



**Town of Discovery Bay
Community Services District
2020 Sewer Rate Study
Draft Tables – February 24, 2020**



New debt assumed for FY2020/21 based on a 30-year term and 4.15% interest (Option 1 and 3)

About \$180,000 in additional capital costs for cyber security upgrades and a new truck.

\$3.5M of operating reserves transferred to the capital fund in FY2019/20.

4% rate increase approved for FY2020/21 in prior rate study.

Annual Rate Revenue Increases

Option	FY2020/21	FY2021/22	FY2022/23	FY2023/24	FY2024/25
#1: Annual level rate increases; debt financing of \$4M	+2.75%	+2.75%	+2.75%	+2.75%	+2.75%
#2: No Debt	+15%	+12%	+3%	+0%	+0%
#3: Debt financing of \$3M	+5%	+5%	+5%	+0%	+0%

Cumulative Rate Revenue Increases

Option	FY2020/21	FY2021/22	FY2022/23	FY2023/24	FY2024/25
#1: Annual level rate increases; debt financing of \$4M	+2.8%	+5.6%	+8.5%	+11.5%	+14.5%
#2: No Debt	+15.0%	+28.8%	+32.7%	+32.7%	+32.7%
#3: Debt financing of \$3M	+5.0%	+10.3%	+15.8%	+15.8%	+15.8%

**Summary of Capital Funding Sources
Town of Discovery Bay
Wastewater Rate Study**

	OPTION 1	OPTION 2	OPTION 3
Revenue Sources			
Existing Capital Reserves	207,400	357,400	107,400
Excess Operating Reserves	3,500,000	3,500,000	3,500,000
Capacity Fees	769,900	769,900	769,900
Rate Revenues	8,900,000	12,750,000	10,000,000
New Debt	<u>4,000,000</u>	<u>0</u>	<u>3,000,000</u>
Total Revenues	17,377,300	17,377,300	17,377,300
Total Capital Projects	17,377,300	17,377,300	17,377,300

TABLE ES-1 - Revised OPTION 1

PROPOSED WASTEWATER RATE INCREASES		2.75%		2.75%		2.75%		2.75%		2.75%		
WASTEWATER	Proposed FY 2019/20		Proposed FY 2020/21		Proposed FY 2021/22		Proposed FY 2022/23		Proposed FY 2023/24		Proposed FY 2024/25	
Residential Unmetered	Monthly (\$/month)	Yearly (\$/year)	Monthly (\$/month)	Yearly (\$/year)	Monthly (\$/month)	Yearly (\$/year)	Monthly (\$/month)	Yearly (\$/year)	Monthly (\$/month)	Yearly (\$/year)	Monthly (\$/month)	Yearly (\$/year)
Single Family - Each DU	\$82.55	\$990.63	\$84.82	\$1,017.87	\$87.16	\$1,045.86	\$89.55	\$1,074.62	\$92.01	\$1,104.17	\$94.54	\$1,134.53
Multiple Family/Condos - Each DU	\$61.92	\$743.03	\$63.62	\$763.46	\$65.37	\$784.46	\$67.17	\$806.03	\$69.02	\$828.20	\$70.92	\$850.98
Vacant	\$18.67	\$224.00	\$18.67	\$224.00	\$18.67	\$224.00	\$18.67	\$224.00	\$18.67	\$224.00	\$18.67	\$224.00
Nonresidential Metered	Use (\$/ccf)		Use (\$/ccf)		Use (\$/ccf)		Use (\$/ccf)		Use (\$/ccf)		Use (\$/ccf)	
Business/Government/Clubs	\$5.734		\$5.890		\$6.050		\$6.220		\$6.390		\$6.570	
Restaurants/Bars/Dining Facilities	\$16.793		\$17.250		\$17.720		\$18.210		\$18.710		\$19.220	
Schools	\$5.161		\$5.300		\$5.450		\$5.600		\$5.750		\$5.910	
Other Domestic Strength Users	\$5.734		\$5.890		\$6.050		\$6.220		\$6.390		\$6.570	

