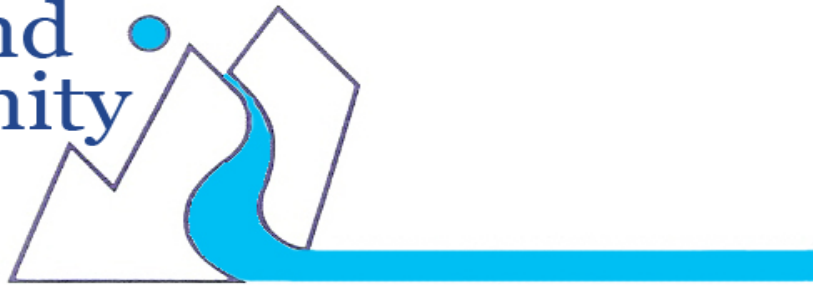


Groveland  
Community  
Services  
District



**Board Meeting**

**3/13/2017**



Bartle Wells Associates  
1889 Alcatraz Avenue  
Berkeley, CA 94703

**Table 1: Fixed and Variable Cost Allocation  
Groveland Community Services District  
Sewer Rate Study**

<b>Budget Category</b>	<b>Test Year 2016/17</b>	<b>Fixed Cost</b>	<b>Variable Cost</b>
<b>Administration &amp; Board</b>	581,700	100%	0%
<b>Operations</b>			
Employee Salaries and Benefits	262,400	100%	0%
Overhead [1]	53,576	100%	0%
Chemicals	24,720	0%	100%
Laboratory	29,355	50%	50%
Repairs and Maintenance	26,000	25%	75%
Biosolids	10,300	0%	100%
SCADA	6,180	0%	100%
Irrigation Fields	1,545	0%	100%
Groundwater Monitoring	5,150	100%	0%
Utilities	<u>90,125</u>	0%	100%
Total Operations	509,351		
<b>Maintenance</b>			
Employee Salaries and Benefits	337,078	100%	0%
Fuel	21,785	0%	100%
Chemical/Odor Control	10,300	0%	100%
Maintenance and Repair	25,750	25%	75%
Emergency Repair Sewer Lines	5,150	100%	0%
Conservation Crew Expenses	2,575	100%	0%
Annual Collect System TV Insp	46,350	100%	0%
Utilities	20,472	0%	100%
Overhead [1]	<u>38,816</u>	100%	0%
Total Maintenance	508,276		
Equipment Leases	40,050	100%	0%
Debt	410,000	90%	10%
Capital Improvement Funding	250,000	90%	10%
Total	2,299,377	1,994,460	304,917
<b>Allocation</b>		<b>87%</b>	<b>13%</b>

[1] Small tools, supplies, office expenses, misc.

**Table 2 : Customer Information**  
**Groveland Community Services District**  
**Sewer Rate Study**

<b>Code</b>	<b>Customer Information</b>	<b>Number of Accounts</b>	<b>Total Number of Bills</b>	<b>Ratio [1]</b>	<b>Equivalent Number of Bills</b>
S01	Sewer Monthly Fixed Rate	1,499	17,988	1.00	17,988
S01FC	Fixed Consump Fee 3100 ga	15	180	0.41	73
S02	Sewer Coml Monthly Fixed Ra	91	1,092	1.00	1,092
S02S	Coml w/stdby	1	12	1.00	12
S03	Sewer Coml Monthly Fixed Ra	1	12	1.00	12
S04	Coml 2 Conn Fixed	5	60	2.00	120
S04S	Coml 2 Conn w/Stdby	5	60	2.00	120
S06	Coml 4 Conn Fixed	1	12	4.00	48
	<b>Total</b>	<b>1,618</b>	<b>19,416</b>		<b>19,465</b>

**Table 3: Current Monthly Rates**  
**Groveland Community Services District**  
**Sewer Rate Study**

<b>Rate Category</b>	<b>FY2017 Current Rates</b>
Monthly Minimum Charge	\$53.10
2014 Wastewater Debt Service Charge [1]	\$25.75
Volume Usage Charge (\$/gallon metered water use)	
Residential	\$0.00698
Commercial	\$0.01121

[1] Not applicable to Groveland/Big Oak Flat accounts not tributary to Lift Station 7

**Table 4a: Capital Improvement Cost- "Low CIP"**  
**Groveland Community Services District**  
**Sewer Rate Study**

<b>Category</b>	<b>Original Construction Cost [1]</b>	<b>Replacement Cost in 2016\$ [1]</b>
Pipelines	\$3,720,356	\$16,729,648
Treatment Plant	\$3,975,697	\$10,572,417
Lift Stations	\$4,302,421	\$5,424,148
Vehicles	<u>\$248,306</u>	<u>\$275,074</u>
Total	\$12,246,780	\$33,001,287
Pipeline Annual Capital Set-aside		
60 Year Replacement cycle (1.7%)		\$284,404
30 Year Replacement Cycle (3.3%)		\$552,078
20 year replacement cycle (5%)		\$836,482
15 year replacement cycle (6.7%)		\$1,115,310
Short-term goal		\$250,000

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1 - Some Groveland CSD facilities are shared between the water and sewer utilities. Only the portion of facilities allocated to the sewer utility are included here.

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**Table 4b : Capital Improvement Plan - "Updated CIP"**  
**Groveland Community Services District**  
**Sewer Rate Study**

Description	Current	2017/18	2018/19	2019/20	2020/21	2021/22	Total
Force Main Inspection		\$22,969	\$22,969	\$22,969	\$22,969	\$0	\$91,876
A. LS 7 to Wastewater Treatment Plant		143,750	143,750	143,750	143,750	-	575,000
B. LS 13		237,500	237,500	237,500	237,500	-	950,000
C. LS 2		31,250	31,250	31,250	31,250	-	125,000
D. LS 1		9,375	9,375	9,375	9,375	-	37,500
E. LS 14		56,250	56,250	56,250	56,250	-	225,000
F. LS 15		15,688	15,688	15,688	15,688	-	62,750
G. LS8		46,875	46,875	46,875	46,875	-	187,500
H. LS10		159,375	159,375	159,375	159,375	-	637,500
I. LS11		187,500	187,500	187,500	187,500	-	750,000
J. LS3		28,125	28,125	28,125	28,125	-	112,500
K. LS4		6,250	6,250	6,250	6,250	-	25,000
L. LS 9		40,625	40,625	40,625	40,625	-	162,500
M. LS 12		28,125	28,125	28,125	28,125	-	112,500
N. LS 5		106,250	106,250	106,250	106,250	-	425,000
O. LS6		75,000	75,000	75,000	75,000	-	300,000
P. LS 16 [1]		543,750	543,750	543,750	543,750	-	2,175,000
Flume 1400' [1]		175,000	175,000	175,000	175,000	-	700,000
WWTP Headworks		250,000	250,000	250,000	250,000	-	1,000,000
WWTP Repair		-	111,111	111,111	111,111	111,111	444,444
Gravity Sewer Line Rehab		40,810	40,810	40,810	40,810	40,810	204,050
Satelite lift station rehab		-	-	-	100,000	100,000	200,000
Admin Building		22,500	22,500	22,500	22,500	22,500	112,500
<b>TOTAL</b>		<b>\$1,061,000</b>	<b>\$2,226,967</b>	<b>\$2,338,078</b>	<b>\$2,338,078</b>	<b>\$2,438,078</b>	<b>\$9,615,620</b>
<b>[1]Grant Funding</b>							

**Table 5: Debt**  
**Groveland Community Services District**  
**Sewer Rate Study**

Description	Current	2017/18	2018/19	2019/20	2020/21	2021/22
2014 Bond	324,300	324,300	324,300	324,300	324,300	324,300
Total	324,300	324,300	324,300	324,300	324,300	324,300



**Scenario 1  
Low CIP**



Bartle Wells Associates  
1889 Alcatraz Avenue  
Berkeley, CA 94703

Scenario 1: Low CIP

Table 6a : Cash Flow Projection Scenario 1  
 Groveland Community Services District  
 Sewer Rate Study

