



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

Reduction of \$6.6M in projects and phase-in of pipeline costs from prior draft.

12% 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: Lowest rate; max debt financing (\$7.85M)	+1%	+1%	+1%	+1%	+1%
#2: No debt	+20%	+15%	+0%	+0%	+0%
#3: Middle Option; debt financing of \$3M	+5%	+5%	+5%	+5%	+5%

note: due to slight cost allocation changes, not all customers will receive an increase precisely equal to the increases shown

# **Cumulative Rate Revenue Increases**

Option	FY2020/21	FY2021/22	FY2022/23	FY2023/24	FY2024/25
#1: Lowest rate; max debt financing (\$7.85M)	+1.00%	+2.01%	+3.03%	+4.06%	+5.10%
#2: No debt	+20%	+38%	+38%	+38%	+38%
#3: Middle Option; debt financing of \$3M	+5.0%	+10.3%	+15.8%	+21.6%	+27.6%

note: due to slight cost allocation changes, not all customers will receive an increase precisely equal to the increases shown

### Summary of Capital Funding Sources Town of Discovery Bay Water Rate Study

water nate study			
	<b>OPTION 1</b>	<b>OPTION 2</b>	<b>OPTION 3</b>
Revenue Sources			
Existing Capital Reserves	191,700	161,700	241,700
Excess Operating Reserves	1,710,000	1,710,000	1,710,000
Capacity Fees	407,400	407,400	407,400
Rate Revenues	1,900,000	9,780,000	6,700,000
New Debt	<u>7,850,000</u>	<u>0</u>	<u>3,000,000</u>
Total Revenues	12,059,100	12,059,100	12,059,100
Total Capital Projects	12,059,100	12,059,100	12,059,100

TABLE ES-1: Revised OPTION 1	Avg Bill (13	ccf/month)				
PROPOSED WATER RATES	\$49.40	\$50.81	\$51.29	\$51.77	\$52.26	\$52.75
		3%	1%	1%	1%	1%
				PROPOSED		
WATER	Current	FY2020/21	FY2021/22	FY2022/23	FY2023/24	FY2024/25
	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly
	(\$/month)	(\$/month)	(\$/month)	(\$/month)	(\$/month)	(\$/month)
Vacant	\$14.67	\$14.67	\$14.67	\$14.67	\$14.67	\$14.67
Non-irrigation Account Charge:						
5/8 Inch Meter	\$20.06	\$22.08	\$22.30	\$22.52	\$22.75	\$22.98
3/4 Inch Meter	\$20.06	\$22.08	\$22.30	\$22.52	\$22.75	\$22.98
1 Inch Meter	\$20.06	\$22.08	\$22.30	\$22.52	\$22.75	\$22.98
1 1/2 Inch Meter	\$39.16	\$42.98	\$43.41	\$43.84	\$44.28	\$44.72
2 Inch Meter	\$62.04	\$68.06	\$68.74	\$69.43	\$70.12	\$70.82
3 Inch Meter	\$123.06	\$134.94	\$136.29	\$137.65	\$139.03	\$140.42
4 Inch Meter	\$191.71	\$210.18	\$212.28	\$214.40	\$216.54	\$218.71
6 Inch Meter	\$382.43	\$419.18	\$423.37	\$427.60	\$431.88	\$436.20
Irrigation Account Charge:						
5/8 Inch Meter	\$18.92	\$19.85	\$20.05	\$20.25	\$20.45	\$20.65
3/4 Inch Meter	\$18.92	\$19.85	\$20.05	\$20.25	\$20.45	\$20.65
1 Inch Meter	\$18.92	\$19.85	\$20.05	\$20.25	\$20.45	\$20.65
1 1/2 Inch Meter	\$36.87	\$38.52	\$38.91	\$39.30	\$39.69	\$40.09
2 Inch Meter	\$58.38	\$60.92	\$61.53	\$62.15	\$62.77	\$63.40
3 Inch Meter	\$115.73	\$120.67	\$121.88	\$123.10	\$124.33	\$125.57
4 Inch Meter	\$180.27	\$187.88	\$189.76	\$191.66	\$193.58	\$195.52
6 Inch Meter	\$359.54	\$374.58	\$378.33	\$382.11	\$385.93	\$389.79
Metered Usage Charge:						
All Usage (\$/ccf)	\$2.257	\$2.210	\$2.230	\$2.250	\$2.270	\$2.290
Newly Metered Customers						
Meter Install Fee (10-year payback)	\$8.01	\$8.01	\$8.01	\$8.01	\$8.01	\$8.01

ccf = 100 cubic feet = 748 gallons

# Table 1: Current FY2019/20 Service Charge RevenuesTown of Discovery BayWater Rate Study

				Metered Rate (\$/ccf)	\$2.257
	# of	Monthly	Meter Fee Annual	Estimated Annual	Annual Water
Meter Size	Meters	Fee	Revenue	Water Use (ccf)	Use Fees
Non-Irrigation					
5/8"	335	\$20.06	\$80,641		
3/4"	1,367	\$20.06	\$329,064		
1"	4,273	\$20.06	\$1,028,597		
1.5"	33	\$39.16	\$15,507		
2"	46	\$62.04	\$34,246		
3"	6	\$123.06	\$8,860		
4"	<u>10</u>	\$191.71	<u>\$23,005</u>		
Subtotal Non-irrigation	6,070		\$1,519,921	959,298	\$2,165,000
Irrigation					
5/8"	4	\$18.92	\$908		
3/4"	0	\$18.92	\$0		
1"	15	\$18.92	\$3,406		
1.5"	25	\$36.87	\$11,061		
2"	34	\$58.38	\$23,819		
3"	2	\$115.73	\$2,778		
4"	<u>7</u>	\$180.27	<u>\$15,143</u>		
Subtotal Irrigation	87		\$57,114	198,980	\$449,000
Meter Installation Fee	3,493	\$8.01	\$335,713		
Total Metered Customers	6,157		\$1,912,748	1,158,278	\$2,614,000
			42%		58%
Property Tax Roll	# of	Monthly			
Unmetered Water	Parcels	Fee	Total Annual Revenues		
Vacant & Waterways	66	\$14.67	\$11,616		
			Summary		
		Metered	\$4,526,748		
	2% [	Delinquency	(\$91,000)		
		Vacant	<u>\$11,616</u>		
		Total	\$4,447,364		

### Table 2: Reserves Town of Discovery Bay Water Rate Study

	FY2018/19		
Reserves	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 3: Water Capital Cash Flows - Revised OPTION 1 Town of Discovery Bay Water Rate Study