DU = Dwelling Unit

ccf = 100 cubic feet = 748 gallons

**Table 1: Reserves
Town of Discovery Bay
Wastewater Rate Study**

Reserves	FY2018/19 Estimate	Water	Wastewater
Water & Wastewater Operating Reserves	\$5,142,601	\$755,828	\$4,386,773
Emergency Reserves	\$3,001,000	\$1,200,400	\$1,800,600
Sewer Infrastructure Replacement Fund	\$1,550,000	\$0	\$1,550,000
Pumps/Motors Replacement Fund	\$390,000	\$156,000	\$234,000
Water Infrastructure Replacement Fund	\$859,143	\$418,728	\$0
Generators Replacement Fund	\$175,000	\$70,000	\$105,000
Facilities & Vehicles Replacement Fund	\$310,852	\$117,426	\$193,426
Operating Reserves Total	\$5,142,601	\$755,828	\$4,386,773
Emergency Reserves	\$3,001,000	\$1,200,400	\$1,800,600
Infrastructure Replacement Total	\$2,844,580	\$762,154	\$2,082,426
Total Reserves	\$10,988,181	\$2,718,382	\$8,269,799

**Table 2: Wastewater Capital Cash Flows – Revised OPTION 1
Town of Discovery Bay
Wastewater Rate Study**

	Current FY2019/20	Projected FY2020/21	Projected FY2021/22	Projected FY2022/23	Projected FY2023/24	Projected FY2024/25
Emergency Reserves	1,800,600	1,800,600	1,800,600	1,800,600	1,800,600	1,800,600
Infrastructure Replacement	<u>2,082,400</u>	<u>4,530,300</u>	<u>9,561,400</u>	<u>3,072,600</u>	<u>90,600</u>	<u>674,300</u>
Beginning Balance	3,883,000	6,330,900	11,362,000	4,873,200	1,891,200	2,474,900
Revenues						
Capacity Fees (\$12,030/EDU)	168,400	120,300	120,300	120,300	120,300	120,300
Transfer from Operating	3,500,000	1,900,000	2,000,000	2,000,000	1,500,000	1,500,000
New Debt Proceeds	<u>0</u>	<u>4,000,000</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Revenues	3,668,400	6,020,300	2,120,300	2,120,300	1,620,300	1,620,300
Capital Improvements						
WWTP Plant 1 Refurbishment	192,100	183,500	3,707,500	390,200	0	0
Denitrification	383,400	440,000	4,265,100	4,466,200	0	0
Lift Stations						
Lift Stations J, S, H	0	154,500	0	0	0	0
Lift Stations A, C, D, E	<u>0</u>	<u>0</u>	<u>212,200</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Lift Stations	0	154,500	212,200	0	0	0
Clarifier Rehab						
Plant 2 Clarifier #3 Rehabilitation	5,000	5,200	148,500	0	0	0
Clarifier 1 & 2 RAS Pump and Check Valves	0	0	0	0	336,500	0
Clarifier #4 Repair (cement)	<u>0</u>	<u>0</u>	<u>10,600</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Clarifier Rehab	5,000	5,200	159,100	0	336,500	0
Additional Projects and Maintenance						
Plant 2 RAS & WAS Pumping System	25,000	0	0	0	148,600	0
Replace Lagoon Dredge & Conduits	0	113,300	0	0	0	0
CCTV Van (portable and push camera)	70,000	0	0	0	0	0
Install Screen Headworks at Plant #2	25,000	0	0	245,900	0	0
Minor Rehab to Piping at Plant #1	20,000	0	244,000	0	0	0
Outfall Diffuser Repairs	<u>500,000</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Additional Projects and Maintenance	640,000	113,300	244,000	245,900	148,600	0
Other Master Plan Projects						
Emergency Storage Drain to Pump Sta. W	0	0	0	0	0	86,900
Solids Handling Improvements	0	0	0	0	0	208,700
WAS Pumps and Check Valves						
Replacement	0	0	0	0	0	124,000
Collection System Pump Stations	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>202,600</u>	<u>0</u>
Total Other Master Plan Projects	0	0	0	0	202,600	419,600
Mainline Piping Replacement	0	0	0	0	281,400	0
Admin Projects						
Cyber Security	0	92,700	0	0	67,500	0
New Truck	<u>0</u>	<u>0</u>	<u>21,200</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Admin Projects	0	92,700	21,200	0	67,500	0
Total Capital Improvements	1,220,500	989,200	8,609,100	5,102,300	1,036,600	419,600
Total Net Revenues	2,447,900	5,031,100	(6,488,800)	(2,982,000)	583,700	1,200,700
Ending Balance	6,330,900	11,362,000	4,873,200	1,891,200	2,474,900	3,675,600