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	Est. Actual 2015/16	Budget 2016/17	2017/18	2018/19	Projected 2019/20	2020/21	2021/22
<b>Beginning Fund Balance</b>							
Opening Balance [1]	\$545,900	\$857,000	\$617,500	\$399,100	\$385,100	\$519,400	\$819,600
Typical Monthly Bill [2]		\$92.11	\$105.93	\$121.82	\$134.00	\$147.40	\$154.77
Rate Adjustment		0%	15%	15%	10%	10%	5%
Growth		0%	0%	0%	0%	0%	0%
<b>Revenues</b>							
Sewer rate revenues [3]	1,401,500	1,379,300	1,586,200	1,824,100	2,006,500	2,207,200	2,317,600
Debt service charge revenues	410,000	410,000	410,000	410,000	410,000	410,000	410,000
Misc. revenues	<u>31,100</u>	<u>32,000</u>	<u>32,000</u>	<u>32,000</u>	<u>32,000</u>	<u>32,000</u>	<u>32,000</u>
Total Revenues	1,842,600	1,821,300	2,028,200	2,266,100	2,448,500	2,649,200	2,759,600
Grants	<u>0</u>	<u>964,000</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<b>Expenses</b>							
Administration & Board	556,400	581,700	593,300	605,200	617,300	629,600	642,200
Operations	480,800	509,400	519,600	530,000	540,600	551,400	562,400
Maintenance	492,600	508,300	518,500	528,900	539,500	550,300	561,300
Equipment Leases	<u>38,000</u>	<u>40,100</u>	<u>40,900</u>	<u>41,700</u>	<u>42,500</u>	<u>43,400</u>	<u>44,300</u>
Total Operating Expenses	1,567,800	1,639,500	1,672,300	1,705,800	1,739,900	1,774,700	1,810,200
Debt Service Payment	324,300	324,300	324,300	324,300	324,300	324,300	324,300
Capital Improvement Projects [4]	153,500	1,061,000	250,000	250,000	250,000	250,000	250,000
<b>Total Operating Revenues</b>	1,842,600	1,821,300	2,028,200	2,266,100	2,448,500	2,649,200	2,759,600
<b>Grants</b>	0	964,000	0	0	0	0	0
<b>Operating Expenses</b>	1,567,800	1,639,500	1,672,300	1,705,800	1,739,900	1,774,700	1,810,200
<b>CIP</b>	153,500	1,061,000	250,000	250,000	250,000	250,000	250,000
<b>Debt Service Payment</b>	<u>324,300</u>	<u>324,300</u>	<u>324,300</u>	<u>324,300</u>	<u>324,300</u>	<u>324,300</u>	<u>324,300</u>
	<b>(203,000)</b>	<b>(239,500)</b>	<b>(218,400)</b>	<b>(14,000)</b>	<b>134,300</b>	<b>300,200</b>	<b>375,100</b>
<b>Opening Fund Balance</b>	<u>545,900</u>	<u>857,000</u>	<u>617,500</u>	<u>399,100</u>	<u>385,100</u>	<u>519,400</u>	<u>819,600</u>
<b>Ending Fund Balance</b>	<b>342,900</b>	<b>617,500</b>	<b>399,100</b>	<b>385,100</b>	<b>519,400</b>	<b>819,600</b>	<b>1,194,700</b>
<b>Debt Service Coverage</b>							
Total Operating Revenues	1,842,600	1,821,300	2,028,200	2,266,100	2,448,500	2,649,200	2,759,600
Operating Expenses	<u>1,567,800</u>	<u>1,639,500</u>	<u>1,672,300</u>	<u>1,705,800</u>	<u>1,739,900</u>	<u>1,774,700</u>	<u>1,810,200</u>
Net Revenues	274,800	181,800	355,900	560,300	708,600	874,500	949,400
Debt Service Payment	<u>320,685</u>	<u>324,310</u>	<u>322,710</u>	<u>320,885</u>	<u>323,910</u>	<u>321,710</u>	<u>319,285</u>
Debt Coverage	0.86	0.56	1.10	1.75	2.19	2.72	2.97

1 - FY2016/17 Actual Opening Fund Balance

2 - Fixed Charge + Debt Service Charge + 1900 gallons Consumption

3 - Does not include 2014 Wastewater Debt Service Charge revenues

4- CIP based on estimated replacement costs (Table 4a)



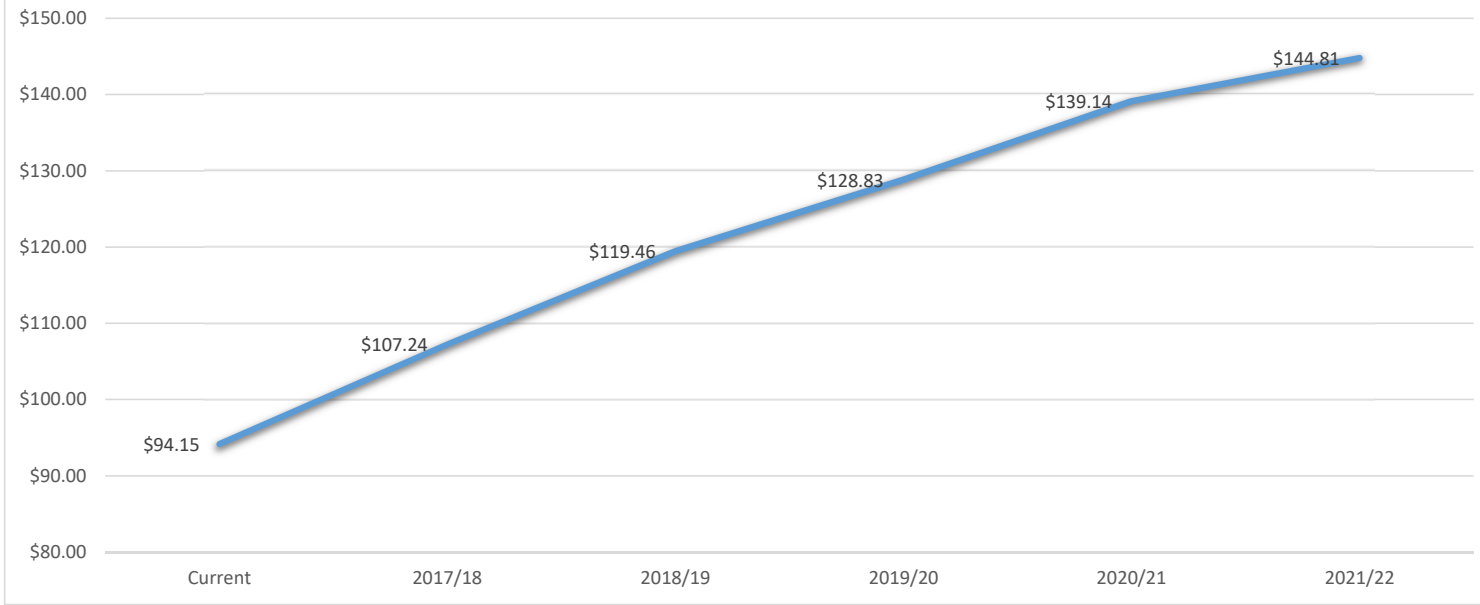
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**Scenario 1: Low CIP****Table 7a : 100% Fixed****Groveland Community Services District****Sewer Rate Study**

	<b>Current</b>	2017/18	2018/19	2019/20	2020/21	2021/22
<b>Total Revenue Requirement</b>		\$1,586,200	\$1,824,100	\$2,006,500	\$2,207,200	\$2,317,600
<b>Total Number of Billing Units</b>		19,465	19,465	19,465	19,465	19,465
Fixed Rate per Unit		\$81.49	\$93.71	\$103.08	\$113.39	\$119.06
Debt Service		\$25.75	\$25.75	\$25.75	\$25.75	\$25.75
	\$94.15	\$107.24	\$119.46	\$128.83	\$139.14	\$144.81