Line		Current FY2019/20	Projected FY2020/21	Projected FY2021/22	Projected FY2022/23	Projected FY2023/24	Projected FY2024/25
1	Emergency Reserves	1,200,400	1,200,400	1,200,400	1,200,400	1,200,400	1,200,400
2	Infrastructure Replacement	762,000	<u>1,603,900</u>	7,092,100	3,919,700	2,607,800	<u>1,760,700</u>
3	Beginning Balance	1,962,400	2,804,300	8,292,500	5,120,100	3,808,200	2,961,100
4		_,,,	_,,	-,,	-,,	_,,	_,,
5	Revenues						
6	Capacity Fees (\$4,850/EDU)	164,900	48,500	48,500	48,500	48,500	48,500
7	Transfer from Operating	1,710,000	0	400,000	500,000	500,000	500,000
8	New Debt Proceeds	<u>0</u>	<u>7,850,000</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
9	Total Revenues	1,874,900	7,898,500	448,500	548,500	548,500	548,500
10							
11	Capital Improvements						
12	Water Supply Capacity						
13	Well 8	150,000	772,500	2,811,400	958,900	0	0
14	Well 5A Decommissioning	<u>0</u>	<u>0</u>	<u>0</u>	<u>82,000</u>	<u>0</u>	<u>0</u>
15 16	Total Water Supply Capacity	150,000	772,500	2,811,400	1,040,900	0	0
17	Upgrades for Existing Water Supply						
18	Well 4A Rehab	140,000	0	0	0	0	0
19	Well Rehab every 3-4 years (Wells 1B, 2, 4A, 6)	0	257,500	0	0	225,100	0
20	Filter Repair (Newport & Willow)	118,000	103,000	231,300	0	0	0
21	Stabilization Soils- Willow Lake WTP	150,000	0	0	0	0	0
22	Upgrade Well 4A Piping	<u>75,000</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
23	Total Existing Water Supply	483,000	360,500	231,300	0	225,100	0
24							
25	Distribution/Pipeline Replacements						
26	Mainline CIP Program Long-Term	0	0	530,500	819,500	1,125,500	1,738,900
27	Cathodic Protection	0	257,500	0	0	0	0
28	6 inch pipeline replacement Lakeview Biz Park	0	298,700	0	0	0	0
29	Replace Underwater Crossing Laguna Ct	400,000	0	0	0	0	0
30	Edgeview St. Andrews /Clubhouse	<u>0</u>	<u>309,000</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
31	Total Distribution/Pipeline Replacements	400,000	865,200	530,500	819,500	1,125,500	1,738,900
32							
33	Additional Distribution Improvements						
34	WTP spill containment curbing/diversion	0	25,800	0	0	0	0
35	Upgrade Hypo Tanks at WTP	<u>0</u>	<u>0</u>	<u>26,500</u>	<u>0</u>	<u>0</u>	<u>0</u>
36	Total Distribution/Pipeline Replacements	0	25,800	26,500	0	0	0
37							
38	Master Plans						
39	Water Master & Asset Management Plans	0	257,500	0	0	0	0
40	2020 Urban Water Management Plan	0	41,200	0	0	0	0
41	AWIA Emergency Plans	<u>0</u>	<u>25,800</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
42 43	Total Master Plans	0	324,500	0	0	0	0
45 44	Admin Projects						
44 45	-	0	61 800	0	0	45 000	0
45 46	Cyber Security New Truck	0	61,800	0	0	45,000	0
40 47	Total Admin	<u>0</u> 0	<u>0</u> 61,800	<u>21,200</u> 21,200	<u>0</u> 0	<u>0</u> 45,000	<u>0</u> 0
48		0	01,800	21,200	0	45,000	0
49	Total Capital Improvements	1,033,000	2,410,300	3,620,900	1,860,400	1,395,600	1,738,900
49 50	iotal capital improvements	1,055,000	2,410,300	5,020,500	1,000,400	1,333,000	1,730,900
51	Total Net Revenues	841,900	5,488,200	(3,172,400)	(1,311,900)	(847,100)	(1,190,400)
52	iotar net nevenues	041,500	5,700,200	(3,172,400)	(1,511,500)	(0+7,100)	(1,10,400)
53	Ending Balance	2,804,300	8,292,500	5,120,100	3,808,200	2,961,100	1,770,700
54		2,007,000	0,202,000	3,120,100	3,000,200	2,301,100	1,,,0,,00

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. Project costs escalated by 3% annually.

### Table 4: Water Operating Cash Flows – Revised OPTION 1 Town of Discovery Bay Water Rate Study

Line	,	Current FY2019/20	Projected FY2020/21	Projected FY2021/22	Projected FY2022/23	Projected FY2023/24	Projected FY2024/25
LINE		F12019/20	F12020/21	F12021/22	F12022/23	F12023/24	F12024/25
1	Beginning Operating Balance	\$756,000	\$823,000	\$2,125,000	\$2,429,500	\$2,529,000	\$2,580,500
2 3	Proposed Increase		1.0%	1.0%	1.0%	1.0%	1.0%
4 5	Revenues						
6	Rate Revenue	4,191,000	4,233,000	4,275,000	4,318,000	4,361,000	4,405,000
7	New Customers	20,000	26,000	33,000	4,318,000 39,000	46,000	52,000
8	Rate Rev Subtotal	4,211,000	4,259,000	4,308,000	4,357,000	4,407,000	4,457,000
9	Less Delinquency (2%)	(91,000)	(85,000)	(86,000)	(86,000)	(87,000)	(88,000)
10	Vacant Parcel	12,000	12,000	12,000	12,000	12,000	12,000
11	Meter Reimbursements	336,000	336,000	336,000	336,000	336,000	336,000
12	Other & Misc	<u>22,000</u>	27,000	27,000	<u>27,000</u>	<u>27,000</u>	<u>27,000</u>
13	Total Revenues	4,490,000	4,549,000	4,597,000	4,646,000	4,695,000	4,744,000
14		1, 190,000	1,3 13,000	1,007,000	1,010,000	1,055,000	1,7 1 1,000
15	% increase in operating expenses		budget	3.0%	3.0%	3.0%	3.0%
16	Expenses		budget	5.670	5.670	0.070	0.070
17	Operating Expenses						
18	Admin & Inter Govt. & Board	334,000	451,000	465,000	479,000	493,000	508,000
19	Staffing & Consulting Serv	572,000	862,000	888,000	915,000	942,000	970,000
20	Meters Reading	88,000	93,000	96,000	99,000	102,000	105,000
21	Operations & Maint	331,000	424,000	437,000	450,000	464,000	478,000
22	SGMA Compliance	0	15,000	20,000	21,000	21,000	22,000
23	Utilities [1]	479,000	467,000	481,000	495,000	510,000	525,000
24	Service Contract [2]	651,000	<u>676,000</u>	<u>696,000</u>	780,000	<u>803,000</u>	827,000
25	Total Operating Expenses	2,455,000	2,988,000	3,083,000	3,239,000	3,335,000	3,435,000
26		_) .00)000	_);;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;	0,000,000	0)200)000	0,000,000	0) 100)000
27	Net Operating Revenues	2,035,000	1,561,000	1,514,000	1,407,000	1,360,000	1,309,000
28	Net operating netenates	2,000,000	1,501,000	1,011,000	1,107,000	1,000,000	1,000,000
29	Debt Service						
30	2012 Bonds Debt Service [3]	88,000	88,000	89,000	88,000	89,000	88,000
31	2017 Bonds Debt Service [3]	170,000	171,000	171,000	170,000	170,000	168,000
32	New Debt Service [4]	<u>0</u>	<u>0</u>	549,500	<u>549,500</u>	<u>549,500</u>	<u>549,500</u>
33	Total Debt Service	258,000	259,000	809,500	807,500	808,500	805,500
34				,		,	,
35	Debt Service Coverage	7.89	6.03	1.87	1.74	1.68	1.63
36				_			
37	Total O&M + Debt	2,713,000	3,247,000	3,892,500	4,046,500	4,143,500	4,240,500
38		, -,	-, ,	-, ,	,,	, ,,,,,,	, , -,
39	Total Net Revenues	1,777,000	1,302,000	704,500	599,500	551,500	503,500
40			_,,			,	
41	Transfer to Capital	1,710,000	0	400,000	500,000	500,000	500,000
42	<b>-</b>	,,	5				
43	O&M Ending balance	823,000	2,125,000	2,429,500	2,529,000	2,580,500	2,584,000
44		520,000	_,0,000	_,,,	_,0,000	_,0,000	_,
45	Minimum balance target [5]	818,000	996,000	1,028,000	1,080,000	1,112,000	1,145,000
				, = =,====	, ,	, _,	, -,

