



Groveland  
Community  
Services  
District



# Groveland Community Services District

Sewer Rate Study  
Draft Report  
June 2018



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June 15, 2018

Peter Kampa, General Manager  
Groveland Community Services District  
18966 Ferretti Road  
Groveland, CA 95321

Re: Sewer Rate Study

Bartle Wells Associates (BWA) is pleased to submit to the Groveland Community Services District (GCSD or District) the attached Sewer Rate Study. The report presents BWA's analysis of the capital and operating costs of the wastewater (sewer) utility. It lists the assumptions and rate design objectives used in BWA's analysis. The report recommends updating rates and charges to more accurately recover the costs of providing service to the GCSD's customers. Recommendations were developed with substantial input from District staff.

BWA finds that the sewer rates and charges proposed in our report to be based on the cost of service, follow generally accepted rate design criteria, and adhere to the substantive requirements of Proposition 218. BWA believes that the proposed rates are fair and reasonable to the District's customers.

I enjoyed working with you on the sewer rate study and appreciate the assistance and cooperation of District staff throughout the project. Please contact me if you ever have any future questions about this study and the rate recommendations.

Yours truly,  
BARTLE WELLS ASSOCIATES

Douglas Dove  
President  
Bartle Wells Associates

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## Executive Summary

Bartle Wells Associates (BWA) was engaged by the Groveland Community Services District (GCSD or District) to review the rates and charges of the sewer enterprise fund and to recommend updates to better reflect the cost of providing service to the District’s customers. Throughout this report, BWA makes a number of recommendations and conclusions which are provided below. Ultimately, BWA recommends increasing sewer rates 17% in fiscal years (FY) 2019 and 2020, and 15% in FY2021. These rate increases are based on the cost of service, are fair to customers, and meet the substantive requirements of Proposition 218. A schedule of recommended rates is provided as **Table ES-1**.

**Table ES-1: Proposed Rates  
Groveland Community Services District  
2018 Sewer Rate Study**

	Current	2018/19	2019/20	2020/21	2021/22	2022/23
<b>Residential</b>		<b>17%</b>	<b>17%</b>	<b>15%</b>	<b>0%</b>	<b>0%</b>
Monthly Fixed Charge	\$53.10	\$62.13	\$72.69	\$83.59	\$83.59	\$83.59
Debt Service Charge - PML	\$25.75	\$20.42	\$20.42	\$20.42	\$20.42	\$20.42
Volume Charge (\$/gal)	\$0.00698	\$0.00817	\$0.00955	\$0.01099	\$0.01099	\$0.01099
<b>Commercial</b>		<b>17%</b>	<b>17%</b>	<b>15%</b>	<b>0%</b>	<b>0%</b>
Monthly Fixed Charge	\$53.10 	\$62.13 	\$72.69 	\$83.59 	\$83.59 	\$83.59
Debt Service Charge - PML	\$25.75	\$20.42	\$20.42	\$20.42	\$20.42	\$20.42
Volume Charge (\$/gal)	\$0.01121	\$0.01312	\$0.01535	\$0.01765	\$0.01765	\$0.01765

### Key Findings

- Current revenues are inadequate to fund operating, capital and debt service costs. Due to the lack of a rate increase, the sewer utility is projected to experience a slight deficit in FY2019. An operating deficit is also projected for FY2020.
- Approximately 75% of sewer rate revenues are collected from fixed charges and about 25% is collected from volume rate revenues. This level of revenue collection from fixed and variable sources is appropriate given the capital-intensive and fixed cost nature of sewer utilities.
- Beginning in February 2007, the District implemented a separate \$25.75 monthly surcharge on Pine Mountain Lake customers for the recovery of sewer debt service expenses related to improvements at sewer lift station 7. The debt has been refinanced and beginning in 2018/19, the surcharge should be reduced to \$20.42 per month.

## **Key Recommendations**

- The wastewater rates and charges should be increased by 17% in FY2019 and FY2020 and 15% in FY 2021 to fund operating, capital and debt service costs and maintain necessary fund reserves.
- All residential and commercial customers are metered and billed a volume charge for actual wastewater flow.
- The District should maintain an operating reserve of at least three months (90 days) of operating expenses.
- The District should continue to fund repair and replacement capital improvements to maintain and upgrade the wastewater system.
- Proposition 218 allows agencies to implement rates and charges that are lower than those approved via the Prop 218 hearing process. If annual cost increases are less than projected, the District has the option to increase rates and charges by less than the maximum rates stated in the Prop 218 Notice.