Note: This table does not designate which projects are repair and rehabilitation projects and which are expansion projects to meet the needs of new development. Capacity fee revenues can only be used to fund expansion projects and are estimated based on 34 EDUs in FY2019/20 and 10 new EDUs per year thereafter.

Table 3: Wastewater Operating Cash Flows – Revised OPTION 1
Town of Discovery Bay
Wastewater Rate Study

	Current FY2019/20	Projected FY2020/21	Projected FY2021/22	Projected FY2022/23	Projected FY2023/24	Projected FY2024/25
Beginning balance	\$4,387,000	\$3,341,200	\$3,018,700	\$2,431,600	\$1,947,000	\$2,066,200
Rate Increase		2.75%	2.75%	2.75%	2.75%	2.75%
Revenues						
Wastewater service						
Zone 9 Reimbursement	243,000	243,000	243,000	243,000	243,000	243,000
Other & Misc	17,300	17,300	17,300	17,300	17,300	17,300
Property Taxes (unmetered)	5,883,000	6,044,800	6,211,000	6,381,800	6,557,300	6,737,600
New Customers	13,900	24,400	35,600	47,300	59,600	72,600
Vacant	17,000	17,000	17,000	17,000	17,000	17,000
Metered sewer flow	<u>153,000</u>	<u>157,000</u>	<u>161,000</u>	<u>165,000</u>	<u>170,000</u>	<u>175,000</u>
Total revenues	6,327,200	6,503,500	6,684,900	6,871,400	7,064,200	7,262,500
% increase in expenses			3.0%	3.0%	3.0%	3.0%
Expenses						
Operating Expenses						
Admin & Inter Govt. & Board	332,000	450,000	450,000	464,000	478,000	492,000
Staffing & Consulting Serv	593,000	1,090,000	1,090,000	1,090,000	1,090,000	1,090,000
Operations & Maint	334,000	538,000	554,000	571,000	588,000	606,000
Utilities	536,000	673,000	693,000	714,000	735,000	757,000
Service Contract	<u>977,000</u>	<u>1,075,000</u>	<u>1,107,000</u>	<u>1,140,000</u>	<u>1,175,000</u>	<u>1,210,000</u>
Total Operating Expenses	2,772,000	3,826,000	3,894,000	3,979,000	4,066,000	4,155,000
Net Operating Revenues	3,555,200	2,677,500	2,790,900	2,892,400	2,998,200	3,107,500
Debt Service [1]						
2012 Bonds Debt Service	741,000	743,000	744,000	740,000	745,000	743,000
2017 Bonds Debt Service	360,000	357,000	354,000	357,000	354,000	355,000
New Debt	<u>0</u>	<u>0</u>	<u>280,000</u>	<u>280,000</u>	<u>280,000</u>	<u>280,000</u>
Total Debt Service	1,101,000	1,100,000	1,378,000	1,377,000	1,379,000	1,378,000
Debt Service Coverage	3.23	2.43	2.03	2.10	2.17	2.26
Total Expenses	3,873,000	4,926,000	5,272,000	5,356,000	5,445,000	5,533,000
Net Revenues	2,454,200	1,577,500	1,412,900	1,515,400	1,619,200	1,729,500
Transfer to Capital Fund	3,500,000	1,900,000	2,000,000	2,000,000	1,500,000	1,500,000
O&M Ending balance	3,341,200	3,018,700	2,431,600	1,947,000	2,066,200	2,295,700
O&M Minimum balance target [3]	924,000	1,275,000	1,298,000	1,326,000	1,355,000	1,385,000

