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DATE: March 18th, 2022

TO: City of Foster City/Estero Municipal Improvement District

FROM: Bartle Wells Associates

SUBJECT: Water and Wastewater Rate Study Update Results

SUMMARY OF FINDINGS AND RECOMMENDATIONS

Introduction and Background

The Estero Municipal Improvement District (District) engaged Bartle Wells Associates (BWA) to develop 10-year financial projections for the District's Water and Wastewater Enterprises and to recommend water and wastewater rate adjustments for the next five-year period. BWA last conducted formal rate studies in 2021, which resulted in a one-year rate approval for water rates for FY 2022. No public hearing was held for wastewater, as the adopted wastewater rates were determined to be adequate.

Current and projected water service rates are in the lower range compared to other agencies on the Peninsula and wastewater service rates are in the middle range compared to other agencies on the Peninsula. The District water and wastewater enterprises face unique infrastructure funding challenges.

Water

The primary driver for the proposed rate increases is to smooth District rate increases due to projected increases in the San Francisco Public Utilities Commission (SFPUC) wholesale water rate. The District faces costs associated with the \$4.8 billion Water System Improvement Project (WSIP) to upgrade the Hetch Hetchy Water System, resulting in significant additional wholesale SFPUC rate increases beginning in FY 2023. The program consists of 87 projects - 35 local projects located within San Francisco and 52 regional projects, spread over seven counties from the Sierra foothills to San Francisco. The San Francisco portion of the program is 100% complete as of October 2020. The Regional Portion is approximately 99% complete. The current forecasted date to complete the overall WSIP is May 2023, however SFPUC operating costs and debt service are projected to increase over the next five years.

The San Francisco Public Utilities Commission (SFPUC), the sole source of water supply for the District, released updated projections for their wholesale rate for the next two years (FY 2023 & FY 2024). SFPUC is projecting the current rate of \$4.10 in FY 2022 per hundred cubic feet (ccf) will increase to \$4.75 in FY 2023 and \$5.28 in FY 2024.

SFPUC rates were historically held level at \$4.10/ccf for six years despite escalating SFPUC debt service and operating costs through use of a balancing account. The balancing account was built up from SFPUC wholesale water sales exceeding projections used in rate setting. The increases in the SFPUC wholesale rates are due to the fund balance reaching zero. SFPUC rates are projected to increase by 15.9% in FY 2023, 11.2% in FY 2024, 0% in FY 2025, and 0% in FY 2026.

While SFPUC wholesale rates were held flat, the District has been gradually increasing its volumetric rates in anticipation of large projected wholesale rate increases by SFPUC. While the large wholesale rate increases have come to fruition, the District's rates have been phased in to avoid sharp increases based on a rate smoothing model.

The District will also continue to make annual payments, projected to be \$699,284 in FY 2023, to the Bay Area Water Supply and Conservation Agency (BAWSCA) for the WSIP capital improvements that were funded through the issuance of bonds. The water enterprise's single largest cost is water purchases from SFPUC.

BWA proposed water rates are designed to maintain the operating fund above target levels (90 days operating expenses in reserves) and cover District operating and capital costs. Excluding water purchase and capital related costs, District operating costs are projected to increase by about 3% per year. Additionally, the District is projected to increase the capital set aside from \$680,000 per year to \$2,500,000 in FY 2023, \$1,750,000 in FY 2024 and \$1,000,000 per year thereafter. The additional capital transfers are needed to fund capital projects. Proposed water rates are based on 11% water loss held level from the previous study. That is, 89% of the water EMID purchases is sold to retail customers.

To maintain the operating reserves, fund the increased capital set aside, and phase in volumetric rates, BWA recommends the District implement a 3% volumetric rate increase and a 5% meter charge increase in FY 2023. The average bill for a single family home would increase by 3.7% or \$2.69 per month.

Detailed water rate calculations are shown in APPENDIX C.

<u>Wastewater</u>

The District has entered into a Joint Powers Agreement with the City of San Mateo where the District receives treatment of its wastewater via the San Mateo Wastewater Treatment Plant (WWTP). The District is responsible for its share of operating and maintenance costs that San Mateo (as the lead agency and the contracting party) incurs treating the District's wastewater, as well as approximately 24% of the WWTP improvement costs incurred as part of the Clean Water Program (CWP), a 10-year comprehensive capital improvement project initiated in 2014. The Cities of San Mateo and Foster City (District) are expanding the jointly owned WWTP at an estimated cost of \$670 MM with \$153 MM of that falling under Foster City's contributions. This is in addition to local capital projects for the District's own wastewater collection system. The wastewater enterprise intends to fund collection system capital expenditures through annual transfers from the operating fund to the capital improvement fund.

In June 2020, to fund the anticipated costs of the WWTP CWP improvements, the District Board approved 5 years of wastewater rate increases: three 14.25% per increases in FY 2021 through FY 2023, a 10% wastewater rate increase in FY 2024, and a 2% increase in FY 2025. BWA's 2022 analysis shows that the District has adequate financing capacity for projected debt issuances in the next several years. No additional rate increases thereafter are projected, however BWA recommends reevaluating outer year increases over the next several years as financing terms and capital costs materialize.

Detailed wastewater rate calculations are shown in APPENDIX E.

Rate Surveys

A survey of communities along the San Francisco Peninsula was conducted to compare the District's typical residential monthly water and wastewater bills with neighboring communities. The results of the water survey are summarized in APPENDIX B and the results of the wastewater survey are summarized in APPENDIX D.

The water survey compares an average monthly water bill for 8 units of water which would be a common residential consumption. Including the recommended increase, the District's average monthly water bill proposed for FY 2023 is \$74.85. Since it is unknown what the comparator agencies are proposing for FY 2023, the District compares its FY

2022 monthly residential water bills to the FY 2022 monthly residential water bills for the neighboring agencies. The survey indicates that the District's water rates are among the lowest on the Peninsula. The average monthly water bill for the region is \$94.83 per month and the District's average monthly residential water bill is \$72.16 per month, or about 24% less. Since the proposed increase is also less than the FY 2022 average, it is likely that EMID customers will continue to pay much lower than average water bills.

Including the recommended increase, the District's proposed monthly wastewater bill for FY 2023 is \$127.06. Since it is unknown what the comparator agencies are proposing for FY 2023, the District compares its FY 2022 monthly residential wastewater bills to the FY 2022 monthly residential wastewater bills for the neighboring agencies. The survey indicates that the District's current wastewater rates are slightly below the average amongst its comparator agencies. The average monthly bill for the region is \$115.57 and the District's rate is \$111.21 per month, or about 3.8% less. When the previously approved 14.25% increase is implemented, it is likely that the District's rates will exceed the average monthly bill among comparator agencies for FY 2023, although the actual position will not be known until all agencies have approved their rates.

Water Enterprise Fund

The District currently provides water service to a population of approximately 36,500. Most of the District's customers are residential. Table 1 shows the approximately 8,206 accounts/meters that allow for water service and fire protection service.

Table 1
City of Foster City / Estero Municipal Improvement District
Water Meters By Size

Data as of:	02/06/22
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Meter Size	Accounts Meter Ratio 1,2		Est. Meter Equivalents ³
Water Service			
3/4"	6,780	1.00	6,780
1"	458	1.67	763
1-1/2"	171	4.00	684
2"	380	5.33	2,027
3"	89	11.67	1,038
4"	55	21.00	1,155
6"	28	46.67	1,307
8" or greater	<u>20</u>	80.00	<u>1,600</u>
Subtotal	7,981		15,354
Private Fire Prot	ection Service		
3/4"	0	1.40	0
1"	7	1.40	10
1-1/2"	3	1.40	4
2"	0	1.87	0
3"	2	4.08	8
4"	35	7.35	257
6"	95	16.33	1,551
8" or greater	<u>83</u>	28.00	<u>2,324</u>
Subtotal	225		4,155
Total	8,206		19,509

Source: Foster City/Estero Municipal Improvement District water use records

^[1] The meter ratios shall be based on meter size in compliance with ratios established by the American Water Works Association (AWWA) Sizing Water Service Lines and Meters M22, Second Edition, 2004 (M22 Manual)

^[2] Private fire protection service ratio based on the fire service line; Resolution No. 2715

^[3] Equals the number of accounts multiplied by the meter ratio for each meter size.