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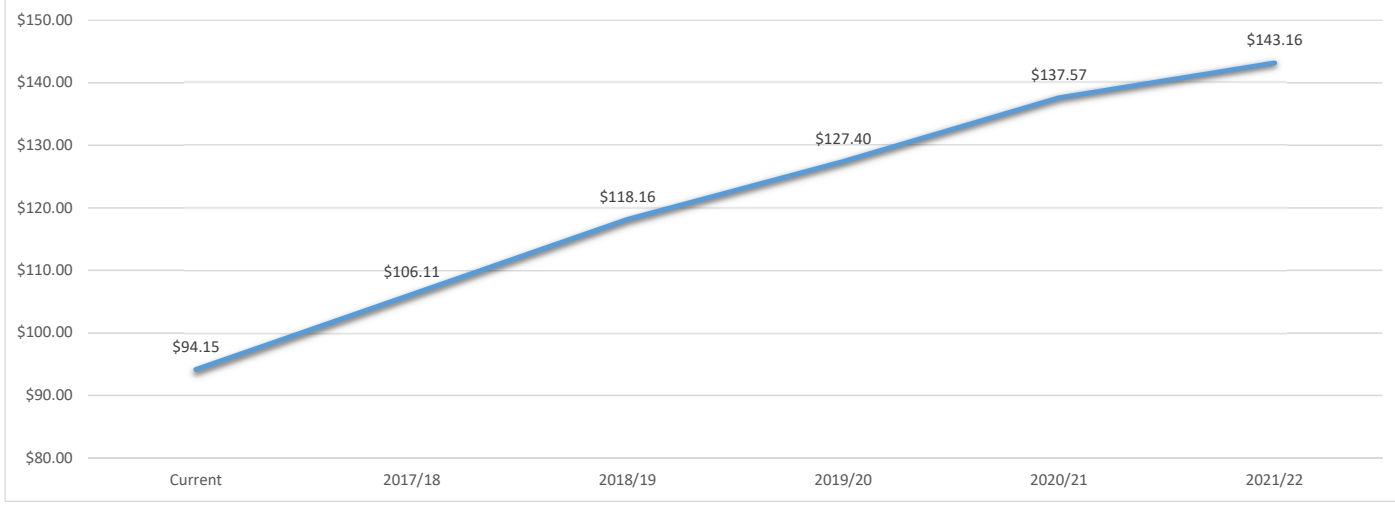
**Scenario 1**  
**Table 1: 100% Fixed Typical Bills**



**Scenario 1: Low CIP****Table 8a : Fixed and Volumetric Hybrid  
Groveland Community Services District  
Sewer Rate Study**

		2017/18	2018/19	2019/20	2020/21	2021/22
<b>Total Revenue Requirement</b>		\$1,586,200	\$1,824,100	\$2,006,500	\$2,207,200	\$2,317,600
Fixed Revenue Requirements	87%	\$1,379,994	\$1,586,967	\$1,745,655	\$1,920,264	\$2,016,312
Total Number of Billing Units		19,465	19,465	19,465	19,465	19,465
Proposed Fixed Charge		\$70.90	\$81.53	\$89.68	\$98.65	\$103.58
Variable Revenue Requirements	13%	\$206,206	\$237,133	\$260,845	\$286,936	\$301,288
Total Consumption		41,406,663	41,406,663	41,406,663	41,406,663	41,406,663
\$/gal		\$0.00498	\$0.00573	\$0.00630	\$0.00693	\$0.00728
Typical Bill	Current	2017/18	2018/19	2019/20	2020/21	2021/22
Fixed Charge		\$70.90	\$81.53	\$89.68	\$98.65	\$103.58
1900 gal consumption		\$9.46	\$10.88	\$11.97	\$13.17	\$13.83
Debt Charge		\$25.75	\$25.75	\$25.75	\$25.75	\$25.75
		\$94.15	\$106.11	\$127.40	\$137.57	\$143.16

**Scenario 1**  
**Table 2: Fixed and Volumetric Typical Bills**



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**Scenario 1: Low CIP****Table 9a : 100% Fixed with Debt Service Included****Groveland Community Services District****Sewer Rate Study**

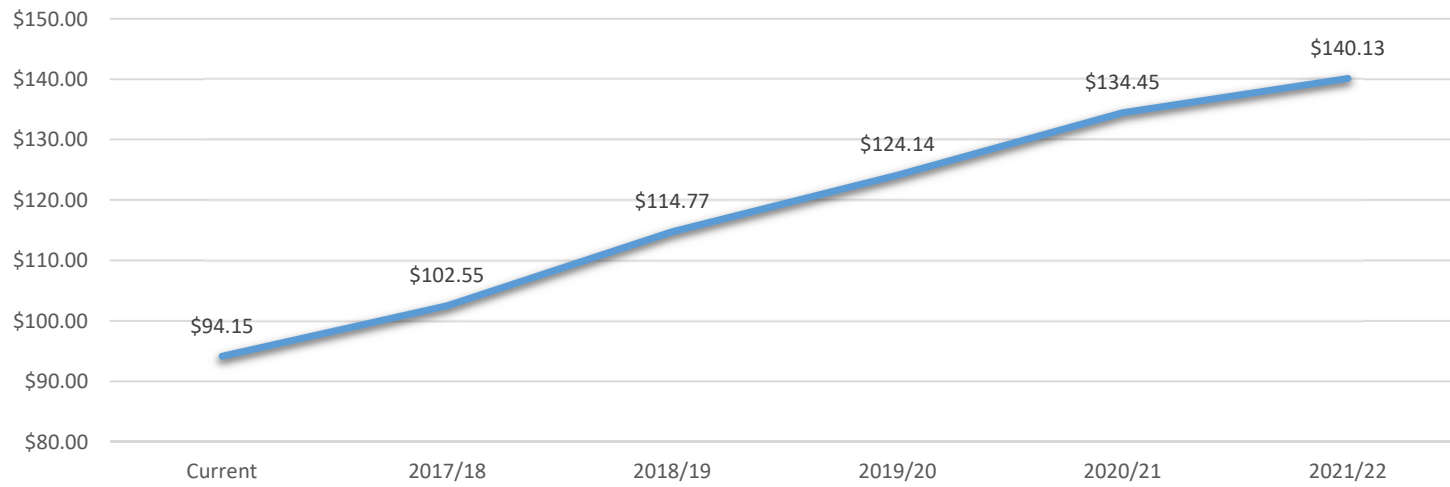
	Current	2017/18	2018/19	2019/20	2020/21	2021/22
Total Revenue Requirement		\$1,586,200	\$1,824,100	\$2,006,500	\$2,207,200	\$2,317,600
Debt Service		\$410,000	\$410,000	\$410,000	\$410,000	\$410,000
		<b>\$1,996,200</b>	<b>\$2,234,100</b>	<b>\$2,416,500</b>	<b>\$2,617,200</b>	<b>\$2,727,600</b>
Total Number of Billing Units		19,465	19,465	19,465	19,465	19,465
<b>Fixed Rate (including debt service) per Unit</b>	<b>\$94.15</b>	<b>\$102.55</b>	<b>\$114.77</b>	<b>\$124.14</b>	<b>\$134.45</b>	<b>\$140.13</b>

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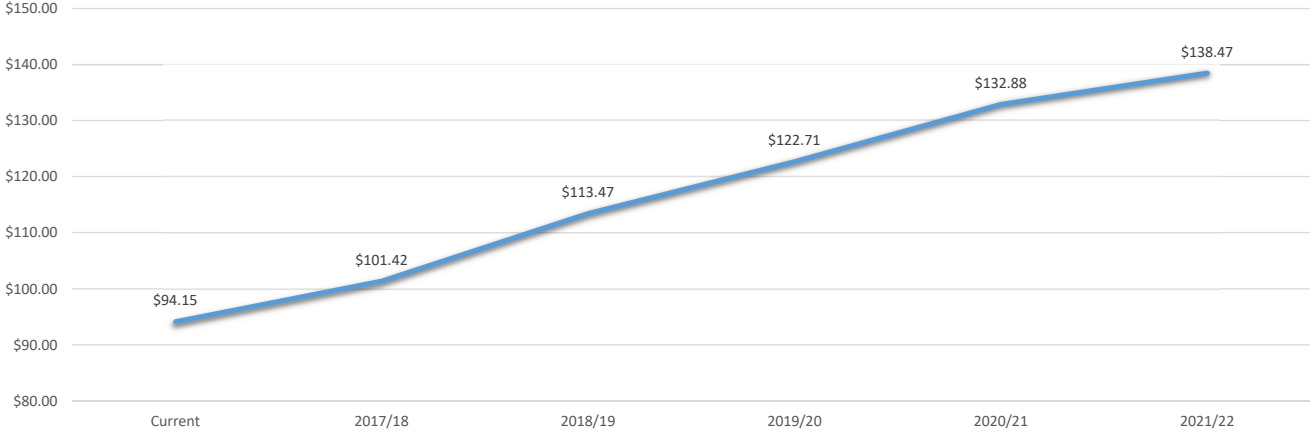
**Scenario 1**  
**Table 3: 100% Fixed Charge incl. 2014 Debt Typical Bills**



**Scenario 1: Low CIP****Table 10a : Fixed and Volumetric Hybrid with Debt Service Charge Included****Groveland Community Services District****Sewer Rate Study**

