

Sewer Rate Study

Santa Nella County Water District

FINAL

MAY 2017

Prepared by:

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1 Introduction

The Santa Nella County Water District (District) provides water and sewer services to the small community of Santa Nella, CA. Santa Nella is located along the I-5 corridor, about 10 miles west of Los Banos. The community consists of approximately 40 retail businesses, a mobile home park with about 250 residential services, and a residential sub-division of approximately 335 single family dwellings. There is also a fire station and a library. Merced County governs the township, providing services to greenbelts and public landscaping, as well as other public services such as lighting, streets and storm drains.

The following study is pertinent only to the rates that the District charges for the collection, treatment, and disposal of the wastewater generated within the District's service area. The sewer system consists of a series of collection lines, five active lift stations, headworks, six treatment ponds and approximately 60 acres of pasture land for effluent disposal.

2 Sewer Services Provided

Wastewater is collected through a series of gravity main lines to lift stations that ultimately pump the wastewater to the wastewater treatment plant. The wastewater is screened through the headworks to remove non-biodegradable material. The wastewater is treated in aerated ponds and then discharged to land for disposal. The District employs a General Manager, a Chief Operator, and three field operations staff to monitor, maintain, and repair pumps and other appurtenances to ensure the safe collection, treatment and disposal of wastewater. Two office personnel conduct administrative duties required to fiscally operate the District. The District also contracts with several professional consultants including an engineering firm, legal firm, and auditor. These consultants assist District staff with engineering, legal, and fiscal responsibilities.

3 Sewer Budget

Each sewer connection is charged a user rate for the collection, treatment and disposal of the wastewater generated at the connection. The District must determine equitable costs for each customer class for the work it performs to provide the service. The District reviews historical costs, and projects future costs for all expenses required to collect, treat, and dispose of the wastewater. Wages, benefits, supplies, repairs, maintenance, regulatory fees, insurance costs, engineering, legal and auditing fees, and debt service and interest payments are calculated. A budget is then prepared and projected for five years. The District uses the Consumer Price Index (CPI) to determine a percentage inflation rate, according to the service provided and the current year of service. For the purposes of this study, a 3.7% increase, per year, for up to four years, was used to estimate future costs, revenue requirements and user rates.

4 Debt Service

In 2010, the District was approved for funding through the Clean Water State Revolving Fund to improve and upgrade the wastewater treatment plant where the headworks, ponds and disposal pasture are located. The District received \$4.2 million dollars for the Wastewater Treatment Plant Improvement

Project Phase 1B (WWTP Ph 1B). One-half of the funding (\$2.1 million) was principal forgiveness for which the District does not have to repay as long as the District does not default on the terms of the funding agreement between the District and the State.

The remaining balance of \$2.1 million dollars is a low interest loan, at 2.6% over 20 years. With the funds, the District was able to upgrade the existing wastewater treatment plant and Bay View Lift Station, which resulted in capacity and reliability improvements at the plant. The loan component of the funding requires a debt service payment of \$133,872 annually for 20 years, beginning April of 2014. The funding agreement with the State also requires that the District's net revenues be 1.25 times the debt service.

5 Rate Adjustments

At that time the District entered into the funding agreement, the District had about three years of reserves for the debt service payment. Even though the District had multiple years of funds for the payment, the sewer rates for all customers were not adequate to meet the net revenue requirement of 1.25 times the debt service.

In 2014, the District prepared a sewer rate study. In that study, rates were adjusted upward for residential, with larger adjustments for the commercial class due to the impact that the businesses have on the sewer system. The study discussed the WWTP Ph 1B project and the need to eventually adjust rates to meet the net revenue requirement. That study indicated that by July 1, 2017, rates would need to be adjusted again to make the debt service payment. (Montgomery, et al. 8)

Rates prior to the 2014 study were not sufficient to operate the sewer system. In order to avoid raising rates in excess of 50% per customer class in 2014, the District chose to seek rate adjustments over a three year period that did not include the debt service payment because the District had sufficient reserves to make the debt service payment through 2017. The 2014 study also projected a 22% increase for residential services in 2017. This study projects adjustments less than 22%. Appendix B shows the percentage and dollar adjustments for the residential classes.