## Rate Setting Legislation and Principles

In conducting this wastewater rate study, BWA adheres to the Proposition 218 requirements as described in this section. Subsequent sections provide the detailed, cost of service basis for BWA's rate recommendations.

### Proposition 218

Proposition 218, the "Right to Vote on Taxes Act", was approved by California voters in November 1996 and is codified as Articles XIII C and XIII D of the California Constitution. Proposition 218 establishes requirements for imposing or increasing property related taxes, assessments, fees and charges. For many years, there was no legal consensus on whether water and sewer rates met the definition of "property related fees". In July 2006, the California Supreme Court essentially confirmed that Proposition 218 applies to water and wastewater rates.

BWA recommends that the District follow the procedural requirements of Proposition 218 for all wastewater rate changes. These requirements include:

- **Noticing Requirement:** - The District must mail a notice of proposed rate increases to all affected property owners. The notice must specify the basis of the fee, the reason for the fee, and the date/time/location of a public rate hearing at which the proposed rates will be considered/adopted.
- **Public Hearing:** - The District must hold a public hearing prior to adopting the proposed rate increases. The public hearing must be held not less than 45 days after the required notices are mailed.
- **Rate Increases Subject to Majority Protest:** - At the public hearing, the proposed rate increases are subject to majority protest. If more than 50% of affected property owners submit written protests against the proposed rate increases, the increases cannot be adopted.

Proposition 218 also established a number of substantive requirements that are generally deemed to apply to utility service charges, including:

- **Cost of Service** - Revenues derived from the fee or charge cannot exceed the funds required to provide the service. In essence, fees cannot exceed the "cost of service".
- **Intended Purpose** - Revenues derived from the fee or charge can only be used for the purpose for which the fee was imposed.
- **Proportional Cost Recovery** - The amount of the fee or charge levied on any customer shall not exceed the proportional cost of service attributable to that customer.
- **Availability** - No fee or charge may be imposed for a service unless that service is used by, or immediately available to, the owner of the property. Standby charges shall be classified as "assessments" which are governed by Article 13D Section 4.

Charges for water, wastewater, and refuse collection are exempt from the additional voting requirements of Proposition 218 provided the charges do not exceed the cost of providing service and are adopted pursuant to procedural requirements of Proposition 218.

## Rate Development Principles

In reviewing the District's current sewer rates and finances, BWA used the following criteria in developing our recommendations:

1. *Revenue Sufficiency:* Rates should recover the annual cost of service and provide revenue stability.
2. *Rate Impact:* While rates are calculated to generate sufficient revenue to cover operating and capital costs, they should be designed to minimize, as much as possible, the impacts on ratepayers.
3. *Equitable:* Rates should be fairly allocated among all customer classes based on their estimated demand characteristics. Each user class only pays its proportionate share.
4. *Practical:* Rates should be simple in form and, therefore, adaptable to changing conditions, easy to administer and easy to understand.
5. *Provide Incentive:* Rates provide price signals which serve as indicators to conserve water and to use water efficiently.

## Background

The District provides wastewater collection, treatment, and disposal to approximately 1,600 accounts as shown in **Table 1**. The District last conducted a wastewater rate study in 2007 which set rates through FY2011. This report provides recommended rates through FY2021.

**Table 1: Customer Information and Current Rates**  
**Groveland Community Services District**  
**2018 Sewer Rate Study**

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

Estimated Volume	Residential gallons/yr	39,200,000
	Commercial gallons/yr	6,200,000
	Total	45,400,000

### Current Monthly Rates

Rate Category	FY2018 Current Rates	FY2019 Restructured
Monthly Minimum Charge	\$53.10	
2014 Wastewater Debt Service Charge - PML Only	\$25.75	\$20.42
Volume Usage Charge (\$/gallon metered water use)		
Residential	\$0.00698	
Commercial	\$0.01121	