1 - Chemicals and electric

2 - Assumed increase in FY2023 due to Well #8 coming online

3 - Based on year ended December 1

4 - 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)

5 - 4 months O&M expenses

### Table 5: Cost Allocation – Revised OPTION 1 Town of Discovery Bay Water Rate Study

	FY2020/21				
Cost	<b>Estimated Costs</b>	Commodity	Demand	Meters	Cust. Service
Operating Expenses					
Admin & Inter Govt. & Board	451,000	35%	35%	25%	5%
Staffing & Consulting Serv	862,000	35%	35%	25%	5%
Meters Reading	93,000	0%	0%	100%	0%
Operations & Maint	424,000	35%	35%	25%	5%
SGMA Compliance	15,000	0%	100%	0%	0%
Utilities	467,000	100%	0%	0%	0%
Service Contract	676,000	100%	0%	0%	0%
Total Operating Expenses	2,988,000	1,750,950	622,950	527,250	86,850
Debt Service					
2012 Bonds Debt Service (5yr Avg)	88,000	70%	30%	0%	0%
2017 Bonds Debt Service (5yr Avg)	170,000	70%	30%	0%	0%
New Debt Service (5yr Avg)	440,000	70%	30%	0%	0%
Total Debt Service	698,000	489,000	209,000	0	0
Transfer to Capital (5yr Avg)	380,000	70%	30%	0%	0%
		266,000	114,000	0	0
Proposed Cost Allocation	4,066,000	2,505,950	945,950	527,250	86,850
(does not include fire protection)		62%	23%	13%	2.1%

# Table 6: Unit Cost Calculation - OPTION 1Town of Discovery BayWater Rate Study

FY2020/21 Revenue				Cust.	
Requirement	Commodity	Demand	Meters	Service	Fire Flow
\$4,259,000	\$2,519,903	\$951,217	\$530,186	\$87,334	\$170,360
[1]	59%	22%	12%	2.1%	4%
	1,140,310 ccf	6,614 meter equiv	6,614 meter equiv	6,189 # of meters	6,360.6 non-irrigation meter equiv
	\$2.210 \$/ccf	\$11.99 \$/meter equivalent/mo	\$6.68 \$/meter equivalent/mo	\$1.18 \$/meter/mo	\$2.23 \$/domestic equivalent/mo

1 - Fire protection was determined to be 4% of system revenues based on AWWA methodologies; the allocations to the other cost categories were reduced proportionally

### Table 7: Meter Equivalents Town of Discovery Bay Water Rate Study

	No/ of	Meter	Meter
Meter Size	Meters	Ratio	Equivalents
Non-Irrigation			
5/8" [1]	369	1.0	369.0
3/4"	1,367	1.0	1,367.0
1"	4,273	1.0	4,273.0
1.5"	33	2.0	66.0
2"	46	3.2	147.2
3"	6	6.4	38.4
4"	<u>10</u>	10.0	100.0
Subtotal Non-irrigation	6,104		6,360.6
Irrigation			
5/8"	4	1.0	4.0
3/4"	0	1.0	0.0
1"	15	1.0	15.0
1.5"	26	2.0	52.0
2"	31	3.2	99.2
3"	2	6.4	12.8
4"	- <u>7</u>	10.0	<u>70.0</u>
Subtotal Irrigation	<u>,</u> 85	10.0	253.0
			200.0
Total	6,189		6,613.6

1 - Includes an estimated 34 new residential customers in FY2020/21

## Table 8: Base Meter Equivalent Charges – Revised OPTION 1 Town of Discovery Bay Water Rate Study

	Non-Irrigation	Irrigation Meter
Cost Category	Meter Equivalent	Equivalent
Demand	\$11.99	\$11.99
Meters	\$6.68	\$6.68
Fire Protection	<u>\$2.23</u>	NA
Total (\$/meter equiv./mo)	\$20.90	\$18.67

# Table 9: Total Fixed Charges – Revised OPTION 1 Town of Discovery Bay Water Rate Study

Non-Irrigation Customers											
			Meter		Meter		Meter		Customer		
Meter			Equiv.		Equiv.		Equiv.		Service		Total Fixed
Size	Ratio		Cost		Charge		Charge		Charge		Monthly Fee
5/8"	1.0	Х	\$20.90	=	\$20.90		\$20.90	+	\$1.18	=	\$22.08
3/4"	1.0	Х	\$20.90	=	\$20.90		\$20.90	+	\$1.18	=	\$22.08
1"	1.0	Х	\$20.90	=	\$20.90		\$20.90	+	\$1.18	=	\$22.08
1.5"	2.0	Х	\$20.90	=	\$41.80		\$41.80	+	\$1.18	=	\$42.98
2"	3.2	Х	\$20.90	=	\$66.88		\$66.88	+	\$1.18	=	\$68.06
3"	6.4	Х	\$20.90	=	\$133.76		\$133.76	+	\$1.18	=	\$134.94
4"	10.0	Х	\$20.90	=	\$209.00		\$209.00	+	\$1.18	=	\$210.18
6"	20.0	Х	\$20.90	=	\$418.00		\$418.00	+	\$1.18	=	\$419.18
Irrigation Customers											
	1		Meter		Meter		Meter		Customer		
Meter			Equiv.		Equiv.		Equiv.		Service		Total Fixed
Size	Ratio		Cost		Charge		Charge		Charge		Monthly Fee
5/8"	1.0	Х	\$18.67	=	\$18.67		\$18.67	+	\$1.18	=	\$19.85
3/4"	1.0	Х	\$18.67	=	\$18.67		\$18.67	+	\$1.18	=	\$19.85
1"	1.0	х	\$18.67	=	\$18.67		\$18.67	+	\$1.18	=	\$19.85
1.5"	2.0	х	\$18.67	=	\$37.34		\$37.34	+	\$1.18	=	\$38.52
2"	3.2	х	\$18.67	=	\$59.74		\$59.74	+	\$1.18	=	\$60.92
3"	6.4	х	\$18.67	=	\$119.49		\$119.49	+	\$1.18	=	\$120.67
4"	10.0	х	\$18.67	=	, \$186.70		\$186.70	+	\$1.18	=	\$187.88
6"	20.0	х	\$18.67	=	, \$373.40		\$373.40	+	\$1.18	=	\$374.58
						•	•				

