Water & Sewer Rate Study

July 10, 2018

BARTLE WELLS ASSOCIATES
INDEPENDENT PUBLIC FINANCE ADVISORS

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July 10, 2018

Rob Roberson
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San Miguel Community Service District
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Re: Water & Sewer Rate Study

Bartle Wells Associates (BWA) is pleased to submit to the San Miguel Community Services District (the District) the attached Water & Sewer Rate Study. The results of the of the study were presented to the District's Board of Directors at the March 9th board meeting.

This study presents BWA's analysis of the operating and non-operating expenses of the District's water and sewer funds and provides five-year cash flow projections and rates. The primary purpose of this study was to analyze the District's water & sewer enterprise funds and make recommendations that will lead to their financial sustainability. Another important purpose of this study was to review rates considering the San Juan Capistrano court decision to ensure that rates adhere to the State's legal requirements.

The enclosed report recommends updating rates and charges to more accurately recover the costs of providing service to the District's water and sewer customers. Recommendations were developed with substantial input from the District staff. BWA finds that the rates and charges proposed in our report are based on the cost of service for each customer, 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.

We have enjoyed working with the District on this rate study and appreciate the assistance of Kelly Dodds and other District staff members throughout the project. Please contact us with any future questions about this study and the rate recommendations.

Yours truly,

Doug Dove, CIPFA
Principal

Erik Helgeson
Financial Analyst

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1 EXECUTIVE SUMMARY

1.1 Background

San Miguel Community Services District (the District) is located in San Luis Obispo County and lies near the County's northern boundary. The District serves a population in excess of 2,600 people. The District owns and operates water and wastewater systems. The water and wastewater utilities are operated as self-supporting enterprise funds. The revenues are derived primarily from utility service charges and must be adequate to fund operating and capital needs.

The District retained Bartle Wells Associates to develop a long-term financial plan and 5-year rate recommendations for the water and wastewater enterprises. The last rate study was completed in 2008, and the District last increased the water and wastewater rates in 2012. The major objectives of this study include:

- Ensuring continued financial health and stability of the District's enterprise funds;
- Developing a projection of operating and capital revenue requirements for the utilities;
- Recommending rates which meet these revenue requirements;
- Calculating impacts on the District's customers;
- Maintaining equity among all users of the system and ensuring compliance with all legal requirements such as Proposition 218.

1.2 Proposition 218

Utility rates are subject to the procedural and substantive requirements as set forth in Proposition 218. Proposition 218 was adopted by California voters in 1996 and added Articles 13C and 13D to the California Constitution. Article 13D, Section 6 governs property-related charges which the California Supreme Court subsequently ruled includes ongoing utility service charges such as water and wastewater charges. Article 13D, Section 6 establishes: a) procedural requirements for imposing or increasing property-related charges, and b) substantive requirements for those charges. Article 13D also requires voter approval for new or increased property-related charges but exempts from this voting requirement rates for water and wastewater service. The substantive requirements of Article 13D, Section 6 require the District's utility rates to meet the following conditions:

- Revenues derived from the fee or charge shall not exceed the funds required to provide the property related service.
- Revenues derived from the fee or charge shall not be used for any purpose other than that for which the fee or charge was imposed.
- The amount of a fee or charge imposed upon any parcel or person as an incident of property ownership shall not exceed the proportional cost of the service attributable to the parcel.

- 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 in question.
- No fee or charge may be imposed for general governmental services, such as police or fire services, where the service is available to the public at large in substantially the same manner as it is to property owners.

The procedural requirements of Proposition 218 for all utility rate increases are as follows:

- 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 50% plus one of affected property owners submit written protests the proposed rate increases, the increases cannot be adopted.

1.3 Use of Generally Accepted Rate-Making Principles

The rates developed in this study use a straightforward methodology to establish an equitable system of fixed and variable charges that recover the cost of providing service and fairly apportion costs to each rate component. The rates were developed using generally accepted cost-based principles and methodologies for establishing water rates, charges, and fees contained and discussed in the American Water Works Association (AWWA) M1 Manual.

In developing water rates, it is important to know that there is no "one-size-fits-all" approach for establishing cost-based water rates. "The (M1 Manual) is aimed at outlining the basic elements involved in water rates and suggesting alternative rules of procedure for formulating rates, thus permitting the exercise of judgment and preference to meet local conditions and requirements."[1]

BWA used the following criteria when developing our recommendations for the District's water and wastewater rates and finances:

1) *Revenue Sufficiency:* Rates should recover the annual cost of service and provide revenue stability.

[1] AWWA Manual M1 Manual, Principles of Water Rates, Fees, and Charges, Sixth Edition, 2012, page 5.

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.

1.4 Water System Summary of Findings

1.4.1 Summary of Findings

Financial Overview –

- The Water Fund is currently operating at a deficit. The deficit in the approved FY 2017-18 budget was $268,817. BWA's projected deficit in FY 2017-18 is $311,164. The operating reserve of $177,371 is projected to be drawn to $0 with $133,793 borrowed from the Water Capacity Fund to fund operations through the end of FY 2017-18. With no rate increase the District is projected to have zero funds in FY 2020-21.

- The District's water system requires a steady stream of repair and improvement projects. Accounting for construction cost inflation, the District anticipates funding approximately $4.1 million of capital improvement projects over the next 5 years. The District is anticipating $149,093 in grant funding. All capital projects and costs are shown in detail in Table 5 of Appendix A.

Rate Structure Change –

- The current fixed charges are based on meter size. BWA recommends the lowest fixed charge be based on that of a 1" meter because it is the smallest size allowed for new construction. BWA recommends Non-Residential customers move from the four-tier rate structure to a two-tier rate structure while Single-Family Residential customers move from the four-tier rate structure to a three-tier rate structure.

1.4.2 Current Water Rates

Current monthly water rates are shown on Table 1. Rates were last increased in 2012. Customers pay a monthly fixed rate and volumetric rates. The fixed rate includes five CCF of consumption.

Table 1: Current Monthly Water Rates

Water		
METER SIZE	MONTHLY RATES	
5/8"	$14.69	inc. first 5
3/4"	$14.69	inc. first 5
1"	$22.85	inc. first 5
1 1/2"	$39.17	inc. first 5
2"	$55.49	inc. first 5
6" Business	$300.29	inc. first 5

Charges for water usage over base rate each unit is 748 gal. of water	MONTHLY RATES	
First 5 units	$0.00	BASE
5 - 12.5	$2.04	
12.5 - 25	$2.46	
25 and up	$3.27	

1.4.3 Proposed Water Rates

The proposed rates will be effective August 15th in FY 18-19 and then July 1st in each of the following four years.

Table 2 shows the proposed monthly fixed meter charges (base rates) and volumetric rates for the next five years. The proposed rates will be effective August 15th in FY 18-19 and then July 1st in each of the following four years.

Table 2: Proposed Monthly Water Rates

Monthly Fixed Rates All Customers	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
Meter Size	*Existing*	*Proposed*	*Proposed*	*Proposed*	*Proposed*	*Proposed*
5/8"	$14.69	$44.53	$48.10	$50.03	$51.54	$53.09
3/4"	$14.69	$44.53	$48.10	$50.03	$51.54	$53.09
1"	$22.85	$44.53	$48.10	$50.03	$51.54	$53.09
1 1/2"	$39.17	$74.12	$80.05	$83.26	$85.76	$88.34
2"	$55.49	$109.62	$118.39	$123.13	$126.83	$130.64
6"	$300.29	$606.62	$655.15	$681.36	$701.81	$722.87

Volumetric Rates	FY 17-18		FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
	Existing		*Proposed*	*Proposed*	*Proposed*	*Proposed*	*Proposed*
Single-Family Residential							
Existing Structure		***Proposed Structure***					
Tier 1 (0-5 CCF)	$0.00	(0-5 CCF)	$0.00	$0.00	$0.00	$0.00	$0.00
Tier 2 (6-12.5 CCF)	$2.04	(6-12 CCF)	$3.99	$4.31	$4.49	$4.63	$4.77
Tier 3 (12.5-25 CCF)	$2.46	(>12 CCF)	$6.67	$7.21	$7.50	$7.73	$7.97
Tier 4 (25+ CCF)	$3.27						
Non-Residential							
Existing Structure		***Proposed Structure***					
Tier 1 (0-5 CCF)	$0.00	(0-5 CCF)	$0.00	$0.00	$0.00	$0.00	$0.00
Tier 2 (6-12.5 CCF)	$2.04	(>6 CCF)	$4.63	$5.01	$5.22	$5.38	$5.55
Tier 3 (12.5-25 CCF)	$2.46						
Tier 4 (25+ CCF)	$3.27						

1.5 Wastewater System Overview

1.5.1 Wastewater System

Financial Overview –

- The District's sewer system requires a significant amount of repair and improvement projects. The largest of these projects is a new sewer treatment plant projected to cost $6.5 million. The new plant will replace the current one which has served long past its useful life. Accounting for construction cost inflation, the District anticipates funding approximately $12.5 million of capital improvement projects over the next five years. The District is anticipating $1,308,273 in grant funding. All capital projects and costs are shown in detail in Table 5 of Appendix B.

- The Wastewater Fund is currently operating at a deficit. The deficit in the approved FY 2017-18 budget was $174,141. BWA's projected deficit in FY 2017-18 is $177,211. The operating reserve of $158,110 will be drawn to $0 and $19,101 will be borrowed from the Wastewater Capacity Fund to fund operations through the end of FY 2017-18. With no rate increase the District will have zero funds in FY 2021-22.

Rate Structure Change –

- BWA recommends that single-family and multi-family residential customers pay a monthly fixed charge. The fixed charge reflects the estimated amount of sewer discharge from a dwelling unit (indoor use).

- BWA also recommends the multi-family charge be less than the single-family charge because multi-family units have less estimated discharge per unit than single family homes.

- BWA recommends Non-Residential customers pay a monthly fixed charge and a strength-based, volumetric rate. The fixed charge represents the cost to provide continual access to the sewer collection and treatment system. The strength based, volumetric rate reflects the specific load each commercial customer places on the system.

- A specific rate was created for the school based on its estimated discharge strength and outdoor irrigation volumes.

- A specific rate was created to reflect the cost of operating a new lift station. The customers who benefit from the station are in the River Zone. All customers in the River Zone will pay the proposed monthly River Zone fee in addition to their residential or commercial rate.

1.5.2 Current Wastewater Rates

The current monthly wastewater charges are shown on Table 3. The District currently charges flat rates to all customers.

Table 3: Current Monthly Wastewater Rates

Sewer		
RATE CLASS	MONTHLY RATES	
Single Family	$37.09	
Multiple Family	$22.77	per units
Private Swimming pool(condo)	$34.89	
Restaurant	$37.09	
Motel	$37.09	
Motel w/ Kitchen	$37.09	
Public Swimming Pool	$37.09	
Public Toilet	$37.09	
Laundromat	$37.09	
School	$434.33	
Mission San Miguel	$130.30	

Additional per sewer unit charges	MONTHLY RATES	
Restaurant per. Seat	$1.32	
Motel per. Room	$5.47	
Motel w/kitchen per. Room	$7.61	
Public Swimming pool	$128.10	
Public Toilet per. Unit	$5.12	
Laundromat per. Unit	$5.12	

1.5.3 Proposed Wastewater Rates

Table 4 displays the proposed wastewater rates for the next five years. The proposed rates will be effective August 15th in FY 18-19 and then July 1st in each of the following four years.

Table 4: Proposed Sewer Rates, FY 2018-19 through FY 2022-23

Monthly Rates	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
	*Existing**	*Proposed*	*Proposed*	*Proposed*	*Proposed*	*Proposed*
Single-Family Residential						
Fixed	$37.09	$71.81	$89.77	$98.75	$103.69	$108.36
Multi-Family Residential						
Fixed (Per Unit)	$22.77	$44.88	$56.10	$61.71	$64.80	$67.72
Commercial						
Fixed Charge	37.09*	$54.04	$67.55	$74.31	$78.03	$81.55
Volumetric (Per CCF of Water Billed)						
Low Strength		$4.25	$5.32	$5.86	$6.16	$6.44
Medium Strength		$4.82	$6.03	$6.64	$6.98	$7.30
High Strength		$7.27	$9.09	$10.00	$10.40	$10.72
Lift Station Charges						
River Zone Charge		$23.34	$24.05	$24.78	$25.53	$26.30

*Existing rates include various business category surcharges

2 WATER FINANCES & RATES

2.1 Water Financial Overview

Bartle Wells Associates conducted an independent evaluation of the District's water enterprise finances. Key observations include:

- Water rates have not increased since 2012. Staff has worked hard to keep costs down, but water expenses are still subject to inflation.
- The capital repair and replacement projects will require additional funds.
- Additional debt financing may be necessary to help fund capital improvement projects in the upcoming years.
- Rates will need to be raised to meet minimum debt service coverage ratio requirements.
- The District has drawn down fund reserves in recent years to support annual operating and capital funding needs.
- As mentioned in Section 1.3, water rates were developed using generally accepted cost-based principles and methodologies for establishing water rates, charges, and fees contained and discussed in the AWWA M1 Manual.
- Water expenses were determined by developing projections based on audits, budgets, and up to date information provided by the District. Projected expenses and minimum reserve fund targets were used to develop annual revenue requirements.

2.2 Current Monthly Water Rates

Table 5 shows a schedule of current monthly water service charges. Customers pay a fixed base charge per account plus a volumetric rate. The volumetric unit of measure is one hundred cubic feet of water use. One hundred cubic feet (CCF) is equal to 748 gallons. The District utilizes an inclining tiered rate structure in which higher levels of use are billed at a higher rate. The first five units of use are included in the fixed rates.

Table 5: Current Water Rates

Water		
METER SIZE	MONTHLY RATES	
5/8"	$14.69	inc. first 5
3/4"	$14.69	inc. first 5
1"	$22.85	inc. first 5
1 1/2"	$39.17	inc. first 5
2"	$55.49	inc. first 5
6" Business	$300.29	inc. first 5

Charges for water usage over base rate each unit is 748 gal. of water	MONTHLY RATES	
First 5 units	$0.00	BASE
5 - 12.5	$2.04	
12.5 - 25	$2.46	
25 and up	$3.27	

2.3 Current Water Accounts

Table 6 shows the current number of water accounts by meter size and the corresponding equivalent demand units. An equivalent demand unit (EDU) is the ratio of any meter's safe maximum flow to that of a 1" meter's. The safe maximum flow is based on the American Water Works Association's meter service equivalent standards. The proposed fixed rates by meter size are determined based on the number of EDU's. The majority of customers are single family residential, accounting for over 88% of all customers.

Table 6: Current Water Accounts

All Customers Meter Size	Customers	Capacity Factor**	Equivalent Demand Units
1" or below***	807	1.0	807.0
1 1/2"	3	2.0	6.0
2"	10	3.2	32.0
3"	0	6.4	0.0
4"	0	10.0	0.0
6"	1	20.0	20.0
Total	**821.0**		**865.0**

* Customer data as of June 2017 provided by District staff

** Capacity factors based on AWWA operating capacity standards by meter size

*** Meters 1" or below reflects the varying meter sizes in single family homes

2.4 Water Use and Growth

BWA uses a conservative approach when forecasting water use and growth projections in order to ensure the District is not dependent on population growth and water demand recovering from the recent drought. Metered demand is the amount reported by the District in the most recent fiscal year (FY 2016/17). Customer growth is based on the District's knowledge of current development projects.

Table 7: Water Use and Growth

Metered Water Demand	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
Demand (CCF)	103,750	107,541	110,069	110,069	110,069	110,069
Customers	821	821	851	871	871	871
Additional Customers[1]		30	20			
Total Customers	821	851	871	871	871	871
Consumption per Customer (CCF)	126	126	126	126	126	126
Growth[2]		***3.65%***	***2.35%***	***0.00%***	***0.00%***	***0.00%***

[1]Assumption based on District's estimate

[2]Escelation factor used to escalate revenue (demand growth with no inflation)

2.5 Financial Challenges / Key Drivers of Rate Increases

The District's water enterprise will need to have significant water rate increases. Key drivers of future rate increases are summarized as follows.