1 - Based on year ended December 1

2 - Estimated at an average rate of 4.15% over a 30-year term based on current interest costs and yield curves, and debt service beginning the following year (rough planning estimate)

3 - 4 months O&M expenses

TABLE ES-1 – Revised OPTION 2

PROPOSED WASTEWATER RATE INCREASES		15%		12%		3%		0%		0%		
WASTEWATER	Proposed FY 2019/20		Proposed FY 2020/21		Proposed FY 2021/22		Proposed FY 2022/23		Proposed FY 2023/24		Proposed FY 2024/25	
Residential Unmetered	Monthly (\$/month)	Yearly (\$/year)	Monthly (\$/month)	Yearly (\$/year)	Monthly (\$/month)	Yearly (\$/year)	Monthly (\$/month)	Yearly (\$/year)	Monthly (\$/month)	Yearly (\$/year)	Monthly (\$/month)	Yearly (\$/year)
Single Family - Each DU	\$82.55	\$990.63	\$94.94	\$1,139.22	\$106.33	\$1,275.93	\$109.52	\$1,314.21	\$109.52	\$1,314.21	\$109.52	\$1,314.21
Multiple Family/Condos - Each DU	\$61.92	\$743.03	\$71.21	\$854.48	\$79.75	\$957.02	\$82.14	\$985.73	\$82.14	\$985.73	\$82.14	\$985.73
Vacant	\$18.67	\$224.00	\$18.67	\$224.00	\$18.67	\$224.00	\$18.67	\$224.00	\$18.67	\$224.00	\$18.67	\$224.00
Nonresidential Metered	Use (\$/ccf)		Use (\$/ccf)		Use (\$/ccf)		Use (\$/ccf)		Use (\$/ccf)		Use (\$/ccf)	
Business/Government/Clubs	\$5.734		\$6.590		\$7.380		\$7.600		\$7.600		\$7.600	
Restaurants/Bars/Dining Facilities	\$16.793		\$19.310		\$21.630		\$22.280		\$22.280		\$22.280	
Schools	\$5.161		\$5.940		\$6.650		\$6.850		\$6.850		\$6.850	
Other Domestic Strength Users	\$5.734		\$6.590		\$7.380		\$7.600		\$7.600		\$7.600	

DU = Dwelling Unit

ccf = 100 cubic feet = 748 gallons

Table 4: Wastewater Capital Cash Flows - Revised OPTION 2
Town of Discovery Bay
Wastewater Rate Study