Table 2 illustrates the current reserves that the District can draw down in case of emergency or to smooth any "rate shocks" to its customers. In recent years reserves were used as a buffer due to unexpected increases in system water losses.

The District is meeting its 90-day operating fund reserve target in FY 2022 (estimated to be \$3.85 million.)

Table 2
City of Foster City / Estero Municipal Improvement District
Water Enterprise Operating Reserves

	July 1, 2021
Fund Reserve Component	Reserve Balance
Reserved for Maintenance & Operation (401)	<u>\$7,293,780</u>
Total	\$7,293,780

Note: Rate model only includes fund reserve components available to fund ongoing operating expenditures.

Source: City of Foster City/Estero Municipal Improvement District Staff

The wholesale water purchase rates that SFPUC is projecting through FY 2026 are shown graphically in CHART A. The SFPUC also collects the BAWSCA Bond Surcharge from the District. The chart incorporates the BAWSCA Bond Surcharge estimated at \$0.38 cents per ccf. The SFPUC rates and BAWSCA surcharge combined are projected to increase from FY 2022 to FY 2024 from \$4.48/ccf (\$4.10 SFPUC + \$0.38 BAWSCA) to \$5.66/ccf (\$5.28 + \$0.38 BAWSCA).

CHART A

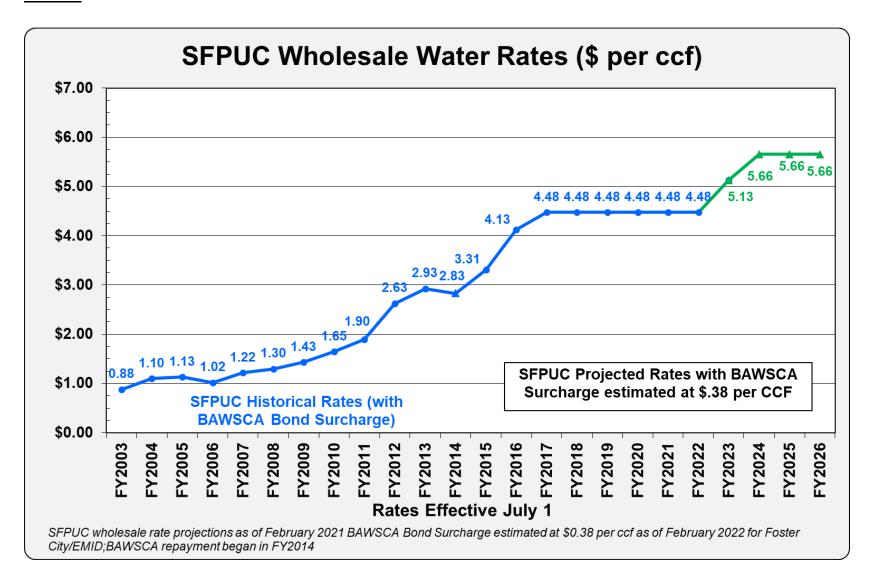


Table 3 summarizes the District's projected operating expenditures which are anticipated to increase over the next five years by about 24%.

Table 3 City of Foster City / Estero Municipal Improvement District Water Enterprise O&M Projection

Fun on dituus			Five	Year Projection	on		Annual %
Expenditures	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	Increase [1]
Employee Services	2,491,902	2,571,201	2,674,049	2,781,011	2,892,251	3,007,941	4.0%
Internal Services - Others	831,786	981,778	1,006,322	1,031,481	1,057,268	1,083,699	2.5%
Internal Services - ERF	633,532	510,436	523,197	536,277	549,684	563,426	2.5%
Services & Supplies	830,740	706,362	724,021	742,122	760,675	779,691	2.5%
SFPUC Water Purchases	8,824,980	10,246,000	11,423,000	11,465,000	11,507,000	11,894,000	varies
BAWSCA Bond Repayment	810,408	699,284	699,284	699,284	699,284	699,284	
Reallocation	1,186,431	1,251,440	1,282,726	1,314,794	1,347,664	1,381,356	2.5%
Water Sustainability	200,000	200,000	200,000	200,000	200,000	200,000	
Capital Outlay	13,000	5,500	5,638	5,778	5,923	6,071	2.5%
TOTAL O&M Expenditures	15,822,779	17,172,001	18,538,237	18,775,746	19,019,748	19,615,469	
		8.5%	8.0%	1.3%	1.3%	3.1%	

^[1] Based on City/District Staff direction

Table 4 summarizes the current water rates. The District has variable expenditures which are expenditures that are impacted by the amount of water its customers consume. These costs must be recouped via its volumetric water charge, \$5.92 per ccf in FY 2022. Likewise, the District's meter charges recover fixed expenditures, expenditures that are fixed regardless of amount of water that is consumed, \$24.80 for a 3/4" meter in FY 2022.

The District has a two-tiered model for its residential customers where higher levels of water consumption are subject to higher water rates based on a proportionate share of conservation program costs. Commercial customers are charged a uniform rate, which includes commercial customer's proportionate share of conservation program costs.

For its irrigation customers, the District has worked with John Whitcomb of Waterfluence to assign each irrigation customer a water budget. Any water consumed above the irrigation customers allotted amount is subject to a higher Tier 2 rate based on each customer's share of conservation program costs.

APPENDIX A shows District historical water use trends from the prior year. The trend has been an increase in residential usage and a decline in commercial water usage. BWA's proposed rates are designed to match volumetric expenses (such as water purchases) with volumetric revenue. The rate structure mitigates over or under collecting revenue due to fluctuations in water use.

Table 4
City of Foster City / Estero Municipal Improvement District
Current Rates

Current Rates	<u>2022</u>
Fixed Meter Charge	
Monthly Meter Charge	
Meter Size	
3/4"	\$24.80
1"	\$41.33
1-1/2"	\$99.20
2"	\$132.27
3"	\$289.33
4"	\$520.80
6"	\$1,157.33
8" or greater	\$1,984.00
Bi-Monthly Water Consumption Tiers and Rates	
Single Family Residential	
Tier 1 0-20 per ccf	\$5.92
Tier 2 Over 20 ccf	\$6.55
Multi-Family Residential	
Tier 1 0-10 ccf per living unit	\$5.92
Tier 2 Over 10 ccf per living unit	\$6.57
Irrigation Customers	
Tier 1 <=100% of annual budget	\$5.92
Tier 2 >100% of annual budget	\$6.51
Commercial and Fire Line	
All usage	\$6.04
Monthly Private Fire Protection Charge	
Meter Size	
3/4"	\$34.72
1"	\$34.72
1-1/2"	\$34.72
2"	\$46.38
3"	\$101.18
4"	\$182.28
6"	\$404.98
8" or greater	\$694.40

Low Income Discount

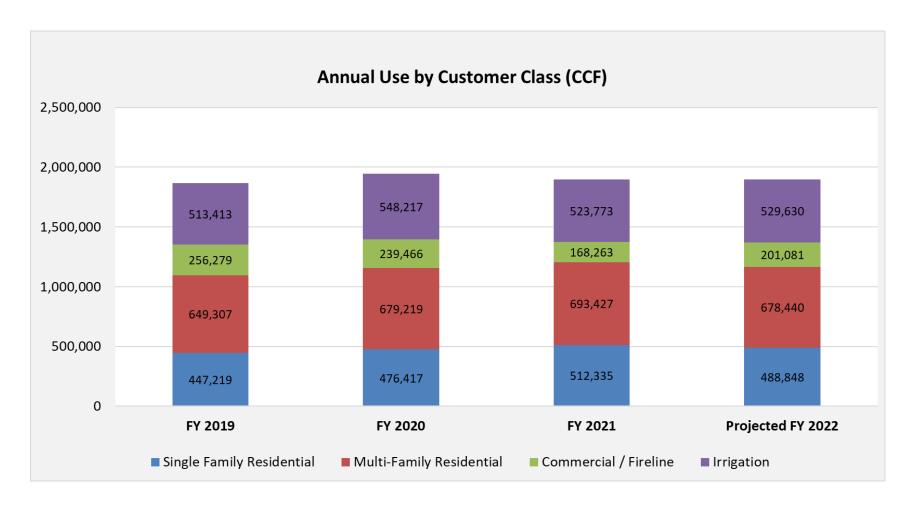
Currently Foster City has 11 customers enrolled in the Water/Wastewater Rate Assistance Program (WWRAP), which was implemented in 2020. Customers meeting the eligibility and qualification requirements below are granted a discount of up to \$15 per month each on their qualifying Water and Wastewater accounts, not to exceed a \$30 per month discount per customer. To be eligible for the WWRAP, customers must show that they qualify for the PG&E CARE Program or other public assistance program or submit proof of income eligibility.