2.5.1 Ongoing Operating Cost Inflation

The District faces ongoing operating cost inflation due to annual increases in a range of expenses such as utilities, supplies, salaries, benefits, etc. Since 1996, the average annual CPI for all urban customers has been 2.3%, whereas the average for the Construction Cost Index Engineering News Record (CCI ENR) 20-Cities Average is 3.1%. BWA uses a 3.0% operating cost inflation assumption. Appendix A includes a detailed description of water expense projections through FY 2022/23.

2.5.2 Operating Fund Deficit

The Water Fund is currently operating at a deficit. The deficit in the approved FY 2017-18 budget was $268,817. BWA's projected deficit in FY 2017-18 is $311,164. The operating reserve of $177,371 will be drawn to $0 and $133,793 will be borrowed from the Water Capacity Fund. With no rate increase the District will have zero funds in FY 2020-21.

2.5.3 Debt Coverage

The District is required to maintain a debt coverage ratio above 1.1x. The current coverage is below zero. Bartle Wells recommends maintaining at minimum a 1.25x debt coverage ratio. This will help the District maintain a strong financial position and be better positioned to obtain additional financing.

2.5.4 Water Reserve Funds

The District needs to maintain reserves. Maintaining a prudent level of fund reserves provides a financial cushion for dealing with unanticipated expenses, revenue shortfalls, and emergency capital repairs.

2.5.5 Capital Projects

The District's water system requires a steady stream of repair and improvement projects. Accounting for construction cost inflation, the District anticipates funding approximately $4.1 million of capital improvement projects over the next 5 years. The District is anticipating receiving $149,093 in grant funding.

There are two projects not included in the financial plan because they are contingent on future regulation. These projects total $5.2 million. If the District must complete these projects, an additional capital surcharge will be necessary.

2.6 Water Enterprise Revenue Requirements

2.6.1 Water Revenue Requirements: Cash Flow Projection

The water cash flow projections incorporate the latest information available as well as reasonable, prudently conservative assumptions. Key assumptions include:

Growth & Water Demand Assumptions

- Based on input from District staff BWA is assuming 30 new connections.
- Future water sales are projected to increase with growth.

Revenue Assumptions

- Investment income is estimated based on projected reserve levels. Future projections are estimated based on conservative interest earning rates; and actual amounts will vary based on reserves and future interest earning rates.
- Other revenues are projected to stay constant for the study period.

Expense Assumptions

- Operating and maintenance costs are based on the 2017-18 budget and escalate at the annual rate of 3.0% to account for future cost inflation.
- Based on the District's compensation information, salary costs are projected to grow at 5% annually.
- The District is projecting utility (gas and electric) costs to increase at 5.0% annually.
- Capital cost inflation is projected to be 3.0% for the study period.

Revenue Increases

Based on the above assumptions BWA recommends the following rate revenue increases.

Table 8: Recommended Water Rate Revenue Increases

Revenue Escalation	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
Rate Revenue Increase %	125.0%	8.0%	4.0%	3.0%	3.0%
Rate Revenue Increase $	$431,732	$63,630	$34,360	$26,801	$27,605

The recommended annual rate increases begin in FY 2018-19 and are needed to fund annual operating and capital expenses, provide healthy debt service coverage, and maintain prudent reserves.

With the large capital expenditures projected in the next five years, BWA recommends using capacity fee revenues and financing to mitigate the impact of the capital projects. The water capacity fund cashflow is shown in Table 9.

Table 9: Water Capacity Cash Flow Projection

Capacity Fund	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
Beginning Capacity Balance	*$476,700*	$90,907	$142,665	$269,424	$146,183	$122,941
Fund Sources						
Capacity Fees	0	375,000	250,000	0	0	0
Operating Loan Repayment	0	26,759	26,759	26,759	26,759	26,759
Fund Uses						
Operating Loan	133,793	0	0	0	0	0
Capacity Fee Funded Capital	$252,000	$350,000	$150,000	$150,000	$50,000	$50,000
Net Capacity Income	**-$385,793**	**$51,759**	**$126,759**	**-$123,241**	**-$23,241**	**-$23,241**
Ending Capacity Balance	**$90,907**	**$142,665**	**$269,424**	**$146,183**	**$122,941**	**$99,700**

Figure 1 depicts the projected revenues, expenses, and reserve levels with implementation of the proposed increases. The cash flow is shown in detail in Table 10. The recommended rate increases begin in FY 2018-19 and are needed to fund annual operating and capital expenses, provide healthy debt service coverage and maintain prudent reserves.

Figure 1: Water Utility Projected Revenues & Expenses

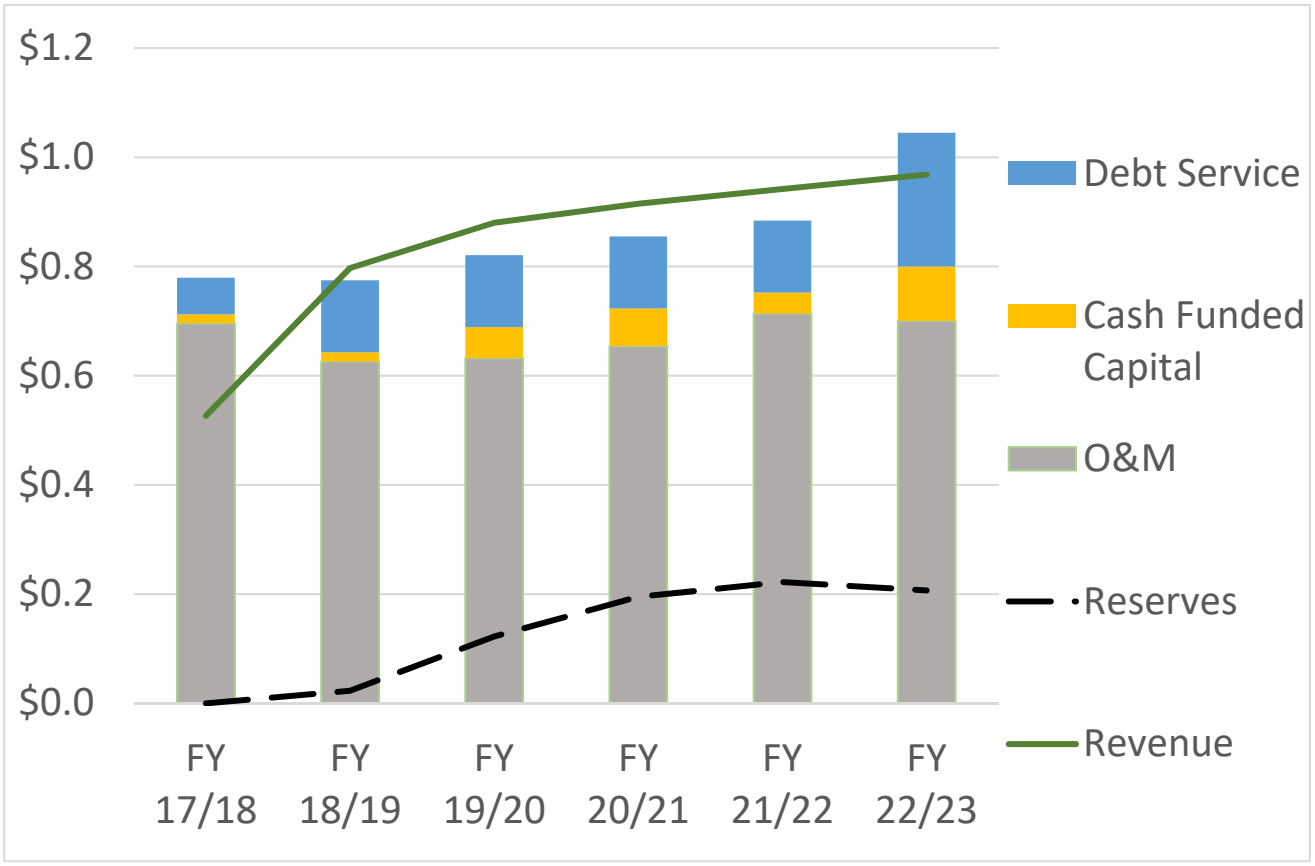


Table 10: Water Cash Flow Projection

Operating Fund	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
Reserves						
Beginning Unrestricted Balance	*$177,371*	$0	$23,225	$122,461	$194,983	$222,163
Revenue Escalation						
Rate Revenue Increase	*0.0%*	*125.0%*	*8.0%*	*4.0%*	*3.0%*	*3.0%*
Revenues						
Rate Revenue	$333,210	$345,385	$795,380	$859,011	$893,371	$920,172
Additional Rate Revenue	0	431,732	63,630	34,360	26,801	27,605
Timing Adjustment*	0					
Other Revenue	191,901	19,950	19,950	19,950	19,950	19,250
Interest on Reserves	$1,635	$227	$1,040	$1,730	$1,728	$1,238
Total Revenue	$526,746	*$797,294*	*$880,001*	*$915,051*	*$941,850*	*$968,265*
Expenses						
Operating Expenses						
Operating Expense	$696,210	$599,229	$605,374	$627,301	$687,075	$673,730
Repay Capacity Fund		26,759	26,759	26,759	26,759	26,759
Total Operating Expenses	$696,210	$625,988	$632,133	$654,060	$713,834	$700,489
Capital Expenses						
Existing Debt Service	67,000	67,000	67,000	67,000	67,000	67,000
New Debt Service	$0	$65,000	$65,000	$65,000	$65,000	$178,000
Rate Funded Capital	$74,700	$16,082	$16,632	$56,470	$68,836	$38,125
Total Capital Expenditures	$141,700	$148,082	$148,632	$188,470	$200,836	$283,125
Total Expenses	*$837,910*	*$774,069*	*$780,764*	*$842,529*	*$914,670*	*$983,613*
Net Revenues	**-$311,164**	**$23,225**	**$99,236**	**$72,522**	**$27,180**	**-$15,348**
Loan from Capacity Fund	*$133,793*					
Ending Unrestricted Balance	**$0**	**$23,225**	**$122,461**	**$194,983**	**$222,163**	**$206,815**
Debt Coverage (Target 1.25)	(2.53)	1.50	2.08	2.18	1.93	1.20

2.7 Cost of Service

Water utilities have used a wide range of approaches and perspectives for allocating and recovering their costs for providing service, and these costs are most commonly recovered from a combination of fixed and variable charges. The percentage of revenues derived from the fixed and variable charges varies for each agency. They should be proportional to each system's expenditures and must not exceed the cost of providing service. A higher level of fixed charges provides better revenue stability and less dependence on variable sales. On the other hand, higher dependence on volumetric revenues provides a greater conservation incentive.

Depending on perspective, many of the same costs can be reasonably allocated 100 percent to fixed revenue recovery, 100 percent to variable rate recovery, or to some combination of the two. For

example, debt service used to fund water treatment facilities can legitimately be treated as a) a fixed annual cost that should be recovered from fixed charges, b) a cost related to providing water supply to meet customer demand and therefore a cost that should be recovered from variable rates, or c) a cost that can be recovered from both fixed and variable rates in recognition of the two alternative perspectives.

Many of the utility's costs are variable costs that vary by water consumption including personnel, supplies, and utilities. However, a portion of these variable costs can reasonably be apportioned to fixed rate recovery, and vice-versa with fixed costs. For example, a share of the fixed cost of salaries related to water production can reasonably be recovered from usage-based charges as these costs are incurred to provide water supply to meet customer demand. Likewise, debt service payments may be fixed annual costs, but it is reasonable to recover some of these costs from usage-based rates as the costs are incurred to fund infrastructure that will improve the water delivery system.

While there is no single correct approach, BWA believes that costs should be allocated within a reasonable range of fixed and variable allocation that reflects both a) underlying cost causation, to the extent such causation can reasonably be determined or estimated, and b) the policy preferences of the agency in cases where a range of reasonable approaches can be justified.

Meter capacity ratios provide a basis for charging customers proportional to the capacity that is reserved for them in the water system. Larger meters have the ability to place a greater demand on the water system and are therefore charged based on that potential demand. Meter ratios are widely used in California rate setting and are consistent with meter ratios adopted by the California Public Utility Commission for private water companies. The fixed charges for larger meters are determined by multiplying the base charge by the corresponding 1" EDU. This establishes a fixed cost per account.

2.7.1 Cost Allocation

Table 11 shows a breakdown of the water utility's expenses and how they are allocated. The proportional allocation is then applied to the rate revenue requirement so that the rates are proportional to the service provided.

Table 11: Allocation of Water System Expenses and Revenues to Fixed & Variable Costs

Allocation Category	Amount	Fixed	All Volume	Supply 1	Supply 2	Supply 3	Total
Maintenance	$49,293			42%	33%	25%	100%
Administration	$490,436	30%	70.0%				100%
Utilities	$39,731			42%	33%	25%	100%
All Volume	$1,061		100%				100%
Supply 1	$6,029			100%			100%
Supply 2	$5,466				100%		100%
Supply 3	$6,993					100%	100%
Capital	$854,000	50%		21%	16%	12%	100%
Functional Allocation $		$574,131	$344,366	$225,162	$175,118	$134,231	$1,453,008
Functional Allocation %		39.51%	23.70%	15.50%	12.05%	9.24%	100%
Revenue Requirement		**$307,039**	**$184,177**	**$120,453**	**$93,643**	**$71,806**	**$777,117**

To recover the allocated costs proportionally to the service provided, a unit cost must be derived. Critical to this step is using the unit which relates to the function.

- **Fixed-** Fixed costs are recovered per unit of capacity (EDU). Fixed costs which are related to the size of the system were allocated to the capacity category.
- **All Volume-** Costs reasonably recovered volumetrically which are not specifically related to specific Supply's are allocated to the All Volume category. All Volume costs are recovered per unit of volume (CCF) based on all projected use.
- **Supply 1-** Volumetric costs related to the lowest cost per volume well are allocated to this category. Costs are recovered per unit of volume (CCF) based on all projected output from this well.
- **Supply 2-** Volumetric costs related to the second to lowest cost per volume well are allocated to this category. Costs are recovered per unit of volume (CCF) based on all projected output from this well.
- **Supply 3-** Volumetric costs related to the highest cost per volume well are allocated to this category. Costs are recovered per unit of volume (CCF) based on all projected output from this well.

The following table shows the allocation units and total revenue requirement by function. The revenue requirement divided by the demand allocation units in a given category provides each category's unit rate.

Table 12: Allocation Units by Customer Class and Function

Allocation Units	Fixed	All Volume	Supply 1	Supply 2	Supply 3
	EDU	*CCF*	*CCF*	*CCF*	*CCF*
Residential Demand	758	82,702	45,486	33,081	4,135
Nonresidential Demand	107	21,049	11,577	8,420	1,052
Allocation Units	865	103,751	57,063	41,500	5,188
Revenue Requirement	$307,039	$184,177	$120,453	$93,643	$71,806
Charge	**$355.00**	**$1.78**	**$2.11**	**$2.26**	**$13.84**

2.8 Water Rate Structure Recommendations

BWA evaluated the District's water rate structure for equity and compliance with the substantive provisions of Proposition 218. Rate structure recommendations listed below incorporate input received from staff.

2.8.1 Fixed Service Charge Recommendations

The current fixed charges are based on meter size. BWA recommends lowest fixed charge be based on that of a 1" meter because a 1" meter is the smallest size allowed for new construction.

The fixed meter rates through FY 2022-23 shown in Table 13 are projected to be sufficient to meet revenue requirements. Under Proposition 218, the rates shown below are the maximum rates that the District can enact each year. The District may choose to adopt rates that are lower than those shown based upon an annual review of the water utility's finances to ensure that revenues are in line with expenses.