In future years the percentage rate adjustment decreases over time as the debt service payment is absorbed into the operational costs, and net revenues meet the debt service requirement. The proposed rates over the next five years will allow the District to meet the net revenue requirement as well as generate enough revenue to make the annual payment. The District anticipates gradual increases in wastewater flows if development occurs but the time frame is unknown.

6 Rate Method

The District uses a fixed and variable cost method to determine the user rates. Fixed costs are generally comprised of capital and operating costs that remain relatively unchanged throughout the fiscal year. Variable costs consist of expenses such as energy, fuel and plant maintenance that can change based on demand. The community of Santa Nella is unique in that it has a large number of residential customers in comparison to the number of businesses (585 residential dwellings compared to 38 businesses).

To determine this percentage, the District considered metered water usage, and estimated water usage for non-metered connections, which is comprised of approximately 250 residential mobile home customers and two commercial customers. The District established three customer classes: [Non-Metered] Mobile Home Park, Metered Homes and Commercial.

The District used wastewater flow percentages and the average Biochemical Oxygen Demand (BOD) for 2016 to determine the strength of wastewater as to each customer class. BOD is defined as:

“The rate at which organisms use the oxygen in water or wastewater while stabilizing decomposable organic matter under aerobic conditions. In decomposition, organic matter serves as food for the bacteria and energy results from its oxidation. BOD measurements are used as a measure of the organic strength of wastes in water.”

(Kerri, et al. 485)

The average BOD for calendar year 2016 was 289 milligrams per liter (mg/L). Table 1 shows the percentage of wastewater assigned to each customer class.

Table 1					
Water Flow and Estimated Wastewater Flows					
<i>Santa Nella County Water District</i>					
Customer Class	No. of Accounts (a)	Annual Estimated Water Usage MG (b)	Estimated Flow of Wastewater by Customer Class MG	BOD Load Based on Annual Average of 289 mg/L (d)	Wastewater by Customer Class percentage
Residential					
Non-Metered Mobile Home Park (c)	250	19.85	16.43	23,978	13%
Metered Homes	335	33.75	27.93	40,766	21%
Sub-total	585	53.60		64,744	
Commercial					
Low-Strength	4	0.99			
Low-Irrigation-Strength	3	0.87			
Medium-Strength	3	5.01			
Medium-Irrigation-Strength	2	2.13			
Medium-High-Strength	9	7.99			
Medium-High-Irrigation Strength	9	8.10			
High-Strength	6	6.31			
High-Irrigation-Strength	2	10.16			
Sub-total	38	41.56	34.35	124,978	66%
Non-Metered Commercial (c)	3	0.24			
Total	626	95.40	78.71	189,722	

MG = Million Gallons

mg/L = milligrams per Liter

(a) As of March 31, 2017

(b) Metered Residential and Metered Commercial for 2016. Mobile Home Park usage after estimating water loss

(c) Water usage after estimating water loss

(d) Wastewater Flow x Average BOD x 8.34 lbs BOD

In October of 2009, the District began requiring that all new commercial development install a separate irrigation meter to record irrigation water use that does not impact the sewer plant. The District still has

many businesses that do not have irrigation meters, as those businesses were developed prior to the mandate. For rate equity purposes, the District adjusts volume rates upward for those commercial users with separate irrigation meters as commercial businesses without irrigation meters (as well as residential customers) are charged sewer rates for water that does not impact the sewer system.

7 Wastewater Strength

The District has established five wastewater strength categories when determining wastewater characteristics in relation to the type of customer or business responsible for the discharge. Residential wastewater strength is the lowest strength category based on the typical range of 100 mg/L to 200 mg/L BOD.

Restaurants are the highest strength category based on a typical value of 1000 mg/L BOD, which is five to ten times higher than residential wastewater BOD. District policy has been to assess sewer rates based on the categories and type of customer dischargers, and not test samples of wastewater for each customer. The strength ranges that are used to assign a category for each customer class are stated in Table 2.