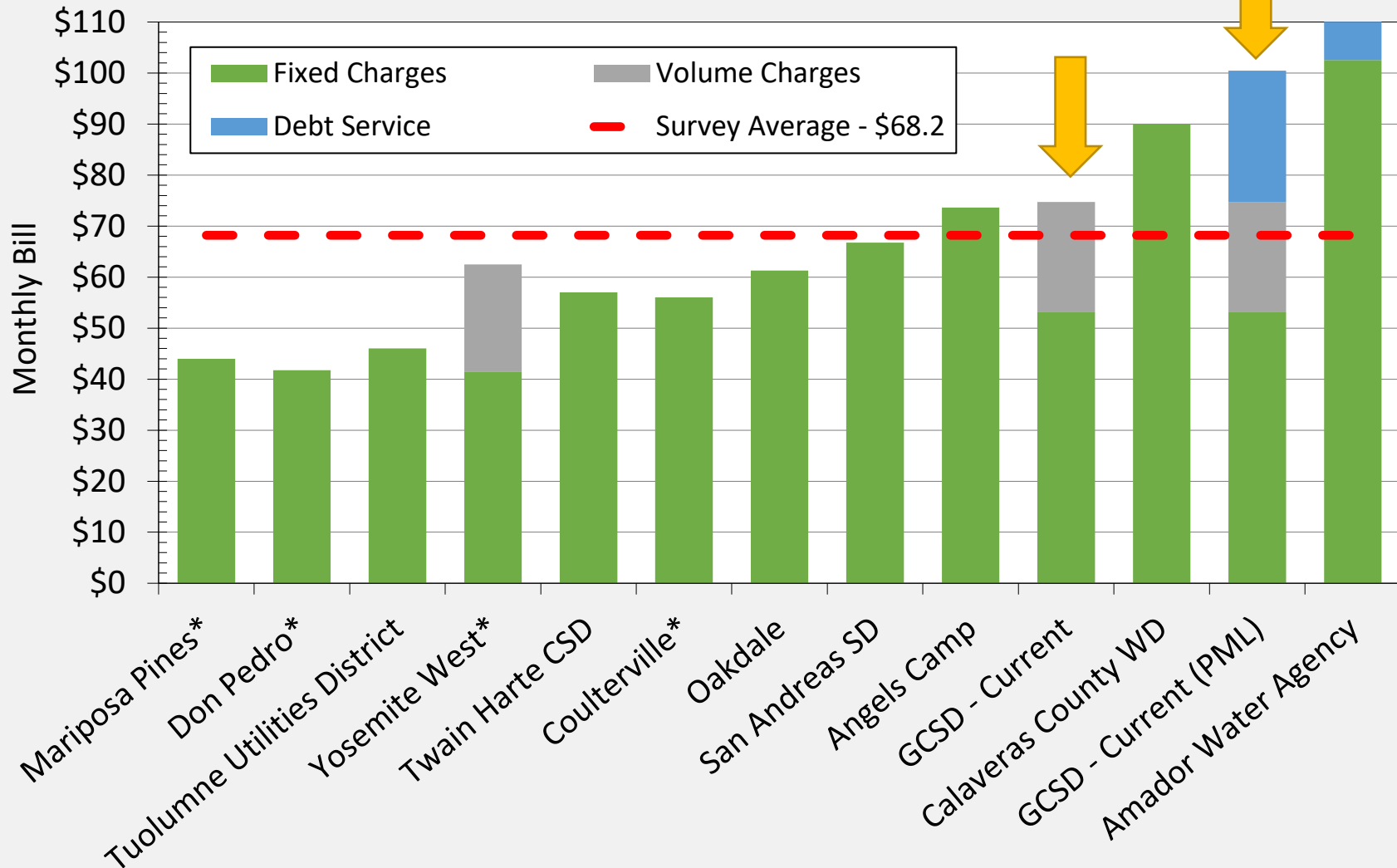
## Current Rates and Revenues

GCSD's current and prior year rates are also shown in **Table 1**. The rate structure consists of both fixed and volume monthly charges. All customers pay the fixed minimum charge of \$53.10. In addition, about 1,329 customers in the Pine Mountain Lake area pay a fixed monthly surcharge of \$25.75 to recover debt services costs for the 2014 Wastewater Refunding Revenue Bonds (bonds).