Table 13: Proposed Fixed Meter Rates

Monthly Fixed Rates						
All Customers	**FY 17-18**	**FY 18-19**	**FY 19-20**	**FY 20-21**	**FY 21-22**	**FY 22-23**
Meter Size	*Existing*	*Proposed*	*Proposed*	*Proposed*	*Proposed*	*Proposed*
5/8"	$14.69	$44.53	$48.10	$50.03	$51.54	$53.09
3/4"	$14.69	$44.53	$48.10	$50.03	$51.54	$53.09
1"	$22.85	$44.53	$48.10	$50.03	$51.54	$53.09
1 1/2"	$39.17	$74.12	$80.05	$83.26	$85.76	$88.34
2"	$55.49	$109.62	$118.39	$123.13	$126.83	$130.64
6"	$300.29	$606.62	$655.15	$681.36	$701.81	$722.87

2.8.2 Water Variable Charge Recommendations

Bartle Wells is recommending that volumetric rates be based on a layering approach. Costs allocated to the All Volume category are recovered from every unit (CCF) sold. However, the costs allocated to each Supply category are recovered sequentially through the tiers. Tier 1 use is only allocated to Supply 1 costs. The next tiers recover blends of the costs from the remaining Supplies. All Supply 3 costs are recovered in the highest tier. As demand progresses through the tiers, it requires more supply and greater redundancy; therefore, the lower tier use is fulfilled by the lowest cost Supply. If customers used at lower levels consistently throughout the year, the higher cost supplies may not be necessary.

BWA recommends Non-Residential customers move from the current four-tier rate structure to a two-tier rate structure while Single Family Residential customers move from the four-tier rate structure to a three-tier rate structure.

BWA is recommending the five CCF included in the base charge reflect the unit costs allocated to All Volume and Supply 1 because it is consistent year-round.

Non-Residential customers use water in varying ways based on their business activity. Since there is not a way to reasonably distinguish the type of use, BWA recommends a single tier above the base amount for this class. The unit cost for this tier is based on the blended cost of the remaining Supplies.

Residential customers use water in a similar manner. Residential use for indoor and outdoor purposes can reasonably be estimated. Indoor use is consistent and reflected in the base charge.

The detailed rate calculations are found in Appendix A.

Table 14 shows the proposed volumetric rates for all customer classes over the next five years. Under Proposition 218, the rates shown below are the maximum rates that the District can enact each year. The District can adopt rates that are lower than those shown based upon an annual review of the water utility's finances to ensure that revenues are in line with expenses.

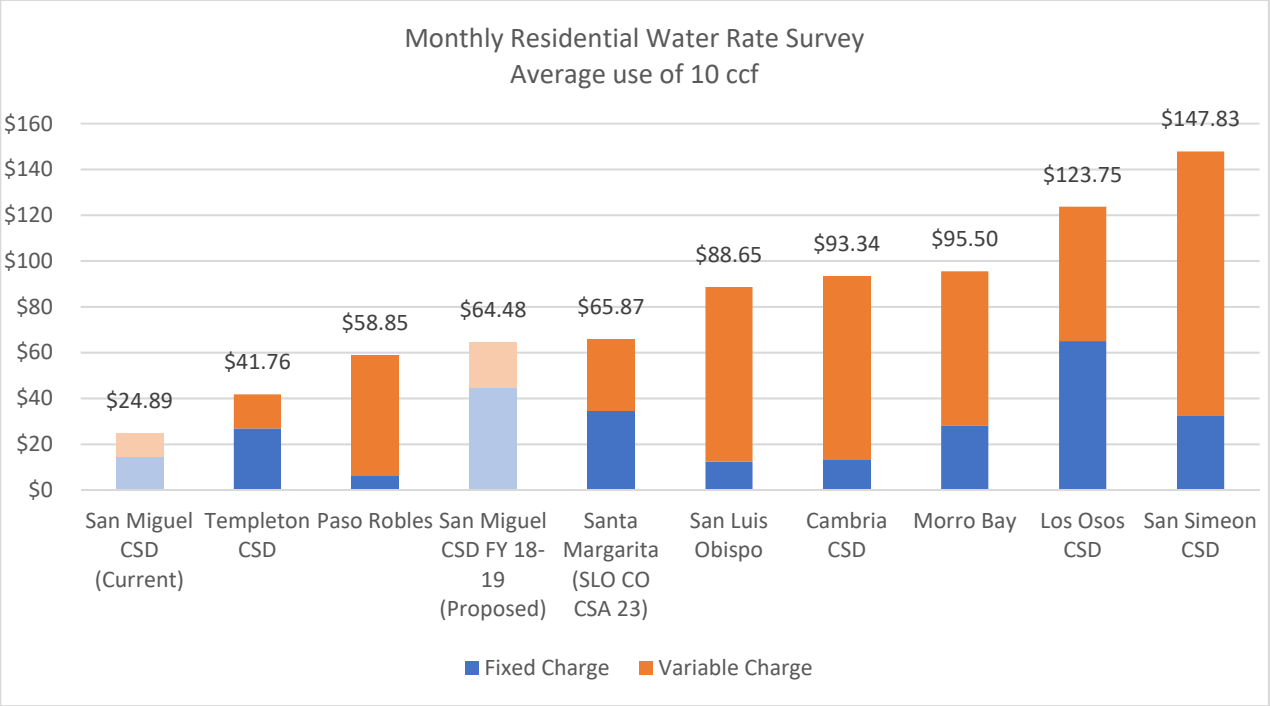
Table 14: Proposed Volumetric Water Rates

Volumetric Rates	FY 17-18		FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
	Existing		*Proposed*	*Proposed*	*Proposed*	*Proposed*	*Proposed*
Single-Family Residential							
Existing Structure		***Proposed Structure***					
Tier 1 (0-5 CCF)	$0.00	(0-5 CCF)	$0.00	$0.00	$0.00	$0.00	$0.00
Tier 2 (6-12.5 CCF)	$2.04	(6-12 CCF)	$3.99	$4.31	$4.49	$4.63	$4.77
Tier 3 (12.5-25 CCF)	$2.46	(>12 CCF)	$6.67	$7.21	$7.50	$7.73	$7.97
Tier 4 (25+ CCF)	$3.27						
Non-Residential							
Existing Structure		***Proposed Structure***					
Tier 1 (0-5 CCF)	$0.00	(0-5 CCF)	$0.00	$0.00	$0.00	$0.00	$0.00
Tier 2 (6-12.5 CCF)	$2.04	(>6 CCF)	$4.63	$5.01	$5.22	$5.38	$5.55
Tier 3 (12.5-25 CCF)	$2.46						
Tier 4 (25+ CCF)	$3.27						

2.9 Regional Water Rate Survey

The following chart compares the water bill for a typical single-family home to those of other regional agencies. The District has deferred funding operating and capital expenses for quite some time. As a result, SMCSD has the lowest rates in the region. The proposed water rates, which fund operations and capital projects, are close to the region's average. Rates can vary widely from agency to agency due to a multitude of factors. The survey shown is for comparative purposes only.

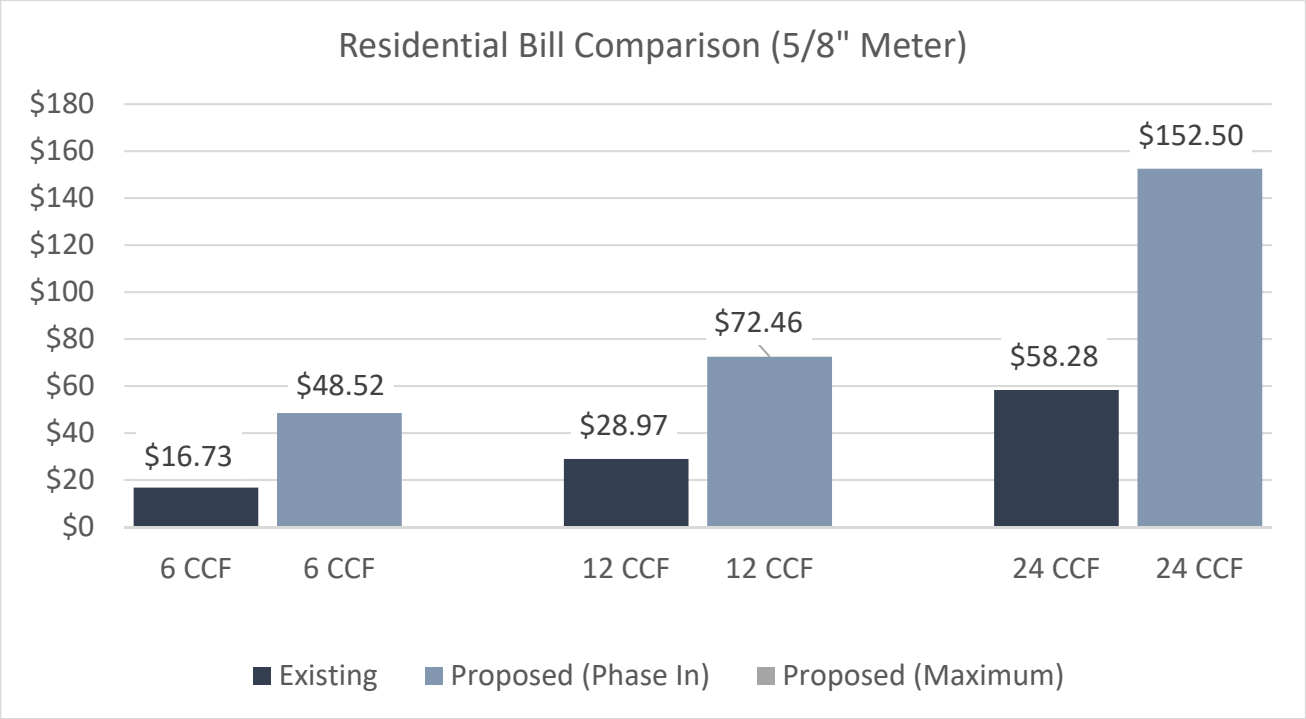
Figure 2: Single Family Residential Water Rate Survey



Single Family Residential Bill Impacts

While the overall recommended increase in FY 2018-19 is 140.0%, the individual impact to customers will vary due to the rate structure change. The figure below exhibits monthly bill impacts. In FY 2018-19, some bills will increase proportionally more than the overall revenue increase. This is due to the reduction in tiers and recovering more revenue from the fixed charge.

Figure 3: Single Family Residential Monthly Bill Comparisons



Less than 40% of bills greater than 6 CCF	Less than 75% of bills greater than 12 CCF	Less than 95% of bills greater than 24 CCF
Bill Increase • $31.79	Bill Increase • $43.49	Bill Increase • $94.22

3 SEWER FINANCES & RATES

3.1 Sewer Financial Overview

Bartle Wells Associates conducted an independent evaluation of sewer enterprise finances. Key observations include:

- Sewer rates have not been increased since FY 2012. District staff has worked hard to keep costs down but costs are still subject to inflation.
- The large amount of capital repair and replacement projects will require additional funds.
- Additional debt financing may be needed to help fund capital improvement projects in upcoming years.
- Sewer expenses were determined by developing projections based on audits, budgets, and up to date information provided by the District. Projected expenses and minimum reserve fund targets were used to develop annual revenue requirements.

3.2 Current Monthly Sewer Rates

The District has two classes of wastewater customers:

- **Residential single-family and multi-family** customers pay a fixed amount per month. Currently, the monthly fixed cost for sewer service is $37.09 for single-family service and $22.77 per month per dwelling unit for multi-family service.
- **Commercial** rates are flat rates based on business category.

3.3 Current Sewer Accounts

Table 15 shows the current sewer account and projected demand data.

Table 15: Current Sewer Accounts and Projected Demand

Residential

Units	Customers	Dwelling Units
1	623	623
Total	**623**	**623**

Multi-Family

Units	Customers	Dwelling Units
2	6	12
3	4	12
4	6	24
5	1	5
6	2	12
8	1	8
9	1	9
10	2	20
Total	**23**	**102**

Non-Residential

Rate Code	Customers	Demand (CCF)
Med	29	8,919
High	5.0	1,166
Total	**34**	**10,085**

* Customer data as of June 2017 provided by District staff

3.4 Financial Challenges / Key Drivers of Rate Increases

Going forward, the District's sewer enterprise is facing several financial challenges that will require sewer rate increases over the next five years. Key drivers of rate increases are summarized below.

3.4.1 Capital Improvements / Aging Infrastructure

The District's sewer system requires a significant amount of repair and improvement projects. The largest of these projects is a new sewer treatment plant projected to cost $6.5 million. The new plant will replace the current one which has served long past its useful life. Accounting for construction cost inflation, the District anticipates funding approximately $12.5 million of capital improvement projects over the next five years. The District is anticipating $1,308,273 in grant funding. All capital projects and costs are shown in detail in Table 5 of Appendix B.

3.4.2 Ongoing Operating Cost Inflation

The District faces ongoing operating cost inflation due to annual increases in a range of expenses such as utilities, supplies, salaries, benefits, etc. Since 1996, the average annual CPI for all urban customers has been 2.3%, whereas the average for the Construction Cost Index Engineering News Record (CCI ENR) 20-Cities Average is 3.1%. BWA uses a 3.0% operating cost inflation assumption. Appendix B includes a detailed description of water expense projections through FY 2022-23.

3.4.3 Operating Fund Deficit

The Sewer Fund is currently operating at a deficit. The deficit in the approved FY 2017-18 budget was Fund $174,141. BWA's projected deficit in FY 2017-18 is $177,211. The operating reserve of $158,110 will be drawn to $0 and $19,101 will be borrowed from the Sewer Capacity Fund. With no rate increase the District will have zero funds in FY 2021-22.

3.4.4 Sewer Reserve Funds

Maintaining a prudent minimal level of fund reserves provides a financial cushion for dealing with unanticipated expenses, revenue shortfalls, and emergency capital repairs.

3.4.5 Sewer Debt Coverage

Bartle Wells recommends maintaining at minimum a 1.25x debt coverage ratio. This will help the District maintain a strong financial position and be better positioned to obtain additional financing.

3.5 Sewer Enterprise Financial Projections

The water cash flow projections incorporate the latest information available as well as reasonable, prudently conservative assumptions. Key assumptions include:

Growth Assumptions

- Based on input from District staff BWA is assuming 30 new connections.
- Future rate revenue is projected to increase with growth.

Revenue Assumptions

- Based on the financial projections the District will need debt financing in FY 2019-20 to fully fund the sewer system's capital improvement needs.

- Investment income is estimated based on projected reserve levels. Future projections are estimated based on conservative interest earning rates; actual amounts will vary based on reserves and future interest earning rates.
- Other revenues are projected to stay constant for the study period.

Expense Assumptions

- Operating and maintenance costs are based on the 2017-18 budget and escalate at the annual rate of 3.0% to account for future cost inflation.
- Based on the District's compensation information, salary costs are projected to grow at 5% annually.
- The District is projecting utility (gas and electric) costs to increase at 5.0% annually.
- Capital cost inflation is projected to be 3.0% for the study period.

Revenue Increases

Based on the above assumptions BWA recommends the following rate revenue increases. The following table shows the debt service coverage ratio with the recommended increases.

Table 16: Recommended Sewer Rate Revenue Increases

Revenue Escalation	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
Rate Revenue Increase %	90.0%	25.0%	10.0%	5.0%	4.5%
Rate Revenue Increase $	$320,032	$173,440	$86,720	$47,696	$45,073

The recommended annual rate increases begin in FY 2017-18 and are needed to fund annual operating and capital expenses, provide healthy debt service coverage and maintain prudent reserves.

With the large capital expenditures projected in the next five years, BWA recommends using capacity fee revenues to mitigate the expense of the projects. The sewer capacity fund cashflow is shown in Table 17.