	Current FY2019/20	Projected FY2020/21	Projected FY2021/22	Projected FY2022/23	Projected FY2023/24	Projected FY2024/25
Emergency Reserves	1,800,600	1,800,600	1,800,600	1,800,600	1,800,600	1,800,600
Infrastructure Replacement	<u>2,082,400</u>	<u>4,530,300</u>	<u>7,161,400</u>	<u>2,172,600</u>	<u>440,600</u>	<u>774,300</u>
Beginning Balance	3,883,000	6,330,900	8,962,000	3,973,200	2,241,200	2,574,900
Revenues						
Capacity Fees (\$12,030/EDU)	168,400	120,300	120,300	120,300	120,300	120,300
Transfer from Operating	3,500,000	3,500,000	3,500,000	3,250,000	1,250,000	1,250,000
New Debt Proceeds	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Revenues	3,668,400	3,620,300	3,620,300	3,370,300	1,370,300	1,370,300
Capital Improvements						
WWTP Plant 1 Refurbishment	192,100	183,500	3,707,500	390,200	0	0
Denitrification	383,400	440,000	4,265,100	4,466,200	0	0
Lift Stations						
Lift Stations J, S, H	0	154,500	0	0	0	0
Lift Stations A, C, D, E	<u>0</u>	<u>0</u>	<u>212,200</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Lift Stations	0	154,500	212,200	0	0	0
Clarifier Rehab						
Plant 2 Clarifier #3 Rehabilitation	5,000	5,200	148,500	0	0	0
Clarifier 1 & 2 RAS Pump and Check Valves	0	0	0	0	336,500	0
Clarifier #4 Repair (cement)	<u>0</u>	<u>0</u>	<u>10,600</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Clarifier Rehab	5,000	5,200	159,100	0	336,500	0
Additional Projects and Maintenance						
Plant 2 RAS & WAS Pumping System	25,000	0	0	0	148,600	0
Replace Lagoon Dredge & Conduits	0	113,300	0	0	0	0
CCTV Van (portable and push camera)	70,000	0	0	0	0	0
Install Screen Headworks at Plant #2	25,000	0	0	245,900	0	0
Minor Rehab to Piping at Plant #1	20,000	0	244,000	0	0	0
Outfall Diffuser Repairs	<u>500,000</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Additional Projects and Maintenance	640,000	113,300	244,000	245,900	148,600	0
Other Master Plan Projects						
Emergency Storage Drain to Pump Sta. W	0	0	0	0	0	86,900
Solids Handling Improvements	0	0	0	0	0	208,700
WAS Pumps and Check Valves Replacement	0	0	0	0	0	124,000
Collection System Pump Stations	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>202,600</u>	<u>0</u>
Total Other Master Plan Projects	0	0	0	0	202,600	419,600
Mainline Piping Replacement	0	0	0	0	281,400	0
Admin Projects						
Cyber Security	0	92,700	0	0	67,500	0
New Truck	<u>0</u>	<u>0</u>	<u>21,200</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Admin Projects	0	92,700	21,200	0	67,500	0
Total Capital Improvements	1,220,500	989,200	8,609,100	5,102,300	1,036,600	419,600
Total Net Revenues	2,447,900	2,631,100	(4,988,800)	(1,732,000)	333,700	950,700
Ending Balance	6,330,900	8,962,000	3,973,200	2,241,200	2,574,900	3,525,600

Note: This table does not designate which projects are repair and rehabilitation projects and which are expansion projects to meet the needs of new development. Capacity fee revenues can only be used to fund expansion projects and are estimated based on 34 EDUs in FY2019/20 and 10 new EDUs per year thereafter.

Table 5: Wastewater Operating Cash Flows - Revised OPTION 2
Town of Discovery Bay
Wastewater Rate Study