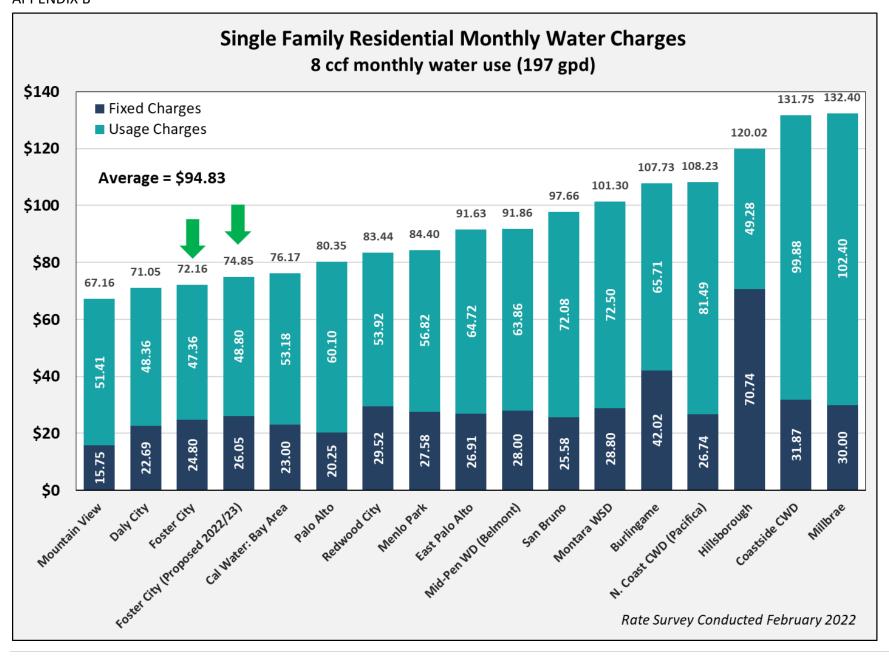
According to Pacific Gas & Electric, 680 customers are enrolled in the PG&E CARE Program in Foster City. BWA estimates that approximately 227 of these customers are single family residential and therefore would be eligible for the discount. Multifamily units would not be eligible for the discount because water service is often not separately metered for each unit and the bill is typically not paid by the individual units.

The District funds the current low income discount through non-rate sources of revenue such as fines and penalties, cell tower lease and general fund revenue to maintain compliance with California Proposition 218.

The estimated maximum potential cost of a \$30/month discount for 227 customers amounts to \$82,000 per year. Since the low income discount revenue sources cannot be funded with rates, rates are unaffected by the decision on the terms of the program and hence are not required to be included in the Proposition 218 notification.

APPENDIX A





APPENDIX C

Table 1
City of Foster City / Estero Municipal Improvement District
Water Enterprise Cash Flow Projection - Residential Two Tier Rate Structure Hybrid Model

			Five	Year Projecti		Extended Year Projection					
Fiscal Year Ending June 30	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Assumptions:											
Interest Earnings Rate	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%
Revenue Increase from Growth [1]	0.00%	0.37%	0.37%	0.37%	0.37%	0.37%	0.37%	0.37%	0.37%	0.37%	0.37%
Fixed Charge	\$24.80	\$26.05	\$27.35	\$28.70	\$30.15	\$31.65	\$33.25	\$34.90	\$36.65	\$38.50	\$40.45
Fixed Rate Adjustment		5.0%	5.0%	4.9%	5.1%	5.0%	5.1%	5.0%	5.0%	5.0%	5.1%
SFR Variable Charge Variable Rate Adjustment	\$5.92	\$6.10 3.0%	\$6.28 3.0%	\$6.47 3.0%	\$6.66 2.9%	\$6.86 3.0%	\$7.06 2.9%	\$7.27 3.0%	\$7.48 2.9%	\$7.70 2.9%	\$7.93 3.0%
Monthly Service Charge Single Family (8 ccf)	\$72.16	\$74.85	\$77.59	\$80.46	\$83.43	\$86.53	\$89.73	\$93.06	\$96.49	\$100.10	\$103.89
Rate Adjustment	ψ/2.10	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.7%	3.8%
·											
Beginning Fund Balance	\$7,293,780	\$8,432,000	\$6,756,000	\$5,155,800	\$4,816,100	\$5,021,400	\$5,447,900	\$6,108,600	\$7,024,300	\$8,202,000	\$9,680,700
Revenues											
Water Sales & Service Charges											
Meter Charge Revenue Estimate	5,806,000	6,121,000	6,450,000	6,793,000	7,162,000	7,546,000	7,956,000	8,382,000	8,834,000	9,314,000	9,822,000
Volumetric Revenue Estimate	11,464,000	11,833,000	12,204,000	12,617,000	13,039,000	13,471,000	13,908,000	14,367,000	14,829,000	15,321,000	15,826,000
Connection Fees [1]	335,274	0	0	0	0	0	0	0	0	0	0
Interest Earnings - Operating Reserve [2]	36,000	42,000	34,000	26,000	24,000	25,000	27,000	31,000	35,000	41,000	48,000
Interest Earnings - Capital Improvement Fund [3] Other	0	0	0	0	0	0	0	0	0	0	0
Operating Revenues	17,641,274	17,996,000	18,688,000	19,436,000	20,225,000	21,042,000	21,891,000	22,780,000	23,698,000	24,676,000	25,696,000
Operating Nevenues	17,041,274	17,330,000	10,000,000	13,430,000	20,223,000	21,042,000	21,031,000	22,700,000	23,030,000	24,070,000	25,050,000
Expenses											
Employee Services	2,491,902	2,571,201	2,674,049	2,781,011	2,892,251	3,007,941	3,128,000	3,253,000	3,383,000	3,518,000	3,659,000
Internal Services - Others	831,786	981,778	1,006,322	1,031,481	1,057,268	1,083,699	1,111,000	1,139,000	1,167,000	1,196,000	1,226,000
Internal Services - ERF	633,532	510,436	523,197	536,277	549,684	563,426	578,000	592,000	607,000	622,000	638,000
Services & Supplies	830,740	706,362	724,021	742,122	760,675	779,691	799,000	819,000	839,000	860,000	882,000
SFPUC Water Purchases	8,824,980	10,246,000	11,423,000	11,465,000	11,507,000	11,894,000	12,293,000	12,705,000	13,132,000	13,572,000	14,027,000
BAWSCA Bond Repayment	810,408	699,284	699,284	699,284	699,284	699,284	699,284	699,284	699,284	699,284	699,284
Reallocation	1,186,431	1,251,440	1,282,726	1,314,794	1,347,664	1,381,356	1,416,000	1,451,000	1,487,000	1,524,000	1,562,000
Capital Outlay	13,000	5,500	5,638	5,778	5,923	6,071	6,000	6,000	6,000	6,000	6,000
Operating Expenses	15,622,779	16,972,001	18,338,237	18,575,746	18,819,748	19,415,469	20,030,284	20,664,284	21,320,284	21,997,284	22,699,284
Operating Net Revenues	2,018,495	1,023,999	349,763	860,254	1,405,252	1,626,531	1,860,716	2,115,716	2,377,716	2,678,716	2,996,716
Water Sustainability Fund Transfer	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
Capital Improvement Transfer [4]	680,000	2,500,000	1,750,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Total Expenses	16,502,779	19,672,001	20,288,237	19,775,746	20,019,748	20,615,469	21,230,284	21,864,284	22,520,284	23,197,284	23,899,284
Revenues Less O&M Expenses	2,018,495	1,023,999	349,763	860,254	1,405,252	1,626,531	1,860,716	2,115,716	2,377,716	2,678,716	2,996,716
Revenues Less Total Expenses	1,138,495	(1,676,001)	(1,600,237)	(339,746)	205,252	426,531	660,716	915,716	1,177,716	1,478,716	1,796,716
Ending Fund Balance	8,432,275	6,755,999	5,155,763	4,816,054	5,021,352	5,447,931	6,108,616	7,024,316	8,202,016	9,680,716	11,477,416
Revenue Test: Annual Revenues > O&M Expense	S										
Annual Revenues Less O&M Expenses	2,018,495	1,023,999	349,763	860,254	1,405,252	1,626,531	1,860,716	2,115,716	2,377,716	2,678,716	2,996,716
Pass/fail	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
Fund Reserve Test: Minimum Fund Balance > 25	 % O&M Expens	l ses									
Year-end fund balance	8,432,275	6,755,999	5,155,763	4,816,054	5,021,352	5,447,931	6,108,616	7,024,316	8,202,016	9,680,716	11,477,416
25% operating expenses	3,850,000	4,180,000	4,520,000	4,580,000	4,640,000	4,790,000	4,940,000	5,100,000	5,260,000	5,420,000	5,600,000
# of Days O&M in Reserves	197	145	103	95	97	102	111	124	140	161	185
Pass/fail	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS
[1] Estimated for planning purposes							l .				

