

Town of Discovery Bay Community Services District



Water and Wastewater Rate Study Tables

DRAFT FOR REVIEW

DRAFT 5/29/13

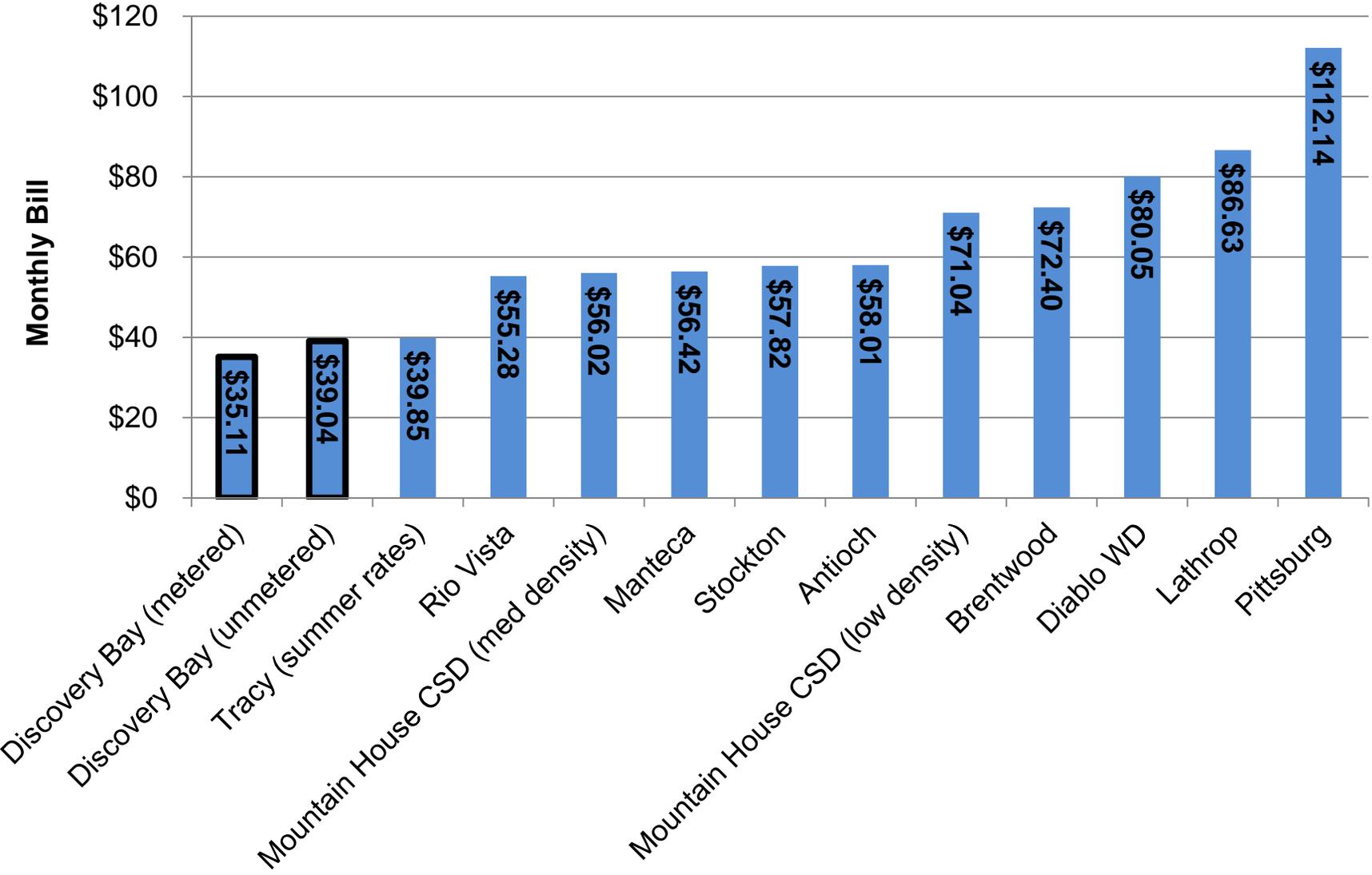


BARTLE WELLS ASSOCIATES
INDEPENDENT PUBLIC FINANCE ADVISORS

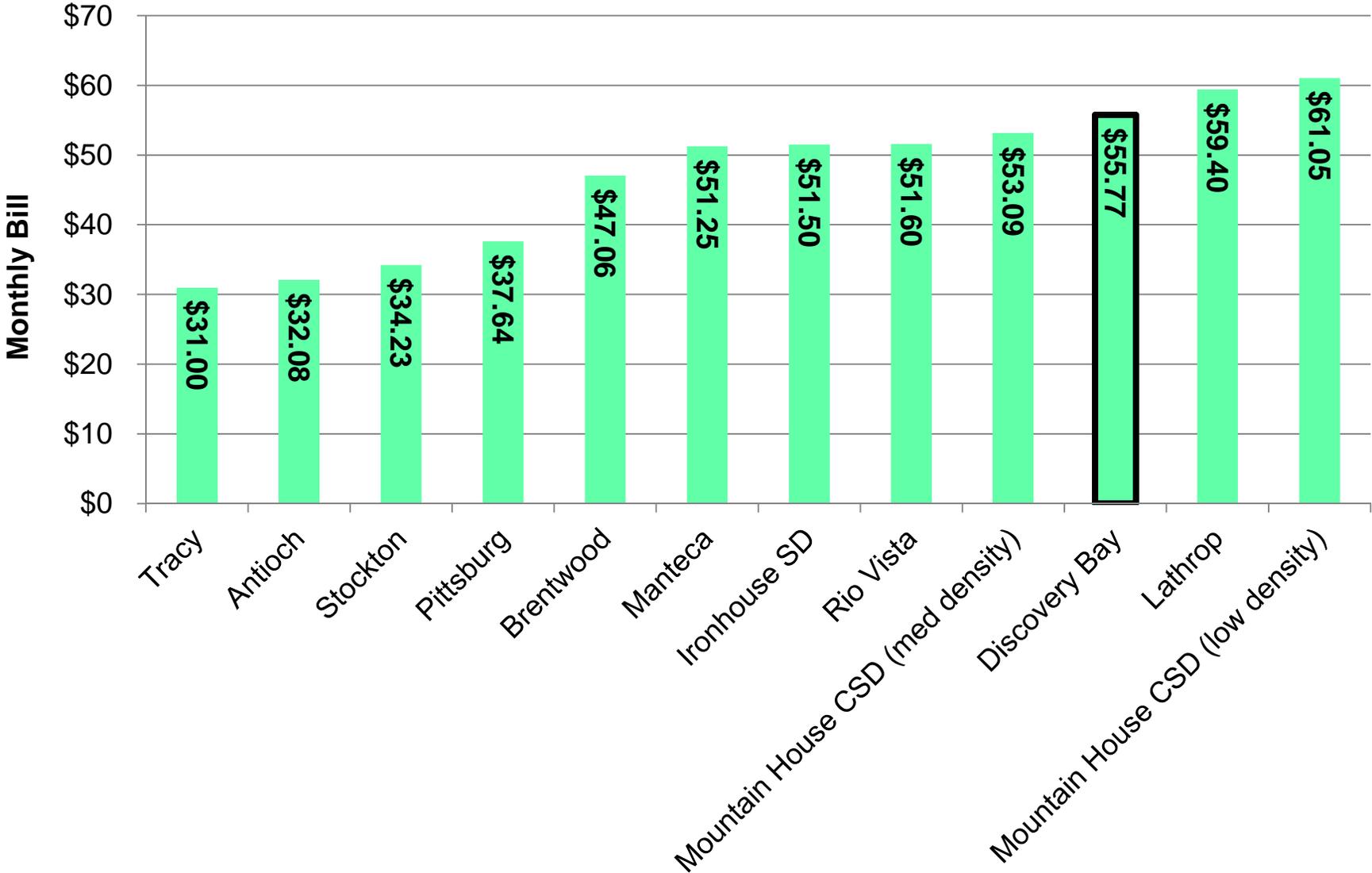
Table 1
Town of Discovery Bay
Water and Wastewater Rate Study
Current FY2012/13 Service Charge Revenues

Billed Monthly (Metered Customers)				Metered Rate (\$/ccf)	\$1.361	
Meter Size	Number of Meters	Monthly Fee	Meter Fee Annual Revenue	Estimated Annual Water Use (ccf)	Annual Water Use Fees	
Residential						
1"	<u>1,878</u>	\$9.25	\$208,458.00	458,000	\$623,000	
Subtotal Residential	1,878					
Nonresidential						
Sandy Cove Shop. Center						
1"	1	\$9.25	\$111.00			
2"	7	\$10.41	\$874.44			
Lakeview Business Plaza						
4"	1	\$18.93	\$227.16			
Other Metered						
1"	6	\$9.25	\$666.00			
1.5"	7	\$9.56	\$803.04			
2"	2	\$10.41	\$249.84			
3"	3	\$16.63	\$598.68			
4"	1	\$18.93	\$227.16			
Irrigation						
5/8"	1	\$2.41	\$28.92			
1"	19	\$2.72	\$620.16			
1.5"	15	\$3.02	\$543.60			