Table 2		
Wastewater Category by Customer Class		
Santa Nella County Water District		
Category	BOD (mg/L)	Business Type
Residential		
Low Strength	100-200	Mobile Home Park and Single Family Dwellings
Commercial		
Low Strength	250	Offices, Schools, Retail Stores, Medical Facilities
Medium Strength	450	Car or Truck Washes, Hotels (with no dining facilities), Bars, Laundry Mats
Medium-High Strength	600	Hotels (with dining areas: eg. continental breakfast style), Fast Food Business, Gas Stations with Convenience Stores, Markets with Garbage Grinders, Mortuaries
High Strength	1,000	Hotels (with restaurants), Restaurants including Quick Service Restaurants, Bakeries

Table 2 per Update of Wastewater Connection Fees Technical Memorandum March 2010.

8 Fixed Cost Basis

8.1 Residential:

The District studied the operations and administrative tasks associated with the Residential class. The Mobile Home Park requires more operational effort than the Metered Homes. The Mobile Home Park

infrastructure is antiquated and field staff spends a considerable amount of time ensuring proper flow of the collection system and weekly maintenance of the aging lift station and sewer lines within the park boundaries. There is less administrative effort for the Mobile Home Park as billing invoices are memorized and easy to generate.

The Metered Homes require less operational effort than the Mobile Home Park as the infrastructure is modern, and field staff spends less time ensuring proper flow of the collection system; checking and maintaining the system quarterly. There is more administrative effort for the Metered Homes as sewer charges cannot be billed until metered water usage has been entered into the billing computer system. Additionally, there are 25% more active metered residential services (Metered Homes) than active non-metered residential services (Mobile Home Park).

8.2 Commercial:

The District studied the operations and administrative tasks associated with the Commercial class. When establishing a fixed operational cost component, the field effort is considered a fixed cost. Also, the District looked at wastewater strength and the impact it has on the total collection, treatment and disposal process. The fixed costs for the Commercial class must be higher than the variable costs in order to generate enough revenue to operate the system when flow is lower, such as during a drought. As to the administrative effort, because of the variations in meter sizes and units of measurement, administrative tasks require more time and expertise when entering data into the billing computer system.

9 Variable Cost Basis

The variable component of costs is based on strength of wastewater and operations effort using flow as the factor. The Commercial class has much stronger wastewater than Residential. The District considered actual flow and BOD load at the plant, typical wastewater strength for each category, and user type. The District has ascertained that 82% of the BOD load is attributable to the Commercial customer class. The strength of wastewater was taken into consideration and percentage values were assigned to each customer class.

See Appendix A for estimated customer class wastewater characteristics and annual loadings for fixed and variable costs.

10 Current and Future Budgets

The District prepares an annual budget estimating all the costs required to provide wastewater service to the community. Once each cost is identified, a list of each expense is categorized by either fixed or variable cost. Table 3 shows the estimated costs for the fiscal year 2017-18, and projected revenue requirements for the next four years.

Table 3					
Sewer System Budget Projections and Revenue Requirements to Meet Debt Service Ratio (a)					
<i>Santa Nella County Water District</i>					
Sewer Operations Fund	<i>Estimated Costs</i>	<i>Projected Revenue Requirements</i>			
	2017-18	2018-19	2019-20	2020-21	2021-22
Fixed O&M Expenses					
Admin Salaries/All Benefits	\$ 197,589	\$ 235,829	\$ 244,916	\$ 255,257	\$ 263,110
Office/Admin Costs	59,807	61,017	63,109	65,277	67,526
Professional Services (Audit/Legal)	28,500	29,555	30,648	31,782	32,958
Insurance	15,007	15,562	16,138	16,735	17,354
Operations R&M (Fixed)	99,670	98,089	98,616	99,163	99,730
Contingency	7,000	7,259	7,528	7,806	8,095
Sludge Removal	-	30,000	30,000	30,000	30,000
Interest Expense	45,058	42,751	40,384	37,956	35,465
Debt Service	88,724	91,030	93,397	95,825	98,317
<i>Sub-total Fixed O&M</i>	<i>541,355</i>	<i>611,092</i>	<i>624,736</i>	<i>639,801</i>	<i>652,555</i>
Variable O&M Expenses					
Office R&M	500	519	538	558	578
Professional Services (Engineer/Contract)	20,500	21,259	22,045	22,861	23,707
Operations R&M (Variable)	40,229	41,717	43,261	44,862	46,522
Utilities	144,598	149,948	155,496	161,250	167,216
<i>Sub-total Variable O&M</i>	<i>205,827</i>	<i>213,443</i>	<i>221,340</i>	<i>229,531</i>	<i>238,023</i>
Gross Revenue Requirements	\$ 747,182	\$ 824,535	\$ 846,076	\$ 869,332	\$ 890,578