^[1] Estimated for planning purposes
[2] Calculated as 0.5% of the Beginning Fund Balance of the Water Revenue Fund
[3] Calculated as 0.5% of the Beginning Fund Balance of the Water Capital Improvement Project Fund
[4] Capital Improvements are funded through the Long-Term Capital Improvement Project Fund

Table 2 City of Foster City / Estero Municipal Improvement District Water Rate Calculation - Two Tier Hybrid Model

				Year Projection					ed Year Projection		
Fiscal Year Ending June 30	<u>2022</u>	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Fixed Meter Charge Increase		5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.0
Fixed Revenues +/- 5% of Fixed Costs?		NO	YES	YES	YES	YES	YES	YES	YES	YES	YI
	_										
Reserves % Above (Below) Reserve Target Reserve Target Met?		161.6% YES	114.1% YES	105.2% YES	108.2% YES	113.7% YES	123.7% YES	137.7% YES	155.9% YES	178.6% YES	205.0 Y I
Revenue Estimates											
Meter Charge Revenue	\$ 5,806,000 \$	6,121,000 \$	6,450,000 \$	6,793,000 \$	7,162,000 \$	7,546,000 \$	7,956,000 \$	8,382,000 \$	8,834,000 \$	9,314,000 \$	9,822,0
Other Fixed Revenue	\$ 371,274 \$	42,000 \$	34,000 \$	26,000 \$	24,000 \$	25,000 \$	27,000 \$	31,000 \$	35,000 \$	41,000 \$	48,0
Volumetric Revenue Total Projected	\$ 11,464,000 \$ \$ 17,641,274 \$	11,830,000 \$ 17,993,000 \$	12,199,000 \$ 18,683,000 \$	12,608,000 \$ 19,427,000 \$	13,039,000 \$ 20,225,000 \$	13,473,000 \$ 21,044,000 \$	13,910,000 \$ 21,893,000 \$	14,369,000 \$ 22,782,000 \$	14,831,000 \$ 23,700,000 \$	15,323,000 \$ 24,678,000 \$	15,831,00 25,701,00
Total Projected	\$ 17,041,274 \$	17,993,000 \$	10,003,000 \$	19,427,000 \$	20,225,000 \$	21,044,000 \$	21,093,000 \$	22,762,000 \$	23,700,000 \$	24,676,000 \$	25,701,00
Total Projected Revenue (Rounded '000's)	\$ 17,641,000 \$ \$17,641,274	17,993,000 \$ \$17,996,000	18,683,000 \$ \$18,688,000	19,427,000 \$ \$19,436,000	20,225,000 \$ \$20,225,000	21,044,000 \$ \$21,042,000	21,893,000 \$ \$21,891,000	22,782,000 \$ \$22,780,000	23,700,000 \$ \$23,698,000	24,678,000 \$ \$24,676,000	25,701,0 \$25,696,0
Revenue Allocation	25.00/	24.20/	24.70/	25.40/	35.5%	26.00/	26 50/	26.00/	27 40/	27.00/	38.4
Fixed /ariable	35.0% 65.0%	34.3% 65.7%	34.7% 65.3%	35.1% 64.9%	35.5% 64.5%	36.0% 64.0%	36.5% 63.5%	36.9% 63.1%	37.4% 62.6%	37.9% 62.1%	61.0
variable	05.0%	65.7%	05.5%	04.9%	04.5%	64.0%	63.5%	63.1%	62.0%	02.1%	01.0
Costs Estimates											
Fixed Costs [1]	\$6,667,391	\$8,526,717	\$7,965,953	\$7,411,462	\$7,613,464	\$7,822,185	\$8,038,000	\$8,260,000	\$8,489,000	\$8,726,000	\$8,973,0
/ariable Costs [2]	\$9,835,388	\$11,145,284	\$12,322,284	\$12,364,284	\$12,406,284	\$12,793,284	\$13,192,284	\$13,604,284	\$14,031,284	\$14,471,284	\$14,926,2
Total Projected Costs	\$16,502,779	\$19,672,001	\$20,288,237	\$19,775,746	\$20,019,748	\$20,615,469	\$21,230,284	\$21,864,284	\$22,520,284	\$23,197,284	\$23,899,2
Net Revenue											
Fixed Charges	-\$490,117	-\$2,363,717	-\$1,481,953	-\$592,462	-\$427,464	-\$251,185	-\$55,000	\$153,000	\$380,000	\$629,000	\$897,0
Volumetric Charges	\$1,628,612	\$684,716	-\$123,284	\$243,716	\$632,716	\$679,716	\$717,716	\$764,716	\$799,716	\$851,716	\$904,7
Total	\$1,138,495	-\$1,679,001	-\$1,605,237	-\$348,746	\$205,252	\$428,531	\$662,716	\$917,716	\$1,179,716	\$1,480,716	\$1,801,7
Cost Analysis											
Fixed	40.4%	43.3%	39.3%	37.5%	38.0%	37.9%	37.9%	37.8%	37.7%	37.6%	37.5
Variable	59.6%	56.7%	60.7%	62.5%	62.0%	62.1%	62.1%	62.2%	62.3%	62.4%	62.5
Meter Charge Calculation											
Monthly charge per meter equivalent	\$ 24.80 \$	26.05 \$	27.35 \$	28.70 \$	30.15 \$	31.65 \$	33.25 \$	34.90 \$	36.65 \$	38.50 \$	40.4
(Rounded to nearest \$0.05)	\$ 297.60 \$	040.00	000.00	344.40 \$	204.00	070.00	000.00	440.00	400.00	400.00 6	405
Annual charge per meter equivalent Meter equivalents [3]	\$ 297.60 \$ 19.509	312.60 \$ 19.580	328.20 \$ 19.652	19,724	361.80 \$ 19,796	379.80 \$ 19.868	399.00 \$ 19.941	418.80 \$ 20,014	439.80 \$ 20,087	462.00 \$ 20,161	485.4 20.23
vieter equivalents [5]	19,509	19,560	19,052	19,724	19,790	19,000	19,941	20,014	20,067	20,161	20,23
Meter Charge Revenue Estimate	\$ 5,806,000 \$	6,121,000 \$	6,450,000 \$	6,793,000 \$	7,162,000 \$	7,546,000 \$	7,956,000 \$	8,382,000 \$	8,834,000 \$	9,314,000 \$	9,822,00
Volumetric Rate Calculation EMID Proposed Uniform Rate	\$6.04 \$	6.21 \$	6.38 \$	6.57 \$	6.77 \$	6.97 \$	7.17 \$	7.38 \$	7.59 \$	7.81 \$	8.0
	\$6.04 \$				0.// \$	6.97 \$	7.17 \$		1.954.000	1.962.000	1.969.00
	4 000 000		1 012 000		1 000 000	4 022 000	4 040 000				
Projected annual water sales (ccf) [4]	1,898,000 \$11,464,000	1,905,000	1,912,000	1,919,000	1,926,000 \$13,039,000	1,933,000 \$13,473,000	1,940,000	1,947,000 \$14 369 000		\$15,323,000	\$15 831 00
Projected annual water sales (ccf) [4] /ariable revenue estimate	\$11,464,000		1,912,000 \$12,199,000		1,926,000 \$13,039,000	1,933,000 \$13,473,000	1,940,000 \$13,910,000	1,947,000 \$14,369,000	\$14,831,000	\$15,323,000	\$15,831,00
Projected annual water sales (ccf) [4] /ariable revenue estimate % Spread between EMID and SFPUC	\$11,464,000	1,905,000 \$11,830,000	\$12,199,000	1,919,000 \$12,608,000	\$13,039,000	\$13,473,000	\$13,910,000	\$14,369,000	\$14,831,000		
Projected annual water sales (ccf) [4] /ariable revenue estimate % Spread between EMID and SFPUC Surcharge	\$11,464,000 47.3%	1,905,000 \$11,830,000	\$12,199,000 20.8%	1,919,000 \$12,608,000 24.4%	\$13,039,000 28.2%	\$13,473,000 28.2%	\$13,910,000 28.0%	\$14,369,000 27.9%	\$14,831,000 27.7%	27.6%	27.5
Projected annual water sales (ccf) [4] Variable revenue estimate % Spread between EMID and SFPUC Surcharge SFPUC PROJECTED RATES	\$11,464,000 47.3% \$4.10	1,905,000 \$11,830,000 30.7% \$4.75	\$12,199,000 20.8% \$5.28	1,919,000 \$12,608,000 24.4% \$5.28	\$13,039,000 28.2% \$5.28	\$13,473,000 28.2% \$5.44	\$13,910,000 28.0% \$5.60	\$14,369,000 27.9% \$5.77	\$14,831,000 27.7% \$5.94	27.6% \$6.12	\$15,831,00 27.5 \$6.3
Projected annual water sales (ccf) [4] /ariable revenue estimate % Spread between EMID and SFPUC Surcharge	\$11,464,000 47.3% \$4.10	1,905,000 \$11,830,000	\$12,199,000 20.8%	1,919,000 \$12,608,000 24.4%	\$13,039,000 28.2%	\$13,473,000 28.2%	\$13,910,000 28.0%	\$14,369,000 27.9%	\$14,831,000 27.7%	27.6%	27.5 \$6.3
Projected annual water sales (ccf) [4] Ariable revenue estimate % Spread between EMID and SFPUC Surcharge FFPUC PROJECTED RATES	\$11,464,000 47.3% \$4.10	1,905,000 \$11,830,000 30.7% \$4.75	\$12,199,000 20.8% \$5.28	1,919,000 \$12,608,000 24.4% \$5.28	\$13,039,000 28.2% \$5.28	\$13,473,000 28.2% \$5.44	\$13,910,000 28.0% \$5.60	\$14,369,000 27.9% \$5.77	\$14,831,000 27.7% \$5.94	27.6% \$6.12	27.5 \$6.3
Projected annual water sales (ccf) [4] Variable revenue estimate % Spread between EMID and SFPUC Surcharge SFPUC PROJECTED RATES Increase (Decrease) %	\$11,464,000 47.3% \$4.10	1,905,000 \$11,830,000 30.7% \$4.75 15.9%	\$12,199,000 20.8% \$5.28 11.2%	1,919,000 \$12,608,000 24.4% \$5.28 0.0%	\$13,039,000 28.2% \$5.28 0.0%	\$13,473,000 28.2% \$5.44 3.0%	\$13,910,000 28.0% \$5.60 3.0%	\$14,369,000 27.9% \$5.77 3.0%	\$14,831,000 27.7% \$5.94 3.0%	27.6% \$6.12 3.0%	27.5
Projected annual water sales (ccf) [4] Arriable revenue estimate % Spread between EMID and SFPUC Surcharge SFPUC PROJECTED RATES Increase (Decrease) % BAWSCA Surcharge	\$11,464,000 47.3% \$4.10 \$0.38	1,905,000 \$11,830,000 30.7% \$4.75 15.9% \$0.38	\$12,199,000 20.8% \$5.28 11.2% \$0.38	1,919,000 \$12,608,000 24.4% \$5.28 0.0% \$0.38	\$13,039,000 28.2% \$5.28 0.0% \$0.38	\$13,473,000 28.2% \$5.44 3.0% \$0.38	\$13,910,000 28.0% \$5.60 3.0% \$0.38	\$14,369,000 27.9% \$5.77 3.0% \$0.38	\$14,831,000 27.7% \$5.94 3.0% \$0.38	27.6% \$6.12 3.0% \$0.38	27.5 \$6.3 3.0 \$0.3