2"	25	\$3.87	\$1,161.00			
3"	2	\$10.09	\$242.16			
4"	<u>5</u>	\$12.39	<u>\$743.40</u>			
Subtotal Nonresidential	95		\$7,096.56	228,000	\$310,000	
Total Metered Customers	1,973		\$215,554.56	686,000	\$933,000	
					\$1,149,000	
Property Tax Roll	Number of Parcels		Annual Fee		Total Annual Revenues	
Type of Customer	Water	Sewer	Water	Sewer	Water	Sewer
Condos w/irrigation	50	50	\$370.92	\$501.96	\$19,000	\$25,000
Condos w/o irrigation	174	174	\$243.72	\$501.96	\$42,000	\$87,000
Vacant	360	355	\$176.00	\$224.00	\$63,000	\$80,000
Unmetered Water						
<5,000 SF	87	87	\$370.92	\$669.24	\$32,000	\$58,000
5,001 to 10,000 SF	2,867	2,867	\$468.48	\$669.24	\$1,343,000	\$1,919,000
>10,000 SF	337	337	\$566.04	\$669.24	\$191,000	\$226,000
Metered	<u>1,973</u>	<u>1,906</u>		\$669.24	<u>\$0</u>	<u>\$1,276,000</u>
Total	5,848	5,776			\$1,690,000	\$3,671,000
						\$5,361,000
				Summary	Water	Sewer
				Metered	\$1,149,000	\$1,276,000
				Unmetered	\$1,690,000	\$2,395,000
				4% Delinquency	<u>(\$114,000)</u>	<u>(\$147,000)</u>
				Total	\$2,725,000	\$3,524,000
						\$6,249,000