		2017/18	2018/19	2019/20	2020/21	2021/22
<b>Total Revenue Requirement</b>		\$1,586,200	\$1,824,100	\$2,006,500	\$2,207,200	\$2,317,600
Fixed Revenue Requirements	87%	\$1,789,994	\$1,996,967	\$2,155,655	\$2,330,264	\$2,426,312
Total Number of Billing Units		19,465	19,465	19,465	19,465	19,465
Proposed Fixed Charge		\$91.96	\$102.59	\$110.74	\$119.71	\$124.65
Variable Revenue Requirements	13%	\$206,206	\$237,133	\$260,845	\$286,936	\$301,288
Total Consumption		41,406,663	41,406,663	41,406,663	41,406,663	41,406,663
\$/gal		\$0.00498	\$0.00573	\$0.00630	\$0.00693	\$0.00728
Typical Bill	Current	<b>2017/18</b>	<b>2018/19</b>	<b>2019/20</b>	<b>2020/21</b>	<b>2021/22</b>
Fixed Charge		\$91.96	\$102.59	\$110.74	\$119.71	\$124.65
1900 gal		\$9.46	\$10.88	\$11.97	\$13.17	\$13.83
Typical Bill Including Debt Charge	\$94.15	\$101.42	\$113.47	\$122.71	\$132.88	\$138.47

**Scenario 1**  
**Table 4: Fixed incl. 2014 debt and Volumetric Typical Bills**







**Scenario 2**  
**Pay-Go Funding with Updated CIP**



Bartle Wells Associates  
1889 Alcatraz Avenue  
Berkeley, CA 94703

Scenario 2: Pay-Go Funding Updated CIP

Table 6b: Cash Flow Projection for All Scenarios

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Groveland Community Services District  
Sewer Rate Study

	Est. Actual 2015/16	Budget 2016/17	2017/18	2018/19	Projected 2019/20	2020/21	2021/22
<b>Beginning Fund Balance</b>							
Opening Balance [1]	\$545,900	\$857,000	\$617,500	(\$476,317)	(\$680,244)	(\$142,372)	\$260,701
Typical Monthly Bill [2]	\$78.85	\$92.11	\$138.17	\$207.25	\$259.07	\$259.07	\$259.07
Rate Adjustment		0%	50%	50%	25%	0%	0%
Growth		0%	0%	0%	0%	0%	0%
<b>Revenues</b>							
Sewer rate revenues [3]	1,401,500	1,379,300	2,069,000	3,103,500	3,879,400	3,879,400	3,879,400
Debt service charge revenues	410,000	410,000	410,000	410,000	410,000	410,000	410,000
Misc. revenues	<u>31,100</u>	<u>32,000</u>	<u>32,000</u>	<u>32,000</u>	<u>32,000</u>	<u>32,000</u>	<u>32,000</u>
Total Revenues	1,842,600	1,821,300	2,511,000	3,545,500	4,321,400	4,321,400	4,321,400
Grants	<u>0</u>	<u>964,000</u>	<u>618,750</u>	<u>618,750</u>	<u>618,750</u>	<u>618,750</u>	<u>75,000</u>
<b>Expenses</b>							
Administration & Board	556,400	581,700	593,300	605,200	617,300	629,600	642,200
Operations	480,800	509,400	519,600	530,000	540,600	551,400	562,400
Maintenance	492,600	508,300	518,500	528,900	539,500	550,300	561,300
Equipment Leases	<u>38,000</u>	<u>40,100</u>	<u>40,900</u>	<u>41,700</u>	<u>42,500</u>	<u>43,400</u>	<u>44,300</u>
Total Operating Expenses	1,567,800	1,639,500	1,672,300	1,705,800	1,739,900	1,774,700	1,810,200
Debt Service Payment	324,300	324,300	324,300	324,300	324,300	324,300	324,300
Capital Improvement Projects	153,500	1,061,000	2,226,967	2,338,078	2,338,078	2,438,078	274,421
Revenues	1,842,600	2,785,300	3,129,750	4,164,250	4,940,150	4,940,150	4,396,400
Total Expenses	<u>2,045,600</u>	<u>3,024,800</u>	<u>4,223,567</u>	<u>4,368,178</u>	<u>4,402,278</u>	<u>4,537,078</u>	<u>2,408,921</u>
<b>Net Revenues</b>	<b>(203,000)</b>	<b>(239,500)</b>	<b>(1,093,817)</b>	<b>(203,928)</b>	<b>537,872</b>	<b>403,072</b>	<b>1,987,479</b>
<b>Ending Fund Balance</b>	<b>342,900</b>	<b>617,500</b>	<b>(476,317)</b>	<b>(680,244)</b>	<b>(142,372)</b>	<b>260,701</b>	<b>2,248,180</b>
<b>Debt Service Coverage</b>							
Net Operating Revenues	274,800	181,800	838,700	1,839,700	2,581,500	2,546,700	2,511,200
Debt Service Payment	<u>320,685</u>	<u>324,310</u>	<u>322,710</u>	<u>320,885</u>	<u>323,910</u>	<u>321,710</u>	<u>319,285</u>
Net	(45,885)	(142,510)	515,990	1,518,815	2,257,590	2,224,990	2,191,915
Debt Coverage	0.86	0.56	2.60	5.73	7.97	7.92	7.87

1 - FY2016/17 Actual Opening Fund Balance

2 - Fixed Charge + Debt Service Charge + 1900 gallons Consumption

3 - Does not include 2014 Wastewater Debt Service Charge revenues

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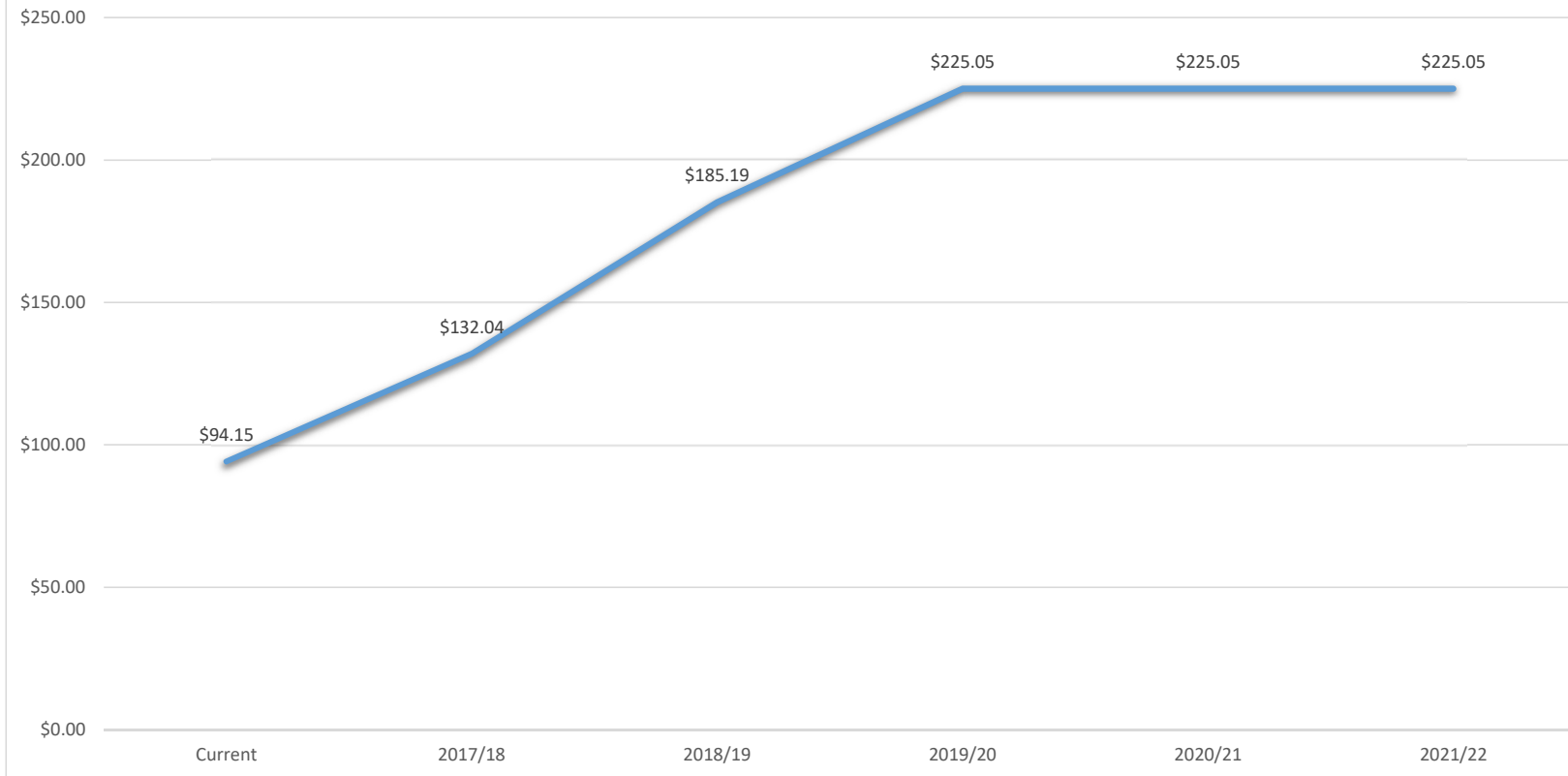
**Scenario 2: Pay-Go Funding Updated CIP****Table 7b : 100% Fixed****Groveland Community Services District****Sewer Rate Study**