Table 17: Sewer Capacity Cash Flow Projection

Capacity Fund	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
Beginning Balance	$463,581	$444,480	$614,300	$862,120	$865,941	$869,761
Fund Sources						
Capacity Fees	0	366,000	244,000	0	0	0
Operating Loan Repayment	0	3,820	3,820	3,820	3,820	3,820
Fund Uses						
Operating Loan	19,101	0	0	0	0	0
Capacity Fee Funded Capital	$0	$200,000				$600,000
Net Capacity Income	**-$19,101**	**$169,820**	**$247,820**	**$3,820**	**$3,820**	**-$596,180**
Ending Capacity Balance	**$444,480**	**$614,300**	**$862,120**	**$865,941**	**$869,761**	**$273,581**

Figure 4 depicts the projected cash flow with increases. The cash flow is shown in detail in Table 18. The recommended annual rate increases begin in FY 2018-19 and are needed to fund annual operating and capital expenses, provide healthy debt service coverage and maintain prudent reserves.

Figure 4: Sewer Utility Projected Revenues & Expenses

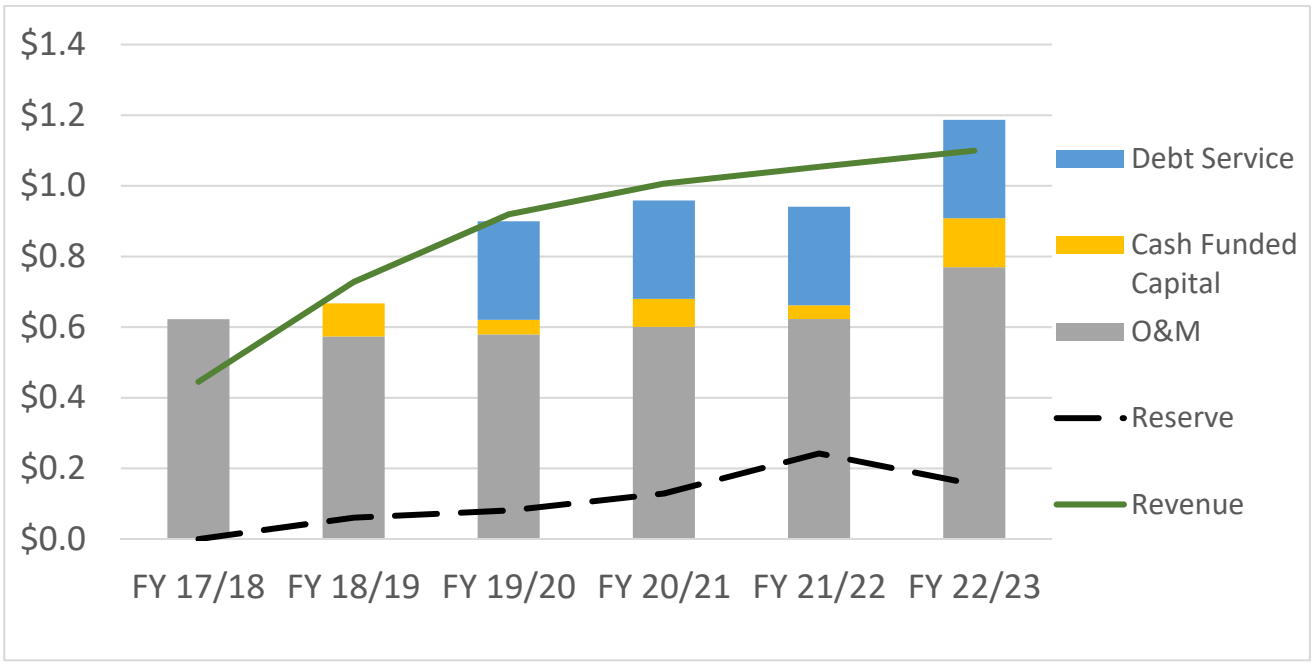


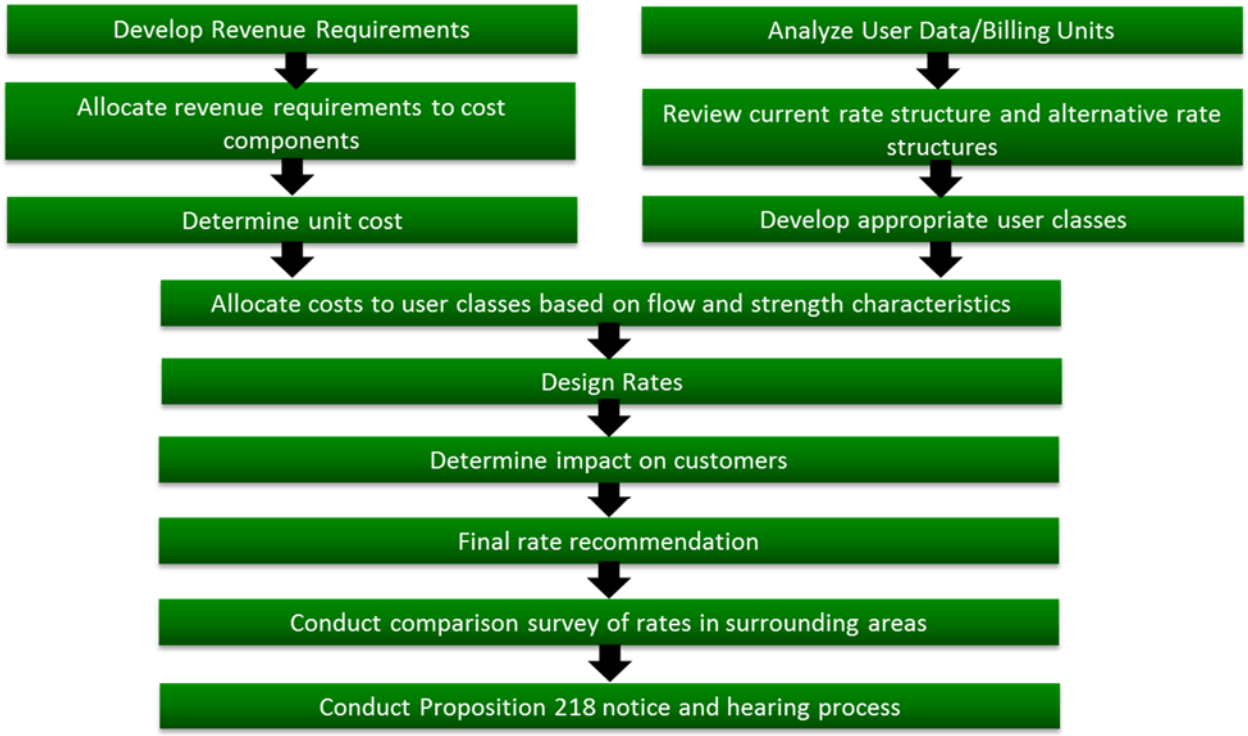
Table 18: Sewer Cash Flow Projection

Operating Fund	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
Reserves						
Beginning Unrestricted Balance	$158,110	$0	$60,808	$81,022	$128,825	$242,340
Revenue Escalation						
Rate Revenue Increase	*0.0%*	*90.0%*	*25.0%*	*10.0%*	*5.0%*	*4.5%*
Revenues						
Rate Revenue	$341,273	$355,592	$693,762	$867,202	$953,922	$1,001,618
Additional Rate Revenue	0	320,032	173,440	86,720	47,696	45,073
Rate Timing Adjustment	0					
Other Revenue	103,502	52,302	52,302	52,302	52,302	52,302
Interest on Reserves	$395	$0	$152	$203	$322	$606
Total Revenues	*$445,170*	*$727,926*	*$919,656*	*$1,006,427*	*$1,054,242*	*$1,099,599*
Expenses						
Operating Expenses						
Operating Expenses	$622,381	$569,748	$575,389	$596,679	$618,809	$765,853
Repay Capacity Fund		3,820	3,820	3,820	3,820	3,820
Total Operating Expenses	$622,381	$573,568	$579,209	$600,499	$622,629	$769,673
Capital Expenses						
Existing Debt Service	$0	$0	$0	$0	$0	$0
New Debt Service	0	0	279,000	279,000	279,000	279,000
Rate Funded Capital	$0	$93,550	$41,233	$79,124	$39,099	$138,282
Total Capital Expenditures	$0	$93,550	$320,233	$358,124	$318,099	$417,282
Total Expenses	*$622,381*	*$667,118*	*$899,442*	*$958,624*	*$940,728*	*$1,186,956*
Net Revenues	**-$177,211**	**$60,808**	**$20,214**	**$47,803**	**$113,515**	**-$87,356**
Loan from Capacity Fund	*$19,101*	*$0*	*$0*	*$0*	*$0*	*$0*
Ending Unrestricted Balance	**$0**	**$60,808**	**$81,022**	**$128,825**	**$242,340**	**$154,983**
Debt Coverage Ratio (Target 1.25)			1.23	1.47	1.56	1.20

3.6 Cost of Service

This section details the development of the District's sewer rates and compliance with Proposition 218 through a comprehensive cost of service and rate design study process as shown in the following figure.

Figure 5: Comprehensive Cost of Service Study Process



While there is no single correct approach for cost allocation, BWA believes that costs should be allocated within a reasonable range that reflects both a) underlying cost causation, to the extent such causation can reasonably be determined or estimated, and b) the policy preferences of the agency in cases where a range of reasonable approaches can be justified.

The cost of service process builds on the financial plan analysis and assigns sewer system costs to functional cost components (accounts, flow, BOD (biochemical oxygen demand), and TSS (total suspended solids)). This process is intended to proportionately allocate costs to each customer based on how they use sewer service.

Table 19 shows a breakdown of the sewer utility's expenses and how they are allocated. The proportional allocation is then applied to the rate revenue requirement so that the rates are proportional to the service provided.

Table 19: Allocation of Sewer System Expenses and Revenues to Fixed & Variable Costs

Allocation Category	Amount	Flow	BOD	TSS	Total
Maintenance	$47,380	70%	15%	15%	100%
Administration	$307,149	80%	10%	10%	100%
Treatment	$19,509	34%	33%	33%	100%
Utilities	$77,714	80%	10%	10%	100%
Capital	$78,258	60%	20%	20%	100%
Debt	$279,000	60%	20%	20%	100%
	Functional Allocation $	$562,044	$123,483	$123,483	$809,009
	Functional Allocation %	70%	15%	15%	100%
	Revenue Requirement	**$472,937**	**$101,344**	**$101,344**	**$675,624**

3.7 Commercial Customer Classification

Table 20 shows the distinct types of businesses that will fall under each strength category. These classifications are based on the State Water Resource Control Board Guidelines for Wastewater Agencies. Low, Medium and High Strength Commercial users have been classified based on the amount of sewer flow Biochemical Oxygen Demand, and Total Suspended Solids that each type of business creates.

Flow and strength assumptions are show in Table 8 of Appendix B.

Table 20: Proposed User Classifications

Proposed User Classifications into Low, Medium/Domestic, and High Strength Dischargers

Low Strength	Banks & Financial Institutions
	Barber Shops/Hair Salons (hair cutting only)
	Post Offices/Government
	Retail Stores
	Libraries
	Schools
	Churches, Halls & Lodges
Medium/Commercial/ Domestic Strength	Residential - All
	Appliance Repair
	Beauty Shops (hair cutting w/additional treatments)
	Dry Cleaners
	Nail Salons
	Pet Groomers
	Commercial Laundromats
	Bars & Taverns
	Tasting Rooms
	Breweries (with Pretreatment)
	Hospitals - General, Convalescent & Veterinarian
	Hotels, Motels, B&Bs, and Vacation Rentals
	Offices - Business and Professional
	Offices - Medical/Dental
	Pools with Restrooms (Clubhouse)
	Theaters
	Warehouses
	Car Washes
	High Tech Medical Manufacturing
	Light Manufacturing/Industrial
	Gym or Health Club
	Machine Shops
	Service Stations, Garages, Auto Repair Shops
	Mini Marts - W/O Dish Washer or Garbage Disposal
	Mini Mart with Gas Pumps - W/O Dish Washer or Garbage Disposal
	Spa with Various Beauty Treatments
	Parking Garages
High Strength	Restaurants
	Coffee Shops
	Ice Cream Parlors
	Catering
	Eatery
	Bakeries
	Butcher Shops
	Fish Market/Shop
	Markets - with Dish Washer or Garbage Disposal
	Markets - with Bakeries or Butcher Shops
	Mini Marts - with Dish Washer or Garbage Disposal
	Breweries (without Pretreatment)
	Wineries
	Market
	Dairies (milk producers, yogurt, ice cream maker)
	Specialty Foods Manufacturing (e.g., cheese or olive oil maker)

Source: Based on State Water Resources Control Board's Revenue Program Guidelines for Wastewater Agencies

3.8 Flow and Loadings

BWA estimated the flows and loadings of each customer class based on the projected indoor use of customers in each class. Single-family and multi-family customers' indoor use is based on average winter water use while 80% of total commercial use is assumed to be indoor. The strength of each class is based on guidelines produced by the State Water Resource Control Board Guidelines for Wastewater Agencies. The total estimated flows and loadings of each class is based on the projected, total class, indoor flow, multiplied by the strength characteristics of the class. The detailed flows and loadings analysis is shown in Table 8 of Appendix B.

Table 21: Sewer Allocation Units and Revenue Requirements by Class

Class	Flow	BOD	TSS	Revenue Requirement
	(CCF)	*(LBS)*	*(LBS)*	*($)*
Residential	59,808	84,022	74,687	$536,814
Multi-family	6,120	8,598	7,642	$54,931
Nonresidential				
School	1,200	1,499	1,311	$10,390
Low	246	200	200	
Medium	7,135	8,910	7,796	$61,779
High	933	3,495	2,330	$11,709

Table 22: Sewer Allocation Units and Unit Rate

Allocation Units	Flow	BOD	TSS
	(CCF)	*(LBS)*	*(LBS)*
Demand Units	75,196	106,524	93,766
Revenue Requirement	472,937	101,344	101,344
Unit Rate	$6.29	$0.95	$1.08

3.9 Sewer Rate Design Recommendations

Rate design involves developing a rate structure that proportionately recovers costs from sewer system customers. Final rate recommendations are designed to (a) fund the utility's short- and long-term costs of providing service; (b) proportionately allocate costs to all customers and customer classes; and (c) comply with the substantive requirements of Proposition 218.

BWA recommends that customers served by a sewage lift station pay an additional surcharge to cover the cost to operate the lift station.

3.9.1 Residential Recommendations

BWA recommends that single-family and multi-family residential customers pay a monthly fixed charge. The fixed charge reflects the average amount of sewer discharge from a home (indoor use). Basing the residential sewer rate on volumetric use would incur additional cost to customers who are likely irrigating and therefore not putting any additional load on the sewer system.

The recommended multi-family charge in lower than the single-family charge because multi-family units have less discharge than single-family homes. BWA also recommends that multi-family customers with more than eight units be considered commercial customers.

3.9.2 Commercial Recommendations

BWA recommends nonresidential customers pay a monthly fixed charge and a strength-based, volumetric rate. The fixed charge represents the cost to provide continual access to the sewer collection and treatment system. The strength-based, volumetric rate reflects the specific load each commercial customer places on the system.

A specific rate was created for the school based on its estimated discharge strength and outdoor irrigation volumes.

3.9.3 River Zone

A new development which requires a lift station for wastewater service contributed a lift station to the District. The District created the River Zone to identify the customers served by the lift station. The River Zone is identified as the entire low-lying area south of the intersection of Tema Way and Wimer Way extending south to the District Boundary, between the Salinas River and the Union Pacific Railroad. Due to the average elevation, this entire area requires the use of a lift station to convey residential and commercial wastewater away from this area.

The River Zone rate was created to recover the cost of operating the lift station. In FY 18-19 the operating cost is estimated to be $16,800. The River Zone is estimated to serve 60 connections. All customers in the River Zone will pay the River Zone rate in addition to the residential or commercial rate.

3.10 Sewer Rate Calculation

The residential rate calculations are simply the revenue requirements divided by the number bills. The commercial rates based on strength factors are calculated by dividing the class's revenue requirement by its projected indoor volume.