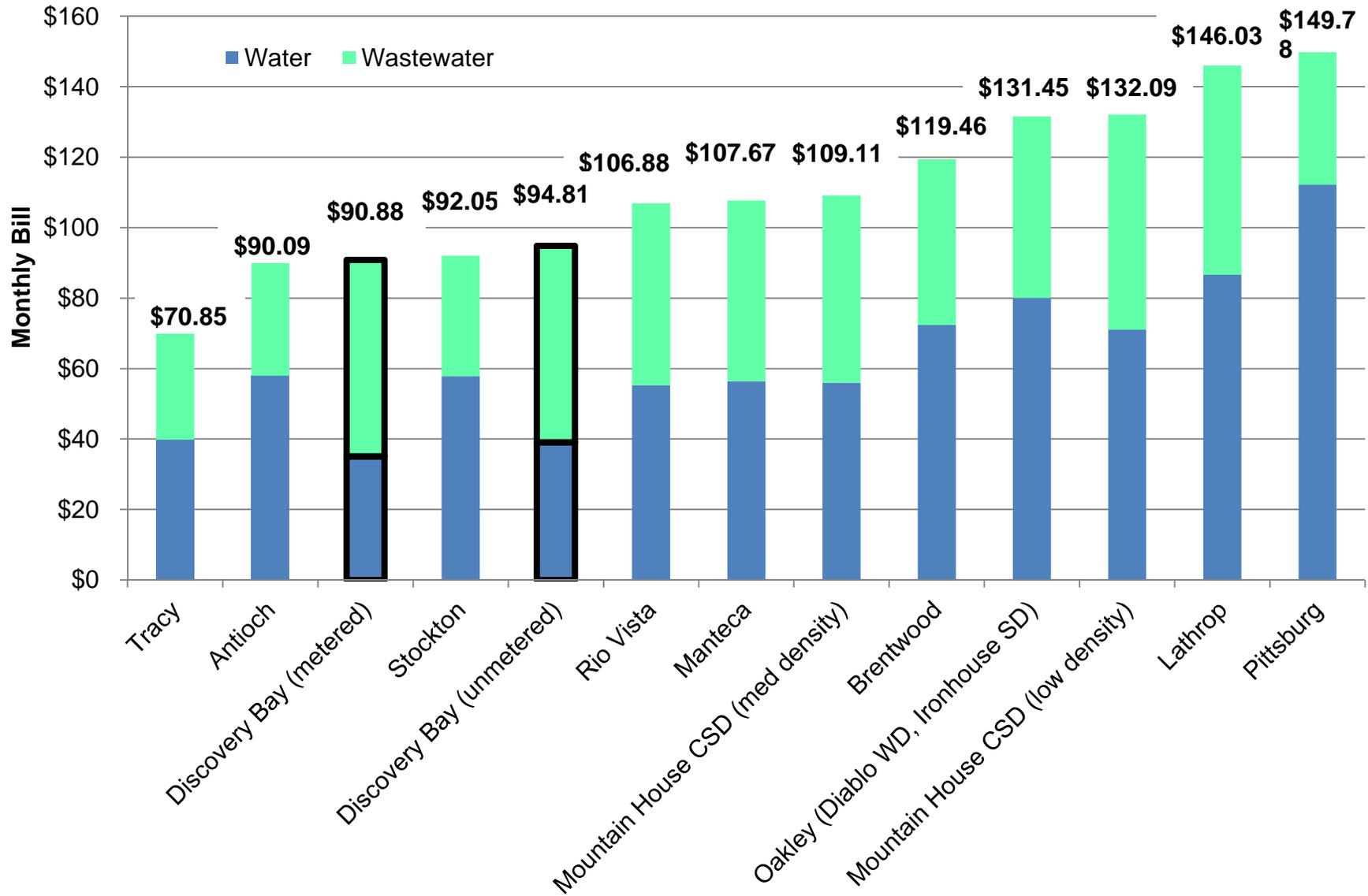
Residential Water Bill Survey (1" meter, 19 ccf per month)



Residential Wastewater Bill Survey



Residential Utility Bill Survey (1" meter, 19 ccf per month)



**Table 2
Town of Discovery Bay
Water and Wastewater Rate Study
Metered Water Customers**

Metered Rate (\$/ccf) \$1.361

Meter Size	Number of Customers	Current Monthly Charge	Current Ratio¹	Current Number of Equivalents	Recommended AWWA Ratio²	Recommended Monthly Charge	Recommended Number of Equivalents
Residential & Commercial							
1"	1,885	\$9.25	1.00	1,885	1.0	\$9.25	1,885
1.5"	7	\$9.56	1.03	7	2.0	\$18.50	14
2"	9	\$10.41	1.13	10	3.2	\$29.60	29
3"	3	\$16.63	1.80	5	6.4	\$59.20	19
4"	2	\$18.93	2.05	4	10.0	\$92.50	20
6"	0	\$24.30	2.63	0	20.0	\$185.00	0
Total	1,906			1,912			1,967
Irrigation							
5/8"	1	\$2.41	1.00	1	1.0	\$2.72	1
1"	19	\$2.72	1.13	21	1.0	\$2.72	19
1.5"	15	\$3.02	1.25	19	2.0	\$5.44	30
2"	25	\$3.87	1.61	40	3.2	\$8.70	80
3"	2	\$10.09	4.19	8	6.4	\$17.41	13
4"	5	\$12.39	5.14	26	10.0	\$27.20	50
6"	0	\$17.76	7.37	0	20.0	\$54.40	0
Total	67			115			193

1 - Residential and commercial customer meters are scaled to the 1" meter charge. Irrigation customers are scaled to the 5/8" meter charge. Current monthly charges were developed by Hornberger Engineering.

2 - American Water Works Association meter ratios.

Table 3
Town of Discovery Bay
Water and Wastewater Rate Study
Unmetered Water Customer Service Charges

Property Tax Roll Type of Customer	Number of Parcels	Current Annual Fee	Total Annual Revenues
Condos w/irrigation	50	\$370.92	\$18,546
Condos w/o irrigation	174	\$243.72	\$42,407
Vacant	360	\$176.00	\$63,360
Unmetered Water			
<5,000 SF	87	\$370.92	\$32,270
5,001 to 10,000 SF ¹	2,867	\$468.48	\$1,343,132
>10,000 SF	<u>337</u>	\$566.04	<u>\$190,755</u>
Total	3,875		\$1,690,000

Table 4
Town of Discovery Bay
Water and Wastewater Rate Study
Projected Development

