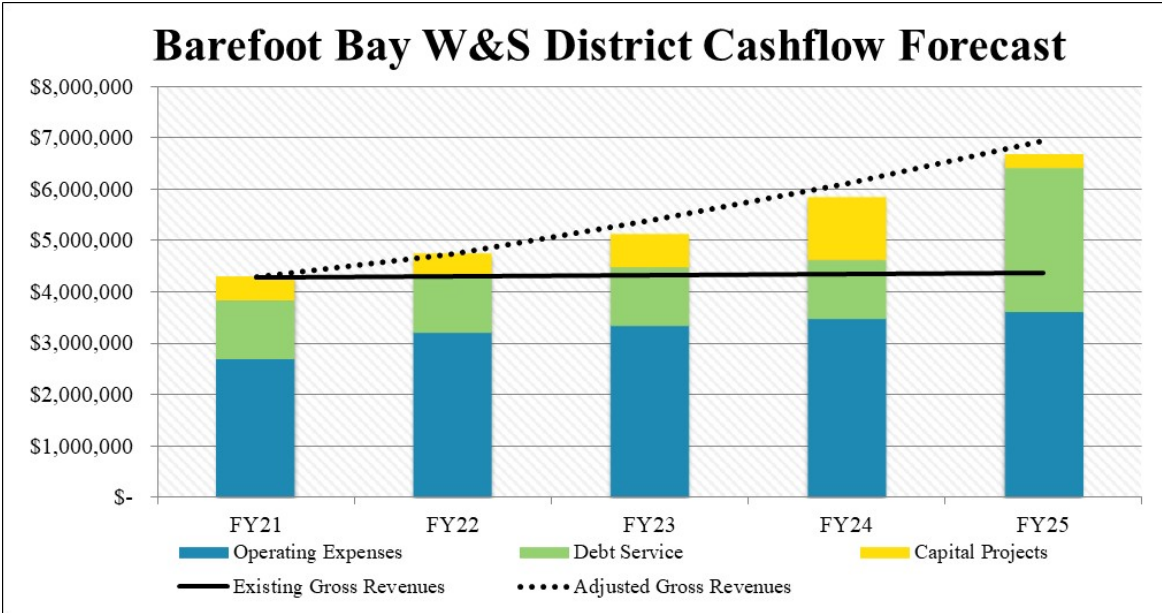
It is important to understand that although the Board approved on August 2021 the use of the CPI’s Water and Sewerage Maintenance Index for annual increases, the annual index will not be added to the below rate recommendations from FY 22 thru 26. The proposed rate adjustment includes the index that was already approved. The rate index that would have been implemented would be 3.0%. Therefore, the rate increase proposed are: 2022 – 10.0%, 2023 – 13.0%, 2024 – 13.0%, 2025 – 13.0%, the true additional increase this Department is seeking is 2022 – 7.0%, 2023 – 10.0%, 2024 – 10.0%, 2025 – 10.0%, assuming the index each year from 2023 to 2025 is 3.0%.

The table below shows a breakdown of the overall rate adjustment, of the overall proposed monthly bill impact based on the index and the additional rate adjustment, for both water and sewer customers.

Recommended Rate Adjustments & Monthly Bill Impacts													
Year	Rate Revenue Adjustments	Water Bill <sup>[1]</sup>	Total Increase	Index Increase	Rate Increase	Sewer Bill <sup>[1]</sup>	Total Increase	Index Increase	Rate Increase	Water & Sewer Bill <sup>[1]</sup>	Total Sewer & Water Increase	Total Index	Total Rate
2022	10.00%	\$37.07	\$3.37	\$1.01	\$2.36	\$77.08	\$7.00	\$2.10	\$4.90	\$114.15	\$10.37	\$3.11	\$7.26
2023	13.00%	\$41.89	\$4.82	\$1.11	\$3.71	\$87.10	\$10.02	\$2.31	\$7.71	\$128.99	\$14.84	\$3.42	\$11.41
2024	13.00%	\$47.33	\$5.45	\$1.26	\$4.19	\$98.42	\$11.32	\$2.61	\$8.71	\$145.75	\$16.77	\$3.87	\$12.90
2025	13.00%	\$53.49	\$6.15	\$1.42	\$4.73	\$111.21	\$12.79	\$2.95	\$9.84	\$164.70	\$18.95	\$4.37	\$14.58
2026	3.00%	\$55.09	\$1.60	\$1.60	\$0.00	\$114.55	\$3.34	\$3.34	\$0.00	\$169.64	\$4.94	\$4.94	\$0.00
2027	3.00%	\$56.75	\$1.65	\$1.65	\$0.00	\$117.99	\$3.44	\$3.44	\$0.00	\$174.73	\$5.09	\$5.09	\$0.00
2028	3.00%	\$58.45	\$1.70	\$1.70	\$0.00	\$121.53	\$3.54	\$3.54	\$0.00	\$179.97	\$5.24	\$5.24	\$0.00
2029	3.00%	\$60.20	\$1.75	\$1.75	\$0.00	\$125.17	\$3.65	\$3.65	\$0.00	\$185.37	\$5.40	\$5.40	\$0.00
[1] Bill Amounts Based on 5,000 Gallons and 2021 Rates													
[2] 3% assumed for 2026 thru 2029													

### Metric Review of the Proposed Rate Adjustments

The graphs below show that the proposed rate adjustments are adequate to provide the cashflow to fund the future needs along with providing the District with adequate operations reserve.



### **Impact by American Relief Protection Act (ARPA)**

In May 2021, the Board Commissioners approved projects within their District utilizing the ARPA funds. These projects ranged for the benefit of stormwater improvements, water and sewer, and roadway. Of the many projects that were proposed to Commissioner Tobia for ARPA fund consideration, the Commissioner selected the Barefoot Bay Water Chlorine System as one of his selected projects. The project was submitted at \$1.2M. The benefit of this project is to install a chlorine feed system at the water distribution's furthest point in order to provide continual chlorine residuals and to reduce the rate adjustment by an overall of 3.0%. Thus, the proposed 2022 rate has been reduced to 10.0% instead of the original recommendation of 13.0%.