Table 23: Proposed Sewer Rate Calculation

Class	Revenue Requirement	Customers	Fixed %	Annual Fixed	Monthly Fixed	Volumetric Revenue Requirement	Volume	Rate (CCF)
Residential								
Single Family	$536,814	623	100%	$862	**$71.81**			
Multifamily	$54,931	102	100%	$539	**$44.88**			
Nonresidential								
School	$10,390	1	100%	$10,390	**$865.85**			
Low Strength			30%	$648	**$54.04**			**$4.25**
Medium Strength	$61,779	29	30%	$648	**$54.04**	$42,974	8,919	**$4.82**
High Strength	$11,709	5	30%	$648	**$54.04**	$8,467	1,166	**$7.27**

3.11 Current and Proposed Sewer Rates

The current rates and recommended rate increases are shown on Table 24. Under Proposition 218, the sewer rates shown on Table 24 are the maximum rates that the District can enact each year. The District can adopt rates that are lower than those shown based upon an annual review of the sewer utility's finances to ensure that revenues are in line with expenses.

Table 24: Proposed Sewer Rate Increases

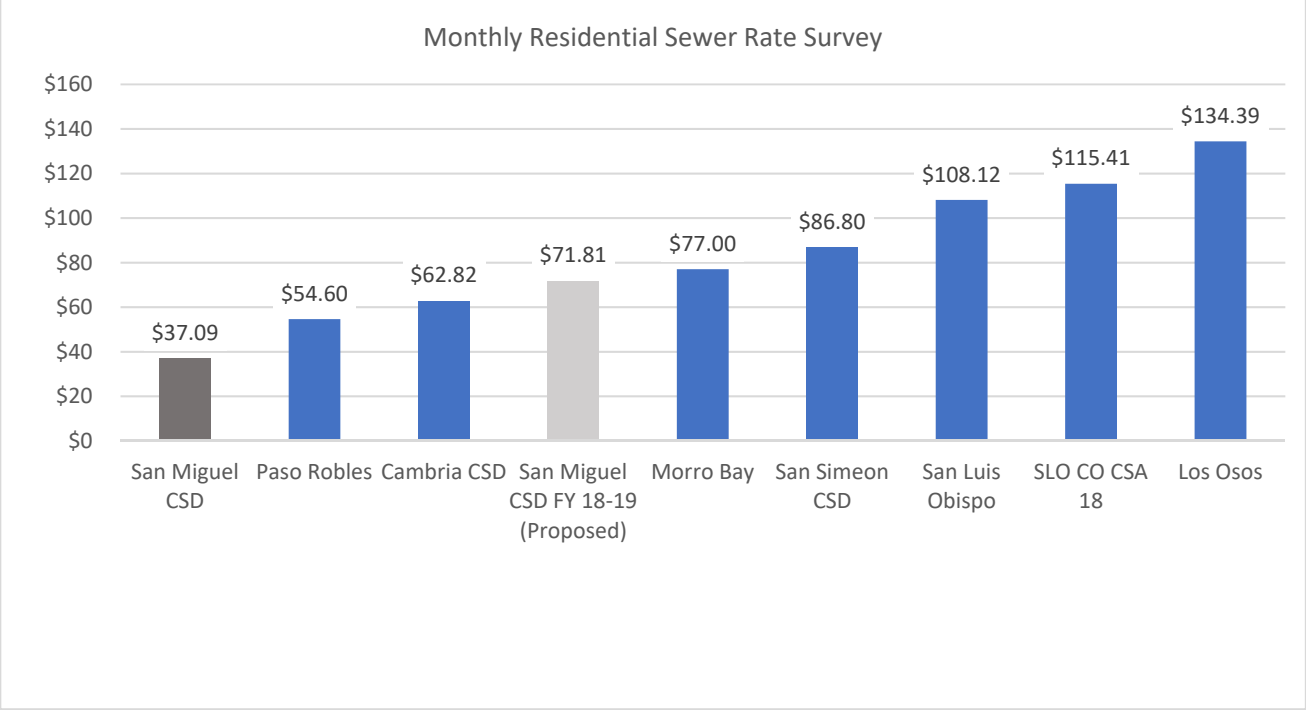
Monthly Rates	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
	*Existing**	*Proposed*	*Proposed*	*Proposed*	*Proposed*	*Proposed*
Single-Family Residential						
Fixed	$37.09	$71.81	$89.77	$98.75	$103.69	$108.36
Multi-Family Residential						
Fixed (Per Unit)	$22.77	$44.88	$56.10	$61.71	$64.80	$67.72
Commercial						
Fixed Charge	37.09*	$54.04	$67.55	$74.31	$78.03	$81.55
Volumetric (Per CCF of Water Billed)						
Low Strength		$4.25	$5.32	$5.86	$6.16	$6.44
Medium Strength		$4.82	$6.03	$6.64	$6.98	$7.30
High Strength		$7.27	$9.09	$10.00	$10.40	$10.72
Lift Station Charges						
River Zone Charge		$23.34	$24.05	$24.78	$25.53	$26.30

*Existing rates include various business category surcharges

3.12 Regional Sewer Rate Survey

The following chart compares the sewer bills for a typical single-family home to those of other regional agencies. The District has deferred funding operating and capital expenses for quite some time. As a result, SMCSD has the lowest rates in the region. The proposed water rates, which fund operations and capital projects, are close to the region's average. Rates can vary widely from agency to agency due to a variety of factors.

Figure 6: Monthly Residential Sewer Rate Survey of Regional Agencies



4 CONCLUSIONS AND RECOMMENDATIONS

This water and sewer rate study report presents a comprehensive review of the District's water and sewer revenue requirements, cost allocations, and rate structures. The District last conducted a comprehensive cost of service review in 2009. Since then, the District has identified needed capital improvements and experienced substantial growth. These factors were considered in the rate study to fairly develop rates for customers.

4.1 Conclusions

The District is facing serious revenue shortfalls. Operating costs are greater than revenues and previously postponed capital projects are now necessary. In order for the District to have sufficient revenue, it must adopt significant rate increases. The District currently has the lowest rates in the region. The recommended rates will place the District's rates in the middle of the region. The recommended rates are projected to provide the revenue the District needs to have well maintained and upgraded systems which will benefit the community many years into the future.

4.2 Recommendations

BWA recommends that the District adopt the rates shown in this report and continue gradual rate increases, as needed, into the future. This will mitigate the impact on customers and maintain the financial health of the District. Rates were developed as part of a collaborative process that included multiple Board meetings and closely working with District staff.

At minimum, BWA recommends that the District review and update its cost allocation every five years and/or concurrent with Master Plan Updates. Proposition 218 and subsequent legislation allows public agencies to adopt rates over a five-year planning horizon. Any further rate increases must be supported by a cost of service analysis.

APPENDIX A

Water Rate Study Tables

San Miguel CSD

Water Rate Study 2018-19
Phase-in Scenario

April 22, 2018

BARTLE WELLS ASSOCIATES
Independent Public Finance Advisors

Table A
San Miguel CSD - Water
Recommended Water Rates

Volumetric Rates	**FY 17-18**		**FY 18-19**	**FY 19-20**	**FY 20-21**	**FY 21-22**	**FY 22-23**
	Existing		*Proposed*	*Proposed*	*Proposed*	*Proposed*	*Proposed*
Single-Family Residential							
Existing Structure		***Proposed Structure***					
Tier 1 (0-5 CCF)	$0.00	(0-5 CCF)	$0.00	$0.00	$0.00	$0.00	$0.00
Tier 2 (6-12.5 CCF)	$2.04	(6-12 CCF)	$3.99	$4.31	$4.49	$4.63	$4.77
Tier 3 (12.5-25 CCF)	$2.46	(>12 CCF)	$6.67	$7.21	$7.50	$7.73	$7.97
Tier 4 (25+ CCF)	$3.27						
Non-Residential							
Existing Structure		***Proposed Structure***					
Tier 1 (0-5 CCF)	$0.00	(0-5 CCF)	$0.00	$0.00	$0.00	$0.00	$0.00
Tier 2 (6-12.5 CCF)	$2.04	(>6 CCF)	$4.63	$5.01	$5.22	$5.38	$5.55
Tier 3 (12.5-25 CCF)	$2.46						
Tier 4 (25+ CCF)	$3.27						

Monthly Fixed Rates All Customers	**FY 17-18**	**FY 18-19**	**FY 19-20**	**FY 20-21**	**FY 21-22**	**FY 22-23**
Meter Size	*Existing*	*Proposed*	*Proposed*	*Proposed*	*Proposed*	*Proposed*
5/8"	$14.69	$44.53	$48.10	$50.03	$51.54	$53.09
3/4"	$14.69	$44.53	$48.10	$50.03	$51.54	$53.09
1"	$22.85	$44.53	$48.10	$50.03	$51.54	$53.09
1 1/2"	$39.17	$74.12	$80.05	$83.26	$85.76	$88.34
2"	$55.49	$109.62	$118.39	$123.13	$126.83	$130.64
6"	$300.29	$606.62	$655.15	$681.36	$701.81	$722.87

Table 1
San Miguel CSD - Water
Customer Data*

All Customers Meter Size	Customers	Capacity Factor**	Equivalent Demand Units
1" or below***	807	1.0	807.0
1 1/2"	3	2.0	6.0
2"	10	3.2	32.0
6"	1	20.0	20.0
Total	**821.0**		**865.0**

* Customer data as of June 2017 provided by City staff

** Capacity factors based on AWWA operating capacity standards by meter size

*** Meters 1" or below reflect the varying meter sizes in single family homes

Residential			
1" or below***	750	1.0	750.0
1 1/2"	1	2.0	2.0
2"	2	3.2	6.4
6"		20.0	0.0
Total	**753.0**		**758.4**

Non-Residential	Customers	Capacity Factor**	Equivalent Demand Units
1" or below***	57	1.0	57.0
1 1/2"	2	2.0	4.0
2"	8	3.2	25.6
6"	1	20.0	20.0
Total	**68.0**		**106.6**

Table 2
San Miguel CSD - Water
Growth Calculations

Metered Water Demand	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
Demand (CCF)	103,750	107,541	110,069	110,069	110,069	110,069
Customers	821	821	851	871	871	871
Additional Customers[1]		30	20			
Total Customers	821	851	871	871	871	871
Consumption per Customer	126	126	126	126	126	126
Growth [2]		***3.65%***	***2.35%***	***0.00%***	***0.00%***	***0.00%***

[1]Assumption based on District's estimate

[2]Escelation factor used to escalate revenue (demand growth with no inflation)

Table 3
San Miguel CSD - Water
Projected Operating Expenses

Cost Escalation	Inflation	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
General Inflation Factor	General			3.0%	3.0%	3.0%	3.0%	3.0%
Utilities	Utilities			5.0%	5.0%	5.0%	5.0%	5.0%
Demand (with Inflation)	Demand			6.8%	5.4%	3.0%	3.0%	3.0%
Salary	Salary			5.0%	5.0%	5.0%	5.0%	5.0%

Expenses[1]	Category	Inflation	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
			Estimated	*Budgeted*	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*
PERSONNEL	Administration	Salary	$0	$0	$0	$0	$0	$0	$0
Paid Time Off	Administration	Salary	$0	$0	$0	$0	$0	$0	$0
Salaries and Wages	Administration	Salary	$145,693	$163,320	$171,486	$180,060	$189,063	$198,516	$208,442
Vacation Used	Administration	Salary	$0	$0	$0	$0	$0	$0	$0
Overtime	Administration	Salary	$0	$0	$0	$0	$0	$0	$0
Sick Leave Used	Administration	Salary	$0	$0	$0	$0	$0	$0	$0
Stand-by Hours	Administration	Salary	$3,930	$7,500	$7,875	$8,269	$8,682	$9,116	$9,572
Payroll tax expense	Administration	General	$5,118	$0	$0	$0	$0	$0	$0
Payroll Expenses	Administration	General	$0	$0	$0	$0	$0	$0	$0
Workers' Compensation	Administration	General	$12,084	$12,000	$8,000	$8,240	$8,487	$8,742	$9,004
Volunteer firefighter stipends	Administration	General	$0	$0	$0	$0	$0	$0	$0
Payroll Tax - Fed W/H	Administration	General	$10,233	$11,000					
Payroll Tax - FICA	Administration	General	$4,170	$4,500					
Payroll Tax - Medicare	Administration	General	$2,167	$2,500	$2,575	$2,652	$2,732	$2,814	$2,898
Payroll Tax - SUI	Administration	General	$1,048	$1,500	$1,545	$1,591	$1,639	$1,688	$1,739
Payroll Tax - ETT	Administration	General	$150	$150	$155	$159	$164	$169	$174
Payroll Tax - FUTA	Administration	General	$1,793	$1,800	$1,854	$1,910	$1,967	$2,026	$2,087
Insurance - Health	Administration	General	$8,289	$25,000	$25,750	$26,523	$27,318	$28,138	$28,982
Insurance - Dental	Administration	General	$696	$600	$618	$637	$656	$675	$696
Insurance - Vision	Administration	General	$107	$250	$258	$265	$273	$281	$290
Retirement - PERS expense	Administration	General	$10,880	$12,400	$12,772	$13,155	$13,550	$13,956	$14,375
Operations and maintenance	Maintenance	General	$9,076	$8,500	$8,755	$9,018	$9,288	$9,567	$9,854
Water & Sewer Rate Study	Administration	General	$0	$0	$0	$0	$0	$0	$0
Phone and fax expense	Administration	General	$1,498	$1,450	$1,494	$1,538	$1,584	$1,632	$1,681
Postage, shipping and freight	Administration	General	$2,773	$3,000	$3,090	$3,183	$3,278	$3,377	$3,478
Printing and reproduction	Administration	General	$243	$600	$618	$637	$656	$675	$696
Professional Svcs- GSA-GSP	Administration	General	$0	$0	$0	$0	$0	$0	$0
Professional svcs - Accounting	Administration	General	$6,920	$0	$9,000	$9,270	$9,548	$9,835	$10,130
Professional svcs - Engineering	Administration	General	$5,166	$40,000	$41,200	$42,436	$43,709	$45,020	$46,371
Professional svcs - Legal (General)	Administration	General	$90,965	$0	$40,000	$41,200	$42,436	$43,709	$45,020
Insurance - prop and liability	Administration	General	$0	$8,000	$8,240	$8,487	$8,742	$9,004	$9,274
New Hire Screening	Administration	General	$20	$450	$464	$477	$492	$506	$522
Contract labor	Administration	General	$0	$5,000	$5,150	$5,305	$5,464	$5,628	$5,796
Professional Services - Legal (SLOCEA)	Administration	General	$1,304	$20,000	$20,000	$5,000	$5,150	$5,305	$5,464
Professional Services - Legal (Steinbeck & Water	Administration	General	$2,657	$200,000	$100,000	$103,000	$106,090	$109,273	$112,551
Meals - Reimbursement	Administration	General	$0	$200	$206	$212	$219	$225	$232
Meetings and conferences	Administration	General	$0	$750	$773	$796	$820	$844	$869
Mileage expense reimbursement	Administration	General	$502	$500	$515	$530	$546	$563	$580
Repairs and maint - computers	Maintenance	General	$0	$0	$0	$0	$0	$0	$0
Repairs and maint - equip	Maintenance	General	$774	$4,000	$4,120	$4,244	$4,371	$4,502	$4,637
Repairs and maint - structures	Maintenance	General	$1,164	$1,500	$1,545	$1,591	$1,639	$1,688	$1,739
Repairs & Maint- Infrastructure (Water/WW)	Maintenance	General	$14,199	$25,000	$15,000	$15,450	$15,914	$16,391	$16,883
Repairs and maint - vehicles	Maintenance	General	$1,238	$3,500	$3,605	$3,713	$3,825	$3,939	$4,057
Testing & Supplies (WWTP)	Volume Only	General	$25	$0	$0	$0	$0	$0	$0
Testing & Supplies - Well #3 (Water)	Supply 2	General	$2,075	$2,500	$2,575	$2,652	$2,732	$2,814	$2,898
Testing & Supplies - Well #4 (Water)	Supply 1	General	$2,242	$2,500	$2,575	$2,652	$2,732	$2,814	$2,898
Testing & Supplies- SLT Well (Water)	Supply 3	General	$4,564	$5,000	$5,150	$5,305	$5,464	$5,628	$5,796
Testing & Supplies-Other	Volume Only	General	$5,015	$5,000	$5,150	$5,305	$5,464	$5,628	$5,796
Cross-Connection Control Srvcs. (Water)	Volume Only	General	$836	$1,000	$1,030	$1,061	$1,093	$1,126	$1,159
SLT WELL REPAIR	Supply 3	General	$0	$0	$0	$0	$0	$0	$0
Internet expenses	Administration	General	$0	$0	$0	$0	$0	$0	$0
Webpage- Upgrade/Maint	Administration	General	$0	$0	$0	$0	$0	$0	$0
Utilities - alarm service	Administration	General	$752	$1,000	$1,030	$1,061	$1,093	$1,126	$1,159
Utilities - electric	Utilities	General	$36,215	$37,000	$38,110	$39,253	$40,431	$41,644	$42,893
Utilities - propane	Utilities	General	$418	$450	$464	$477	$492	$506	$522
Utilities - trash	Administration	General	$573	$600	$618	$637	$656	$675	$696