	Estimated EDUs						
	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020
Discovery Bay West (Hofmann Development)							
Domestic and Commercial	206	120	120	100	100	43	20
Irrigation Only	8	1	1	1	2	2	2
Discovery Bay West (Hofmann Development) - Total Water EDUs							
Domestic, Commercial, and Irrigation	214	121	121	101	102	45	22
Discovery Bay West (Hofmann Development) - Total Wastewater EDUs							
Domestic and Commercial Only	206	120	120	100	100	43	20
Discovery Bay, Byron, Evans, Pantages, Newport Pointe							
Domestic and Commercial							
Discovery Bay Vacant Lots	10	10	10	10	0	0	0
Discovery Bay Shopping Center	0	20	20	20	10	5	5
Discovery Bay Golf Course	0	4	4	2	2	1	0
Byron 78 (Sandy Cove)	0	3	3	3	2	2	2
Evans	0	4	4	4	3	2	2
Pantages	0	0	60	60	50	10	10
Newport Pointe Residential	<u>0</u>	<u>0</u>	<u>35</u>	<u>17</u>	<u>10</u>	<u>5</u>	<u>0</u>
Total	10	41	136	116	77	25	19
Irrigation Only							
Discovery Bay Shopping Center	0	1	1	1	0	0	0
Discovery Bay Golf Course	0	1	1	0	0	0	0
Pantages	0	0	1	1	1	1	0
Newport Pointe	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>0</u>	<u>0</u>
Total	0	2	4	3	2	1	0
Total Water EDUs							
Domestic, Commercial, and Irrigation	10	43	140	119	79	26	19
Total Wastewater EDUs							
Domestic and Commercial Only	10	41	136	116	77	25	19
Total All Developments (Hofmann and Others)							
Total Water EDUs	224	164	261	220	181	71	41
Total Wastewater EDUs	216	161	256	216	177	68	39

Table 5
Town of Discovery Bay
Water and Wastewater Rate Study
Service Charge Projection

	Current	w/Recommended Equivalents	FY2014	FY2015	FY2016	FY2017
Increase in Metered and Unmetered Water Charges ¹			2.7%	4.0%	4.0%	4.0%
Water Use						
Annual Consumption (ccf) ²	686,000	686,000	737,064	774,456	833,964	884,124
Rate	\$1.361	\$1.361	\$1.398	\$1.454	\$1.512	\$1.572
Total Water Use Revenue	\$934,000	\$934,000	\$1,030,000	\$1,126,000	\$1,261,000	\$1,390,000
Water Meter Fixed Charge						
Residential and Commercial						
New Customers			216	161	256	216
Equivalents	1,912	1,967	2,183	2,344	2,600	2,816
Monthly Charge	\$9.25	\$9.25	\$9.50	\$9.88	\$10.28	\$10.69
Annual Revenue	\$212,215	\$218,337	\$249,000	\$278,000	\$321,000	\$361,000
Irrigation						
New Customers			8	3	5	4
Equivalents	115	193	201	204	209	213
Monthly Charge	\$2.41	\$2.41	\$2.48	\$2.58	\$2.68	\$2.79
Annual Revenue	\$3,339	\$5,576	\$6,000	\$6,000	\$7,000	\$7,000
Water Meter Fixed Charge Revenue	\$216,000	\$224,000	\$255,000	\$284,000	\$328,000	\$368,000
Unmetered Water Charge Revenue	\$1,690,000	\$1,690,000	\$1,736,000	\$1,805,000	\$1,877,000	\$1,952,000
Increase in Wastewater Charges ¹			2.7%	4.0%	4.0%	4.0%
Sewer Charge Revenue	\$3,671,000	\$3,671,000	\$3,770,000	\$3,921,000	\$4,078,000	\$4,241,000

Note: Revenues shown in this table do not have a delinquency factor included. A delinquency factor is added into the revenues in subsequent tables.

1 - Illustrative increases are shown. It should be noted that the current CPI for Water and Sewer using the U.S. Bureau of Labor Statistics Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by expenditure category, 12-month analysis table is 4.7%. For the FY 2013-14 year, it is proposed that the rates increase 2.7% over current rates. Actual increases in years FY2014-2017 and beyond will be set at the annual average change in the CPI.

2 - Each new customer is assumed to use 19 ccf monthly/228 ccf annually (the average residential consumption). Irrigation and commercial customers are varied and on average use more than the average residential customer. However, for projecting water use, each new irrigation and commercial customer is assumed to use the residential average.