TABLE ES-1: Revised OPTION 2	Avg Bill (13	3 ccf/month)								
PROPOSED WATER RATES	\$49.40	\$60.22	\$69.27	\$69.27	\$69.27	\$69.27				
		22%	15%	0%	0%	0%				
		PROPOSED								
WATER	Current	FY2020/21	FY2021/22	FY2022/23	FY2023/24	FY2024/25				
	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly				
	(\$/month)	(\$/month)	(\$/month)	(\$/month)	(\$/month)	(\$/month)				
Vacant	\$14.67	\$14.67	\$14.67	\$14.67	\$14.67	\$14.67				
Non-irrigation Account Charge:										
5/8 Inch Meter	\$20.06	\$25.08	\$28.84	\$28.84	\$28.84	\$28.84				
3/4 Inch Meter	\$20.06	\$25.08	\$28.84	\$28.84	\$28.84	\$28.84				
1 Inch Meter	\$20.06	\$25.08	\$28.84	\$28.84	\$28.84	\$28.84				
1 1/2 Inch Meter	\$39.16	\$49.07	\$56.43	\$56.43	\$56.43	\$56.43				
2 Inch Meter	\$62.04	\$77.86	\$89.54	\$89.54	\$89.54	\$89.54				
3 Inch Meter	\$123.06	\$154.63	\$177.82	\$177.82	\$177.82	\$177.82				
4 Inch Meter	\$191.71	\$240.99	\$277.14	\$277.14	\$277.14	\$277.14				
6 Inch Meter	\$382.43	\$480.89	\$553.02	\$553.02	\$553.02	\$553.02				
Irrigation Account Charge:										
5/8 Inch Meter	\$18.92	\$22.43	\$25.79	\$25.79	\$25.79	\$25.79				
3/4 Inch Meter	\$18.92	\$22.43	\$25.79	\$25.79	\$25.79	\$25.79				
1 Inch Meter	\$18.92	\$22.43	\$25.79	\$25.79	\$25.79	\$25.79				
1 1/2 Inch Meter	\$36.87	\$43.77	\$50.34	\$50.34	\$50.34	\$50.34				
2 Inch Meter	\$58.38	\$69.38	\$79.79	\$79.79	\$79.79	\$79.79				
3 Inch Meter	\$115.73	\$137.67	\$158.32	\$158.32	\$158.32	\$158.32				
4 Inch Meter	\$180.27	\$214.49	\$246.66	\$246.66	\$246.66	\$246.66				
6 Inch Meter	\$359.54	\$427.89	\$492.07	\$492.07	\$492.07	\$492.07				
Metered Usage Charge:										
All Usage (\$/ccf)	\$2.257	\$2.703	\$3.110	\$3.110	\$3.110	\$3.110				
New Is Material Costs										
Newly Metered Customers	ćo. 01	ć0.01	ć0.04	ćo. 04	ćo 04	ćo 04				
Meter Install Fee (10-year payback)	\$8.01	\$8.01	\$8.01	\$8.01	\$8.01	\$8.01				

