



**Town of Discovery Bay
Community Services District
2020 Sewer Rate Study
Draft Tables – February 5, 2020**



New debt assumed for FY2020/21 based on a 30-year term and 4.15% interest

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% | +2% | +2% | +2% | +2% |
| #2: No Debt | +15% | +10% | +0% | +0% | +0% |
| #3: Lowest cumulative rate increases; debt financing of \$3M | +5% | +5% | +0% | +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% | +4.0% | +6.1% | +8.2% | +10.4% |
| #2: No Debt | +15% | +26.5% | +26.5% | +26.5% | +26.5% |
| #3: Lowest cumulative rate increases; debt financing of \$3M | +5% | +10.3% | +10.3% | +10.3% | +10.3% |

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

| | OPTION 1 | OPTION 2 | OPTION 3 |
|---------------------------|------------------|------------|------------------|
| Revenue Sources | | | |
| Existing Capital Reserves | 226,000 | 426,000 | 176,000 |
| Excess Operating Reserves | 4,600,000 | 4,500,000 | 4,500,000 |
| Capacity Fees | 769,900 | 769,900 | 769,900 |
| Rate Revenues | 7,600,000 | 11,500,000 | 8,750,000 |
| New Debt | <u>4,000,000</u> | <u>0</u> | <u>3,000,000</u> |
| Total Revenues | 17,195,900 | 17,195,900 | 17,195,900 |
| | | | |
| Total Capital Projects | 17,195,900 | 17,195,900 | 17,195,900 |

TABLE ES-1 - OPTION 1

| PROPOSED WASTEWATER RATE INCREASES | | | | | | | | | | | | 2.00% | | 2.00% | | 2.0% | | 2.0% | | 2.0% | |
|------------------------------------|---------------------|------------------|---------------------|------------------|---------------------|------------------|---------------------|------------------|---------------------|------------------|---------------------|------------------|--|-------|--|------|--|------|--|------|--|
| 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 | \$84.20 | \$1,010.44 | \$85.89 | \$1,030.65 | \$87.61 | \$1,051.26 | \$89.36 | \$1,072.29 | \$91.15 | \$1,093.74 | | | | | | | | | |
| Multiple Family/Condos - Each DU | \$61.92 | \$743.03 | \$63.16 | \$757.89 | \$64.42 | \$773.05 | \$65.71 | \$788.51 | \$67.02 | \$804.28 | \$68.36 | \$820.37 | | | | | | | | | |
| 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 | | \$5.850 | | \$5.970 | | \$6.090 | | \$6.210 | | \$6.330 | | | | | | | | | | |
| Restaurants/Bars/Dining Facilities | \$16.793 | | \$17.130 | | \$17.470 | | \$17.820 | | \$18.180 | | \$18.540 | | | | | | | | | | |
| Schools | \$5.161 | | \$5.260 | | \$5.370 | | \$5.480 | | \$5.590 | | \$5.700 | | | | | | | | | | |
| Other Domestic Strength Users | \$5.734 | | \$5.850 | | \$5.970 | | \$6.090 | | \$6.210 | | \$6.330 | | | | | | | | | | |

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 - 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>5,630,300</u> | <u>10,354,100</u> | <u>3,436,500</u> | <u>4,500</u> | <u>655,700</u> |
| Beginning Balance | 3,883,000 | 7,430,900 | 12,154,700 | 5,237,100 | 1,805,100 | 2,456,300 |
| Revenues | | | | | | |
| Capacity Fees (\$12,030/EDU) | 168,400 | 120,300 | 120,300 | 120,300 | 120,300 | 120,300 |
| Transfer from Operating | 4,600,000 | 1,500,000 | 1,550,000 | 1,550,000 | 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 | 4,768,400 | 5,620,300 | 1,670,300 | 1,670,300 | 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 |
| Total Capital Improvements | 1,220,500 | 896,500 | 8,587,900 | 5,102,300 | 969,100 | 419,600 |
| Total Net Revenues | 3,547,900 | 4,723,800 | (6,917,600) | (3,432,000) | 651,200 | 1,200,700 |
| Ending Balance | 7,430,900 | 12,154,700 | 5,237,100 | 1,805,100 | 2,456,300 | 3,657,000 |