**Table 6
Town of Discovery Bay
Water and Wastewater Rate Study
Service Charge Schedule**

	Current	w/Recommended Equivalents	FY2014	FY2015	FY2016	FY2017
Illustrative Increase in Metered and Unmetered Rates ¹			2.7%	4.0%	4.0%	4.0%
Water Use Rate	\$1.361	\$1.361	\$1.398	\$1.454	\$1.512	\$1.572
Water Meter Fixed Charge						
Residential & Commercial						
5/8"	\$8.95	\$9.25	\$9.50	\$9.88	\$10.28	\$10.69
1"	\$9.25	\$9.25	\$9.50	\$9.88	\$10.28	\$10.69
1.5"	\$9.56	\$18.50	\$19.00	\$19.76	\$20.55	\$21.37
2"	\$10.41	\$29.60	\$30.40	\$31.62	\$32.88	\$34.20
3"	\$16.63	\$59.20	\$60.80	\$63.23	\$65.76	\$68.39
4"	\$18.93	\$92.50	\$95.00	\$98.80	\$102.75	\$106.86
6"	\$24.30	\$185.00	\$190.00	\$197.60	\$205.50	\$213.72
Irrigation						
5/8"	\$2.41	\$2.72	\$2.79	\$2.90	\$3.02	\$3.14
1"	\$2.72	\$2.72	\$2.79	\$2.90	\$3.02	\$3.14
1.5"	\$3.02	\$5.44	\$5.59	\$5.81	\$6.04	\$6.28
2"	\$3.87	\$8.70	\$8.94	\$9.30	\$9.67	\$10.06
3"	\$10.09	\$17.41	\$17.88	\$18.60	\$19.34	\$20.11
4"	\$12.39	\$27.20	\$27.93	\$29.05	\$30.21	\$31.42
6"	\$17.76	\$54.40	\$55.87	\$58.10	\$60.42	\$62.84
Unmetered Water Charge						
Condos w/irrigation	\$370.92	\$370.92	\$380.93	\$396.17	\$412.02	\$428.50
Condos w/o irrigation	\$243.72	\$243.72	\$250.30	\$260.31	\$270.72	\$281.55
Vacant	\$176.00	\$176.00	\$180.75	\$187.98	\$195.50	\$203.32
Unmetered Water						
<5,000 SF	\$370.92	\$370.92	\$380.93	\$396.17	\$412.02	\$428.50
5,001 to 10,000 SF	\$468.48	\$468.48	\$481.13	\$500.38	\$520.40	\$541.22
>10,000 SF	\$566.04	\$566.04	\$581.32	\$604.57	\$628.75	\$653.90
Sewer Charges						
Condos w/irrigation	\$501.96	\$501.96	\$515.51	\$536.13	\$557.58	\$579.88
Condos w/o irrigation	\$501.96	\$501.96	\$515.51	\$536.13	\$557.58	\$579.88
Vacant	\$224.00	\$224.00	\$230.05	\$239.25	\$248.82	\$258.77
Unmetered Water						
<5,000 SF	\$669.24	\$669.24	\$687.31	\$714.80	\$743.39	\$773.13
5,001 to 10,000 SF	\$669.24	\$669.24	\$687.31	\$714.80	\$743.39	\$773.13
>10,000 SF	\$669.24	\$669.24	\$687.31	\$714.80	\$743.39	\$773.13
Business/Government/Cl.	\$3.874	\$3.874	\$3.979	\$4.138	\$4.303	\$4.475
Restaurants/Bars/Dining f	\$11.344	\$11.344	\$11.650	\$12.116	\$12.601	\$13.105
Schools	\$3.487	\$3.487	\$3.581	\$3.724	\$3.873	\$4.028
Other Domestic Strength	\$3.874	\$3.874	\$3.979	\$4.138	\$4.303	\$4.475

1 - Illustrative increases are shown. It should be noted that the current CPI for Water and Sewer using the U.S. Bureau of Labor Statistics Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by expenditure category, 12-month analysis table is 4.7%. For the FY 2013-14 year, it is proposed that the rates increase 2.7% over current rates. Actual increases in years FY2014-2017 and beyond will be set at the annual average change in the CPI.

WATER	Existing FY 2012/13		Proposed FY 2013/14		Proposed FY 2014/15		Proposed FY 2015/16		Proposed FY 2016/17	
Residential Unmetered	Monthly (\$/month/DU)	Yearly (\$/year/DU)								
Parcel Size (Square Fee/DU)										
Condos w/irrigation	\$30.91	\$370.92	\$31.74	\$380.93	\$33.01	\$396.17	\$34.34	\$412.02	\$35.71	\$428.50
Condos w/o irrigation	\$20.31	\$243.72	\$20.86	\$250.30	\$21.69	\$260.31	\$22.56	\$270.72	\$23.46	\$281.55
Under 5,000	\$30.91	\$370.92	\$31.74	\$380.93	\$33.01	\$396.17	\$34.34	\$412.02	\$35.71	\$428.50
5,000 - 10,000	\$39.04	\$468.48	\$40.09	\$481.13	\$41.70	\$500.38	\$43.37	\$520.40	\$45.10	\$541.22
10,001 - 15,000	\$47.17	\$566.04	\$48.44	\$581.32	\$50.38	\$604.57	\$52.40	\$628.75	\$54.49	\$653.90
Over 15,000,	\$47.17	\$566.04	\$48.44	\$581.32	\$50.38	\$604.57	\$52.40	\$628.75	\$54.49	\$653.90
Vacant	\$14.67	\$176.00	\$15.06	\$180.75	\$15.67	\$187.98	\$16.29	\$195.50	\$16.94	\$203.32
Plus Each Additional 1,000	\$2.71	\$37.57	\$2.78	\$33.40	\$2.89	\$34.73	\$3.01	\$36.12	\$3.13	\$37.57
WATER	Monthly	Use								
All Metered	(\$/month)	(\$/ccf)								
Nonirrigation Account Charge:										
5/8" Inch Meter	\$8.95		\$9.50		\$9.88		\$10.28		\$10.69	
1 Inch Meter	\$9.25		\$9.50		\$9.88		\$10.28		\$10.69	
1 1/2 Inch Meter	\$9.56		\$19.00		\$19.76		\$20.55		\$21.37	
2 Inch Meter	\$10.41		\$30.40		\$31.62		\$32.88		\$34.20	
3 Inch Meter	\$16.63		\$60.80		\$63.23		\$65.76		\$68.39	
4 Inch Meter	\$18.93		\$95.00		\$98.80		\$102.75		\$106.86	
6 Inch Meter	\$24.30		\$190.00		\$197.60		\$205.50		\$213.72	
Irrigation Account Charge:										
5/8" Inch Meter	\$2.41		\$2.79		\$2.90		\$3.02		\$3.14	
1 Inch Meter	\$2.72		\$2.79		\$2.90		\$3.02		\$3.14	
1 1/2 Inch Meter	\$3.02		\$5.59		\$5.81		\$6.04		\$6.28	
2 Inch Meter	\$3.87		\$8.94		\$9.30		\$9.67		\$10.06	
3 Inch Meter	\$10.09		\$17.88		\$18.60		\$19.34		\$20.11	
4 Inch Meter	\$12.39		\$27.93		\$29.05		\$30.21		\$31.42	
6 Inch Meter	\$17.76		\$55.87		\$58.10		\$60.42		\$62.84	
Metered Usage Charge:										
All Usage		\$1.361		\$1.398		\$1.454		\$1.512		\$1.572