Table 3
San Miguel CSD - Water
Projected Operating Expenses

Cost Escalation	Inflation	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
General Inflation Factor	General			3.0%	3.0%	3.0%	3.0%	3.0%
Utilities	Utilities			5.0%	5.0%	5.0%	5.0%	5.0%
Demand (with Inflation)	Demand			6.8%	5.4%	3.0%	3.0%	3.0%
Salary	Salary			5.0%	5.0%	5.0%	5.0%	5.0%

Expenses[1]	Category	Inflation	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
			Estimated	*Budgeted*	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*
Dues and subscriptions	Administration	General	$3,870	$4,000	$4,120	$4,244	$4,371	$4,502	$4,637
Education and training	Administration	General	$422	$1,000	$1,030	$1,061	$1,093	$1,126	$1,159
Education and training: Training Materials/Supp	Administration	General	$50	$0	$0	$0	$0	$0	$0
Cross connection Control	All Volume	General	$0	$0	$0	$0	$0	$0	$0
Advertising and public notices	Administration	General	$245	$250	$258	$265	$273	$281	$290
LAFCO Allocations	Administration	General	$0	$0	$0	$0	$0	$0	$0
Community Outreach	Administration	General	$0	$1,200	$1,236	$1,273	$1,311	$1,351	$1,391
Supplies	Administration	General	$0	$0	$0	$0	$0	$0	$0
Software	Administration	General	$0	$4,000	$4,120	$4,244	$4,371	$4,502	$4,637
Office Supplies	Administration	General	$97	$150	$155	$159	$164	$169	$174
Office Equipment	Administration	General	$0	$3,000	$3,090	$3,183	$3,278	$3,377	$3,478
Equipt. & Supplies	Maintenance	General	$754	$4,900	$5,047	$5,198	$5,354	$5,515	$5,680
Well #3 Rehab - Capital Project	Supply 2	General	$1,179	$0	$0	$0	$0	$0	$0
Equipt & Supplies-Well #4	Supply 1	General	$0	$0	$0	$0	$0	$0	$0
SLT Blending Line - CDBG Project	Supply 3	General	$42,073		$0	$0	$0	$0	$0
Utility Rate Design Study	All Volume	General	$2,085	$31,915				$37,000	
K Street Waterline Replacement	Capital	General	$18,342		$0	$0	$0	$0	$0
Equipt & Supplies-SLT Well	Supply 3	General	$0	$0	$0	$0	$0	$0	$0
Vehicle Replacement Fund	Maintenance	General	$3,000	$0	$0	$0	$0	$0	$0
Scada - Maintenance Fees	All Volume	General	$1,110	$1,000	$1,030	$1,061	$1,093	$1,126	$1,159
Cell phones, radios and pagers	Maintenance	General	$0	$1,000	$1,030	$1,061	$1,093	$1,126	$1,159
Communication equipment	Maintenance	General	$0	$0	$0	$0	$0	$0	$0
Computer supplies and upgrades	Maintenance	General	$0	$1,500	$1,545	$1,591	$1,639	$1,688	$1,739
Chemicals	Maintenance	General	$0	$0	$0	$0	$0	$0	$0
Chemicals- Well #3	Supply 2	Demand	$1,397	$2,500	$2,669	$2,814	$2,898	$2,985	$3,075
Chemicals-Well #4	Supply 1	Demand	$2,732	$3,000	$3,203	$3,377	$3,478	$3,582	$3,690
Chemicals-SLT Well	Supply 3	Demand	$344	$1,500	$1,601	$1,688	$1,739	$1,791	$1,845
Fuel expense	Maintenance	General	$2,603	$4,000	$4,120	$4,244	$4,371	$4,502	$4,637
Small tools and equipment	Maintenance	General	$226	$3,000	$3,090	$3,183	$3,278	$3,377	$3,478
Uniform expense	Administration	General	$85	$1,575	$1,622	$1,671	$1,721	$1,773	$1,826
Sales Tax Paid	Administration	General	$0	$0	$0	$0	$0	$0	$0
Capital Outlay	Capital	General	$86,435		$0	$0	$0	$0	$0
Fire Sprinklers - Underground	Maintenance	General	$0		$0	$0	$0	$0	$0
Water Projects Well 3	Supply 2	General	$571		$0	$0	$0	$0	$0
Water Projects Well 4	Supply 1	General	$0		$0	$0	$0	$0	$0
Water Projects SLT Well	Supply 3	General	$0		$0	$0	$0	$0	$0
Water Main Valves Replacement	Maintenance	General	$0		$0	$0	$0	$0	$0
Water meter replacement	Maintenance	General	$28,522		$0	$0	$0	$0	$0
Fire hydrant replacement	Maintenance	General	$0		$0	$0	$0	$0	$0
Water Lines Repairs	Maintenance	General	$1,582		$0	$0	$0	$0	$0
River Road Realignment	Maintenance	General	$0	$0	$0	$0	$0	$0	$0
Repairs, Maint. and Video Sewer Lines	Maintenance	General	$0	$0	$0	$0	$0	$0	$0
WWTP Plant Maintenance	Maintenance	General	$0	$0	$0	$0	$0	$0	$0
County hazmat dues	Administration	General	$981	$0	$0	$0	$0	$0	$0
Licenses, permits and fees	Administration	General	$6,696	$6,700	$6,901	$7,108	$7,321	$7,541	$7,767
Deposit/ Liabilities	Administration	General	$0	$0	$0	$0	$0	$0	$0
Refundable Water/Sewer/Hydrant Deposit	Administration	General	$3,035	$0	$0	$0	$0	$0	$0
Credit Card Service Fees	Administration	General	$7	$0	$0	$0	$0	$0	$0
Bank service charges	Administration	General	$177	$0	$0	$0	$0	$0	$0
Interest Fees	Administration	General	$0	$0	$0	$0	$0	$0	$0
Property tax expense	Administration	General	$163	$0	$0	$0	$0	$0	$0
Total Operating Expenses			**$606,357**	**$696,210**	**$599,229**	**$605,374**	**$627,301**	**$687,075**	**$673,730**
% Change from Previous Year				*14.8%*	*-13.9%*	*1.0%*	*3.6%*	*9.5%*	*-1.9%*

[1] Based on San Miguel FY 17-18 budget

Table 4
San Miguel CSD - Water
Projected Operating Revenues

Cost Escalation	Inflation	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
General Inflation Factor	General			3.0%	3.0%	3.0%	3.0%	3.0%
No Escalation	None			0.0%	0.0%	0.0%	0.0%	0.0%
Demand Growth	Demand			3.7%	2.4%	0.0%	0.0%	0.0%

Revenue		FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
		Estimated	*Budget*	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*
Rate Revenue	**Demand**	**$328,968**	**$333,210**	**$345,385**	**$795,380**	**$859,011**	**$893,371**	**$920,172**
Additional Rate Revenue[1,2]			**$0**	**$431,732**	**$63,630**	**$34,360**	**$26,801**	**$27,605**
Other Revenue								
CDBG Grant	None	$0	$0					
Wastewater Hook-up Fees	None	0	0	$0	$0	$0	$0	$0
Wastewater Sales	None	0	0	$0	$0	$0	$0	$0
Water Sales	None							
Water Late Charges	None	28,032	18,000	$18,000	$18,000	$18,000	$18,000	$18,000
Water Meter Fees	None	$15,832	$12,250					
Property Taxes Collected	None	0	0	$0	$0	$0	$0	$0
State/Federal Grants	None	-	-	$0	$0	$0	$0	$0
Revenues & Interest	None	748	700	$700	$700	$700	$700	
Transfer In	None	3,000	159,701					
Realized Earnings	None	504	-	$0	$0	$0	$0	
Miscellaneous Income	None	40,748	-	$0	$0	$0	$0	$0
Refund/Adjustments	None	3,144	1,000	$1,000	$1,000	$1,000	$1,000	$1,000
Recycling	None	125	-	$0	$0	$0	$0	$0
Plan Check Fees	None	-	-	$0	$0	$0	$0	$0
Will Serve Processing Fees	None	250	250	$250	$250	$250	$250	$250
Sale of Surplus Property	None	-	-	$0	$0	$0	$0	$0
Public Records Requests	None	-	-	$0	$0	$0	$0	$0
Boardroom Rental Fees	None	-	-	$0	$0	$0	$0	$0
Total Other Revenue		$92,384	$191,901	$19,950	$19,950	$19,950	$19,950	$19,250
Total Operating Revenue		**$421,351**	**$525,111**	**$797,067**	**$878,961**	**$913,321**	**$940,122**	**$967,028**
% Change from Previous Year			*24.6%*	*51.8%*	*10.3%*	*3.9%*	*2.9%*	*2.9%*

[1]Additional revenue based on recommended increase

[2]Additional adjusted if adopted mid-fiscal year

Table 5
San Miguel CSD - Water
Capital Improvement Costs

Project Description	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28
	Budget	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*
CIP (Current Dollars)											
SLT Well Arsenic Blending Line	$157,000										
Water line replacement at 11th and RR and 10th and Missio	$20,000	$289,500									
Replace 4" water line in "L" & "K" alley						$587,376					
Replace 4" and 3" water lines in Mission & "L" alley			$63,500								
New 8" Water line on Mission between 11th and 14th					$130,969						
Replace 4" water line in "N " st alley between 11th and 12th					$87,313						
New water well		$39,844	$352,735	$352,735							
SLT Storage Tank Replacement						$236,250	$512,500	$512,500			
Water Meter Replacement (Annual Ongoing)	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000	$15,000
Groundwater Sustainability Plan (GSP)	$30,000										
Replace/ Rebuild access road to water tank		$100,000	$100,000								
Ongoing	$40,000	$250,000	$50,000	$50,000	$50,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000
Total CIP (Current Dollars)	**$262,000**	**$694,344**	**$581,235**	**$417,735**	**$283,282**	**$938,626**	**$627,500**	**$627,500**	**$115,000**	**$115,000**	**$115,000**
CIP (Inflated Dollars)											
SLT Well Arsenic Blending Line	$157,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Water line replacement at 11th and RR and 10th and Mission	20,000	298,185	0	0	0	0	0	0	0	0	0
Replace 4" water line in "L" & "K" alley	0	0	0	0	0	680,930	0	0	0	0	0
Replace 4" and 3" water lines in Mission & "L" alley	0	0	67,367	0	0	0	0	0	0	0	0
New 8" Water line on Mission between 11th and 14th	0	0	0	0	147,407	0	0	0	0	0	0
Replace 4" water line in "N " st alley between 11th and 12th	0	0	0	0	98,272	0	0	0	0	0	0
New water well	0	41,039	374,216	385,443	0	0	0	0	0	0	0
SLT Storage Tank Replacement	0	0	0	0	0	273,879	611,952	630,310	0	0	0
Water Meter Replacement (Annual Ongoing)	15,000	15,450	15,914	16,391	16,883	17,389	17,911	18,448	19,002	19,572	20,159
Groundwater Sustainability Plan (GSP)	30,000	0	0	0	0	0	0	0	0	0	0
Replace/ Rebuild access road to water tank	0	103,000	106,090	0	0	0	0	0	0	0	0
Ongoing	$40,000	$257,500	$53,045	$54,636	$56,275	$115,927	$119,405	$122,987	$126,677	$130,477	$134,392
Total CIP (Inflated Dollars)	**$262,000**	**$715,174**	**$616,632**	**$456,470**	**$318,836**	**$1,088,125**	**$749,268**	**$771,746**	**$145,679**	**$150,049**	**$154,550**
Annual Inflation Rate	*3.0%*	*3.0%*	*3.0%*	*3.0%*	*3.0%*	*3.0%*	*3.0%*	*3.0%*	*3.0%*	*3.0%*	*3.0%*

Table 6
San Miguel CSD - Water
Existing and Proposed Debt

Description	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28
	Budget	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*
Existing Debt											
USDA Loan Payment	$67,000	$67,000	$67,000	$67,000	$67,000	$67,000	$67,000	$67,000	$67,000	$67,000	$67,000
Total Current Debt Service	$67,000	$67,000	$67,000	$67,000	$67,000	$67,000	$67,000	$67,000	$67,000	$67,000	$67,000
Proposed Borrowing											
Net Proceeds Needed		$1,250,000				$2,150,000					
Repayment Term (yrs)		40				40					
Coupon Rate		3.1%				3.5%					
Month of Issue		1				1					
Issuance Cost		$150,000				$150,000					
Debt Service Reserve		$68,000				$115,000					
Total Debt Issue Size		$1,468,000				$2,415,000					
Prorated Debt Service Payment - Current Yr. Only		$65,000				$113,000					
Annual Debt Service Payment (rounded)		$65,000				$113,000					
Total Proposed Annual Water Debt Service	**$0**	**$65,000**	**$65,000**	**$65,000**	**$65,000**	**$178,000**	**$178,000**	**$178,000**	**$178,000**	**$178,000**	**$178,000**

Table 7
San Miguel CSD - Water
Cash Flow Projections

Operating Fund	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
Reserves						
Beginning Unrestricted Balance	*$177,371*	$0	$23,225	$122,461	$194,983	$222,163
Revenue Escalation						
Rate Revenue Increase	*0.0%*	*125.0%*	*8.0%*	*4.0%*	*3.0%*	*3.0%*
Revenues						
Rate Revenue	$333,210	$345,385	$795,380	$859,011	$893,371	$920,172
Additional Rate Revenue	0	431,732	63,630	34,360	26,801	27,605
Timing Adjustment*	0					
Other Revenue	191,901	19,950	19,950	19,950	19,950	19,250
Interest on Reserves	$1,635	$227	$1,040	$1,730	$1,728	$1,238
Total Revenue	$526,746	*$797,294*	*$880,001*	*$915,051*	*$941,850*	*$968,265*
Expenses						
Operating Expenses						
Operating Expense	$696,210	$599,229	$605,374	$627,301	$687,075	$673,730
Repay Capacity Fund		26,759	26,759	26,759	26,759	26,759
Total Operating Expenses	$696,210	$625,988	$632,133	$654,060	$713,834	$700,489
Capital Expenses						
Existing Debt Service	67,000	67,000	67,000	67,000	67,000	67,000
New Debt Service	$0	$65,000	$65,000	$65,000	$65,000	$178,000
Rate Funded Capital	$74,700	$16,082	$16,632	$56,470	$68,836	$38,125
Total Capital Expenditures	$141,700	$148,082	$148,632	$188,470	$200,836	$283,125
Total Expenses	*$837,910*	*$774,069*	*$780,764*	*$842,529*	*$914,670*	*$983,613*
Net Revenues	**-$311,164**	**$23,225**	**$99,236**	**$72,522**	**$27,180**	**-$15,348**
Loan from Capacity Fund	*$133,793*					
Ending Unrestricted Balance	**$0**	**$23,225**	**$122,461**	**$194,983**	**$222,163**	**$206,815**
Debt Coverage (Target 1.25)	**(2.53)**	**1.50**	**2.08**	**2.18**	**1.93**	**1.20**