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 - 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 | \$2,241,200 | \$2,273,400 | \$2,043,400 | \$1,866,100 | \$1,789,300 |
| Rate Increase | | 2.0% | 2.0% | 2.0% | 2.0% | 2.0% |
| 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 | 6,000,700 | 6,120,700 | 6,243,100 | 6,368,000 | 6,495,400 |
| New Customers | 13,900 | 24,200 | 35,000 | 46,300 | 57,900 | 70,000 |
| Vacant | 17,000 | 17,000 | 17,000 | 17,000 | 17,000 | 17,000 |
| Metered sewer flow | <u>153,000</u> | <u>156,000</u> | <u>159,000</u> | <u>162,000</u> | <u>165,000</u> | <u>168,000</u> |
| Total revenues | 6,327,200 | 6,458,200 | 6,592,000 | 6,728,700 | 6,868,200 | 7,010,700 |
| % 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 | 2,632,200 | 2,698,000 | 2,749,700 | 2,802,200 | 2,855,700 |
| 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 | 2.39 | 1.96 | 2.00 | 2.03 | 2.07 |
| 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 | 1,532,200 | 1,320,000 | 1,372,700 | 1,423,200 | 1,477,700 |
| Transfer to Capital Fund | 4,600,000 | 1,500,000 | 1,550,000 | 1,550,000 | 1,500,000 | 1,500,000 |
| O&M Ending balance | 2,241,200 | 2,273,400 | 2,043,400 | 1,866,100 | 1,789,300 | 1,767,000 |
| 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 - OPTION 2

PROPOSED WASTEWATER RATE INCREASES

15.00%

10.00%

0.0%

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 | \$94.94 | \$1,139.22 | \$104.43 | \$1,253.14 | \$104.43 | \$1,253.14 | \$104.43 | \$1,253.14 | \$104.43 | \$1,253.14 |
| Multiple Family/Condos - Each DU | \$61.92 | \$743.03 | \$71.21 | \$854.48 | \$78.33 | \$939.93 | \$78.33 | \$939.93 | \$78.33 | \$939.93 | \$78.33 | \$939.93 |
| 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 | | \$7.250 | | \$7.250 | | \$7.250 | | \$7.250 | |
| Restaurants/Bars/Dining Facilities | \$16.793 | | \$19.310 | | \$21.240 | | \$21.240 | | \$21.240 | | \$21.240 | |
| Schools | \$5.161 | | \$5.940 | | \$6.530 | | \$6.530 | | \$6.530 | | \$6.530 | |
| Other Domestic Strength Users | \$5.734 | | \$6.590 | | \$7.250 | | \$7.250 | | \$7.250 | | \$7.250 | |

DU = Dwelling Unit

ccf = 100 cubic feet = 748 gallons

Table 4: Wastewater Capital Cash Flows - 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>5,530,300</u> | <u>7,754,100</u> | <u>2,286,500</u> | <u>304,500</u> | <u>705,700</u> |
| Beginning Balance | 3,883,000 | 7,330,900 | 9,554,700 | 4,087,100 | 2,105,100 | 2,506,300 |
| Revenues | | | | | | |
| Capacity Fees (\$12,030/EDU) | 168,400 | 120,300 | 120,300 | 120,300 | 120,300 | 120,300 |
| Transfer from Operating | 4,500,000 | 3,000,000 | 3,000,000 | 3,000,000 | 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 | 4,668,400 | 3,120,300 | 3,120,300 | 3,120,300 | 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 |
| Total Capital Improvements | 1,220,500 | 896,500 | 8,587,900 | 5,102,300 | 969,100 | 419,600 |
| Total Net Revenues | 3,447,900 | 2,223,800 | (5,467,600) | (1,982,000) | 401,200 | 950,700 |
| Ending Balance | 7,330,900 | 9,554,700 | 4,087,100 | 2,105,100 | 2,506,300 | 3,457,000 |