PROPOSED WASTEWATER RATE INCREASES 2.7% 4.0% 4.0% 4.0%

WASTEWATER	Existing FY 2012/13		Proposed FY 2013/14		Proposed FY 2014/15		Proposed FY 2015/16		Proposed FY 2016/17	
Residential Unmetered	Monthly (\$/month)	Yearly (\$/year)								
Single Family - Each DU	\$55.77	\$669.24	\$57.28	\$687.31	\$59.57	\$714.80	\$61.95	\$743.39	\$64.43	\$773.13
Multiple Family/Condos - Each DU	\$41.83	\$501.96	\$42.96	\$515.51	\$44.68	\$536.13	\$46.47	\$557.58	\$48.32	\$579.88
Nonresidential Metered	Use (\$/ccf)									
Business/Government/Clubs	\$3.874		\$3.979		\$4.138		\$4.303		\$4.475	
Restaurants/Bars/Dining Facilities	\$11.344		\$11.650		\$12.116		\$12.601		\$13.105	
Schools	\$3.487		\$3.581		\$3.724		\$3.873		\$4.028	
Other Domestic Strength Users	\$3.874		\$3.979		\$4.138		\$4.303		\$4.475	

DU = Dwelling Unit

ccf = 100 cubic feet = 748 gallons

Illustrative increases are shown. The increase in FY2014 is proposed to be 2.66%. It should be noted that the current CPI for Water and Sewer using the U.S. Bureau of Labor Statistics Consumer Price Index for All Urban Consumers (CPI-U): U.S. city average, by expenditure category, 12-month analysis table is 4.7%. For FY2014-2017 and beyond, the annual increase will be 3% or the annual average change in the CPI, whichever is greater.

Table 7
Town of Discovery Bay
Water and Wastewater Rate Study
Water Operating Cash Flows

	Current FY 2013	Projected FY 2014	Projected FY 2015	Projected FY 2016	Projected FY 2017
Beginning balance	\$2,400,000	\$3,092,000	\$3,641,000	\$3,552,000	\$3,722,000
Revenues					
Water service					
Property Taxes	1,690,000	1,736,000	1,805,000	1,877,000	1,952,000
Meter Charges	216,000	255,000	284,000	328,000	368,000
Water Use	933,000	1,030,000	1,126,000	1,261,000	1,390,000
4% Delinquency	<u>(114,000)</u>	<u>(121,000)</u>	<u>(129,000)</u>	<u>(139,000)</u>	<u>(148,000)</u>
Total Revenues	2,725,000	2,900,000	3,086,000	3,327,000	3,562,000
% increase in operating expenses		6.0%	3.0%	3.0%	3.0%
Expenses					
Operating Expenses	1,945,000	2,062,000	2,124,000	2,188,000	2,254,000
2012 Revenue Bonds Debt Service	<u>88,000</u>	<u>88,000</u>	<u>89,000</u>	<u>88,000</u>	<u>88,000</u>
Total Expenses	2,033,000	2,150,000	2,213,000	2,276,000	2,342,000
Net Revenues	692,000	750,000	873,000	1,051,000	1,220,000
Transfer to Capital Fund	0	201,000	962,000	881,000	1,884,000
Total Net Revenues	692,000	549,000	(89,000)	170,000	(664,000)
O&M Ending balance	3,092,000	3,641,000	3,552,000	3,722,000	3,058,000
O&M Minimum balance target¹	973,000	1,031,000	1,062,000	1,094,000	1,127,000

1 - 180 days O&M expenses

Table 8
Town of Discovery Bay
Water and Wastewater Rate Study
Water Capacity Fee Revenues

Lines	FY2014	Estimated EDUs			Total	Notes
		FY2015	FY2016	FY2017		
Water Capacity Fee Revenue						
Hofmann Development						
Water Committed Capacity						
	Water EDUs	214	70	0	0	284
	Water Capacity Fee	\$297	\$297	\$297	\$297	
[1]	Total Revenue from Water Committed Capacity	\$64,000	\$21,000	\$0	\$0	\$85,000
Beyond Committed Capacity						
	Water EDUs	0	51	121	101	273
	Water Capacity Fee	\$4,017	\$4,138	\$4,262	\$4,389	
[2]	Total Revenue Beyond Committed Capacity	\$0	\$211,000	\$516,000	\$443,000	\$1,170,000
[3]	Total Hofmann Water Capacity Fee Revenue	\$64,000	\$232,000	\$516,000	\$443,000	\$1,255,000 [1] + [2]
Discovery Bay, Byron, Evans, Pantages, Newport Pointe						
	Water EDUs	10	43	140	119	312
	Water Capacity Fee	\$4,017	\$4,138	\$4,262	\$4,389	
[4]	Total Water Capacity Fee Revenue Discovery Bay, Byron, Evans, Pantages, Newport Pointe	\$40,000	\$178,000	\$597,000	\$522,000	\$1,337,000
	Total Water Capacity Fee Revenue	\$104,000	\$410,000	\$1,113,000	\$965,000	\$2,592,000 [3] + [4]

Note: The FY2012/13 capacity fee was developed in BWA's Water and Wastewater Capacity Fee Technical Memorandum, October 2012. The capacity fee is increased annually based on the annual change in the Engineering News Record Construction Cost Index for San Francisco, assumed to be 3%.

Table 9
Town of Discovery Bay
Water and Wastewater Rate Study
Water Capital Cash Flows