Note:
[1] Includes: Employee Services, Internal Services - Other, Internal Services - ERF, Services & Supplies, Reallocation, Capital Outlay, Capital Improvement Fund Transfers, Debt Service, and net revenues for the operating fund.
[2] Includes: SFPUC Water Purchases, BAWSCA Bond Repayment, and Water Sustainability Fund Transfers.
[3] 0.37% growth estimated for planning purposes
[4] Includes 11% water loss factor

Table 3
City of Foster City / Estero Municipal Improvement District
Proposed Water Rates - Two Tier Hybrid Model

Recommended Rates

Monthly Meter Charge

Single Family Residential

Multi-Family Residential (per living unit)
Tier 1 0-10 ccf per living unit

Tier 2 Over 10 ccf per living unit

Tier 1 <=100% of annual budget

Commercial and Fire Line Customers

(Minimum charge is equivalent to 1-1/2" meter charge)

Tier 2 >100% of annual budget

Base Consumption Rate

Monthly Fire Meter Charge

Tier 1 0-20 per ccf

Tier 2 Over 20 ccf

Irrigation Customers

3/4"

1-1/2

2" 3"

4"

6"

3/4"

1-1/2

2"

3"

4"

6"

8" or greater

8" or greater

Current

Rates

\$24.80

41.33

99.20

132.27

289.33

520.80

1,157.33

1,984.00

5.92

6.55

5.92

6.57

5.92

6.51

6.04

34.72

34.72

34.72

46.38

101.18

182.28

404.98

694.40

Conservation-Based Water Rate Model (based on bi-monthly allotments)

FY2023

\$26.05

43.42

104.20

138.93

303.92

547.05

1,215.67

2,084.00

6.10

6.64

6.10

6 68

6.10

6.70

6.21

36 47

36.47

36.47

48.71

106.28

191.47

425.40

729.40

FY2024

\$27.35

45 58

109.40

145.87

319.08

574.35

1,276.33

2,188.00

6.28

6.77

6.28

6.82

6.28

6.83

6.38

38 29

38.29

38.29

51.14

111.59

201.02

446.63

765.80

40 18

40.18

40.18

53.67

117.10

210.95

468.67

803.60

42 21

42.21

42.21

56.38

123.01

221.60

492.35

844.20

44 31

44.31

44.31

59.19

129.13

232.63

516.84

886.20

46 55

46.55

46.55

62.18

135.66

244.39

542.97

931.00

48 86

48.86

48.86

65.26

142.39

256.52

569.92

977.20

51 31

51.31

51.31

68.54

149.53

269.38

598.49

1,026.20

53 90

53.90

53.90

72.00

157.08

282.98

628.71

1,078.00

TWO TIER HYBRID MODEL FY2026 FY2027 FY2028 FY2029 FY2030 FY2025 FY2031 FY2032 \$28.70 \$30.15 \$31.65 \$33.25 \$34.90 \$36.65 \$38.50 \$40.45 50.25 47.83 52.75 55.42 58.17 61.08 64.17 67.42 114.80 120.60 126.60 133.00 139.60 146.60 154.00 161.80 153.07 160.80 186.13 195.47 205.33 215.73 168.80 177.33 334.83 351.75 369.25 387.92 407.17 427.58 449.17 471.92 602.70 633.15 664.65 698.25 732.90 769.65 808.50 849.45 1,339.33 1,407.00 1,551.67 1.628.67 1.710.33 1.796.67 1.887.67 1.477.00 2,296.00 2,412.00 2,532.00 2,660.00 2,792.00 2,932.00 3,080.00 3,236.00 6.66 7.27 7.48 7.70 6.47 6.86 7.06 7.93 6.98 7.19 7.38 7.58 7.79 8.00 8.22 8.45 6.47 6.66 6.86 7.06 7.27 7.48 7.70 7.93 7 02 7 23 7 43 7 63 7 84 8 05 8 27 8 49 6.47 6.66 6.86 7.06 7.27 7.48 7.70 7.93 7.03 7.25 7.44 7.64 7.85 8.06 8.28 8.50 6.57 7.38 8.04 6.77 6.97 7.17 7.59 7.81

56.63

56.63

56.63

75.64

165.04

297.31

660.55

1,132.60

Table 4
Foster City / Estero Municipal Improvement District
Projected Water Rate Impacts