ccf = 100 cubic feet = 748 gallons

### Table 10: Water Capital Cash Flows - Revised OPTION 2 Town of Discovery Bay Water Rate Study

Inc         P2020/21         P2020/21         P2020/22         P2020/23         P2020/24         P2020/24 <thp2020 24<="" th="">         P2020/24         P</thp2020>		- ····,	Current	Projected	Projected	Projected	Projected	Projected
2         Infrastructure Replacement         762.000         1.623.900         1.272.100         932.800         832.800         890.700           4         1,962,400         2,804,300         2,272,500         1,250,100         2,033,200         2,091,100           5         Revenues         6         Capacity Fes (\$4,850/EDU)         164,900         1,850,00         48,500         48,500         48,500         48,500         1,400,000         1,400,000         1,400,000         1,400,000         1,448,500         1,448,500         1,448,500         1,448,500         1,448,500         1,448,500         1,448,500         0	Line		FY2019/20	FY2020/21	FY2021/22	FY2022/23	FY2023/24	FY2024/25
3         Beginning Balance         1,962,400         2,804,300         2,272,500         1,250,100         2,038,200         2,091,100           6         Capacity Frees (54,850/EDU)         164,900         48,500         2,850,000         2,600,000         1,400,000         1,400,000           8         New Debt Proceeds         Q	1	Emergency Reserves	1,200,400	1,200,400	1,200,400	1,200,400	1,200,400	1,200,400
4         5         Revenues         6           Capacity Fees (\$4,850/EDU)         164,900         48,500         28,500         26,00,000         1,400,000         1,400,000           New Debt Proceeds         0         <	2	Infrastructure Replacement	762,000	1,603,900	1,072,100	49,700	837,800	890,700
5         Revenues           6         Capacity Rees (34,850/EDU)         164,900         48,500         248,500         248,500         1,400,000           8         New Debt Proceeds         Q	3	Beginning Balance	1,962,400	2,804,300	2,272,500	1,250,100	2,038,200	2,091,100
6         Capacity Fees (54,850/EDU)         164,900         48,500         48,500         48,500         48,500         48,500         1,400,000           7         Transfer from Operating         1,710,000         1,830,000         2,590,500         2,690,000         1,400,000         <	4							
7       Transfer from Operating       1,710,000       1,830,000       2,500,000       2,600,000       1,400,000       1,400,000       1,400,000       0 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>								
8         New Debt Proceeds         Q					•		48,500	
9         Total Revenues         1,874,900         1,878,500         2,598,500         2,648,500         1,448,500         1,448,500           10         Capital Improvements			1,710,000		2,550,000	2,600,000	1,400,000	1,400,000
Interface         Interface <thinterface< th=""> <thinterface< th=""> <thi< td=""><td></td><td></td><td>_</td><td></td><td></td><td></td><td>_</td><td></td></thi<></thinterface<></thinterface<>			_				_	
11         Capital Improvements           12         Water Supply Capacity           13         Well 8           14         Well 8           15         Total Water Supply Capacity         150,000         772,500         2,811,400         958,900         0         0           15         Total Water Supply Capacity         150,000         772,500         2,811,400         1,040,900         0         0         0           16         Uggrades for Existing Water Supply         1         1         1         1,040,900         0		Total Revenues	1,874,900	1,878,500	2,598,500	2,648,500	1,448,500	1,448,500
12         Water Supply Capacity           13         Well 8         150,000         772,500         2,811,400         958,900         0         0           14         Well SA Decommissioning         0         0         2,2010         0         0           15         Total Water Supply Capacity         150,000         772,500         2,811,400         1,040,900         0         0           16         Vell 4A Rehab         140,000         0         0         0         0         0         0         0           19         Well Rehab every 3-4 years (Wells 1B, 2, 4A, 6)         0         257,500         0         0         225,100         0           20         Upgrade Well 4A Piping         150,000         0		Canital Improvements						
13       Well 8       150,000       772,500       2,811,400       958,900       0       0         14       Well SA Decommissioning       0       0       0       82,000       0       0         15       Total Weter Supply Capacity       150,000       772,500       2,811,400       1,040,900       0       0         17       Upgrades for Existing Water Supply       1       150,000       0       0       0       0       0         18       Well AA Rehab       140,000       0       0       0       0       0       0         19       Well AA Rehab       140,000       0       0       0       0       0       0       0       0         20       Filter Repair (Newort & Willow)       118,000       103,000       231,300       0								
14         Well SA Decommissioning         0         0         0         82,000         0         0           15         Total Water Supply Capacity         150,000         772,500         2,811,400         1,040,900         0         0           16         Well Rehab         140,000         0         0         0         0         0         0           18         Well ARehab         140,000         0         0         0         0         0         0           19         Well Rehab every 3-4 years (Wells 1B, 2, 4A, 6)         0         257,500         0			150 000	772 500	2 811 400	958 900	0	0
15       Total Water Supply Capacity       150,000       772,500       2,811,400       1,040,900       0       0         16			-	-		•		
16         17         Upgrades for Existing Water Supply           17         Upgrades for Existing Water Supply         140,000         0         0         0         0           18         Well Rahab         140,000         0         0         0         0         0           19         Well Rehab every 3-4 years (Wells 1B, 2, 4A, 6)         0         257,500         0         0         225,100         0           20         Filter Repair (Newport & Willow)         118,000         103,000         231,300         0         0         0         0           21         Stabilization Soliso-Willow Lake WTP         150,000         0		-	_		_			
17       Upgrades for Existing Water Supply         18       Well 4A Rehab       140,000       0       0       0       0         19       Well Rehab every 3-4 years (Wells 1B, 2, 4A, 6)       0       257,500       0       0       225,100       00         20       Filter Repair (Newport & Willow)       118,000       103,000       231,300       0       0       0         21       Stabilization Soiis- Willow Lake WTP       150,000       0			200,000	,,_,,,,,,	2,022).00	2,0 .0,000	Ū	Ũ
19       Well Rehab every 3-4 years (Wells 1B, 2, 4A, 6)       0       257,500       0       0       225,100       0         20       Filter Repair (Newport & Willow)       118,000       103,000       211,300       0       0       0       0         21       Stabilization Solis- Willow Lake WTP       150,000       0       0       0       0       0       0       0       0         21       Stabilization Solis- Willow Lake WTP       150,000       <		Upgrades for Existing Water Supply						
20       Filter Repair (Newport & Willow)       118,000       103,000       231,300       0       0       0         21       Stabilization Soils- Willow Lake WTP       150,000       0       0       0       0       0         22       Upgrade Well 4A Piping <u>75,000</u> 0       0       0       0       225,100       0         23       Total Existing Water Supply       483,000       360,500       231,300       0       0       225,100       0         24       Distribution/Pipeline Replacements			140,000	0	0	0	0	0
21       Stabilization Soils-Willow Lake WTP       150,000       0       0       0       0       0         22       Upgrade Well 4A Piping       75,000       0	19	Well Rehab every 3-4 years (Wells 1B, 2, 4A, 6)	0	257,500	0	0	225,100	0
22         Upgrade Well 4A Piping <u>75,000</u> <u>0</u> <u>0</u> <u>0</u> <u>0</u> <u>0</u> 23         Total Existing Water Supply         483,000         360,500         231,300         0         225,100         0           24	20	Filter Repair (Newport & Willow)	118,000	103,000	231,300	0	0	0
23       Total Existing Water Supply       483,000       360,500       231,300       0       225,100       0         24	21	Stabilization Soils- Willow Lake WTP	150,000	0	0	0	0	0