	Current FY2019/20	Projected FY2020/21	Projected FY2021/22	Projected FY2022/23	Projected FY2023/24	Projected FY2024/25
Beginning balance	\$4,387,000	\$3,341,200	\$2,161,300	\$1,764,400	\$1,781,200	\$3,722,200
Rate Increase		15.00%	12.00%	3.00%	0.00%	0.00%
Revenues						
Wastewater service						
Zone 9 Reimbursement	243,000	243,000	243,000	243,000	243,000	243,000
Other & Misc	17,300	17,300	17,300	17,300	17,300	17,300
Property Taxes (unmetered)	5,883,000	6,765,500	7,577,400	7,804,700	7,804,700	7,804,700
New Customers	13,900	27,300	43,400	57,800	71,000	84,100
Vacant	17,000	17,000	17,000	17,000	17,000	17,000
Metered sewer flow	<u>153,000</u>	<u>176,000</u>	<u>197,000</u>	<u>203,000</u>	<u>203,000</u>	<u>203,000</u>
Total revenues	6,327,200	7,246,100	8,095,100	8,342,800	8,356,000	8,369,100
% increase in expenses			3.0%	3.0%	3.0%	3.0%
Expenses						
Operating Expenses						
Admin & Inter Govt. & Board	332,000	450,000	450,000	464,000	478,000	492,000
Staffing & Consulting Serv	593,000	1,090,000	1,090,000	1,090,000	1,090,000	1,090,000
Operations & Maint	334,000	538,000	554,000	571,000	588,000	606,000
Utilities	536,000	673,000	693,000	714,000	735,000	757,000
Service Contract	<u>977,000</u>	<u>1,075,000</u>	<u>1,107,000</u>	<u>1,140,000</u>	<u>1,175,000</u>	<u>1,210,000</u>
Total Operating Expenses	2,772,000	3,826,000	3,894,000	3,979,000	4,066,000	4,155,000
Net Operating Revenues	3,555,200	3,420,100	4,201,100	4,363,800	4,290,000	4,214,100
Debt Service [1]						
2012 Bonds Debt Service	741,000	743,000	744,000	740,000	745,000	743,000
2017 Bonds Debt Service	360,000	357,000	354,000	357,000	354,000	355,000
New Debt	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Debt Service	1,101,000	1,100,000	1,098,000	1,097,000	1,099,000	1,098,000
Debt Service Coverage	3.23	3.11	3.83	3.98	3.90	3.84
Total Expenses	3,873,000	4,926,000	4,992,000	5,076,000	5,165,000	5,253,000
Net Revenues	2,454,200	2,320,100	3,103,100	3,266,800	3,191,000	3,116,100
Transfer to Capital Fund	3,500,000	3,500,000	3,500,000	3,250,000	1,250,000	1,250,000
O&M Ending balance	3,341,200	2,161,300	1,764,400	1,781,200	3,722,200	5,588,300
O&M Minimum balance target [3]	924,000	1,275,000	1,298,000	1,326,000	1,355,000	1,385,000

1 - Based on year ended December 1

2 - Estimated at an average rate of 4.15% over a 30-year term based on current interest costs and yield curves, and debt service beginning the following year (rough planning estimate)

3 - 4 months O&M expenses

TABLE ES-1 - Revised OPTION 3

PROPOSED WASTEWATER RATE INCREASES

5.0%

5.0%

5.0%

0.0%

0.0%

WASTEWATER	Proposed FY 2019/20		Proposed FY 2020/21		Proposed FY 2021/22		Proposed FY 2022/23		Proposed FY 2023/24		Proposed FY 2024/25	
	Monthly (\$/month)	Yearly (\$/year)	Monthly (\$/month)	Yearly (\$/year)	Monthly (\$/month)	Yearly (\$/year)	Monthly (\$/month)	Yearly (\$/year)	Monthly (\$/month)	Yearly (\$/year)	Monthly (\$/month)	Yearly (\$/year)
Residential Unmetered												
Single Family - Each DU	\$82.55	\$990.63	\$86.68	\$1,040.16	\$91.01	\$1,092.17	\$95.57	\$1,146.78	\$95.57	\$1,146.78	\$95.57	\$1,146.78
Multiple Family/Condos - Each DU	\$61.92	\$743.03	\$65.02	\$780.18	\$68.27	\$819.19	\$71.68	\$860.15	\$71.68	\$860.15	\$71.68	\$860.15
Vacant	\$18.67	\$224.00	\$18.67	\$224.00	\$18.67	\$224.00	\$18.67	\$224.00	\$18.67	\$224.00	\$18.67	\$224.00
Nonresidential Metered	Use (\$/ccf)		Use (\$/ccf)		Use (\$/ccf)		Use (\$/ccf)		Use (\$/ccf)		Use (\$/ccf)	
Business/Government/Clubs	\$5.734		\$6.020		\$6.320		\$6.640		\$6.640		\$6.640	
Restaurants/Bars/Dining Facilities	\$16.793		\$17.630		\$18.510		\$19.440		\$19.440		\$19.440	
Schools	\$5.161		\$5.420		\$5.690		\$5.970		\$5.970		\$5.970	
Other Domestic Strength Users	\$5.734		\$6.020		\$6.320		\$6.640		\$6.640		\$6.640	