		Current	FY2023
		Rates	Two Tier Hybrid Model
Monthly meter charge % Change		\$24.80	\$26.05 5.0%
Single Family Reside Bi-Monthly Tiers	ential		
Tier 1: 0 to 20 ccf		\$5.92	\$6.10
Tier 2: over 20 ccf		\$6.55	\$6.64
Water	Monthly		
<u>Use Level</u>	Use (ccf)		Monthly Bill
Low User	5	\$54.40	\$56.55
\$ Increase			2.15
% Increase			4.0%
Average User	8	\$72.16	\$74.85
\$ Increase			2.69
% Increase			3.7%
High User	10	\$84.00	\$87.05
\$ Increase			3.05
% Increase			3.6%
Very High User	20	\$143.20	\$153.45
\$ Increase			10.25
% Increase			7.2%
Excessive User	50	\$339.70	\$352.65
\$ Increase		,	12.95
% Increase			3.8%

Table 5
Foster City / Estero Municipal Improvement District
Projected Water Rate Impacts

Projected Water Bills	Current		Fiscal Ye	ear Endin	g June 30			Extende	ed Year	Projectio	n
•	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030</u>	<u>2031</u>	<u>2032</u>
Two Tier Hybrid Model Single Family Residential Monthly Rate \$ Increase % Increase	\$72.16	\$74.85 2.69 3.7%	2.74	2.87	2.97	3.10	3.20	3.33	<i>3.4</i> 3	\$100.10 3.61 3.7%	3.79

Based on Single Family Residential Use of 8 ccf

Wastewater Enterprise Fund

There are approximately 13,890 wastewater accounts serviced by the District. The majority of accounts are residential with the remainder consisting of commercial and institutional accounts as shown in Table 1.

Table 1
Foster City / Estero Municipal Improvement District
Wastewater Service Accounts

Data as of:	02/04/21
Data as of:	02/04/21

Customer Class	Number of Accounts
Residential	
Single Family	4,529
Townhouse/Duplex	2,228
Apartment/Condominium (Pools w/ Restrooms)	<u>6,884</u>
Residential Total	13,641
<u>Commercial</u>	
Restaurants	42
Commercial/Hotels/Offices/Industrial/Laundromats	<u>172</u>
Commercial Total	214
<u>Institutional</u>	
Institutional/Schools	<u>35</u>
Insitutional Total	35
Total	13,890

Source: Cognos Sewer Customer Count Report

The District has approximately \$15,832,252 in its wastewater maintenance and operations reserve fund as shown in Table 2. The District's minimum operating reserve target is 25% of operating and maintenance expenses (est. to be about \$2.1 million).

Table 2
Foster City / Estero Municipal Improvement District
Wastewater Operating Fund Reserves

July 1, 2021
Balance
<u>\$15,832,252</u>
\$15,832,252

Note: Rate model only includes fund reserve components available to fund ongoing operating and capital expenditures.

Source: City of Foster City/Estero Municipal Improvement District Staff

Table 3 summarizes the current wastewater service rates.

Table 3
Foster City / Estero Municipal Improvement District
Current Wastewater Rates

	Current
Fiscal Year Ending June 30	2022
Residential (flat monthly rate)	
Single Family	\$111.21
Townhouse/Duplex	93.42
Apartment/Condominium (Pools w/ Restrooms)	93.42
Commercial (rate per ccf of water use)	
Restaurants	20.21
Commercial/Hotels/Offices/Industrial/Laundromats	7.11
Institutional (rate per ccf of water use)	
Institutional/Schools	4.67

Table 4 summarizes the operating expenditures of the enterprise. Costs are expected to remain relatively stable over the next five years. Projected operating expenditures are anticipated to increase over the next five years by about 21%.

Table 4
City of Foster City / Estero Municipal Improvement District
Wastewater Enterprise O&M Projection

Fym on ditures			Annual %				
Expenditures	FY2022	FY2023	Increase [1]				
Employee Services	\$2,744,018	\$2,866,691	\$2,981,359	\$3,100,613	\$3,224,638	\$3,353,624	4.0%
Internal Services (from City)	950,070	1,103,144	1,130,723	1,158,991	1,187,966	1,217,665	2.5%
Internal Services -ERF	254,683	266,126	272,779	279,598	286,588	293,753	2.5%
Services & Supplies	609,550	661,550	678,089	695,041	712,417	730,227	2.5%
EMID Share WWTP O&M	2,900,000	2,900,000	3,045,000	3,197,250	3,357,113	3,524,969	5.0%
Reallocation	<u>889,601</u>	893,014	915,339	938,222	<u>961,678</u>	985,720	2.5%
TOTAL O&M Expenditures	\$8,347,922	\$8,690,525	\$9,023,289	\$9,369,715	\$9,730,400	\$10,105,958	
		4.1%	3.8%	3.8%	3.8%	3.9%	

^[1] Based on historical results

Wastewater Financial Projections

Wastewater projections are shown in APPENDIX E.

San Mateo-Foster City Public Financing Authority:

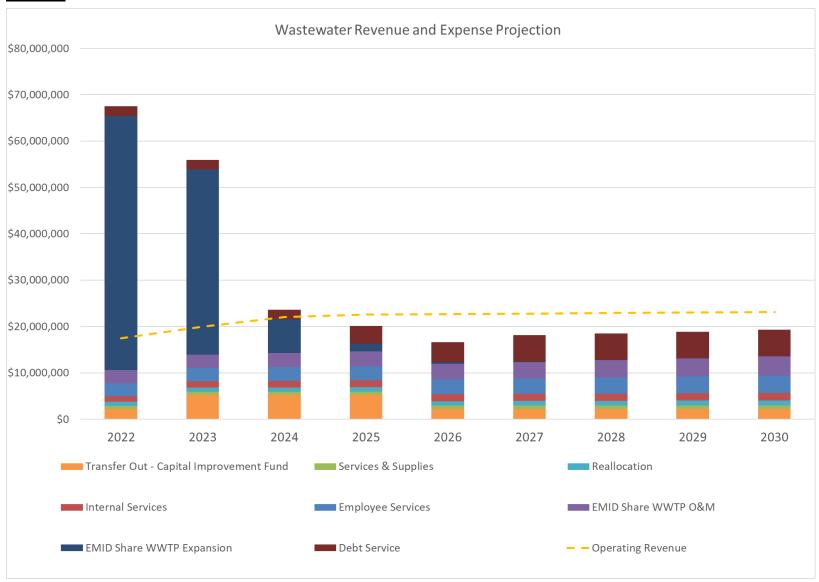
Projections anticipate \$94 million of debt issuances between FY 2022 and FY 2024 (\$61 MM of WIFIA proceeds and \$33 MM of SRF loans) to fund WWTP expansion costs. BWA projects that the approved rate increases are adequate to secure projected debt issuances over the next several years.

Table 5 shows debt service estimates for the District's share of WWTP costs. Annual debt service for the combined total debt issuances is estimated to amount to \$5.78 MM by FY 2027.

Table 5
City of Foster City / Estero Municipal Improvement District
Debt Service Estimates

Debt Service	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030</u>	<u>2031</u>	<u>2032</u>
2020 WIFIA Loan	\$0	\$0	\$0	\$0	\$357,732	\$2,470,060	\$2,470,061	\$2,470,061	\$2,470,061	\$2,470,060	\$2,470,061
2019 Financing Agreement	2,087,125	2,084,250	2,085,000	2,084,250	2,086,875	2,087,750	2,086,875	2,084,250	2,084,750	2,088,125	2,084,375
2021 WIFIA Loan Note	0	0	0	1,830,500	1,569,000	0	0	0	0	0	0
2022 Financing Agreement	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>264,526</u>	1,221,789	<u>1,221,789</u>	1,221,789	<u>1,221,789</u>	<u>1,221,789</u>	1,221,789
Total Debt Service	\$2,087,125	\$2,084,250	\$2,085,000	\$3,914,750	\$4,278,133	\$5,779,599	\$5,778,725	\$5,776,100	\$5,776,600	\$5,779,974	\$5,776,225

CHART B



Wastewater Cost of Service Analysis

Bartle Wells performed a Wastewater Cost of Service Analysis to determine equitable cost allocation to the various user classes. BWA recommends continuing the practice of placing commercial customers into three wastewater strength categories, (low, medium and high) based on the State Water Resources Control Board (SWRCB) Wastewater Revenue Program Guidelines. Low strength wastewater (Class A) customers include banks, laundromats, retail stores, schools, churches and others as shown in Table 6.