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 - 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 | \$2,341,200 | \$1,661,300 | \$1,625,300 | \$1,517,800 | \$3,083,900 |
| Rate Increase | | 15.0% | 10.0% | 0.0% | 0.0% | 0.0% |
| 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 | 7,442,100 | 7,442,100 | 7,442,100 | 7,442,100 |
| New Customers | 13,900 | 27,300 | 42,600 | 55,100 | 67,700 | 80,200 |
| 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>194,000</u> | <u>194,000</u> | <u>194,000</u> | <u>194,000</u> |
| Total revenues | 6,327,200 | 7,246,100 | 7,956,000 | 7,968,500 | 7,981,100 | 7,993,600 |
| % 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 | 4,062,000 | 3,989,500 | 3,915,100 | 3,838,600 |
| 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 | 3.70 | 3.64 | 3.56 | 3.50 |
| 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 | 2,964,000 | 2,892,500 | 2,816,100 | 2,740,600 |
| Transfer to Capital Fund | 4,500,000 | 3,000,000 | 3,000,000 | 3,000,000 | 1,250,000 | 1,250,000 |
| O&M Ending balance | 2,341,200 | 1,661,300 | 1,625,300 | 1,517,800 | 3,083,900 | 4,574,500 |
| 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 - OPTION 3

PROPOSED WASTEWATER RATE INCREASES

5.0%

5.0%

0.0%

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 | \$91.01 | \$1,092.17 | \$91.01 | \$1,092.17 | \$91.01 | \$1,092.17 |
| Multiple Family/Condos - Each DU | \$61.92 | \$743.03 | \$65.02 | \$780.18 | \$68.27 | \$819.19 | \$68.27 | \$819.19 | \$68.27 | \$819.19 | \$68.27 | \$819.19 |
| 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 | | \$6.320 | | \$6.320 | | \$6.320 | |
| Restaurants/Bars/Dining Facilities | \$16.793 | | \$17.630 | | \$18.510 | | \$18.510 | | \$18.510 | | \$18.510 | |
| Schools | \$5.161 | | \$5.420 | | \$5.690 | | \$5.690 | | \$5.690 | | \$5.690 | |
| Other Domestic Strength Users | \$5.734 | | \$6.020 | | \$6.320 | | \$6.320 | | \$6.320 | | \$6.320 | |

DU = Dwelling Unit

ccf = 100 cubic feet = 748 gallons

Table 6: Wastewater Capital Cash Flows - 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>5,530,300</u> | <u>9,754,100</u> | <u>3,536,500</u> | <u>54,500</u> | <u>705,700</u> |
| Beginning Balance | 3,883,000 | 7,330,900 | 11,554,700 | 5,337,100 | 1,855,100 | 2,506,300 |
| Revenues | | | | | | |
| Capacity Fees (\$12,030/EDU) | 168,400 | 120,300 | 120,300 | 120,300 | 120,300 | 120,300 |
| Transfer from Operating | 4,500,000 | 2,000,000 | 2,250,000 | 1,500,000 | 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 | 4,668,400 | 5,120,300 | 2,370,300 | 1,620,300 | 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 |
| Total Capital Improvements | 1,220,500 | 896,500 | 8,587,900 | 5,102,300 | 969,100 | 419,600 |
| Total Net Revenues | 3,447,900 | 4,223,800 | (6,217,600) | (3,482,000) | 651,200 | 1,200,700 |
| Ending Balance | 7,330,900 | 11,554,700 | 5,337,100 | 1,855,100 | 2,506,300 | 3,707,000 |

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 - 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 | \$2,341,200 | \$2,055,700 | \$1,573,200 | \$1,767,700 | \$1,884,100 |
| Rate Increase | | 5.0% | 5.0% | 0.0% | 0.0% | 0.0% |
| 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 | 6,486,100 | 6,486,100 | 6,486,100 |
| New Customers | 13,900 | 25,000 | 37,100 | 48,100 | 59,000 | 69,900 |
| 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>169,000</u> | <u>169,000</u> | <u>169,000</u> |
| Total revenues | 6,327,200 | 6,640,500 | 6,969,500 | 6,980,500 | 6,991,400 | 7,002,300 |
| % 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 | 3,001,500 | 2,925,400 | 2,847,300 |
| 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>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 | 2.30 | 2.23 | 2.18 |
| 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 | 1,694,500 | 1,616,400 | 1,539,300 |
| Transfer to Capital Fund | 4,500,000 | 2,000,000 | 2,250,000 | 1,500,000 | 1,500,000 | 1,500,000 |
| O&M Ending balance | 2,341,200 | 2,055,700 | 1,573,200 | 1,767,700 | 1,884,100 | 1,923,400 |
| 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