	<b>Current</b>	2017/18	2018/19	2019/20	2020/21	2021/22
<b>Total Revenue Requirement</b>		\$2,069,000	\$3,103,500	\$3,879,400	\$3,879,400	\$3,879,400
% increase		50%	50%	25%	0%	0%
<b>Total Number of Billing Units</b>		19,465	19,465	19,465	19,465	19,465
Fixed Rate per Unit		\$106.29	\$159.44	\$199.30	\$199.30	\$199.30
Debt Service		\$25.75	\$25.75	\$25.75	\$25.75	\$25.75
	\$94.15	\$132.04	\$185.19	\$225.05	\$225.05	\$225.05

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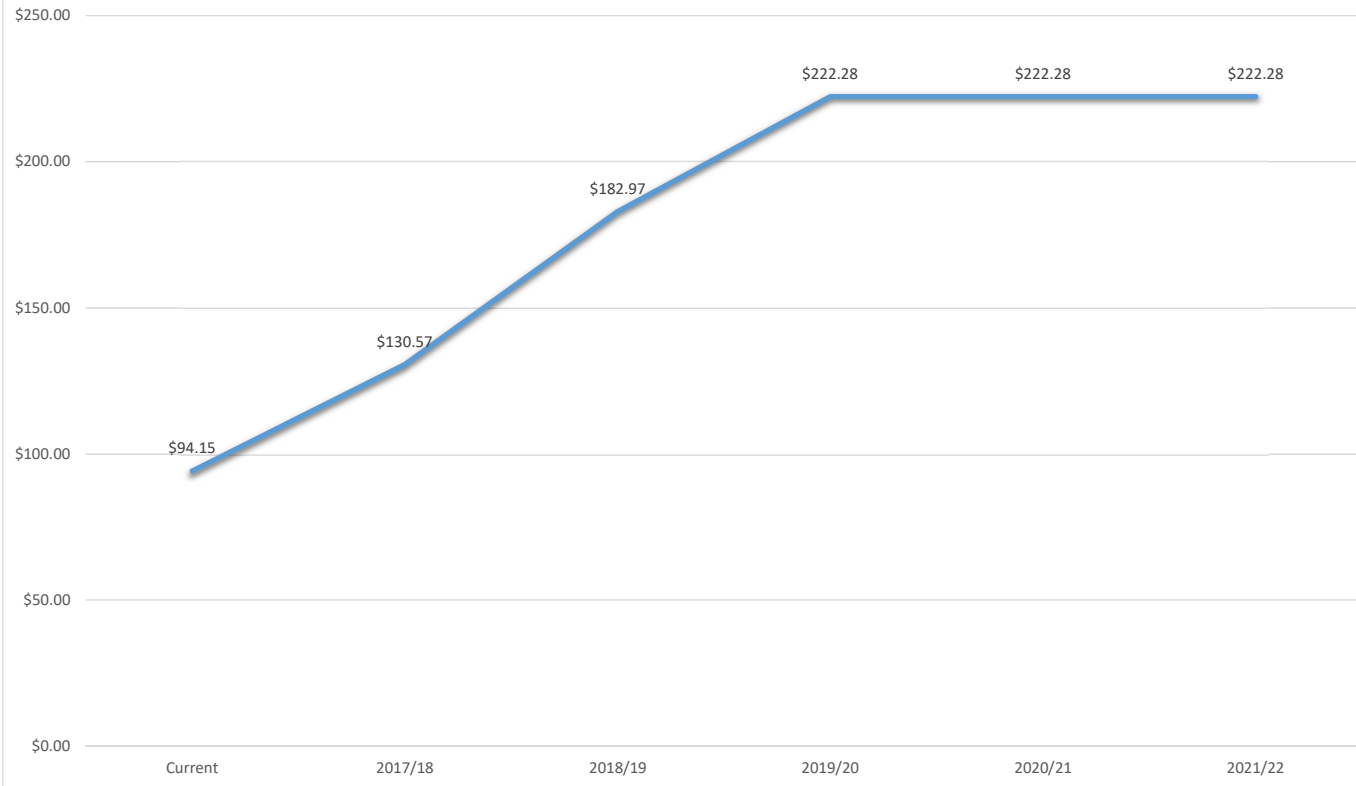
**Scenario 2**  
**Table 1: 100% Fixed Typical Bills**



**Scenario 2: Pay-Go Funding Updated CIP**  
**Table 8b : Fixed and Volumetric Hybrid**  
**Groveland Community Services District**  
**Sewer Rate Study**

		2017/18	2018/19	2019/20	2020/21	2021/22
<b>Total Revenue Requirement</b>		\$2,069,000	\$3,103,500	\$3,879,400	\$3,879,400	\$3,879,400
Fixed Revenue I	87%	\$1,800,030	\$2,700,045	\$3,375,078	\$3,375,078	\$3,375,078
Total Number of Billing Units		19,465	19,465	19,465	19,465	19,465
Proposed Fixed Charge		\$92.47	\$138.71	\$173.39	\$173.39	\$173.39
Variable Revenue	13%	\$268,970	\$403,455	\$504,322	\$504,322	\$504,322
Total Consumption		41,406,663	41,406,663	41,406,663	41,406,663	41,406,663
\$/gal		\$0.00650	\$0.00974	\$0.01218	\$0.01218	\$0.01218
Typical Bill	Current	2017/18	2018/19	2019/20	2020/21	2021/22
Fixed Charge		\$92.47	\$138.71	\$173.39	\$173.39	\$173.39
1900 gal consumption		\$12.34	\$18.51	\$23.14	\$23.14	\$23.14
Debt Charge		\$25.75	\$25.75	\$25.75	\$25.75	\$25.75
		\$94.15	\$130.57	\$222.28	\$222.28	\$222.28