(a) WWTP Ph 1B Contract Requirement; Net Revenue must be at least 1.25 times the Debt Service Requirement

The Budget proposals for the next five years include the debt service payment and debt service requirement as stated in the funding agreement with the State. Table 4 illustrates compliance with the Agreement for the proposed Budget's over the next five years.

TABLE 4						
Sewer Covenant						
<i>Santa Nella County Water District</i>						
	Fiscal Year Ended June 30th					
Revenues	2017	2018	2019	2020	2021	2022
Sewer Fees	\$ 623,228	\$ 747,182	\$ 824,535	\$ 846,076	\$ 869,331	\$ 890,577
Rents	1,500	1,500	1,500	1,500	1,500	1,500
Property Taxes	37,579	37,579	38,969	40,411	41,907	43,457
Interest Income	372	372	409	450	495	545
Misc Non-Op Revenue	-	-	-	-	-	-
Administration Income	-	-	-	-	-	-
Sewer Connection Fees	-	-	-	-	-	-
Investment Income	850	-	-	-	-	-
Total Revenues	663,529	786,633	865,413	888,437	913,233	936,079
Operations and Maintenance						
General and Administration	309,544	324,877	366,824	380,592	395,786	408,672
Collections and Conveyance	282,842	288,899	324,319	332,107	340,183	348,558
Total Expenses	592,386	613,776	691,143	712,699	735,969	757,230
NET REVENUES	\$ 71,143	\$ 172,857	\$ 174,270	\$ 175,738	\$ 177,264	\$ 178,849
Long-Term Debt Service - Current	\$ 139,032	\$ 133,782	\$ 133,781	\$ 133,781	\$ 133,781	\$ 133,782
Coverage Ratio	0.51	1.29	1.30	1.31	1.33	1.34
Balance Available	\$ (67,889)	\$ 39,075	\$ 40,489	\$ 41,957	\$ 43,483	\$ 45,067
Rate Covenant						
Notwithstanding the provisions of Section 3.7(d), the Recipient shall covenant to establish rates and charges in amounts sufficient to generate net revenues equal to at least 1.25 times the total annual debt service.						
Long-Term Debt						
<u>SWRCB WWTP Ph 1B</u>						
Principal	\$ 86,475	\$ 88,724	\$ 91,030	\$ 93,397	\$ 95,825	\$ 98,317
Interest	47,307	45,058	42,751	40,384	37,956	35,465
<u>Wells Fargo Truck-Sewer Only</u>						
Principal	5,250	-	-	-	-	-
Interest	-	-	-	-	-	-
Total	\$ 139,032	\$ 133,782	\$ 133,781	\$ 133,781	\$ 133,781	\$ 133,782

The District calculated the monthly fixed and variable costs by customer class, detailing the revenue requirement for each strength category, applying water usage from the 2016 calendar year. Tables 5 and 5A show the proposed revenue requirements and fixed and variable cost distribution for the next five fiscal years based on Budget projections at 3.7% inflation escalation and broken out by customer class. The projections include the debt service requirement.

Table 5									
Proposed Revenue Requirements and Costs Distribution									
<i>Santa Nella County Water District</i>									
Customer Class	FY 2017-18			FY 2018-19			FY 2019-20		
	Rev Req	Fixed Costs	Var Costs	Rev Req	Fixed Costs	Var Costs	Rev Req	Fixed Costs	Var Costs
<u>Residential</u>									
Mobile Home Park	\$ 84,784	\$ 70,376	\$ 14,408	\$ 94,383	\$ 79,442	\$ 14,941	\$ 96,709	\$ 81,216	\$ 15,494
Metered Homes	136,326	113,685	22,641	151,808	128,359	23,479	155,542	131,195	24,347
<u>Commercial</u>									
Metered Commercial	526,072	297,599	228,473	578,344	327,329	250,985	592,825	335,565	257,260
Total	\$ 747,182	\$ 481,660	\$ 265,522	\$ 824,535	\$ 535,130	\$ 289,405	\$ 845,076	\$ 547,976	\$ 297,101