24       25       Distribution/Pipeline Replacements         26       Mainline CIP Program Long-Term       0       0       530,500       819,500       1,125,500       1,738,900         27       Cathodic Protection       0       257,500       0       0       0       0         28       6 inch pipeline replacement Lakeview Biz Park       0       298,700       0       0       0       0         29       Replace Underwater Crossing Laguna Ct       400,000       0       0       0       0       0         30       Edgeview St. Andrews /Clubhouse       0       309,000       0       0       0       0         31       Total Distribution/Pipeline Replacements       400,000       865,200       530,500       819,500       1,125,500       1,738,900         32       Additional Distribution Improvements       3       4       WTP spill containment curbing/diversion       0       25,800       0       0       0       0         34       WTP spill containment curbing/diversion       0       25,800       26,500       0       0       0         35       Upgrade Hypo Tanks at WTP       0       25,800       26,500       0       0       0         36	22	Upgrade Well 4A Piping	75,000	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
25       Distribution/Pipeline Replacements         26       Mainline CIP Program Long-Term       0       0       530,500       819,500       1,125,500       1,738,900         27       Cathodic Protection       0       257,500       0       0       0       0         28       6 inch pipeline replacement Lakeview Biz Park       0       298,700       0       0       0       0         29       Replace Underwater Crossing Laguna Ct       400,000       0       0       0       0       0       0         30       Edgeview St. Andrews /Clubhouse       0       309,000       0       0       0       0       0         31       Total Distribution/Pipeline Replacements       400,000       865,200       530,500       819,500       1,125,500       1,738,900         32		Total Existing Water Supply	483,000	360,500	231,300	0	225,100	0
26       Mainline CIP Program Long-Term       0       0       530,500       819,500       1,125,500       1,738,900         27       Cathodic Protection       0       257,500       0       0       0       0         28       6 inch pipeline replacement Lakeview Biz Park       0       298,700       0       0       0       0       0         29       Replace Underwater Crossing Laguna Ct       400,000       0								
27       Cathodic Protection       0       257,500       0       0       0       0         28       6 inch pipeline replacement Lakeview Biz Park       0       298,700       0       0       0       0         29       Replace Underwater Crossing Laguna Ct       400,000       0       0       0       0       0       0         30       Edgeview St. Andrews /Clubhouse       0       309,000       0       0       0       0       0       0         31       Total Distribution/Pipeline Replacements       400,000       865,200       530,500       819,500       1,125,500       1,738,900         32       Additional Distribution Improvements								
28       6 inch pipeline replacement Lakeview Biz Park       0       298,700       0       0       0       0         29       Replace Underwater Crossing Laguna Ct       400,000       0       0       0       0       0       0         30       Edgeview St. Andrews /Clubhouse       0       309,000       0       0       0       0       0         31       Total Distribution/Pipeline Replacements       400,000       865,200       530,500       819,500       1,125,500       1,738,900         32		5 5						
29       Replace Underwater Crossing Laguna Ct       400,000       0       0       0       0       0       0         30       Edgeview St. Andrews /Clubhouse       0       309,000       0       0       0       0       0         31       Total Distribution/Pipeline Replacements       400,000       865,200       530,500       819,500       1,125,500       1,738,900         32								
30       Edgeview St. Andrews /Clubhouse       0       309,000       0       0       0       0       0         31       Total Distribution/Pipeline Replacements       400,000       865,200       530,500       819,500       1,125,500       1,738,900         32       3       Additional Distribution Improvements       - <td></td> <td></td> <td></td> <td>•</td> <td></td> <td></td> <td></td> <td></td>				•				
31       Total Distribution/Pipeline Replacements       400,000       865,200       530,500       819,500       1,125,500       1,738,900         32       33       Additional Distribution Improvements       530,500       819,500       1,125,500       1,738,900         34       WTP spill containment curbing/diversion       0       25,800       0       0       0       0         35       Upgrade Hypo Tanks at WTP       0       0       26,500       0       0       0       0         36       Total Distribution/Pipeline Replacements       0       25,800       26,500       0       0       0       0         37       37       38       Master Plans       0       257,500       0       0       0       0       0         39       Water Master & Asset Management Plans       0       257,500       0       0       0       0       0         40       2020 Urban Water Management Plans       0       25,800       0       0       0       0       0         41       AWIA Emergency Plans       0       324,500       0       0       0       0         42       Total Master Plans       0       61,800       0       0       <								
32       Additional Distribution Improvements         34       WTP spill containment curbing/diversion       0       25,800       0       0       0         35       Upgrade Hypo Tanks at WTP       0       0       26,500       0       0       0         36       Total Distribution/Pipeline Replacements       0       25,800       26,500       0       0       0         37								_
33Additional Distribution Improvements34WTP spill containment curbing/diversion025,80000035Upgrade Hypo Tanks at WTP0026,50000036Total Distribution/Pipeline Replacements025,80026,50000037			400,000	805,200	550,500	815,500	1,125,500	1,750,500
34       WTP spill containment curbing/diversion       0       25,800       0       0       0       0         35       Upgrade Hypo Tanks at WTP       0       0       26,500       0       0       0         36       Total Distribution/Pipeline Replacements       0       25,800       26,500       0       0       0         37		Additional Distribution Improvements						
35Upgrade Hypo Tanks at WTP0026,500000036Total Distribution/Pipeline Replacements025,80026,500000037			0	25.800	0	0	0	0
36       Total Distribution/Pipeline Replacements       0       25,800       26,500       0       0       0       0         37								
37       38       Master Plans       0       257,500       0       0       0       0       0         39       Water Master & Asset Management Plans       0       257,500       0       0       0       0       0         40       2020 Urban Water Management Plans       0       41,200       0       0       0       0       0         41       AWIA Emergency Plans       0       25,800       0       0       0       0       0         42       Total Master Plans       0       324,500       0       0       0       0       0         43				_		0	0	0
39       Water Master & Asset Management Plans       0       257,500       0       0       0       0         40       2020 Urban Water Management Plans       0       41,200       0       0       0       0         41       AWIA Emergency Plans       0       25,800       0       0       0       0       0         42       Total Master Plans       0       324,500       0       0       0       0       0         43	37							
40       2020 Urban Water Management Plan       0       41,200       0       0       0       0         41       AWIA Emergency Plans       0       25,800       0       0       0       0       0         42       Total Master Plans       0       324,500       0       0       0       0       0         43	38	Master Plans						
41       AWIA Emergency Plans       0       25,800       0       0       0       0         42       Total Master Plans       0       324,500       0       0       0       0       0         43	39	Water Master & Asset Management Plans	0	257,500	0	0	0	0
43         44       Admin Projects         45       Cyber Security       0       61,800       0       45,000       0		-					-	
43         44       Admin Projects         45       Cyber Security       0       61,800       0       45,000       0		<b>S 1</b>	<u>0</u>		<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
44         Admin Projects           45         Cyber Security         0         61,800         0         45,000         0		Total Master Plans	0	324,500	0	0	0	0
45 Cyber Security 0 61,800 0 0 45,000 0								
			0	61 900	0	0	45.000	0
47     Total Admin     0     61,800     21,200     0     45,000     0				_			_	
47 Total Admin 0 01,800 21,200 0 43,000 0			0	01,000	21,200	0	-3,000	0
49 Total Capital Improvements 1,033,000 2,410,300 3,620,900 1,860,400 1,395,600 1,738,900		Total Capital Improvements	1,033.000	2,410.300	3,620.900	1,860.400	1,395.600	1,738.900
50			,	, -,0	-,,	,,	,	, ,
51         Total Net Revenues         841,900         (531,800)         (1,022,400)         788,100         52,900         (290,400)		Total Net Revenues	841,900	(531,800)	(1,022,400)	788,100	52,900	(290,400)
52			-	,			-	- · ·
53Ending Balance2,804,3002,272,5001,250,1002,038,2002,091,1001,800,700	53	Ending Balance	2,804,300	2,272,500	1,250,100	2,038,200	2,091,100	1,800,700
54	54		_					