Medium strength wastewater (Class B) customers have wastewater strength factors that are assumed to be similar to residential wastewater strength factors. They include typical commercial activities such as libraries, spas, nail salons, gas stations and bars.

High strength wastewater (Class C) customers primarily include food-related businesses such as restaurants, bakeries, dairies, wineries, catering, butcher shops and fish markets.

Table 6

City of Foster City/Estero Municipal Improvement District Strength Classifications into Low, Medium/Domestic, and High Strength Dischargers

Low Strength Banks & Financial Institutions

Barber Shops/Hair Salons (hair cutting only)

Post Offices/Government

Retail Stores Libraries Schools

Churches, Halls & Lodges

Parking Garages Warehouses

Medium/Commercial/
Domestic Strength

Residential - All Appliance Repair

Beauty Shops (hair cutting w/additional treatments)

Dry Cleaners Nail Salons Pet Groomers

Commercial Laundromats

Bars & Taverns

Tasting Rooms

Hospitals - General, Convalescent & Veterinarian

Hotels, Motels, B&Bs, and Vacation Rentals

Offices - Business and Professional

Offices - Medical/Dental

Pools with Restrooms (Clubhouse)

Theaters

Car Washes

High Tech Medical Manufacturing

Light Manufacturing/Industrial

Gym or Health Club

Machine Shops

Service Stations, Garages, Auto Repair Shops

Mini Marts - W/O Dish Washer or Garbage Disposal

Mini Mart with Gas Pumps - W/O Dish Washer or Garbage Disposal

Spa with Various Beauty Treatments

High Strength Restaurants

Coffee Shops

Ice Cream Parlors

Catering

Eatery

Bakeries

Butcher Shops

Fish Market/Shop

Markets - with Dish Washer or Garbage

Disposal

Markets - with Bakeries or Butcher Shops

Mini Marts - with Dish Washer or Garbage Disposal

Wineries

Market

Dairies (milk producers, yogurt, ice cream maker)

Specialty Foods Manufacturing (e.g., cheese or olive oil maker)

Note: Wastewater users who have Fats, Oils, and Grease (FOG) waste will be put into the High Strength user category

Table 7 summarizes the assumed wastewater strength factors for the low, medium and high strength groups that are based on typical strengths provided in the SWRCB's Revenue Program Guidelines. The strength factor for medium strength customers is equivalent to residential or "domestic" strength, of 1.00. The strength factor for low strength is calculated at 0.66 and for high strength is calculated at 2.85 based on the SWRCB guidelines.

Table 7
City of Foster City/Estero Municipal Improvement District
Assumed Wastewater Strength Factors

Strength Class	LOW	LOW-MEDIUM	MEDIUM	HIGH	
Examples:	Institutional Bank	Townhouse, Duplex, Apartment, Condo	Residential Offices		
Flow (gpd) BOD ¹ (mg/l) TSS ² (mg/l)	200 135 100	168 240 240	200 240 240	200 1000 800	
Strength Factor	0.66	0.84	1.00	2.85	
Strength Factor Formula	SF=(Flow(gpd)/200)*(0.33+(0.34*BO	D(mg/l)/240)	+(0.33*TSS(n	ng/I)/240))

WW flows and strengths based on State Water Resources Control Board's Revenue Program Guidelines

^{1 &}quot;BOD" stands for Biochemical Oxygen Demand

^{2 &}quot;TSS" stands for Total Suspended Solids

Table 8 summarizes the mass-balance analysis for the City's wastewater system and calculates the wastewater rates for each customer class. Single family residences are assumed to have an average daily (dry weather) flow of 200 gallons per day (gpd).

Based on residential occupancy data provided by the City of Foster City, single family residences are estimated to have an average of 2.67 residents per household and multi-family residences are estimated to have an average of 2.25 residents per household (84% of a single family household).

Multi-family dwellings are billed based on an estimated flow of 168 gpd or 0.84 times the single family flow. As a check, the mass balance in Table 8 compares the total calculated and measured daily wastewater flows for Foster City (average dry weather flow).

The results agree well with the estimated daily flow at 2.58 million gallons per day (mgd) and the measured flow at 2.37 mgd.

Table 8
City of Foster City/Estero Municipal Improvement District
Summary of Wastewater Users by Customer Class

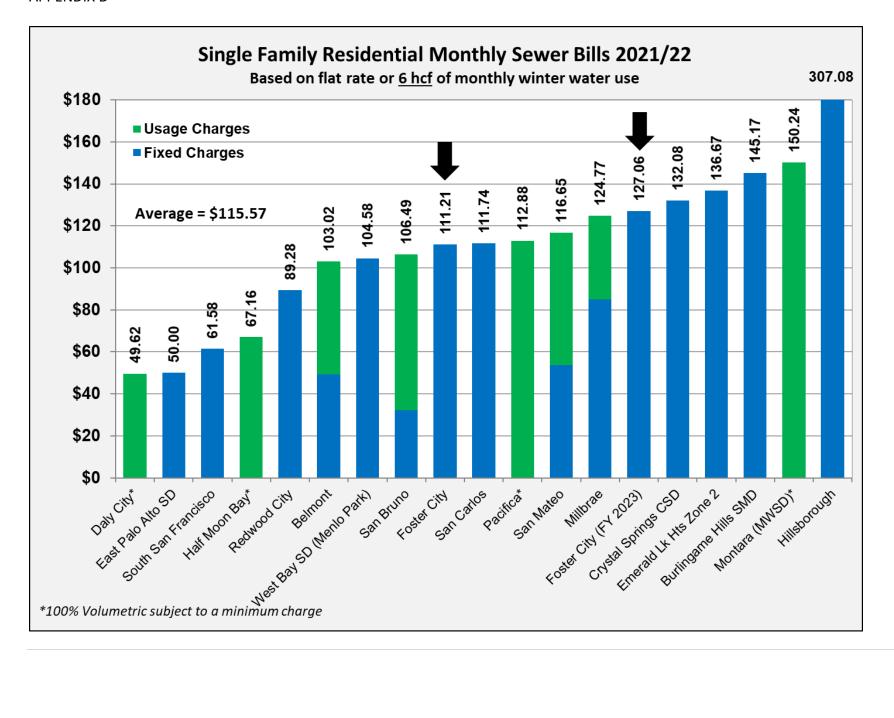
Customer Class				FY 2022 Estimate EDU x Flow			Calculated
	EDUs ¹		ADWF Flow	ADWF Flow	BOD ³	TSS ⁴	Current
			(gal/day)	(gal/day)	(mg/l)	(mg/l)	Rate
Residential							
Single Family Residential	4,529		200	905,800	240	240	111.21
Townhouse/Duplex	2,228		168	374,304	240	240	93.42
Apartment/Condos	6,884		168	1,156,512	240	240	93.42
Subtotal				2,436,616			
		Use		Estimated			Calculated
	Accounts	(gal/day)	Flow Factor	ADWF Flow	BOD ³	TSS ⁴	Current
Commercial				(gal/day)	(mg/l)	(mg/l)	Rate
				(0,)			
Low Strength	35	30,092	65%		135	100	4.67
Low Strength Medium/Domestic Strength	35 172	30,092 175,798		19,560			
_			52%	19,560 91,343	135	100	4.67
Medium/Domestic Strength	172	175,798	52%	19,560 91,343	135 240	100 240	4.67 7.11
Medium/Domestic Strength	172	175,798	52% 70%	19,560 91,343	135 240	100 240	4.67 7.11
Medium/Domestic Strength High Strength	172	175,798 42,163	52% 70%	19,560 91,343 29,514	135 240	100 240	4.67 7.11

^{1 &}quot;EDU" stands for Equivalent Dwelling Unit

^{2 &}quot;ADWF" stands for Average Dry Weather Flow

^{3 &}quot;BOD" stands for Biochemical Oxygen Demand

^{4 &}quot;TSS" stands for Total Suspended Solids



APPENDIX E

Table 1 City of Foster City / Estero Municipal Improvement District Wastewater Enterprise Cash Flow Projection