Table 7
San Miguel CSD - Water
Cash Flow Projections

Capacity Fund	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
Beginning Capacity Balance	*$476,700*	$90,907	$392,665	$569,424	$496,183	$272,941
Fund Sources						
Capacity Fees	0	375,000	250,000	0	0	0
Operating Loan Repayment	0	26,759	26,759	26,759	26,759	26,759
Fund Uses						
Operating Loan	133,793	0	0	0	0	0
Capacity Fee Funded Capital	$252,000	$100,000	$100,000	$100,000	$250,000	$100,000
Net Capacity Income	**-$385,793**	**$301,759**	**$176,759**	**-$73,241**	**-$223,241**	**-$73,241**
Ending Capacity Balance	**$90,907**	**$392,665**	**$569,424**	**$496,183**	**$272,941**	**$199,700**

Capital Funding	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
Capital Revenues						
Use of Debt Proceeds		$450,000	$500,000	$300,000		$950,000
Grant Revenue	*$150,000*	$149,093	$0	$0	$0	$0
Use of Capacity Funds	$252,000	$100,000	$100,000	$100,000	$250,000	$100,000
Rate Funded Capital	$74,700	$16,082	$16,632	$56,470	$68,836	$38,125
Total Capital Revenue	**$476,700**	**$715,174**	**$616,632**	**$456,470**	**$318,836**	**$1,088,125**
Total Capital Expenditures	**$476,700**	**$715,174**	**$616,632**	**$456,470**	**$318,836**	**$1,088,125**

Table 8
San Miguel CSD - Water
Cost Allocation

Functional Allocation

Allocation Category	Amount	Fixed	Volume	Supply 1	Supply 2	Supply 3	Total
Maintenance	$49,293			42%	33%	25%	100%
Administration	$490,436	30%	70.0%				100%
Utilities	$39,731			42%	33%	25%	100%
All Volume	$1,061		100%				100%
Supply 1	$6,029			100%			100%
Supply 2	$5,466				100%		100%
Supply 3	$6,993					100%	100%
Capital	$854,000	50%		21%	16%	12%	100%
Functional Allocation $		$574,131	$344,366	$225,162	$175,118	$134,231	$1,453,008
Functional Allocation %		39.51%	23.70%	15.50%	12.05%	9.24%	100%
Revenue Requirement		**$307,039**	**$184,177**	**$120,453**	**$93,643**	**$71,806**	**$777,117**

Table 9
San Miguel CSD - Water
2018 Water Rates

Allocation Units	Fixed	All Volume	Supply 1	Supply 2	Supply 3
	EDU	*CCF*	*CCF*	*CCF*	*CCF*
Residential Demand	758	82,702	45,486	33,081	4,135
Nonresidential Demand	107	21,049	11,577	8,420	1,052
Allocation Units	865	103,751	57,063	41,500	5,188
Revenue Requirement	$307,039	$184,177	$120,453	$93,643	$71,806
Charge	**$355.00**	**$1.78**	**$2.11**	**$2.26**	**$13.84**

Residential Rate Structure	Tier Threshholds	Tier Demand	Tier Demand (CCF)	Supply 1	Supply 2	Supply 3	Revenue Requirement
Tier 1	0-5 CCF	43%	35,148	35,148	0	0	$74,194
Tier 2	5-12 CCF	36%	29,359	10,338	19,021	0	$64,742
Tier 3	>12 CCF	22%	18,194	0	14,059	4,135	$88,962

Residential Rate Structure	Tier Demand (CCF)	Revenue Requirement	Supply Rate	All Volume Rate	Total Rate	Final Rate
Tier 1	35,148	$74,194	$2.11	$1.78	$3.89	Included in Fixed
Tier 2	29,359	$64,742	$2.21	$1.78	$3.99	**$3.99**
Tier 3	18,194	$88,962	$4.89	$1.78	$6.67	**$6.67**

Table 9
San Miguel CSD - Water
2018 Water Rates

Allocation Units	Fixed	All Volume	Supply 1	Supply 2	Supply 3
	EDU	*CCF*	*CCF*	*CCF*	*CCF*
Residential Demand	758	82,702	45,486	33,081	4,135
Nonresidential Demand	107	21,049	11,577	8,420	1,052
Allocation Units	865	103,751	57,063	41,500	5,188
Revenue Requirement	$307,039	$184,177	$120,453	$93,643	$71,806
Charge	**$355.00**	**$1.78**	**$2.11**	**$2.26**	**$13.84**

Non-Residential Rate Structure	Tier Threshholds	Tier Demand	Tier Demand	Supply 1	Supply 2	Supply 3	Revenue Requirement
Tier 1	0-5 CCF	13%	2,706	2,706	0	0	$5,712
Tier 2	>5 CCF	87%	18,343	8,871	8,420	1,052	$52,292

Non-Residential Rate Structure	Tier Demand (CCF)	Revenue Requirement	Supply Rate	All Volume Rate	Total Rate	Final Rate
Tier 1	2,706	$5,712	$2.11	$1.78	$3.89	Included in Fixed
Tier 2	18,343	$52,292	$2.85	$1.78	$4.63	**$4.63**

Fixed Charge Calculation	Capacity Factor	Meter Charge	0-5 CCF Charge	Annual Charge	Monthly Charge
Meter Size					
1"	1.0	$355.00	$179.36	$534.36	**$44.53**
1 1/2"	2.0	$710.00	$179.36	$889.36	**$74.12**
2"	3.2	$1,136.00	$179.36	$1,315.36	**$109.62**
3"	6.4	$2,272.00	$179.36	$2,451.36	**$204.28**
4"	10.0	$3,550.00	$179.36	$3,729.36	**$310.78**
6"	20.0	$7,100.00	$179.36	$7,279.36	**$606.62**

APPENDIX B

Sewer Rate Study Tables

San Miguel CSD

Wastewater Rate Study 2018-19
Phase-in Scenario

April 22, 2018

BARTLE WELLS ASSOCIATES
Independent Public Finance Advisors

Table A
San Miguel CSD - Wastewater
Recommended Rates

Monthly Rates	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
	*Existing**	*Proposed*	*Proposed*	*Proposed*	*Proposed*	*Proposed*
Single-Family Residential						
Fixed	$37.09	$71.81	$89.77	$98.75	$103.69	$108.36
Multi-Family Residential						
Fixed (Per Unit)	$22.77	$44.88	$56.10	$61.71	$64.80	$67.72
Commercial						
Fixed Charge	37.09*	$54.04	$67.55	$74.31	$78.03	$81.55
Volumetric (Per CCF of Water Billed)						
Low Strength		$4.25	$5.32	$5.86	$6.16	$6.44
Medium Strength		$4.82	$6.03	$6.64	$6.98	$7.30
High Strength		$7.27	$9.09	$10.00	$10.40	$10.72
Lift Station Charges						
River Zone Charge		$23.34	$24.05	$24.78	$25.53	$26.30

*Existing rates include various business category surcharges

Table 1
San Miguel CSD - Wastewater
Customers Data

Residential

Units	Customers	Dwelling Units
1	623	623
Total	**623**	**623**

Multi-Family

Units	Customers	Dwelling Units
2	6	12
3	4	12
4	6	24
5	1	5
6	2	12
8	1	8
9	1	9
10	2	20
Total	**23**	**102**

Non-Residential

Rate Code	Customers	Demand (CCF)
Med	29	8,919
High	5	1,166
Total	**34**	**10,085**

* Customer data as of June 2017 provided by District staff

Table 2
San Miguel CSD - Wastewater
Growth Calculations

Item	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
Metered Water Demand						
Customers	680	715	745	765	765	765
Additional Customers[1]	35	30	20			
Total Customers	715	745	765	765	765	765
Growth [2]	***5.15%***	***4.20%***	***2.68%***	***0.00%***	***0.00%***	*0.00%*

[1]Assumption used in District Budget

[2]Escelation factor used to escalate revenue (demand growth with no inflation)

Table 3
San Miguel CSD - Wastewater
Projected Operating Expenses

Cost Escalation	Category	Inflation	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
General Inflation Factor		General			3.0%	3.0%	3.0%	3.0%	3.0%
Growth and Inflation		Growth			7.3%	5.8%	3.0%	3.0%	3.0%
Salary		Salary			5.0%	5.0%	5.0%	5.0%	5.0%

Expenses[1]	Category	Inflation	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
			Estimated	*Budgeted*	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*
Salaries and Wages	Administration	Salary	127,713	163,320	$171,486	$180,060	$189,063	$198,516	$288,442
Stand-by Hours	Administration	Salary	3,930	7,500	$7,875	$8,269	$8,682	$9,116	$9,572
Payroll tax expense	Administration	Salary	5,118	-	$0	$0	$0	$0	$0
Workers' Compensation	Administration	Salary	12,084	12,000	$7,000	$7,350	$7,718	$8,103	$8,509
Payroll Tax - Fed W/H	Administration	Salary	10,233	11,000					
Payroll Tax - FICA	Administration	Salary	3,923	3,800					
Payroll Tax - Medicare	Administration	Salary	1,909	2,000	$2,100	$2,205	$2,315	$2,431	$2,553
Payroll Tax - SUI	Administration	Salary	952	1,000	$1,050	$1,103	$1,158	$1,216	$1,276
Payroll Tax - ETT	Administration	Salary	132	200	$210	$221	$232	$243	$255
Payroll Tax - FUTA	Administration	Salary	1,649	2,000	$2,100	$2,205	$2,315	$2,431	$2,553
Insurance - Health	Administration	General	6,144	26,000	$26,780	$27,583	$28,411	$29,263	$30,141
Insurance - Dental	Administration	General	652	564	$581	$598	$616	$635	$654
Insurance - Vision	Administration	General	101	235	$242	$249	$257	$264	$272
Retirement - PERS expense	Administration	General	10,878	12,422	$12,795	$13,178	$13,574	$13,981	$14,401
Operations and maintenance	Administration	General	12,814	6,000	$6,180	$6,365	$6,556	$6,753	$6,956
Water & Sewer Rate Study	Administration	General	-	-	$0	$0	$0	$0	$0
Phone and fax expense	Administration	General	1,499	1,450	$1,494	$1,538	$1,584	$1,632	$1,681
Postage, shipping and freight	Administration	General	2,606	3,000	$3,090	$3,183	$3,278	$3,377	$3,478
Printing and reproduction	Administration	General	243	600	$618	$637	$656	$675	$696
Professional Svcs- GSA-GSP	Administration	General	-	-	$0	$0	$0	$0	$0
Professional svcs - Accounting	Administration	General	6,920	-	$0	$0	$0	$0	$0
Professional svcs - Engineering	Administration	General	6,229	24,000	$35,000	$36,050	$37,132	$38,245	$39,393
New Hire Screening	Administration	General	20	450	$464	$477	$492	$506	$522
Contract labor	Administration	General	-	5,000	$5,150	$5,305	$5,464	$5,628	$5,796
Professional Services - Legal (SLOC	Administration	General	1,304	9,400	$20,000	$5,000	$5,150	$5,305	$5,464
Meetings and conferences	Administration	General	-	750	$773	$796	$820	$844	$869
Mileage expense reimbursement	Administration	General	387	500	$515	$530	$546	$563	$580
Repairs and maint - equip	Maintenance	General	20,164	21,000	$21,630	$22,279	$22,947	$23,636	$24,345
Repairs and maint - structures	Maintenance	General	1,321	3,000	$3,090	$3,183	$3,278	$3,377	$3,478
Repairs & Maint- Infrastructure (W	Treatment	General	315	8,000	$8,240	$8,487	$8,742	$9,004	$9,274
Repairs and maint - vehicles	Maintenance	General	1,238	2,000	$2,060	$2,122	$2,185	$2,251	$2,319
Testing & Supplies (WWTP)	Treatment	Growth	1,559	10,500	$11,269	$11,918	$12,276	$12,644	$13,024
Utilities - alarm service	Administration	General	482	1,000	$1,030	$1,061	$1,093	$1,126	$1,159
Utilities - electric	Utilities	General	70,713	75,000	$77,250	$79,568	$81,955	$84,413	$86,946
Utilities - propane	Utilities	General	418	450	$464	$477	$492	$506	$522
Utilities - trash	Administration	General	573	600	$618	$637	$656	$675	$696
Dues and subscriptions	Administration	General	2,265	2,500	$2,575	$2,652	$2,732	$2,814	$2,898
Education and training	Administration	General	308	500	$515	$530	$546	$563	$580
Advertising and public notices	Administration	General	100	200	$206	$212	$219	$225	$232
Office Supplies	Administration	General	97	150	$155	$159	$164	$169	$174
Equipt. & Supplies	Administration	General	754	4,900	$5,047	$5,198	$5,354	$5,515	$5,680
Utility Rate Design Study	Administration	General	2,085	31,915					$36,998
Vehicle Replacement Fund	Administration	General	3,000	-	$0	$0	$0	$0	$0
Scada - Maintenance Fees	Maintenance	General	3,979	1,000	$1,030	$1,061	$1,093	$1,126	$1,159
Fuel expense	Administration	General	2,650	5,000	$5,150	$5,305	$5,464	$5,628	$5,796
Small tools and equipment	Maintenance	General	181	3,000	$3,090	$3,183	$3,278	$3,377	$3,478
Uniform expense	Administration	General	317	1,575	$1,622	$1,671	$1,721	$1,773	$1,826
Capital Outlay	Administration	General	37,906						
Manholes and Valve Raising	Maintenance	General	-	-	$0	$0	$0	$0	$0
Repairs, Maint. and Video Sewer L	Maintenance	General	11,298	16,000	$16,480	$16,974	$17,484	$18,008	$8,200
WWTP Plant Maintenance	Treatment	General	7,755	12,000	$12,360	$12,731	$13,113	$13,506	$13,911
Sludge Removal Project	Treatment	General	2,695	3,000	$3,090	$3,183	$3,278	$3,377	$3,478
Waste Discharge Fees/Permits	Administration	General	14,929	25,000	$25,750	$26,523	$27,318	$28,138	$28,982
Licenses, permits and fees	Administration	General	5,442	5,500	$5,665	$5,835	$6,010	$6,190	$6,376
Refundable Water/Sewer/Hydrant	Administration	General	326	-	$0	$0	$0	$0	$0
Credit Card Service Fees	Administration	General	7	-	$0	$0	$0	$0	$0
Bank service charges	Administration	General	177	-	$0	$0	$0	$0	$0