**Scenario 2**  
**Table 2: Fixed and Volumetric Typical Bills**



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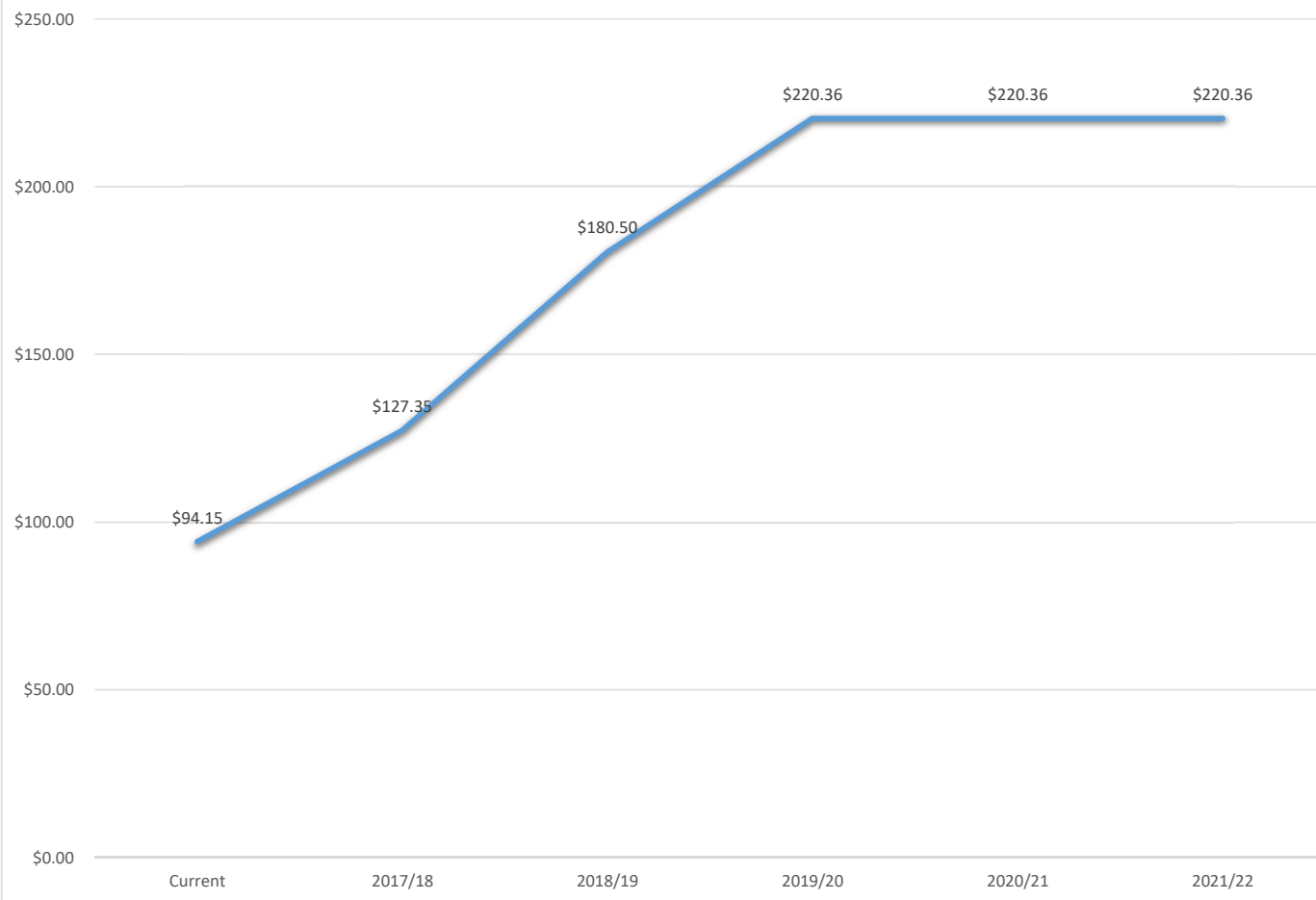
**Scenario 2: Pay-Go Funding Updated CIP**  
**Table 9b : 100% Fixed with Debt Service Included**  
**Groveland Community Services District**  
**Sewer Rate Study**

	Current	2017/18	2018/19	2019/20	2020/21	2021/22
Total Revenue Requirement		\$2,069,000	\$3,103,500	\$3,879,400	\$3,879,400	\$3,879,400
Debt Service		\$410,000	\$410,000	\$410,000	\$410,000	\$410,000
		<b>\$2,479,000</b>	<b>\$3,513,500</b>	<b>\$4,289,400</b>	<b>\$4,289,400</b>	<b>\$4,289,400</b>
Total Number of Billing Units		19,465	19,465	19,465	19,465	19,465
<b>Fixed Rate (including debt service) per Unit</b>	<b>\$94.15</b>	<b>\$127.35</b>	<b>\$180.50</b>	<b>\$220.36</b>	<b>\$220.36</b>	<b>\$220.36</b>

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**Scenario 2**  
**Table 3: 100% Fixed Charge incl. 2014 Debt Typical Bills**





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**Scenario 2: Pay-Go Funding Updated CIP**
**Table 10b : Fixed and Volumetric Hybrid with Debt Service Charge Included****Groveland Community Services District****Sewer Rate Study**

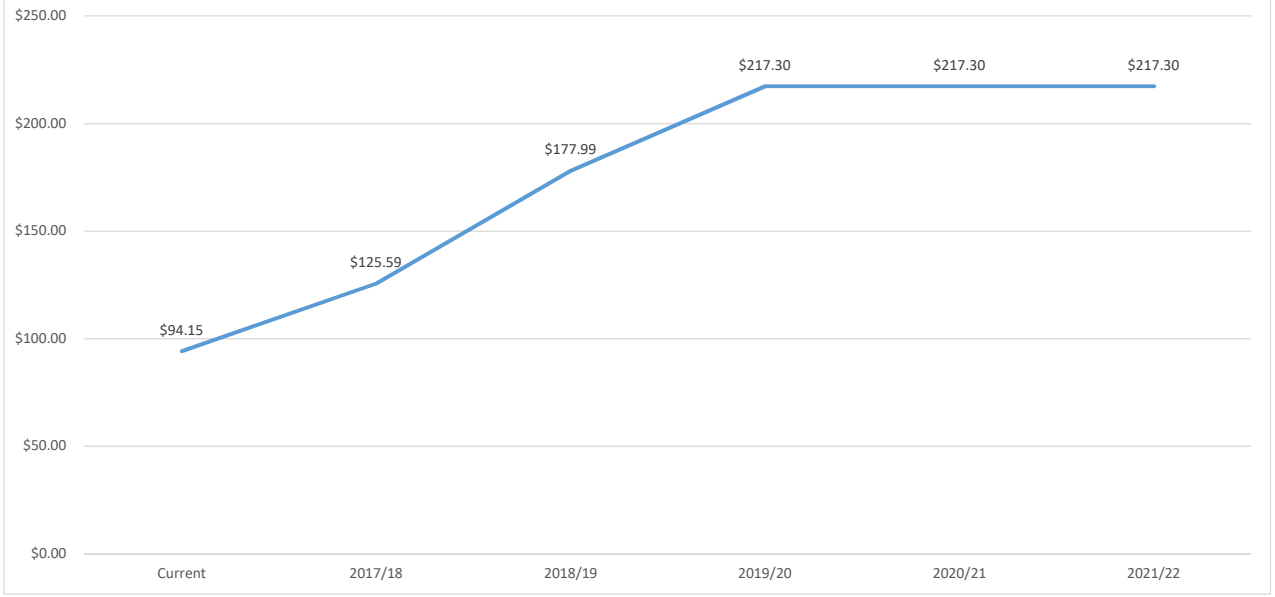
		2017/18	2018/19	2019/20	2020/21	2021/22
<b>Total Revenue Requirement</b>		\$2,069,000	\$3,103,500	\$3,879,400	\$3,879,400	\$3,879,400
Fixed Revenue Req	87%	\$2,156,730	\$3,056,745	\$3,731,778	\$3,731,778	\$3,731,778
Total Number of Billing Units		19,465	19,465	19,465	19,465	19,465
Proposed Fixed Charge		\$110.80	\$157.04	\$191.71	\$191.71	\$191.71
Variable Revenue R	13%	\$322,270	\$456,755	\$557,622	\$557,622	\$557,622
Total Consumption		41,406,663	41,406,663	41,406,663	41,406,663	41,406,663
\$/gal		\$0.00778	\$0.01103	\$0.01347	\$0.01347	\$0.01347
Typical Bill	Current	<b>2017/18</b>	<b>2018/19</b>	<b>2019/20</b>	<b>2020/21</b>	<b>2021/22</b>
Fixed Charge		\$110.80	\$157.04	\$191.71	\$191.71	\$191.71
1900 gal		\$14.79	\$20.96	\$25.59	\$25.59	\$25.59
Typical Bill Including	\$94.15	\$125.59	\$177.99	\$217.30	\$217.30	\$217.30

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Scenario 2  
Table 4: Fixed incl. 2014 debt and Volumetric Typical Bills





**Scenario 3**  
**Updated CIP Financed through Debt Issuance**



Bartle Wells Associates  
1889 Alcatraz Avenue  
Berkeley, CA 94703

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**Scenario 3: Debt Funding Updated CIF****Table 5c: Preliminary Debt Estimates**

GCSD

**Sewer Rate Study**

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<b>Description</b>	<b>Current</b>	<b>2017/18</b>	<b>2018/19</b>	<b>2019/20</b>	<b>2020/21</b>	<b>2021/22</b>
2014 Bond	324,300	324,300	324,300	324,300	324,300	324,300
<b>Proposed Loans [1]</b>						
2018 Debt	0	122,141	122,141	122,141	122,141	122,141
2019 Debt	0	0	122,141	122,141	122,141	122,141
2020 Debt	0	0	0	122,141	122,141	122,141
2021 Debt	0	0	0	0	122,141	122,141
Total	324,300	446,441	568,583	690,724	812,865	812,865

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[1] Debt issuances of \$2 Million 30 yr Bond at 4.5% for 2018-2021

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**Scenario 3: Debt Funding Updated CIP**

**Table 6c : Cash Flow Projection for All Scenarios**

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**Groveland Community Services District  
Sewer Rate Study**