Table 5A							
Proposed Revenue Requirements and Costs Distribution							
<i>Santa Nella County Water District</i>							
Customer Class	FY 2020-21			FY 2021-22			
	Rev Req	Fixed Costs	Var Costs	Rev Req	Fixed Costs	Var Costs	
<u>Residential</u>							
Mobile Home Park	\$ 99,241	\$ 83,174	\$ 16,067	\$ 101,494	\$ 84,832	\$ 16,662	
Metered Homes	159,607	134,358	25,248	163,219	137,037	26,182	
<u>Commercial</u>							
Metered Commercial	610,483	345,506	264,977	625,865	352,938	272,927	
Total	\$ 869,331	\$ 563,038	\$ 306,292	\$ 890,578	\$ 574,807	\$ 315,771	

11 Proposed Rates

Due to increases in the costs such as energy, fuel, regulatory fees, health insurance premiums, wages, and the annual debt service payment, the sewer rates must be adjusted. The District has considered all costs associated with the operation of the sewer system in order to remain in compliance with the Waste Discharge Permit issued by the State Water Resources Control Board, and to continue to safely dispose of the community's wastewater. All customer class rates must be adjusted so that each customer class pays their equitable share for the service provided. Table 6 represents the proposed equitable rate adjustments for each customer class based on the estimated budget for fiscal years 2017-18 through 2021-22.

Table 6							
Proposed Sewer Rates							
<i>Santa Nella County Water District</i>							
Customer Class	Rate (Units)	Current 2017	<i>Five-Year Phase-In</i>				
			2017-18	2018-19	2019-20	2020-21	2021-22
Residential Sewer Rates			Residential Flat Monthly Charges				
Mobile Home Park (a)	Mo. Flat Rate (\$/mo)	\$ 23.55	\$ 28.26	\$ 31.46	\$ 32.24	\$ 33.08	\$ 33.83
Metered Residential	Mo. Flat Rate (\$/mo)	\$ 31.01	\$ 33.92	\$ 37.77	\$ 38.70	\$ 39.71	\$ 40.61
Commercial Sewer Rates			Fixed Monthly Charges				
Low-Strength	Mo. Fixed Rate (\$/mo)	\$ 132.55	\$ 357.89	\$ 393.67	\$ 403.52	\$ 421.67	\$ 424.84
Medium-Strength	Mo. Fixed Rate (\$/mo)	\$ 165.70	\$ 488.82	\$ 537.70	\$ 551.14	\$ 575.94	\$ 580.26
Medium-High-Strength	Mo. Fixed Rate (\$/mo)	\$ 218.72	\$ 721.78	\$ 793.95	\$ 813.80	\$ 850.42	\$ 856.80
High-Strength	Mo. Fixed Rate (\$/mo)	\$ 251.85	\$ 906.66	\$ 997.33	\$ 1,022.26	\$ 1,068.26	\$ 1,076.27
			Monthly Volume Charges (no minimum consumption)				
Low-Strength	Mo. Vol. Chrg (\$/hcf)	\$ 2.05	\$ 1.62	\$ 1.78	\$ 1.83	\$ 1.88	\$ 1.94
Low-Irrigation-Strength	Mo. Vol. Chrg (\$/hcf)	\$ 2.67	\$ 2.11	\$ 2.32	\$ 2.38	\$ 2.45	\$ 2.52
Medium-Strength	Mo. Vol. Chrg (\$/hcf)	\$ 3.45	\$ 2.73	\$ 3.00	\$ 3.07	\$ 3.17	\$ 3.26
Medium-Irrigation-Strength	Mo. Vol. Chrg (\$/hcf)	\$ 4.33	\$ 3.42	\$ 3.76	\$ 3.86	\$ 3.97	\$ 4.09
Medium-High-Strength	Mo. Vol. Chrg (\$/hcf)	\$ 4.81	\$ 3.80	\$ 4.18	\$ 4.28	\$ 4.41	\$ 4.55
Medium-High-Irrigation-Strength	Mo. Vol. Chrg (\$/hcf)	\$ 6.23	\$ 4.92	\$ 5.41	\$ 5.55	\$ 5.72	\$ 5.89
High-Strength	Mo. Vol. Chrg (\$/hcf)	\$ 5.51	\$ 4.35	\$ 4.79	\$ 4.91	\$ 5.06	\$ 5.21
High-Irrigation-Strength	Mo. Vol. Chrg (\$/hcf)	\$ 6.31	\$ 4.98	\$ 5.48	\$ 5.62	\$ 5.79	\$ 5.96
Commercial Non-Metered Rates							
Non-Metered Units	Mo. Flat Rate (\$/mo)	\$ 123.51	\$ 127.99	\$ 130.55	\$ 133.16	\$ 135.82	\$ 138.54
Grease Interceptor Inspection	Qtr. Flat Rate (\$/qtr)	\$ 64.90	\$ 67.49	\$ 70.19	\$ 71.59	\$ 73.03	\$ 74.49