Based on the District's 2018/19 Annual Budget, In FY2018, the District is projected to collect a total of about \$1.4 million in revenues from current wastewater service charges. About \$1.06 million in rate revenues, or about 76%, is collected as fixed charges from customers. Volumetric charges currently generate about \$0.34 million annually or about 24% of service rate revenue. Customers are metered and pay a volume charge per gallon of water use/wastewater flow. The volume charges are scaled to the wastewater pollutant loading of each customer type and were developed in a previous rate study.

The typical residential customer served by the District currently uses about 3,100 gallons per month and pays \$74.74 monthly, for wastewater service. BWA surveyed the typical bills of surrounding public agencies, see **Figure 1**. The District's current wastewater bill is on the higher end of the surveyed agencies.

**Figure 1: 2018 Single Family Residential Monthly Sewer Bill Survey  
(3,100 gallons per month)**



\* Mariposa County Service Areas

## Cost of Service

Under Proposition 218, the District's wastewater rates and charges must be based on the cost of providing sewer collection and treatment service. Wastewater service costs consist of the following:

- Operating costs including administration, maintenance, the service contract with Veolia, and utilities (power)
- Capital costs including but not limited to replacements and improvements to gravity and force main pipelines, lift stations, and the wastewater treatment plant
- Debt service costs on the District's 2014 Revenue Bonds and projected new debt
- Costs related to maintaining adequate reserves

The District's 2018/19 budgeted operating, capital, debt service and reserve set-asides are shown in **Table 2**. The allocation of costs between fixed costs and variable costs is also shown in Table 2. The allocation is somewhat subjective however, based on BWA's experience with similar systems, an allocation of 75% to fixed and 25% to variable is recommended. The fixed costs will be recovered through the fixed monthly rate and variable costs will be recovered through the volume rate.

**Table 2: Budget Fixed and Variable Cost Allocation  
Groveland Community Services District  
2018 Sewer Rate Study**

<b>Budget Category</b>	<b>Budget 2018/19</b>	<b>Fixed Cost</b>	<b>Variable Cost</b>
Salaries	335,109	90%	10%
Benefits	144,235	90%	10%
Retiree Medical	26,240	100%	0%
Total Equip, Auto, Maint & Repairs	134,260	50%	50%
Outside Services	165,100	50%	50%
Other	205,200	75%	25%
Lease Expense	36,395	90%	10%
Administrative Cost Allocation	530,919	60%	40%
Annual Reserve Set-Aside	100,000	80%	20%
Debt	320,885	90%	10%
Capital Improvement Funding	300,000	80%	20%
<b>Total</b>	<b>2,298,343</b>	<b>1,721,333</b>	<b>577,010</b>
<b>Allocation - %</b>		<b>75%</b>	<b>25%</b>
<b>Allocation - \$</b>		<b>\$1,721,333</b>	<b>\$577,010</b>

**Table 3** establishes the District’s projected wastewater capital costs. The District is currently estimating annual capital expenditures of \$300,000 over the next five years. The 2018/19 capital projects include replacement of valves at Sewer Treatment Plant Reservoir 1, upgrades to Lift Station 2, wastewater pump replacements and others. The \$300,000 in annual capital projects will be cash funded.

**Table 3: Capital Improvement Program  
Groveland Community Services District  
2018 Sewer Rate Study**

Description	2018/19	2019/20	2020/21	2021/22	2022/23	5 Year Total
Replace STP Reservoir 1 Valves	\$20,000					\$20,000
LS 2 Upgrades and Recoating	\$100,000					\$100,000
Wastewater Pump Replacements	\$45,000					\$45,000
Building Upgrades/Repairs	\$32,000					\$32,000
Road Repairs/Maintenance	\$48,000					\$48,000
Truck #9 Replacement	\$9,600					\$9,600
CIP Contingency	\$45,400					\$45,400
Future Years Projects		\$300,000	\$300,000	\$300,000	\$300,000	\$1,200,000
<b>TOTAL</b>	<b>\$300,000</b>	<b>\$300,000</b>	<b>\$300,000</b>	<b>\$300,000</b>	<b>\$300,000</b>	<b>\$1,500,000</b>
<b>Funding Source:</b>						
Pay Go	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ 1,500,000
Grant						
Debt						



**Table 4** summarizes debt service payments on the District’s outstanding 2014 wastewater revenue bonds, the only wastewater debt the District currently has. Annual payments are around \$325,000 and the final payment is in FY2028.