	<b>Est. Actual</b>	<b>Budget</b>			<b>Projected</b>		
	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
<b>Beginning Fund Balance</b>							
Opening Balance [1]	\$545,900	\$857,000	\$617,500	\$849,742	\$966,932	\$1,011,281	\$886,288
Typical Monthly Bill [2]	\$78.85	\$92.11	\$101.32	\$111.46	\$117.03	\$122.88	\$129.02
Rate Adjustment		0%	10%	10%	5%	5%	5%
Growth		0%	0%	0%	0%	0%	0%
<b>Revenues</b>							
Sewer rate revenues [3]	1,401,500	1,379,300	1,517,200	1,668,900	1,752,300	1,839,900	1,931,900
Debt service charge revenues	410,000	410,000	410,000	410,000	410,000	410,000	410,000
Misc. revenues	31,100	32,000	32,000	32,000	32,000	32,000	32,000
Grants	0	964,000	618,750	618,750	618,750	618,750	0
Loan Proceeds	0	0	<u>2,000,000</u>	<u>2,000,000</u>	<u>2,000,000</u>	<u>2,000,000</u>	0
Total Revenues	1,842,600	2,785,300	4,577,950	4,729,650	4,813,050	4,900,650	2,373,900
<b>Expenses</b>							
Administration & Board	556,400	581,700	593,300	605,200	617,300	629,600	642,200
Operations	480,800	509,400	519,600	530,000	540,600	551,400	562,400
Maintenance	492,600	508,300	518,500	528,900	539,500	550,300	561,300
Equipment Leases	<u>38,000</u>	<u>40,100</u>	<u>40,900</u>	<u>41,700</u>	<u>42,500</u>	<u>43,400</u>	<u>44,300</u>
Total Operating Expenses	1,567,800	1,639,500	1,672,300	1,705,800	1,739,900	1,774,700	1,810,200
<b>Debt Service Payment</b>	324,300	324,300	446,441	568,583	690,724	812,865	812,865
<b>Capital Improvement Projects</b>	153,500	1,061,000	2,226,967	2,338,078	2,338,078	2,438,078	274,421
Total Revenues	1,842,600	2,785,300	4,577,950	4,729,650	4,813,050	4,900,650	2,373,900
Total Expenses	<u>2,045,600</u>	<u>3,024,800</u>	<u>4,345,708</u>	<u>4,612,460</u>	<u>4,768,701</u>	<u>5,025,643</u>	<u>2,897,486</u>
<b>Net Revenues</b>	<b>(203,000)</b>	<b>(239,500)</b>	<b>232,242</b>	<b>117,190</b>	<b>44,349</b>	<b>(124,993)</b>	<b>(523,586)</b>
<b>Ending Fund Balance</b>	<b>342,900</b>	<b>617,500</b>	<b>849,742</b>	<b>966,932</b>	<b>1,011,281</b>	<b>886,288</b>	<b>362,701</b>
<b>Debt Service Coverage</b>							
Net Operating Revenues	274,800	181,800	286,900	405,100	454,400	507,200	563,700
Debt Service Payment	<u>320,685</u>	<u>324,310</u>	<u>322,710</u>	<u>320,885</u>	<u>323,910</u>	<u>321,710</u>	<u>319,285</u>
Net	(45,885)	(142,510)	(35,810)	84,215	130,490	185,490	244,415
Debt Coverage	0.86	0.56	0.89	1.26	1.40	1.58	1.77

1 - FY2016/17 Actual Opening Fund Balance

2 - Fixed Charge + Debt Service Charge + 1900 gallons Consumption

3 - Does not include 2014 Wastewater Debt Service Charge revenues

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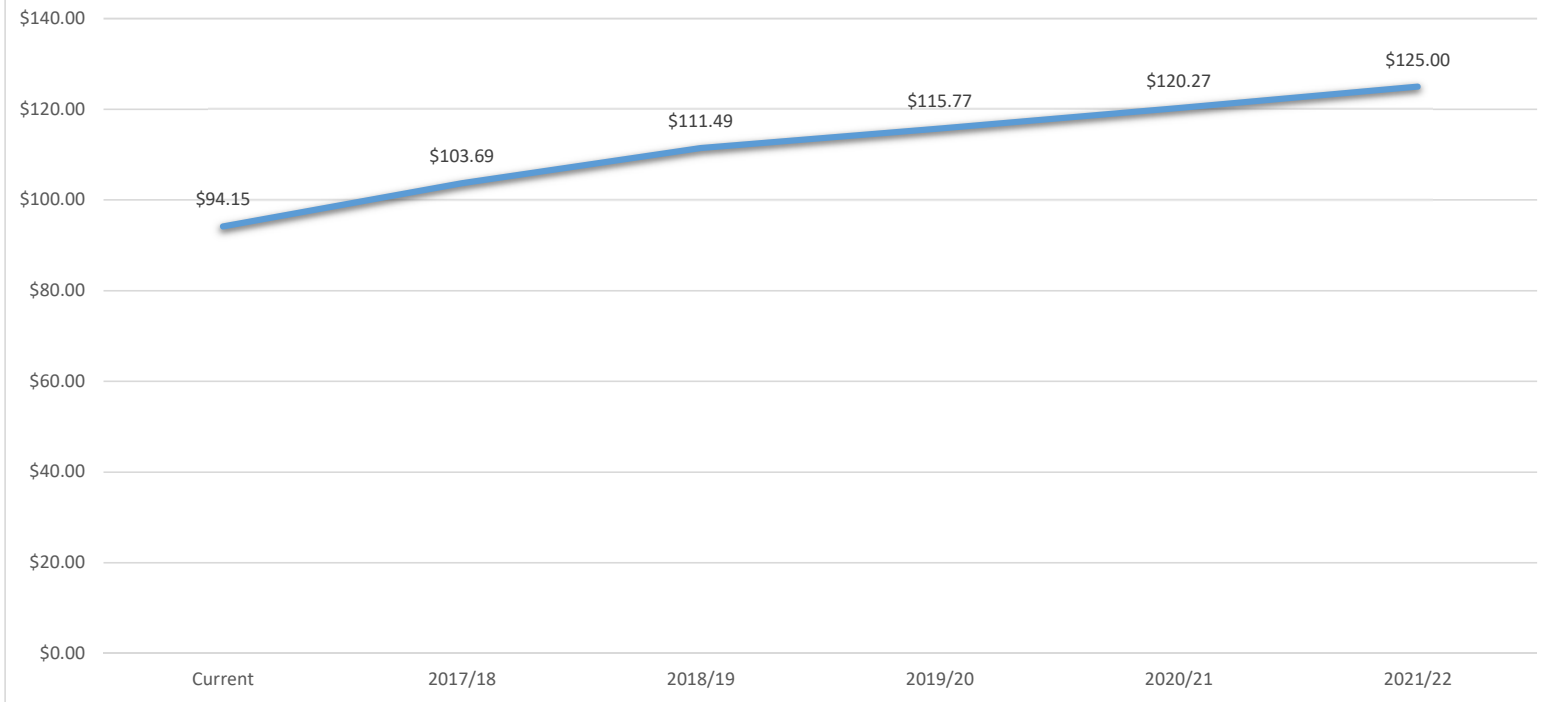
**Scenario 3: Debt Funding Updated CIP**  
**Table 7c : 100% Fixed**  
**Groveland Community Services District**  
**Sewer Rate Study**

	Current	2017/18	2018/19	2019/20	2020/21	2021/22
<b>Total Revenue Requirement</b>		\$1,517,200	\$1,668,900	\$1,752,300	\$1,839,900	\$1,931,900
<b>Total Number of Billing Units</b>		19,465	19,465	19,465	19,465	19,465
Fixed Rate per Unit		\$77.94	\$85.74	\$90.02	\$94.52	\$99.25
Debt Service		\$25.75	\$25.75	\$25.75	\$25.75	\$25.75
	\$94.15	\$103.69	\$111.49	\$115.77	\$120.27	\$125.00

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**Scenario 3**  
**Table 1: 100% Fixed Typical Bills**