Table 3
San Miguel CSD - Wastewater
Projected Operating Expenses

Cost Escalation	Category	Inflation	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
General Inflation Factor		General			3.0%	3.0%	3.0%	3.0%	3.0%
Growth and Inflation		Growth			7.3%	5.8%	3.0%	3.0%	3.0%
Salary		Salary			5.0%	5.0%	5.0%	5.0%	5.0%
Property tax expense	Administration	General	31	-	$0	$0	$0	$0	$0
Professional svcs - Legal (General)	Administration	General	82,041	50,000	$40,000	$41,200	$42,436	$43,709	$45,020
Vacation Used	Administration	General	-	-	$0	$0	$0	$0	$0
Overtime	Administration	General	-	-	$0	$0	$0	$0	$0
Sick Leave Used	Administration	General	-	-	$0	$0	$0	$0	$0
Payroll Expenses	Administration	General	-	-	$0	$0	$0	$0	$0
Insurance - prop and liability	Administration	General	-	6,000	$6,180	$6,365	$6,556	$6,753	$6,956
Meals - Reimbursement	Administration	General	-	200	$206	$212	$219	$225	$232
Repairs and maint - computers	Administration	General	-	-	$0	$0	$0	$0	$0
Testing & Supplies- SLT Well (Wat	Administration	General	-	-	$0	$0	$0	$0	$0
Testing & Supplies-Other	Administration	General	-	-	$0	$0	$0	$0	$0
Cross-Connection Control Srvcs. (V	Administration	General	-	-	$0	$0	$0	$0	$0
Dispatch services (Fire)	Administration	General	-	-	$0	$0	$0	$0	$0
Internet expenses	Administration	General	-	-	$0	$0	$0	$0	$0
LAFCO Allocations	Administration	General	-	-	$0	$0	$0	$0	$0
Community Outreach	Administration	General	-	1,200	$1,236	$1,273	$1,311	$1,351	$1,391
Supplies	Administration	General	-	-	$0	$0	$0	$0	$0
Software	Administration	General	-	4,000	$4,120	$4,244	$4,371	$4,502	$4,637
Office Equipment	Administration	General	-	3,000	$3,090	$3,183	$3,278	$3,377	$3,478
Equipt & Supplies-Well #4	Administration	General	-	-	$0	$0	$0	$0	$0
EMS supplies	Administration	General	-	-	$0	$0	$0	$0	$0
Cell phones, radios and pagers	Administration	General	-	1,000	$1,030	$1,061	$1,093	$1,126	$1,159
Communication equipment	Administration	General	-	-	$0	$0	$0	$0	$0
Computer supplies and upgrades	Administration	General	-	-	$0	$0	$0	$0	$0
Chemicals-Well #4	Administration	General	-	-	$0	$0	$0	$0	$0
Sales Tax Paid	Administration	General	-	-	$0	$0	$0	$0	$0
Fire Sprinklers - Underground	Administration	General	-	-	$0	$0	$0	$0	$0
Water Lines Repairs	Administration	General	-	-	$0	$0	$0	$0	$0
SLT WELL REPAIR	Administration	General	-	-	$0	$0	$0	$0	$0
Sewer System Mngmt Plan (SSMP)	Administration	General	-	30,000					17,389
Reg. Salt & Nutrient Mgmt. Plan	Administration	General	-		$0	$0	$0	$0	$0
16th Street Sewer Replacement	Administration	General	-	-	$0	$0	$0	$0	$0
Verde Place Sewer	Administration	General	-	-	$0	$0	$0	$0	$0
Sewer Line Repairs	Administration	General	-	-	$0	$0	$0	$0	$0
WWTP Expansion	Treatment	General	-						
WWTP Drying Pond Maintenance	Treatment	General	-	-	$0	$0	$0	$0	$0
Deposit/ Liabilities	Administration	General	-	-	$0	$0	$0	$0	$0
Misc	Administration	General	-	-	$0	$0	$0	$0	$0
Cash Over/ Cash Short	Administration	General	-	-	$0	$0	$0	$0	$0
Tax Penalties & Late Fees	Administration	General	-	-	$0	$0	$0	$0	$0
Finance Charges/Late Fees	Administration	General	-	-	$0	$0	$0	$0	$0
Returned Checks	Administration	General	-	-	$0	$0	$0	$0	$0
Interest Fees	Administration	General	-	-	$0	$0	$0	$0	$0
Total Operating Expenses			**$492,563**	**$622,381**	**$569,748**	**$575,389**	**$596,679**	**$618,809**	**$765,853**
% Change from Previous Year				*26.4%*	*-8.5%*	*1.0%*	*3.7%*	*3.7%*	*23.8%*

[1] Based on District FY 17-18 budget

Table 4
San Miguel CSD - Wastewater
Projected Operating Revenues

Cost Escalation	Inflation	FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
General Inflation Factor	General			2.5%	2.5%	2.5%	2.5%	2.5%
No Escalation	None			0.0%	0.0%	0.0%	0.0%	0.0%
Demand Growth	Demand			4.2%	2.7%	0.0%	0.0%	0.0%

Revenue		FY 16-17	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
		Estimated	*Budget*	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*
Rate Revenue	**Demand**	**$332,582**	**$341,273**	**$355,592**	**$693,762**	**$867,202**	**$953,922**	**$1,001,618**
Additional Rate Revenue[1,2]			**$0**	**$320,032**	**$173,440**	**$86,720**	**$47,696**	**$45,073**
Other Revenue								
CDBG Grant	None	-	-					
Sludge Bed - Co. of San Luis Obispc	None	-	-					
Wastewater Hook-up Fees	None		-					
Wastewater Sales	None							
Wastewater Late Charges	None	6,582	5,500					
Property Taxes Collected	None	50,191	51,302	51,302	51,302	51,302	51,302	51,302
Revenues & Interest	None	736	700					
Transfer In	None	3,000						
Realized Earnings	None	(388)	-					
Miscellaneous Income	None	-	45,000					
Refund/Adjustments	None	3,144	1,000	1,000	1,000	1,000	1,000	1,000
Plan Check Fees	None	-	-					
Will Serve Processing Fees	None	-	-					
Sale of Surplus Property	None	-	-					
Total Other Revenue		$63,265	$103,502	$52,302	$52,302	$52,302	$52,302	$52,302
Total Operating Revenue		**$395,847**	**$444,775**	**$727,926**	**$919,504**	**$1,006,224**	**$1,053,920**	**$1,098,993**
% Change from Previous Year			*12.4%*	*83.9%*	*26.3%*	*9.4%*	*4.7%*	*4.3%*

[1]Additional revenue based on recommended increase

[2]Additional rate revenue is adjusted if rates are adopted in the middle of the fiscal year

Table 5
San Miguel CSD - Wastewater
Capital Improvement Costs

Project Description	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28
	Budgeted	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*
CIP (Current Dollars)											
Wastewater Aerator Project	$215,000										
16th street Diversion Structure			$37,500								
Multi Year sewer line lining and manhole rehabilitation program			$500,000	$500,000	$500,000		$1,000,000	$1,000,000	$1,010,973		
WWTP Land Aquasition for future expansion		$260,000									
Wastewater treatment plant upgrade		$200,000	$663,000	$1,326,000	$1,125,851						
Reclaimed water Treatment processes at the Wastewater treatment plant			$133,000	$442,750	$885,500	$752,501					
Evaluation assessment of off stream recharge basins		$50,000	$50,000								
Ongoing					$100,000	$100,000	$100,000	$100,000	$100,000	$100,000	$100,000
Total	**$215,000**	**$510,000**	**$1,383,500**	**$2,268,750**	**$2,611,351**	**$852,501**	**$1,100,000**	**$1,100,000**	**$1,110,973**	**$100,000**	**$100,000**
CIP (Inflated Dollars)											
Wastewater Aerator Project	$215,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
16th street Diversion Structure	$0	$0	$39,784	$0	$0	$0	$0	$0	$0	$0	$0
Multi Year sewer line lining and manhole rehabilitation prog	$0	$0	$530,450	$546,364	$562,754	$0	$1,194,052	$1,229,874	$1,280,670	$0	$0
WWTP Land Aquasition for future expansion	$0	$267,800	$0	$0	$0	$0	$0	$0	$0	$0	$0
Wastewater treatment plant upgrade	$0	$206,000	$703,377	$1,448,956	$1,267,155	$0	$0	$0	$0	$0	$0
Reclaimed water Treatment processes at the Wastewater tr	$0	$0	$141,100	$483,805	$996,638	$872,355	$0	$0	$0	$0	$0
Evaluation assessment of off stream recharge basins	$0	$51,500	$53,045	$0	$0	$0	$0	$0	$0	$0	$0
Ongoing	$0	$0	$0	$0	$112,551	$115,927	$119,405	$122,987	$126,677	$130,477	$134,392
Grand Total	**$215,000**	**$525,300**	**$1,467,755**	**$2,479,124**	**$2,939,099**	**$988,282**	**$1,313,458**	**$1,352,861**	**$1,407,347**	**$130,477**	**$134,392**
Projected Annual Inflation Rate		*3.0%*	*3.0%*	*3.0%*	*3.0%*	*3.0%*	*3.0%*	*3.0%*	*3.0%*	*3.0%*	*3.0%*

Table 6
San Miguel CSD - Wastewater
Existing and Proposed Debt

Description	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28
	Budgeted	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*	*Projected*
Poposed Borrowing											
Net Proceeds Needed (Assuming USDA Financing)			$5,900,000				$3,350,000				
Repayment Term (yrs)			40				40				
Coupon Rate			3.1%				3.5%				
Month of Issue			1				6				
Issuance Costs (% of Net Proceeds)											
Issuance Cost			$150,000				$150,000				
Debt Service Reserve			$280,000				$173,000				
Total Debt Issue Size			$6,330,000				$3,673,000				
Prorated Debt Service Payment - Current Yr. Only			$279,000				$86,000				
Annual Debt Service Payment (rounded)			$279,000				$172,000				
Total Annual Debt Service	**$0**	**$0**	**$279,000**	**$279,000**	**$279,000**	**$279,000**	**$365,000**	**$451,000**	**$451,000**	**$451,000**	**$451,000**

Table 7
San Miguel CSD - Wastewater
Cash Flow Projection

Operating Fund	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
Reserves						
Beginning Unrestricted Balance	$158,110	$0	$60,808	$81,022	$128,825	$242,340
Revenue Escalation						
Rate Revenue Increase	*0.0%*	*90.0%*	*25.0%*	*10.0%*	*5.0%*	*4.5%*
Revenues						
Rate Revenue	$341,273	$355,592	$693,762	$867,202	$953,922	$1,001,618
Additional Rate Revenue	0	320,032	173,440	86,720	47,696	45,073
Rate Timing Adjustment	0					
Other Revenue	103,502	52,302	52,302	52,302	52,302	52,302
Interest on Reserves	$395	$0	$152	$203	$322	$606
Total Revenues	*$445,170*	*$727,926*	*$919,656*	*$1,006,427*	*$1,054,242*	*$1,099,599*
Expenses						
Operating Expenses						
Operating Expenses	$622,381	$569,748	$575,389	$596,679	$618,809	$765,853
Repay Capacity Fund		3,820	3,820	3,820	3,820	3,820
Total Operating Expenses	$622,381	$573,568	$579,209	$600,499	$622,629	$769,673
Capital Expenses						
Existing Debt Service	$0	$0	$0	$0	$0	$0
New Debt Service	0	0	279,000	279,000	279,000	279,000
Rate Funded Capital	$0	$93,550	$41,233	$79,124	$39,099	$138,282
Total Capital Expenditures	$0	$93,550	$320,233	$358,124	$318,099	$417,282
Total Expenses	*$622,381*	*$667,118*	*$899,442*	*$958,624*	*$940,728*	*$1,186,956*
Net Revenues	**-$177,211**	**$60,808**	**$20,214**	**$47,803**	**$113,515**	**-$87,356**
Loan from Capacity Fund	*$19,101*	*$0*	*$0*	*$0*	*$0*	*$0*
Ending Unrestricted Balance	**$0**	**$60,808**	**$81,022**	**$128,825**	**$242,340**	**$154,983**
Debt Coverage Ratio (Target 1.25)			**1.23**	**1.47**	**1.56**	**1.20**

Table 7
San Miguel CSD - Wastewater
Cash Flow Projection

Capacity Fund	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
Beginning Balance	$463,581	$444,480	$614,300	$862,120	$865,941	$869,761
Fund Sources						
Capacity Fees	0	366,000	244,000	0	0	0
Operating Loan Repayment	0	3,820	3,820	3,820	3,820	3,820
Fund Uses						
Operating Loan	19,101	0	0	0	0	0
Capacity Fee Funded Capital	$0	$200,000				$600,000
Net Capacity Income	**-$19,101**	**$169,820**	**$247,820**	**$3,820**	**$3,820**	**-$596,180**
Ending Capacity Balance	**$444,480**	**$614,300**	**$862,120**	**$865,941**	**$869,761**	**$273,581**

Capital Funding	FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23
Capital Revenues						
Use of Debt Proceeds	$0	$0	$1,100,000	$2,100,000	$2,700,000	
Grant Revenue	215,000	231,750	326,523	300,000	200,000	250,000
Use of Capacity Funds	0	200,000	0	0	0	600,000
Rate Funded Capital	$0	$93,550	$41,233	$79,124	$39,099	$138,282
Total Capital Revenue	**$215,000**	**$525,300**	**$1,467,755**	**$2,479,124**	**$2,939,099**	**$988,282**
Total Capital Expenditures	**$215,000**	**$525,300**	**$1,467,755**	**$2,479,124**	**$2,939,099**	**$988,282**

Table 8
San Miguel CSD - Wastewater
Wastewater Flows and Loadings

Wastewater Flows and Loadings	# of Sewer EDUs[1]	Est. Mo Flow HCF Per EDU[2]	Projected Water Use CCF[3]	Flow Factor[4]	Projected Wastewater Flow HCF	MG[5]	GPD[6]	Strength (mg/l)[9] BOD[7]	TSS[8]	Loadings (lbs) BOD	TSS
Residential											
Single Family	623	8.0	N/A		59,808	44.74	122,574	225	200	84,022	74,687
Multifamily	102	5.0	N/A		6,120	4.58	12,543	225	200	8,598	7,642
Total Residential	**623**				**65,928**	**49**	**135,117**			**92,620**	**82,329**
School	1.0	100.0			1,200	**0.90**	2,459	**200**	**175**	**1,499**	**1,311**
Nonresidential											
Low Strength		Varies		80%				130	130		
Medium Strength		Varies	8,919	80%	7,135	5.34	14,623	200	175	8,910	7,796
High Strength		Varies	1,166	80%	933	0.70	1,912	600	400	3,495	2,330
Total Nonresidential			**10,085**		**8,068**	**6.04**	**16,535**			**12,405**	**10,126**
Total					**75,196**	**56.25**	**154,111**			**106,524**	**93,766**

[1] "EDU" stands for equivalent dwelling unit

[2] Flow estimate based on average winter use

[3] "HCF" stands for hundred cubic feet

[4] Flow factor based on estimated flow returning to sewer

[5] "MG" stands for 1,000 gallons

[6] "GPD" stands for gallons per day

[7] "BOD" stands for biochemical oxygen demand

[8] "TSS" stands for total suspended solids

[9] State Water Resource Control Board (SWRCB) Guidelines for Wastewater Agencies

Table 9
San Miguel CSD - Wastewater
Cost Allocation

Functional Allocation

Allocation Category	Amount	Flow	BOD	TSS	Total
Maintenance	$47,380	70%	15%	15%	100%
Administration	$307,149	80%	10%	10%	100%
Treatment	$19,509	34%	33%	33%	100%
Utilities	$77,714	80%	10%	10%	100%
Capital	$78,258	60%	20%	20%	100%
Debt	$279,000	60%	20%	20%	100%
	Functional Allocation $	$562,044	$123,483	$123,483	$809,009
	Functional Allocation %	70%	15%	15%	100%
	Revenue Requirement	**$472,937**	**$101,344**	**$101,344**	**$675,624**

Allocation Units	Flow	BOD	TSS
	(CCF)	*(LBS)*	*(LBS)*
Demand Units	75,196	106,524	93,766
Revenue Requirement	472,937	101,344	101,344
Unit Rate	$6.29	$0.95	$1.08

Class	Flow	BOD	TSS	Revenue Requirement
	(CCF)	*(LBS)*	*(LBS)*	*($)*
Residential	59,808	84,022	74,687	$536,814
Multi-family	6,120	8,598	7,642	$54,931
Nonresidential				
School	1,200	1,499	1,311	$10,390
Low	246	200	200	
Medium	7,135	8,910	7,796	$61,779
High	933	3,495	2,330	$11,709

Table 10
San Miguel CSD - Wastewater
Rate Calculation

Class	Revenue Requirement	Customers	Fixed %	Annual Fixed	Monthly Fixed	Volumetric Revenue Requirement	Volume	Rate (CCF)
Residential								
Single Family	$536,814	623	100%	$862	**$71.81**			
Multifamily	$54,931	102	100%	$539	**$44.88**			
Nonresidential								
School	$10,390	1	100%	$10,390	**$865.85**			
Low Strength			30%	$648	**$54.04**			**$4.25**
Medium Strength	$61,779	29	30%	$648	**$54.04**	$42,974	8,919	**$4.82**
High Strength	$11,709	5	30%	$648	**$54.04**	$8,467	1,166	**$7.27**