<b>Table 4: Existing Debt Service Groveland Community Services District 2018 Sewer Rate Study</b>								
<b>2014 Wastewater Bond Debt Payments:</b>								
	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
	<u>322,710</u>	<u>320,885</u>	<u>323,910</u>	<u>321,710</u>	<u>319,285</u>	<u>321,710</u>	<u>321,564</u>	<u>320,255</u>
Total	322,710	320,885	323,910	321,710	319,285	321,710	321,564	320,255

**Table 5** provides the wastewater cash flow including rate and other revenues, operating costs, capital costs, reserve set-asides and debt service costs. Total current revenues are budgeted at \$1.956 million and are proposed to increase to about \$2.554 million by FY2021. Operating expenses projected after FY2019 are based on the FY2019 budgeted expenses escalated by 3% annually. At the beginning of FY 2019, the District’s budget projects the wastewater utility will have about \$0.71 million in unrestricted reserves. This amount is used as the beginning balance for the cash flow projection in Table 5.

**Table 5: Groveland CSD Sewer Cash Flow - (\$300,000 Annual Capital, \$100,000 Annual Reserve Set Aside)  
Groveland Community Services District  
2018 Sewer Rate Study**

	2018/19	2019/20	Projected		
			2020/21	2021/22	2022/23
<b>Beginning Fund Balance</b>					
Opening Balance [1]	\$709,657	\$367,747	\$284,595	\$381,949	\$431,529
<b>Rate Adjustment</b>	<b>17%</b>	<b>17%</b>	<b>15%</b>	<b>0%</b>	<b>0%</b>
<b>Growth</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>
Debt service charge	20.42	20.42	20.42	20.42	20.42
<b>Revenues</b>					
Sewer rate revenues	1,613,475	1,922,900	2,211,300	2,211,300	2,211,300
Debt service charge revenues	325,658	325,658	325,658	325,658	325,658
Misc. revenues	17,300	17,000	17,000	17,000	17,000
Grants	0	0	0	0	0
Loan Proceeds	0	0	0	0	0
<b>Total Revenues</b>	<b>1,956,433</b>	<b>2,265,558</b>	<b>2,553,958</b>	<b>2,553,958</b>	<b>2,553,958</b>
<b>Expenses</b>					
Salaries	335,109	345,200	355,600	366,300	377,300
Benefits	144,235	148,600	153,100	157,700	162,400
Retiree Medical	26,240	27,000	27,800	28,600	29,500
Equip, Auto, Maint & Repairs	134,260	138,300	142,400	146,700	151,100
Outside Services	165,100	170,100	175,200	180,500	185,900
Other (incl. OPEB, Leases)	241,595	248,800	256,300	264,000	271,900
Administrative Cost Allocation	530,919	546,800	563,200	580,100	597,500
<b>Total Operating Expenses</b>	<b>1,577,458</b>	<b>1,624,800</b>	<b>1,673,500</b>	<b>1,723,700</b>	<b>1,775,400</b>
<b>Annual Reserve set-aside</b>	<b>100,000</b>	<b>100,000</b>	<b>100,000</b>	<b>100,000</b>	<b>100,000</b>
Debt Service - 2014 WW Debt	320,885	323,910	321,710	319,285	321,710
Debt Service - New SRF Debt <sup>[2]</sup>			61,394	61,394	61,394
<b>Total Debt Service Payment</b>	<b>320,885</b>	<b>323,910</b>	<b>383,104</b>	<b>380,679</b>	<b>383,104</b>
<b>Capital Improvement Projects</b>	<b>300,000</b>	<b>300,000</b>	<b>300,000</b>	<b>300,000</b>	<b>300,000</b>
<b>Total Expenditures</b>	<b>2,298,343</b>	<b>2,348,710</b>	<b>2,456,604</b>	<b>2,504,379</b>	<b>2,558,504</b>
<b>Net Revenues</b>	<b>(341,910)</b>	<b>(83,152)</b>	<b>97,354</b>	<b>49,579</b>	<b>(4,546)</b>
<b>Ending Fund Balance (w/o set-aside)</b>	<b>367,747</b>	<b>284,595</b>	<b>381,949</b>	<b>431,529</b>	<b>426,983</b>
Cumulative Reserve Set-Aside	100,000	200,000	300,000	400,000	500,000
<b>Ending Fund Balance (with set-aside)</b>	<b>467,747</b>	<b>484,595</b>	<b>681,949</b>	<b>831,529</b>	<b>926,983</b>
90-day Minimum Operating Reserve	394,365	406,200	418,375	430,925	443,850
<b>Debt Service Coverage</b>					
Net Operating Revenues	378,975	640,758	880,458	830,258	778,558
Debt Service Payment	<u>320,885</u>	<u>323,910</u>	<u>383,104</u>	<u>380,679</u>	<u>383,104</u>
Debt Coverage	1.18	1.98	2.30	2.18	2.03