	Current FY 2013	Projected FY 2014	Projected FY 2015	Projected FY 2016	Projected FY 2017
Beginning Balance	1,500,000	899,000	0	0	0
Revenues					
Capacity Fees	65,000	104,000	410,000	1,113,000	965,000
Interest Earnings	3,000	3,000	3,000	3,000	3,000
Transfer from Operating Fund	<u>0</u>	<u>201,000</u>	<u>962,000</u>	<u>881,000</u>	<u>1,884,000</u>
Total revenues	68,000	308,000	1,375,000	1,997,000	2,852,000
Capital Improvements					
Bond Financed Projects					
Well 7	<u>221,000</u>	<u>627,000</u>	<u>627,000</u>	<u>0</u>	<u>0</u>
Total Bond Financed Projects	221,000	627,000	627,000	0	0
Growth Induced Projects					
Treatment Filter Unit at Willow Lake WTP	0	0	21,000	238,000	0
Backwash Tank at Willow Lake WTP	0	0	0	29,000	331,000
New Recycle Pumps at Willow Lake WTP	0	0	0	0	72,000
Water Storage Tank at Newport WTP	<u>0</u>	<u>0</u>	<u>0</u>	<u>86,000</u>	<u>994,000</u>
Total Growth Induced Projects	0	0	21,000	353,000	1,397,000
Repair and Replacement Projects					
Well 8	0	50,000	227,000	644,000	594,000
8" Main Replacements	150,000	250,000	250,000	750,000	611,000
Water Infrastructure Replacement	200,000	200,000	200,000	200,000	200,000
Equipment/Pumps Motors/Vehicles	63,000	50,000	50,000	50,000	50,000
Well 1B Pump Upgrade	0	30,000	0	0	0
Willow Lake WTP Chemical Room Upgrade	25,000	0	0	0	0
Security Door Locks	<u>10,000</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Repair and Replacement Projects	448,000	580,000	727,000	1,644,000	1,455,000
Total Capital Improvements	669,000	1,207,000	1,375,000	1,997,000	2,852,000
Total net revenues	(601,000)	(899,000)	0	0	0
Ending Balance	899,000	0	0	0	0

Note: If development does not occur, growth induced projects will be delayed.

Table 10

Town of Discovery Bay

Water and Wastewater Rate Study

Water Fund Debt Service Coverage Projections

	Current FY 2013	Projected FY 2014	Projected FY 2015	Projected FY 2016	Projected FY 2017
Revenues					
Property Taxes	1,690,000	1,736,000	1,805,000	1,877,000	1,952,000
Meter Charges	216,000	255,000	284,000	328,000	368,000
Water Use	933,000	1,030,000	1,126,000	1,261,000	1,390,000
Capacity Fees	65,000	104,000	410,000	1,113,000	965,000
4% Delinquency	<u>(114,000)</u>	<u>(121,000)</u>	<u>(129,000)</u>	<u>(139,000)</u>	<u>(148,000)</u>
Total Revenues	2,790,000	3,004,000	3,496,000	4,440,000	4,527,000
Operating Expenses	1,945,000	2,062,000	2,124,000	2,188,000	2,254,000
Net Operating Revenues	845,000	942,000	1,372,000	2,252,000	2,273,000
2012 Revenue Bonds Debt Service	88,000	88,000	89,000	88,000	88,000
Debt Service Coverage	9.60	10.70	15.42	25.59	25.83

Table 11
Town of Discovery Bay
Water and Wastewater Rate Study
Wastewater Operating Cash Flows

	Current FY 2013	Projected FY 2014	Projected FY 2015	Projected FY 2016	Projected FY 2017
Beginning balance	\$3,647,000	\$3,755,000	\$3,554,000	\$3,257,000	\$3,164,000
Revenues					
Wastewater service (property taxes)	3,671,000	3,770,000	3,921,000	4,078,000	4,241,000
4% Delinquency	(147,000)	(151,000)	(157,000)	(163,000)	(170,000)
Reimbursements	<u>240,000</u>	<u>10,000</u>	<u>10,000</u>	<u>10,000</u>	<u>10,000</u>
Total revenues	3,764,000	3,629,000	3,774,000	3,925,000	4,081,000
% increase in expenses		6.0%	3.0%	3.0%	3.0%
Expenses					
Operating Expenses	2,915,000	3,090,000	3,183,000	3,278,000	3,376,000
2012 Revenue Bonds Debt Service	<u>741,000</u>	<u>740,000</u>	<u>743,000</u>	<u>740,000</u>	<u>737,000</u>
Total Expenses	3,656,000	3,830,000	3,926,000	4,018,000	4,113,000
Net Revenues	108,000	(201,000)	(152,000)	(93,000)	(32,000)
Transfer to Capital Fund	0	0	145,000	0	564,000
Total Net Revenues	108,000	(201,000)	(297,000)	(93,000)	(596,000)
O&M Ending balance	3,755,000	3,554,000	3,257,000	3,164,000	2,568,000
O&M Minimum balance target¹	1,457,500	1,545,000	1,591,500	1,639,000	1,688,000

1 - 180 days O&M expenses

Table 12
Town of Discovery Bay
Water and Wastewater Rate Study
Wastewater Capacity Fee Revenues

Lines	FY2014	Estimated EDUs		FY2017	Total	Notes
		FY2015	FY2016			
Wastewater Capacity						
Hofmann Development						
Wastewater Committed Capacity						
		206	120	120	100	546
		\$2,789	\$2,789	\$2,789	\$2,789	
[1]		\$575,000	\$335,000	\$335,000	\$279,000	\$1,524,000
Beyond Committed Capacity						
		0	0	0	0	0
		\$10,156	\$10,460	\$10,774	\$11,098	
[2]		\$0	\$0	\$0	\$0	\$0
[3]		\$575,000	\$335,000	\$335,000	\$279,000	\$1,524,000 [1] + [2]
Discovery Bay, Byron, Evans, Pantages, Newport Pointe						
		10	43	140	119	312
		\$10,156	\$10,460	\$10,774	\$11,098	
[4]		\$102,000	\$450,000	\$1,508,000	\$1,321,000	\$3,381,000
		\$677,000	\$785,000	\$1,843,000	\$1,600,000	\$4,905,000 [3] + [4]

Note: The FY2012/13 capacity fee was developed in BWA's Water and Wastewater Capacity Fee Technical Memorandum, October 2012. The capacity fee is increased annually based on the annual change in the Engineering News Record Construction Cost Index for San Francisco, assumed to be 3%.