DU = Dwelling Unit

ccf = 100 cubic feet = 748 gallons

Table 6: Wastewater Capital Cash Flows – Revised OPTION 3
Town of Discovery Bay
Wastewater Rate Study

	Current FY2019/20	Projected FY2020/21	Projected FY2021/22	Projected FY2022/23	Projected FY2023/24	Projected FY2024/25
Emergency Reserves	1,800,600	1,800,600	1,800,600	1,800,600	1,800,600	1,800,600
Infrastructure Replacement	<u>2,082,400</u>	<u>4,530,300</u>	<u>8,661,400</u>	<u>2,672,600</u>	<u>190,600</u>	<u>774,300</u>
Beginning Balance	3,883,000	6,330,900	10,462,000	4,473,200	1,991,200	2,574,900
Revenues						
Capacity Fees (\$12,030/EDU)	168,400	120,300	120,300	120,300	120,300	120,300
Transfer from Operating	3,500,000	2,000,000	2,500,000	2,500,000	1,500,000	1,500,000
New Debt Proceeds	<u>0</u>	<u>3,000,000</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Revenues	3,668,400	5,120,300	2,620,300	2,620,300	1,620,300	1,620,300
Capital Improvements						
WWTP Plant 1 Refurbishment	192,100	183,500	3,707,500	390,200	0	0
Denitrification	383,400	440,000	4,265,100	4,466,200	0	0
Lift Stations						
Lift Stations J, S, H	0	154,500	0	0	0	0
Lift Stations A, C, D, E	<u>0</u>	<u>0</u>	<u>212,200</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Lift Stations	0	154,500	212,200	0	0	0
Clarifier Rehab						
Plant 2 Clarifier #3 Rehabilitation	5,000	5,200	148,500	0	0	0
Clarifier 1 & 2 RAS Pump and Check Valves	0	0	0	0	336,500	0
Clarifier #4 Repair (cement)	<u>0</u>	<u>0</u>	<u>10,600</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Clarifier Rehab	5,000	5,200	159,100	0	336,500	0
Additional Projects and Maintenance						
Plant 2 RAS & WAS Pumping System	25,000	0	0	0	148,600	0
Replace Lagoon Dredge & Conduits	0	113,300	0	0	0	0
CCTV Van (portable and push camera)	70,000	0	0	0	0	0
Install Screen Headworks at Plant #2	25,000	0	0	245,900	0	0
Minor Rehab to Piping at Plant #1	20,000	0	244,000	0	0	0
Outfall Diffuser Repairs	<u>500,000</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Additional Projects and Maintenance	640,000	113,300	244,000	245,900	148,600	0
Other Master Plan Projects						
Emergency Storage Drain to Pump Sta. W	0	0	0	0	0	86,900
Solids Handling Improvements	0	0	0	0	0	208,700
WAS Pumps and Check Valves Replacement	0	0	0	0	0	124,000
Collection System Pump Stations	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>202,600</u>	<u>0</u>
Total Other Master Plan Projects	0	0	0	0	202,600	419,600
Mainline Piping Replacement	0	0	0	0	281,400	0
Admin Projects						
Cyber Security	0	92,700	0	0	67,500	0
New Truck	<u>0</u>	<u>0</u>	<u>21,200</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Admin Projects	0	92,700	21,200	0	67,500	0
Total Capital Improvements	1,220,500	989,200	8,609,100	5,102,300	1,036,600	419,600
Total Net Revenues	2,447,900	4,131,100	(5,988,800)	(2,482,000)	583,700	1,200,700
Ending Balance	6,330,900	10,462,000	4,473,200	1,991,200	2,574,900	3,775,600

Note: This table does not designate which projects are repair and rehabilitation projects and which are expansion projects to meet the needs of new development. Capacity fee revenues can only be used to fund expansion projects and are estimated based on 34 EDUs in FY2019/20 and 10 new EDUs per year thereafter.