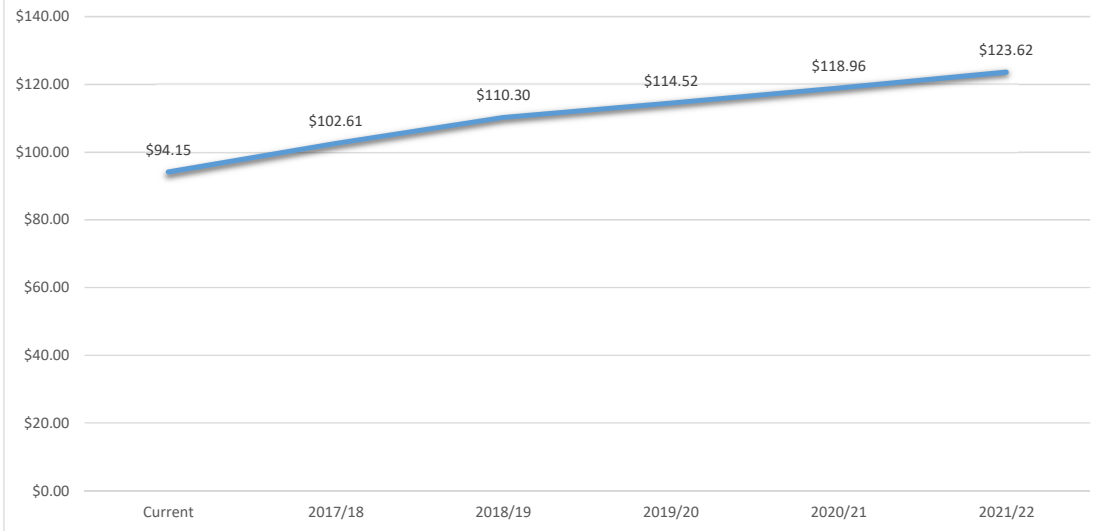


**Scenario 3: Debt Funding Updated CIP**  
**Table 8c : Fixed and Volumetric Hybrid**  
**Groveland Community Services District**  
**Sewer Rate Study**

		2017/18	2018/19	2019/20	2020/21	2021/22
<b>Total Revenue Requirement</b>		\$1,517,200	\$1,668,900	\$1,752,300	\$1,839,900	\$1,931,900
Fixed Revenue	87%	\$1,319,964	\$1,451,943	\$1,524,501	\$1,600,713	\$1,680,753
Total Number of Billing Units		19,465	19,465	19,465	19,465	19,465
Proposed Fixed Charge		\$67.81	\$74.59	\$78.32	\$82.23	\$86.35
Variable Reve	13%	\$197,236	\$216,957	\$227,799	\$239,187	\$251,147
Total Consumption		41,406,663	41,406,663	41,406,663	41,406,663	41,406,663
\$/gal		\$0.00476	\$0.00524	\$0.00550	\$0.00578	\$0.00607
Typical Bill	Current	2017/18	2018/19	2019/20	2020/21	2021/22
Fixed Charge		\$67.81	\$74.59	\$78.32	\$82.23	\$86.35
1900 gal consumption		\$9.05	\$9.96	\$10.45	\$10.98	\$11.52
Debt Charge		\$25.75	\$25.75	\$25.75	\$25.75	\$25.75
		\$94.15	\$102.61	\$114.52	\$118.96	\$123.62



**Scenario 3**  
**Table 2: Fixed and Volumetric Typical Bills**



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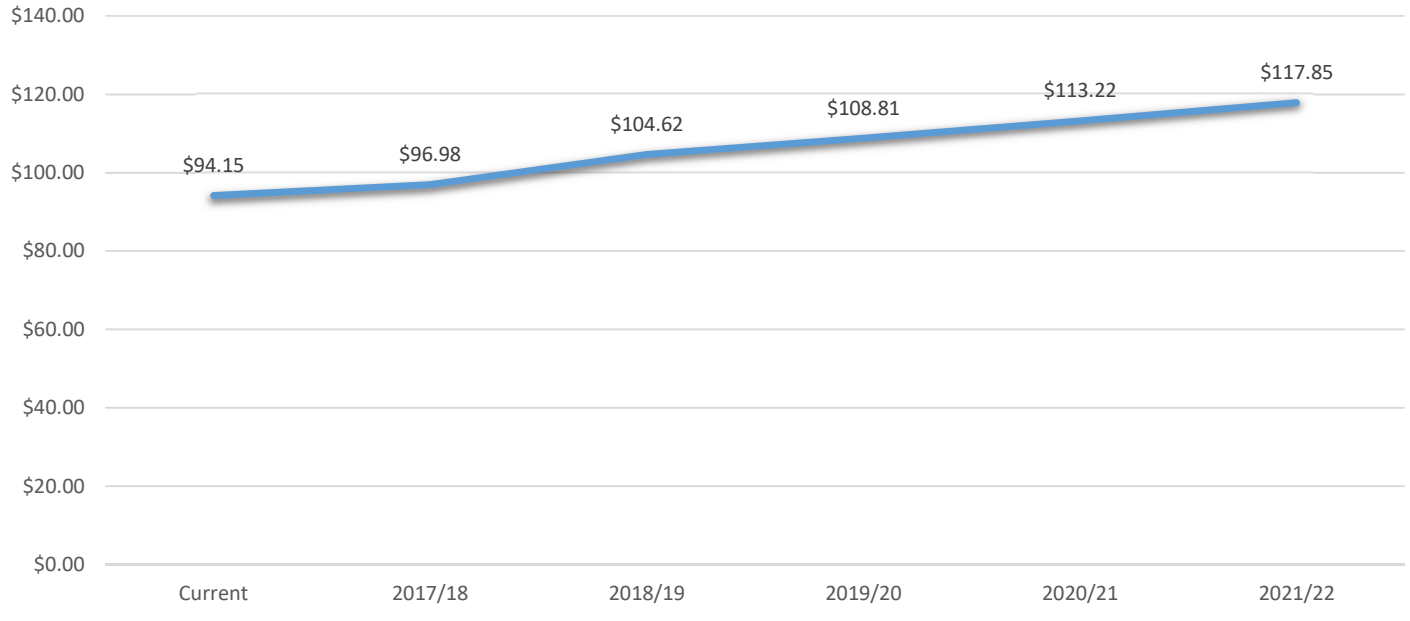
**Scenario 3: Debt Funding Updated CIP**  
**Table 9c : 100% Fixed with Debt Service Included**  
**Groveland Community Services District**  
**Sewer Rate Study**

	Current	2017/18	2018/19	2019/20	2020/21	2021/22
Total Revenue Requirement		\$1,517,200	\$1,668,900	\$1,752,300	\$1,839,900	\$1,931,900
2014 Debt Service		\$410,000	\$410,000	\$410,000	\$410,000	\$410,000
		<b>\$1,927,200</b>	<b>\$2,078,900</b>	<b>\$2,162,300</b>	<b>\$2,249,900</b>	<b>\$2,341,900</b>
Total Number of Billing Units		19,872	19,872	19,872	19,872	19,872
<b>Fixed Rate (including debt service) per Unit</b>	<b>\$94.15</b>	<b>\$96.98</b>	<b>\$104.62</b>	<b>\$108.81</b>	<b>\$113.22</b>	<b>\$117.85</b>

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**Scenario 3**  
**Table 3: 100% Fixed charge incl. 2014 Debt. Typical Bill**



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**Scenario 3: Debt Funding Updated CIP**

**Table 10c : Fixed and Volumetric Hybrid with Debt Service Charge Included**

**Groveland Community Services District**

**Sewer Rate Study**

		2017/18	2018/19	2019/20	2020/21	2021/22
<b>Total Revenue Requirement</b>		\$1,517,200	\$1,668,900	\$1,752,300	\$1,839,900	\$1,931,900
Fixed Reve	87%	\$1,729,964	\$1,861,943	\$1,934,501	\$2,010,713	\$2,090,753
Total Number of Billing Units		19,465	19,465	19,465	19,465	19,465
Proposed Fixed Charge		\$88.87	\$95.65	\$99.38	\$103.30	\$107.41
Variable Re	13%	\$197,236	\$216,957	\$227,799	\$239,187	\$251,147
		41,406,663	41,406,663	41,406,663	41,406,663	41,406,663
\$/gal		\$0.00476	\$0.00524	\$0.00550	\$0.00578	\$0.00607
Typical Bill	<b>Current</b>	<b>2017/18</b>	<b>2018/19</b>	<b>2019/20</b>	<b>2020/21</b>	<b>2021/22</b>
Fixed Charge		\$88.87	\$95.65	\$99.38	\$103.30	\$107.41
1900 gal		\$9.05	\$9.96	\$10.45	\$10.98	\$11.52
Typical Bill	\$94.15	\$97.92	\$105.61	\$109.83	\$114.27	\$118.93

**Scenario 3**

**Table 4: Fixed incl. 2014 debt and Volumetric Typical Bills**