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. Project costs escalated by 3% annually.

### Table 11: Water Operating Cash Flows - Revised OPTION 2 Town of Discovery Bay Water Rate Study

Line		Current FY2019/20	Projected FY2020/21	Projected FY2021/22	Projected FY2022/23	Projected FY2023/24	Projected FY2024/25
1	Beginning Operating Balance	\$756,000	\$823,000	\$1,080,000	\$1,273,000	\$1,270,000	\$2,379,000
2 3	Proposed Increase		20%	15%	0%	0%	0%
4							
5	Revenues						
6	Rate Revenue	4,191,000	5,029,000	5,783,000	5,783,000	5,783,000	5,783,000
7	New Customers	<u>20,000</u>	<u>31,000</u>	44,000	<u>52,000</u>	<u>61,000</u>	<u>69,000</u>
8	Rate Rev Subtotal	4,211,000	5,060,000	5,827,000	5,835,000	5,844,000	5,852,000
9	Less Delinquency (2%)	(91,000)	(101,000)	(116,000)	(116,000)	(116,000)	(116,000)
10	Vacant Parcel	12,000	12,000	12,000	12,000	12,000	12,000
11	Meter Reimbursements	336,000	336,000	336,000	336,000	336,000	336,000
12	Other & Misc	<u>22,000</u>	<u>27,000</u>	<u>27,000</u>	<u>27,000</u>	<u>27,000</u>	<u>27,000</u>
13	Total Revenues	4,490,000	5,334,000	6,086,000	6,094,000	6,103,000	6,111,000
14							
15	% increase in operating expenses		budget	3.0%	3.0%	3.0%	3.0%
16	Expenses						
17	Operating Expenses						
18	Admin & Inter Govt. & Board	334,000	451,000	465,000	479,000	493,000	508,000
19	Staffing & Consulting Serv	572,000	862,000	888,000	915,000	942,000	970,000
20	Meters Reading	88,000	93,000	96,000	99,000	102,000	105,000
21	Operations & Maint	331,000	424,000	437,000	450,000	464,000	478,000
22	SGMA Compliance	0	15,000	20,000	21,000	21,000	22,000
23	Utilities [1]	479,000	467,000	481,000	495,000	510,000	525,000
24	Service Contract [2]	<u>651,000</u>	<u>676,000</u>	<u>696,000</u>	780,000	<u>803,000</u>	<u>827,000</u>
25 26	Total Operating Expenses	2,455,000	2,988,000	3,083,000	3,239,000	3,335,000	3,435,000
20	Net Operating Revenues	2,035,000	2,346,000	3,003,000	2,855,000	2,768,000	2,676,000
28							
29	Debt Service						
30	2012 Bonds Debt Service [3]	88,000	88,000	89,000	88,000	89,000	88,000
31	2017 Bonds Debt Service [3]	170,000	171,000	171,000	170,000	170,000	168,000
32	New Debt Service	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
33	Total Debt Service	258,000	259,000	260,000	258,000	259,000	256,000
34							
35	Debt Service Coverage	7.89	9.06	11.55	11.07	10.69	10.45
36							
37	Total O&M + Debt	2,713,000	3,247,000	3,343,000	3,497,000	3,594,000	3,691,000
38							
39 40	Total Net Revenues	1,777,000	2,087,000	2,743,000	2,597,000	2,509,000	2,420,000
40 41	Transfer to Capital	1,710,000	1,830,000	2,550,000	2,600,000	1,400,000	1,400,000
42							
43 44	O&M Ending balance	823,000	1,080,000	1,273,000	1,270,000	2,379,000	3,399,000
44 45	Minimum balance target [4]	818,000	996,000	1,028,000	1,080,000	1,112,000	1,145,000

1 - Chemicals and electric

2 - Assumed increase in FY2023 due to Well #8 coming online

3 - Based on year ended December 1

4 - 4 months O&M expenses

TABLE ES-1: Revised OPTION 3	Avg Bill (13	ccf/month)				
PROPOSED WATER RATES	\$49.40	\$52.75	\$55.40	\$58.13	\$61.05	\$64.16
		7%	5%	5%	5%	5%
				PROPOSED		
WATER	Current	FY2020/21	FY2021/22	FY2022/23	FY2023/24	FY2024/25
	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly
	(\$/month)	(\$/month)	(\$/month)	(\$/month)	(\$/month)	(\$/month)
Vacant	\$14.67	\$14.67	\$14.67	\$14.67	\$14.67	\$14.67
Non-irrigation Account Charge:						
5/8 Inch Meter	\$20.06	\$22.30	\$23.42	\$24.59	\$25.82	\$27.11
3/4 Inch Meter	\$20.06	\$22.30	\$23.42	\$24.59	\$25.82	\$27.11
1 Inch Meter	\$20.06	\$22.30	\$23.42	\$24.59	\$25.82	\$27.11
1 1/2 Inch Meter	\$39.16	\$43.55	\$45.73	\$48.02	\$50.42	\$52.94
2 Inch Meter	\$62.04	\$69.05	\$72.50	\$76.13	\$79.94	\$83.94
3 Inch Meter	\$123.06	\$137.05	\$143.90	\$151.10	\$158.66	\$166.59
4 Inch Meter	\$191.71	\$213.55	\$224.23	\$235.44	\$247.21	\$259.57
6 Inch Meter	\$382.43	\$426.05	\$447.35	\$469.72	\$493.21	\$517.87
Irrigation Account Charge:						
5/8 Inch Meter	\$18.92	\$19.98	\$20.98	\$22.03	\$23.13	\$24.29
3/4 Inch Meter	\$18.92	\$19.98	\$20.98	\$22.03	\$23.13	\$24.29
1 Inch Meter	\$18.92	\$19.98	\$20.98	\$22.03	\$23.13	\$24.29
1 1/2 Inch Meter	\$36.87	\$38.91	\$40.86	\$42.90	\$45.05	\$47.30
2 Inch Meter	\$58.38	\$61.63	\$64.71	\$67.95	\$71.35	\$74.92
3 Inch Meter	\$115.73	\$122.20	\$128.31	\$134.73	\$141.47	\$148.54
4 Inch Meter	\$180.27	\$190.35	\$199.87	\$209.86	\$220.35	\$231.37
6 Inch Meter	\$359.54	\$379.65	\$398.63	\$418.56	\$439.49	\$461.46
Metered Usage Charge:						
All Usage (\$/ccf)	\$2.257	\$2.342	\$2.460	\$2.580	\$2.710	\$2.850
Newly Metered Customers						
Meter Install Fee						
(10-year payback)	\$8.01	\$8.01	\$8.01	\$8.01	\$8.01	\$8.01