Table 7: Wastewater Operating Cash Flows – Revised OPTION 3
Town of Discovery Bay
Wastewater Rate Study

	Current FY2019/20	Projected FY2020/21	Projected FY2021/22	Projected FY2022/23	Projected FY2023/24	Projected FY2024/25
Beginning balance	\$4,387,000	\$3,341,200	\$3,055,700	\$2,323,200	\$1,852,400	\$2,304,000
Rate Increase		5.00%	5.00%	5.00%	0.00%	0.00%
Revenues						
Wastewater service						
Zone 9 Reimbursement	243,000	243,000	243,000	243,000	243,000	243,000
Other & Misc	17,300	17,300	17,300	17,300	17,300	17,300
Property Taxes (unmetered)	5,883,000	6,177,200	6,486,100	6,810,400	6,810,400	6,810,400
New Customers	13,900	25,000	37,100	50,500	61,900	73,400
Vacant	17,000	17,000	17,000	17,000	17,000	17,000
Metered sewer flow	<u>153,000</u>	<u>161,000</u>	<u>169,000</u>	<u>177,000</u>	<u>177,000</u>	<u>177,000</u>
Total revenues	6,327,200	6,640,500	6,969,500	7,315,200	7,326,600	7,338,100
% increase in expenses			3.0%	3.0%	3.0%	3.0%
Expenses						
Operating Expenses						
Admin & Inter Govt. & Board	332,000	450,000	450,000	464,000	478,000	492,000
Staffing & Consulting Serv	593,000	1,090,000	1,090,000	1,090,000	1,090,000	1,090,000
Operations & Maint	334,000	538,000	554,000	571,000	588,000	606,000
Utilities	536,000	673,000	693,000	714,000	735,000	757,000
Service Contract	<u>977,000</u>	<u>1,075,000</u>	<u>1,107,000</u>	<u>1,140,000</u>	<u>1,175,000</u>	<u>1,210,000</u>
Total Operating Expenses	2,772,000	3,826,000	3,894,000	3,979,000	4,066,000	4,155,000
Net Operating Revenues	3,555,200	2,814,500	3,075,500	3,336,200	3,260,600	3,183,100
Debt Service [1]						
2012 Bonds Debt Service	741,000	743,000	744,000	740,000	745,000	743,000
2017 Bonds Debt Service	360,000	357,000	354,000	357,000	354,000	355,000
New Debt [2]	<u>0</u>	<u>0</u>	<u>210,000</u>	<u>210,000</u>	<u>210,000</u>	<u>210,000</u>
Total Debt Service	1,101,000	1,100,000	1,308,000	1,307,000	1,309,000	1,308,000
Debt Service Coverage	3.23	2.56	2.35	2.55	2.49	2.43
Total Expenses	3,873,000	4,926,000	5,202,000	5,286,000	5,375,000	5,463,000
Net Revenues	2,454,200	1,714,500	1,767,500	2,029,200	1,951,600	1,875,100
Transfer to Capital Fund	3,500,000	2,000,000	2,500,000	2,500,000	1,500,000	1,500,000
O&M Ending balance	3,341,200	3,055,700	2,323,200	1,852,400	2,304,000	2,679,100
O&M Minimum balance target [3]	924,000	1,275,000	1,298,000	1,326,000	1,355,000	1,385,000

1 - Based on year ended December 1

2 - Estimated at an average rate of 4.15% over a 30-year term based on current interest costs and yield curves, and debt service beginning the following year (rough planning estimate)

3 - 4 months O&M expenses