			Fiv	e Year Project	Five Year Projection					Extended Year Projection				
	<u>2022</u>	<u>2023</u>	<u>2024</u>	2025	<u>2026</u>	<u>2027</u>	<u>2028</u>	2029	2030	<u>2031</u>	2032			
Assumptions:														
Interest Earnings Rate	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%	0.50%			
Revenue Increase from Growth Rate Adjustment	0.00%	0.37% 14.25%	0.37% 10.00%	0.37% 2.00%	0.37%	0.37%	0.37%	0.37%	0.37%	0.37%	0.37%			
Monthly Service Charge for Single Family	\$111.21	\$127.06	\$139.77	\$142.57	\$142.57	\$142.57	\$142.57	\$142.57	\$142.57	\$142.57	\$142.57			
Monthly dervice driaige for enigle raining	Ψ111.21	Ψ127.00	Ψ100.77	Ψ1-12.07	Ψ1-12.07	ψ142.07	ψ142.07	ψ1 4 2.07	Ψ1-12.07	Ψ1-12.07	ψ1 -12.01			
Beginning O&M Fund Balance	\$15,832,252	\$19,776,900	\$20,844,300	\$22,345,300	\$24,805,900	\$30,889,000	\$35,526,600	\$39,948,800	\$44,071,400	\$47,872,300	\$51,331,000			
Operating Revenues														
Service Charges	17,353,232	19,890,000	21,952,000	22,471,000	22,553,000	22,636,000	22,719,000	22,802,000	22,885,000	22,969,000	23,053,000			
Connection Fees [1]	45,500													
Interest Earnings [2] Other Revenue	79,161 1,000	99,000 1,000	104,000 1,000	112,000 1,000	124,000 1,000	154,000 1,000	178,000 1,000	200,000	220,000 1,000	239,000 1,000	257,000 1,000			
Operating Revenue	17,478,893	19,990,000	22,057,000	22,584,000	22,678,000	22,791,000	22,898,000	23,003,000	23,106,000	23,209,000	23,311,000			
Operating Nevenue	17,470,033	19,990,000	22,037,000	22,304,000	22,070,000	22,731,000	22,030,000	23,003,000	23,100,000	23,203,000	25,511,000			
Non Operating Revenue Bond / Loan [3]	53,956,199	37,028,877	3,055,001	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>			
Non Operating Revenue	53,956,199	37,028,877	3,055,001	0	0	0	0	0	0	0	0			
Total Revenue	71,435,092	57,018,877	25,112,001	22,584,000	22,678,000	22,791,000	22,898,000	23,003,000	23,106,000	23,209,000	23,311,000			
Operating Expenses														
Employee Services	2,744,018	2,866,691	2,981,359	3,100,613	3,224,638	3,353,624	3,487,769	3,627,280	3,772,371	3,923,266	4,080,197			
Internal Services (from City)	950,070	1,103,144	1,130,723	1,158,991	1,187,966	1,217,665	1,248,107	1,279,310	1,311,293	1,344,075	1,377,677			
Internal Services -ERF	254,683	266,126	272,779	279,598	286,588	293,753	301,097	308,624	316,340	324,249	332,355			
Services & Supplies	609,550	661,550	678,089	695,041	712,417	730,227	748,483	767,195	786,375	806,034	826,185			
EMID Share WWTP O&M Reallocation	2,900,000 889,601	2,900,000 893,014	3,045,000 915,339	3,197,250 938,222	3,357,113 961,678	3,524,969 985,720	3,701,217 1,010,363	3,886,278 1,035,622	4,080,592 1,061,513	4,284,622 1,088,051	4,498,853 1,115,252			
Operating Expenses	8,347,922	8,690,525	9,023,289	9,369,715	9,730,400	10,105,958	10,497,036	10,904,309	11,328,484	11,770,297	12,230,519			
Operating Net Revenue	9,130,971	11,299,475	13,033,711	13,214,285	12,947,600	12,685,042	12,400,964	12,098,691	11,777,516	11,438,703	11,080,481			
Operating Net Revenue	9,130,971	11,299,475	13,033,711	13,214,203	12,947,000	12,000,042	12,400,904	12,090,091	11,777,516	11,430,703	11,000,401			
Capital Expenses														
Transfer Out - Capital Improvement Fund	2,250,000	5,250,000	5,250,000	5,250,000	2,200,000	2,200,000	2,200,000	2,200,000	2,200,000	2,200,000	2,200,000			
EMID Share WWTP Expansion	54,805,415	39,926,726	7,252,754	1,588,900	386,360	67,828	0	0	0	0	0			
Capital Expenses	57,055,415	45,176,726	12,502,754	6,838,900	2,586,360	2,267,828	2,200,000	2,200,000	2,200,000	2,200,000	2,200,000			
Annual Debt Service	2,087,125	2,084,250	2,085,000	3,914,750	4,278,133	5,779,599	5,778,725	5,776,100	5,776,600	5,779,974	5,779,974			
Debt Service	2,087,125	2,084,250	2,085,000	3,914,750	4,278,133	5,779,599	5,778,725	5,776,100	5,776,600	5,779,974	5,779,974			
Debt Coverage [4]	4.37	5.42	6.25	3.38	3.03	2.19	2.15	2.09	2.04	1.98	1.92			
Total Expenditures	67,490,462	55,951,501	23,611,043	20,123,365	16,594,893	18,153,385	18,475,761	18,880,409	19,305,084	19,750,271	20,210,493			
Revenues Less Total Expenditures	3,944,630	1,067,376	1,500,958	2,460,635	6,083,107	4,637,615	4,422,239	4,122,591	3,800,916	3,458,729	3,100,507			
Ending O&M Fund	19,776,882	20,844,276	22,345,258	24,805,935	30,889,007	35,526,615	39,948,839	44,071,391	47,872,316	51,331,029	54,431,507			
Cash Fund Reserve Test: Minimum Fund														
Balance > 25% O&M Expenses														
Year-end O&M Fund	19,776,882	20,844,276	22,345,258	24,805,935	30,889,007	35,526,615	39,948,839	44,071,391	47,872,316	51,331,029	54,431,507			
25% Operating Expenses	2,086,981	2,172,631	2,255,822	2,342,429	2,432,600	2,526,490	2,624,259	2,726,077	2,832,121	2,942,574	3,057,630			
# of Days O&M in Reserves	865	875	904	966	1,159	1,283	1,389	1,475	1,542	1,592	1,624			
Pass/fail	PASS	PASS	PASS	PASS	PASS									
[1] Growth projections for planning purposes														

^[1] Growth projections for planning purposes
[2] Projected interest calculated as 0.5% of the Beginning Fund Balance of the Wastewater O&M Fund.
[3] Calculated by William Euphrat Municipal Finance, Inc.
[4] Minimum requirement debt service covereage requirement = 1.25x

Table 2 City of Foster City / Estero Municipal Improvement District Projected Wastewater Rate Impacts

Droingtod Dates	Current	Projected - Fiscal Year Ending June 30							
Projected Rates	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027			
% Rate Increase		14.25%	10.00%	2.00%	0.00%	0.00%			
Residential (flat monthly rate) Single Family Increase (Decrease)	\$111.21	\$127.06 <i>15.8</i> 5	\$139.77 12.71	\$142.57 2.80	\$142.57 0.00	\$142.57 0.00			
Townhouse/Duplex Increase (Decrease)	\$93.42	\$106.73 13.31	\$117.40 <i>10.67</i>	\$119.75 2.35	\$119.75 <i>0.00</i>	\$119.75 <i>0.00</i>			
Apartment/Condominium (Pools w/ Restrooms) Increase (Decrease)	\$93.42	\$106.73 13.31	\$117.40 <i>10.67</i>	\$119.75 2.35	\$119.75 <i>0.00</i>	\$119.75 <i>0.00</i>			
Commercial (rate per ccf of water use) High Strength Increase (Decrease) per ccf	\$20.21	\$23.09 2.88	\$25.40 2.31	\$25.91 0.51	\$25.91 0.00	\$25.91 <i>0.00</i>			
Medium/Domestic Strength Increase (Decrease) per ccf	\$7.11	\$8.12 1.01	\$8.93 <i>0.81</i>	\$9.11 <i>0.18</i>	\$9.11 <i>0.00</i>	\$9.11 <i>0.00</i>			
Low Strength Increase (Decrease) per ccf	\$4.67	\$5.34 <i>0.67</i>	\$5.87 <i>0.5</i> 3	\$5.99 <i>0.12</i>	\$5.99 <i>0.00</i>	\$5.99 <i>0.00</i>			

CHART C