ccf = 100 cubic feet = 748 gallons

### Table 12: Water Capital Cash Flows - OPTION 3 Town of Discovery Bay Water Rate Study

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Line		Current FY2019/20	Projected FY2020/21	Projected FY2021/22	Projected FY2022/23	Projected FY2023/24	Projected FY2024/25
1	Emergency Reserves	1,200,400	1,200,400	1,200,400	1,200,400	1,200,400	1,200,400
2	Infrastructure Replacement	762,000	<u>1,603,900</u>	2,742,100	<u>669,700</u>	357,800	<u>610,700</u>
3	Beginning Balance	1,962,400	2,804,300	3,942,500	1,870,100	1,558,200	1,811,100
4							
5	Revenues						
6	Capacity Fees (\$4,850/EDU)	164,900	48,500	48,500	48,500	48,500	48,500
7	Transfer from Operating	1,710,000	500,000	1,500,000	1,500,000	1,600,000	1,600,000
8	New Debt Proceeds	<u>0</u>	<u>3,000,000</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
9	Total Revenues	1,874,900	3,548,500	1,548,500	1,548,500	1,648,500	1,648,500
10							
11	Capital Improvements						
12	Water Supply Capacity	450.000	772 500	2 011 400	050.000	0	0
13	Well 8	150,000	772,500	2,811,400	958,900	0	0
14 15	Well 5A Decommissioning	<u>0</u> 150,000	<u>0</u> 772,500	<u>0</u> 2,811,400	<u>82,000</u> 1,040,900	<u>0</u> 0	<u>0</u> 0
15	Total Water Supply Capacity	150,000	772,500	2,811,400	1,040,900	0	0
17	Upgrades for Existing Water Supply						
18	Well 4A Rehab	140,000	0	0	0	0	0
19	Well Rehab every 3-4 years (Wells 1B, 2, 4A, 6)	0	257,500	0	0	225,100	0
20	Filter Repair (Newport & Willow)	118,000	103,000	231,300	0	0	0
21	Stabilization Soils- Willow Lake WTP	150,000	0	0	0	0	0
22	Upgrade Well 4A Piping	75,000	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
23	Total Existing Water Supply	483,000	360,500	231,300	0	225,100	0
24							
25	Distribution/Pipeline Replacements						
26	Mainline CIP Program Long-Term	0	0	530,500	819,500	1,125,500	1,738,900
27	Cathodic Protection	0	257,500	0	0	0	0
28	6 inch pipeline replacement Lakeview Biz Park	0	298,700	0	0	0	0
29	Replace Underwater Crossing Laguna Ct	400,000	0	0	0	0	0
30	Edgeview St. Andrews /Clubhouse	<u>0</u>	<u>309,000</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
31	Total Distribution/Pipeline Replacements	400,000	865,200	530,500	819,500	1,125,500	1,738,900
32							
33	Additional Distribution Improvements						
34	WTP spill containment curbing/diversion	0	25,800	0	0	0	0
35	Upgrade Hypo Tanks at WTP	<u>0</u>	<u>0</u>	<u>26,500</u>	<u>0</u>	<u>0</u>	<u>0</u>
36 37	Total Distribution/Pipeline Replacements	0	25,800	26,500	0	0	0
37	Master Plans						
38 39	Water Master & Asset Management Plans	0	257,500	0	0	0	0
40	2020 Urban Water Management Plan	0	41,200	0	0	0	0
41	AWIA Emergency Plans	<u>0</u>	<u>25,800</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
42	Total Master Plans	0	324,500	0	0	0	0
43			,				
44	Admin Projects						
45	Cyber Security	0	61,800	0	0	45,000	0
46	New Truck	<u>0</u>	<u>0</u>	21,200	<u>0</u>	<u>0</u>	<u>0</u>
47	Total Admin	0	61,800	21,200	0	45,000	0
48							
49	Total Capital Improvements	1,033,000	2,410,300	3,620,900	1,860,400	1,395,600	1,738,900
50							
51	Total Net Revenues	841,900	1,138,200	(2,072,400)	(311,900)	252,900	(90,400)
52							
53	Ending Balance	2,804,300	3,942,500	1,870,100	1,558,200	1,811,100	1,720,700
54		-					

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. Project costs escalated by 3% annually.

### Table 13: Water Operating Cash Flows – Revised OPTION 3 Town of Discovery Bay Water Rate Study

Line	1	Current FY2019/20	Projected FY2020/21	Projected FY2021/22	Projected FY2022/23	Projected FY2023/24	Projected FY2024/25
1 2	Beginning Operating Balance	\$756,000	\$823,000	\$1,791,000	\$1,677,000	\$1,644,000	\$1,661,000
2 3 4	Proposed Increase		5.0%	5.0%	5.0%	5.0%	5.0%
5	Revenues						
6	Rate Revenue	4,191,000	4,401,000	4,621,000	4,852,000	5,095,000	5,350,000
7	New Customers	20,000	27,000	35,000	44,000	53,000	64,000
8	Rate Rev Subtotal	4,211,000	4,428,000	4,656,000	4,896,000	5,148,000	5,414,000
9	Less Delinquency (2%)	(91,000)	(88,000)	(92,000)	(97,000)	(102,000)	(107,000)
10	Vacant Parcel	12,000	12,000	12,000	12,000	12,000	12,000
11	Meter Reimbursements	336,000	336,000	336,000	336,000	336,000	336,000
12	Other & Misc	22,000	27,000	27,000	27,000	27,000	27,000
13	Total Revenues	4,490,000	4,715,000	4,939,000	5,174,000	5,421,000	5,682,000
14		.,,	.,,	.,,	-, ,,	-,,	-,,
15	% increase in operating expenses		budget	3.0%	3.0%	3.0%	3.0%
16	Expenses						
17	Operating Expenses						
18	Admin & Inter Govt. & Board	334,000	451,000	465,000	479,000	493,000	508,000
19	Staffing & Consulting Serv	572,000	862,000	888,000	915,000	942,000	970,000
20	Meters Reading	88,000	93,000	96,000	99,000	102,000	105,000
21	Operations & Maint	331,000	424,000	437,000	450,000	464,000	478,000
22	SGMA Compliance	0	15,000	20,000	21,000	21,000	22,000
23	Utilities [1]	479,000	467,000	481,000	495,000	510,000	525,000
24	Service Contract [2]	<u>651,000</u>	676,000	696,000	780,000	803,000	827,000
25	Total Operating Expenses	2,455,000	2,988,000	3,083,000	3,239,000	3,335,000	3,435,000
26		, ,		, ,	, ,	, ,	, ,
27	Net Operating Revenues	2,035,000	1,727,000	1,856,000	1,935,000	2,086,000	2,247,000
28	1 0	, ,		, ,	, ,	, ,	, ,
29	Debt Service						
30	2012 Bonds Debt Service [3]	88,000	88,000	89,000	88,000	89,000	88,000
31	2017 Bonds Debt Service [3]	170,000	171,000	171,000	170,000	170,000	168,000
32	New Debt Service [4]	<u>0</u>	<u>0</u>	210,000	210,000	210,000	210,000
33	Total Debt Service	258,000	259,000	470,000	468,000	469,000	466,000
34							
35	Debt Service Coverage	7.89	6.67	3.95	4.13	4.45	4.82
36	-						
37	Total O&M + Debt	2,713,000	3,247,000	3,553,000	3,707,000	3,804,000	3,901,000
38							
39	Total Net Revenues	1,777,000	1,468,000	1,386,000	1,467,000	1,617,000	1,781,000
40							
41	Transfer to Capital	1,710,000	500,000	1,500,000	1,500,000	1,600,000	1,600,000
42	-						
43	O&M Ending balance	823,000	1,791,000	1,677,000	1,644,000	1,661,000	1,842,000
44	-						
45	Minimum balance target [5]	818,000	996,000	1,028,000	1,080,000	1,112,000	1,145,000
	<b>.</b>	•					

1 - Chemicals and electric

2 - Assumed increase in FY2023 due to Well #8 coming online

3 - Based on year ended December 1

4 - 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)

5 - 4 months O&M expenses