1 - Unrestricted fund balance based on FY2018/19 Budget.

2 - Assumes \$1.375 million, 30-yr state loan at 2%.

## Rate Design

BWA reviewed the District's rate structure and finds it to be fair and equitable. The District currently charges residential and commercial customers a fixed monthly sewer charge and a volumetric sewer flow charge based on metered water use. Based on the cost allocation shown in **Table 2**, BWA recommends using a wastewater cost allocation of 75% to Fixed and 25% to variable (the current allocation is 76% fixed and 24% variable).

### Residential Rate Design

Typical residential water use in the District is about 3,100 gallons per month. As shown in **Table 6**, the current single family residential sewer charge at this consumption level is \$74.74 per month in Groveland/ Big Oak Flat and \$100.49 in Pine Mountain Lake (higher due to debt surcharge). **Table 6** summarizes the proposed residential sewer rates based on increases of 17% in FY2019 and FY2020 and 15% in FY 2021.

### Commercial Rate Design

BWA reviewed the District's commercial rates and found that they generally align with industry standards. Due to fats, oils, and grease disposal and treatment, commercial typically has higher wastewater rates compared to residential strength rates. As shown in **Table 6**, the District's current volumetric rates are proposed to increase by the same percentages as the residential rates (17%,17% and 15%).

**Table 6: Proposed Rates - (\$300,000 Annual Capital, \$100,000 Annual Set-Aside)  
Groveland Community Services District  
2018 Sewer Rate Study**

	Current	2018/19	2019/20	2020/21	2021/22	2022/23
<b>Residential</b>		<b>17%</b>	<b>17%</b>	<b>15%</b>	<b>0%</b>	<b>0%</b>
Monthly Fixed Charge	\$53.10	\$62.13	\$72.69	\$83.59	\$83.59	\$83.59
Debt Service Charge - PML	\$25.75	\$20.42	\$20.42	\$20.42	\$20.42	\$20.42
Volume Charge (\$/gal)	\$0.00698	\$0.00817	\$0.00955	\$0.01099	\$0.01099	\$0.01099
Typical Residential Bill (3100 kgals) - Groveland/BOF	\$74.74	\$87.44	\$102.31	\$117.66	\$117.66	\$117.66
Typical Residential Bill (3100 kgals) - PML	\$100.49	\$107.86	\$122.73	\$138.08	\$138.08	\$138.08
<b>Commercial</b>		<b>17%</b>	<b>17%</b>	<b>15%</b>	<b>0%</b>	<b>0%</b>
Monthly Fixed Charge	\$53.10	\$62.13	\$72.69	\$83.59	\$83.59	\$83.59
Debt Service Charge - PML	\$25.75	\$20.42	\$20.42	\$20.42	\$20.42	\$20.42
Volume Charge (\$/gal)	\$0.01121	\$0.01312	\$0.01535	\$0.01765	\$0.01765	\$0.01765
Typical Commercial Bill (4000 kgals) - Groveland/BOF	\$97.94	\$114.59	\$134.07	\$154.18	\$154.18	\$154.18
Typical Commercial Bill (4000 kgals) - PML	\$123.69	\$135.01	\$154.49	\$174.60	\$174.60	\$174.60

## Rate Comparison

The District's proposed wastewater rates will generate sufficient revenues to meet the cost of providing wastewater service over the next five years. As previously shown in **Figure 1**, the District's current wastewater charge is in the high range of local agency bills. With the proposed FY2019 rate increase, the District's typical bill will remain in the high range in the region (see **Figure 2**). The bill survey does not include potential future rate increases that may be adopted by the agencies surveyed.