Table 13

**Town of Discovery Bay
Water and Wastewater Rate Study
Wastewater Capital Cash Flows**

	Current FY 2013	Projected FY 2014	Projected FY 2015	Projected FY 2016	Projected FY 2017
Beginning balance	\$12,600,000	\$7,646,000	\$2,585,000	\$0	\$555,000
Revenues					
Capacity Fees	0	677,000	785,000	1,843,000	1,600,000
Interest Earnings	10,000	10,000	10,000	10,000	10,000
Transfer from Operating Fund	<u>0</u>	<u>0</u>	<u>145,000</u>	<u>0</u>	<u>564,000</u>
Total Revenues	10,000	687,000	940,000	1,853,000	2,174,000
Capital Improvements					
Bond Financed Projects					
Influent PS Modifications	94,000	981,000	0	0	0
Re-Activate Pump Station W	30,000	355,000	0	0	0
Emergency Storage Facilities	15,000	114,000	114,000	0	0
Splitter Box, Ox Ditch, Clarifier, RAS Pump	605,000	2,723,000	2,723,000	0	0
Solids Improvements, Phase 1	3,466,000	385,000	0	0	0
Lift Station F Rehab	0	250,000	250,000	0	0
UV Bank	<u>250,000</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total Bond Financed Projects	4,460,000	4,808,000	3,087,000	0	0
Growth Induced Projects					
Secondary Effluent Pump Station Modification	0	0	0	38,000	213,000
Secondary Effluent Equalization	0	0	0	102,000	578,000
Effluent Filtration	0	0	0	500,000	750,000
Upgrade UV Disinfection	0	0	0	120,000	750,000
Add Pump to Export Pump Station	<u>0</u>	<u>0</u>	<u>0</u>	<u>100,000</u>	<u>0</u>
Total Growth Induced Projects	0	0	0	860,000	2,291,000
Repair and Replacement Projects					
Pumps/Motors/Generators	75,000	75,000	75,000	75,000	75,000
UV Disinfection Viral Bioassay Test	28,000	0	0	0	0
Collection System Pump Station Improvements	110,000	135,000	135,000	135,000	135,000
SCADA Improvements	0	350,000	0	0	0
Filter to Plant 1	8,000	42,000	0	0	0
NPDES Permit Renewal	40,000	40,000	0	0	0
Rehab Manholes	18,000	18,000	18,000	18,000	18,000
Raise Manholes	10,000	10,000	10,000	10,000	10,000
Spare NTU Sensor	0	20,000	0	0	0
Road Crossing Ramps	15,000	0	0	0	0
Salinity Project	0	50,000	0	0	0
Sewer Infrastructure Replacement	<u>200,000</u>	<u>200,000</u>	<u>200,000</u>	<u>200,000</u>	<u>200,000</u>
Total Repair and Replacement Projects	504,000	940,000	438,000	438,000	438,000
Total Capital Improvements	4,964,000	5,748,000	3,525,000	1,298,000	2,729,000
Total Net Revenues	(4,954,000)	(5,061,000)	(2,585,000)	555,000	(555,000)
Capital Ending balance	7,646,000	2,585,000	0	555,000	0

Note: If development does not occur, growth induced projects will be delayed.

Table 14**Town of Discovery Bay****Water and Wastewater Rate Study****Wastewater Fund Debt Service Coverage Projections**

	Current FY 2013	Projected FY 2014	Projected FY 2015	Projected FY 2016	Projected FY 2017
Revenues					
Wastewater service (property taxes)	3,671,000	3,770,000	3,921,000	4,078,000	4,241,000
4% Delinquency	(147,000)	(151,000)	(157,000)	(163,000)	(170,000)
Reimbursements	240,000	10,000	10,000	10,000	10,000
Capacity Fees	<u>0</u>	<u>677,000</u>	<u>785,000</u>	<u>1,843,000</u>	<u>1,600,000</u>
Total Revenues	3,764,000	4,306,000	4,559,000	5,768,000	5,681,000
Operating Expenses	2,915,000	3,090,000	3,183,000	3,278,000	3,376,000
Net Operating Revenues	849,000	1,216,000	1,376,000	2,490,000	2,305,000
2012 Revenue Bonds Debt Service	741,000	740,000	743,000	740,000	737,000
Debt Service Coverage	1.15	1.64	1.85	3.36	3.13

Table 15
Town of Discovery Bay
Water and Wastewater Rate Study
Combined Cash Flows

	Current FY 2013	Projected FY 2014	Projected FY 2015	Projected FY 2016	Projected FY 2017
Beginning balance	\$6,047,000	\$6,848,000	\$7,196,000	\$6,811,000	\$6,888,000
Revenues					
Service Charges					
Water Property Taxes	1,690,000	1,736,000	1,805,000	1,877,000	1,952,000
Meter Charges	216,000	255,000	284,000	328,000	368,000
Water Use	933,000	1,030,000	1,126,000	1,261,000	1,390,000
Sewer Charges	3,671,000	3,770,000	3,921,000	4,078,000	4,241,000
4% Delinquency	(260,000)	(272,000)	(285,000)	(302,000)	(318,000)
Reimbursements	<u>240,000</u>	<u>10,000</u>	<u>10,000</u>	<u>10,000</u>	<u>10,000</u>
Total revenues	6,490,000	6,529,000	6,861,000	7,252,000	7,643,000
% increase in expenses		6.0%	3.0%	3.0%	3.0%
Expenses					
Operating Expenses	4,860,000	5,152,000	5,307,000	5,466,000	5,630,000
2012 Revenue Bonds Debt Service	<u>829,000</u>	<u>828,000</u>	<u>832,000</u>	<u>828,000</u>	<u>825,000</u>
Total Expenses	5,689,000	5,980,000	6,139,000	6,294,000	6,455,000
Net operating revenues	801,000	549,000	722,000	958,000	1,188,000
Transfer to Capital Fund	0	201,000	1,107,000	881,000	2,448,000
Total net revenues	801,000	348,000	(385,000)	77,000	(1,260,000)
O&M Ending balance	6,848,000	7,196,000	6,811,000	6,888,000	5,628,000
O&M Minimum balance target¹	2,430,000	2,576,000	2,653,500	2,733,000	2,815,000

1 - 180 days O&M expenses