11.1 Fiscal Year 2017-18

The proposed rates have been adjusted to ensure that the District can make the debt service payment due on April 15, 2018. The adjusted rates should generate enough revenue to meet all operational expenses and the WWTP Ph 1B annual debt service payment of \$133,782. The new rate adjustment will be effective July 1, 2017.

11.2 Fiscal Year 2018-19 through 2021-22

The proposed rates have been adjusted based on the future Budget requirement for each customer class. The Budget includes increases to some costs using the CPI of 3.7% for wastewater services. The new rate adjustment for each new fiscal year will be effective July 1 of that year.

12 Beginning FY 2018-19

A new Budget line item of \$30,000 has been added for removal of sludge from wastewater ponds. Currently, the District has contracted for sludge to be removed during the summer of 2017 using reserves. The District did not include the costs of sludge removal into the Budget until fiscal year 2018-19. This is a necessary maintenance operation that must be performed regularly to remain in compliance with the District's permit requirements.

13 Summary

The District is seeking a five-year phase-in adjusting rates as described in Table 6. Overall, each customer class will see a larger adjustment in the first fiscal year in order to meet the required debt service. The proposed rates are designed to adjust revenue equitably between customer classes so that the District

can continue to meet Waste Discharge Permit requirements, provide safe handling of wastewater, and meet the debt service payment and ratio requirement.

14 References

Montgomery, A., et al. *Santa Nella County Water District Sewer Rate Study 2014*. SNCWD, 2014

Kerri, Kenneth D., et al. *Operation of Wastewater Treatment Plants, Volume I*. CSU-Sacramento Foundation, 2004.

APPENDIX A

APPENDIX A								
Estimated Customer Class Wastewater Characteristics & Annual Loadings								
Santa Nella County Water District				Fixed Costs		Variable Costs		
Customer Class	No. of Accounts (a)	Annual Estimated Water Usage MG (b)	Estimated Flow of Wastewater by Customer Class MG	Strength based on Annual Average BOD of 289 mg/L lbs	O&M Administrative percentage (c)	Flow/Strength Estimated Load on Sewer Plant lbs (d)	Estimated BOD Strength mg/L (e)	Variable Costs percentage (f)
Residential								
Non-Metered Mobile Home Park (g)	250	19.85	16.43	23,978	13%	13,702	100	7%
Metered Homes	335	33.75	27.93	40,766	21%	23,295	100	11%
Sub-total	585	53.60	44.36	64,744		36,997		
Commercial								
Low-Strength	4	0.99				1,358	250	
Low-Irrigation-Strength	3	0.87				1,199	250	
Medium-Strength	3	5.01				12,409	450	
Medium-Irrigation-Strength	2	2.13				5,288	450	
Medium-High-Strength	9	7.99				26,397	600	
Medium-High-Irrigation Strength	9	8.10				26,749	600	
High-Strength	6	6.31				34,707	1,000	
High-Irrigation-Strength	2	10.16				55,924	1,000	
Sub-total	38	41.56	34.35	124,978	66%	164,031		82%
Non-Metered Commercial (g)	3	0.24						
Total	626	95.40	78.71	189,722		201,028		

MG = Million Gallons

mg/L = milligrams per liter

lbs = pounds

(a) As of March 31, 2017

(b) Metered Residential and Metered Commercial for 2016. Mobile Home Park usage after estimating water loss

(c) Mobile Home Park and Commercial require more field operations; Metered Residential and Commercial require more administrative effort

(d) Load calculated by adjusted strength for each category

(e) Calculated by determining load for each customer class, and adjusted to reflect actual flow & BOD load on the plant

(f) Based on strength and load

(g) Water usage after estimating water loss

APPENDIX B

APPENDIX B								
Proposed Sewer Rates, Expanded with Percentage Changes								
Santa Nella County Water District								
Customer Class	Rate (Units)	Current 2017	Five Year Phase-In					
			2017-18	2018-19	2019-20	2020-21	2021-22	
Residential Sewer Rates			Residential Flat Monthly Charges					
Mobile Home Park*	Mo. Flat Rate (\$/mo)	\$ 23.55	\$ 28.26	\$ 31.46	\$ 32.24	\$ 33.08	\$ 33.83	
percentage adjustment			17%	10%	2%	3%	2%	
monetary adjustment			\$ 4.71	\$ 3.20	\$ 0.78	\$ 0.84	\$ 0.75	
Metered Residential	Mo. Flat Rate (\$/mo)	\$ 31.01	\$ 33.92	\$ 37.77	\$ 38.70	\$ 39.71	\$ 40.61	
percentage adjustment			9%	10%	2%	3%	2%	
monetary adjustment			\$ 2.91	\$ 3.85	\$ 0.93	\$ 1.01	\$ 0.90	
Commercial Sewer Rates			Fixed Monthly Charges					
Low-Strength	Mo. Fixed Rate (\$/mo)	\$ 132.55	\$ 357.89	\$ 393.67	\$ 403.52	\$ 421.67	\$ 424.84	
percentage adjustment			63%	9%	2%	4%	1%	
Medium-Strength	Mo. Fixed Rate (\$/mo)	\$ 165.70	\$ 488.82	\$ 537.70	\$ 551.14	\$ 575.94	\$ 580.26	
percentage adjustment			66%	9%	2%	4%	1%	
Medium-High-Strength	Mo. Fixed Rate (\$/mo)	\$ 218.72	\$ 721.78	\$ 793.95	\$ 813.80	\$ 850.42	\$ 856.80	
percentage adjustment			70%	9%	2%	4%	1%	
High-Strength	Mo. Fixed Rate (\$/mo)	\$ 251.85	\$ 906.66	\$ 997.33	\$ 1,022.26	\$ 1,068.26	\$ 1,076.27	
			72%	9%	2%	4%	1%	
			Monthly Volume Charges (no minimum consumption)					
Low-Strength	Mo. Vol. Chrg (\$/hcf)	\$ 2.05	\$ 1.62	\$ 1.78	\$ 1.83	\$ 1.88	\$ 1.94	
percentage adjustment			-27%	9%	3%	3%	3%	
Low-Irrigation-Strength	Mo. Vol. Chrg (\$/hcf)	\$ 2.67	\$ 2.11	\$ 2.32	\$ 2.38	\$ 2.45	\$ 2.52	
percentage adjustment			-27%	9%	3%	3%	3%	
Medium-Strength	Mo. Vol. Chrg (\$/hcf)	\$ 3.45	\$ 2.73	\$ 3.00	\$ 3.07	\$ 3.17	\$ 3.26	
percentage adjustment			-26%	9%	2%	3%	3%	
Medium-Irrigation-Strength	Mo. Vol. Chrg (\$/hcf)	\$ 4.33	\$ 3.42	\$ 3.76	\$ 3.86	\$ 3.97	\$ 4.09	
percentage adjustment			-27%	9%	3%	3%	3%	
Medium-High-Strength	Mo. Vol. Chrg (\$/hcf)	\$ 4.81	\$ 3.80	\$ 4.18	\$ 4.28	\$ 4.41	\$ 4.55	
percentage adjustment			-27%	9%	2%	3%	3%	
Medium-High-Irrigation-Strength	Mo. Vol. Chrg (\$/hcf)	\$ 6.23	\$ 4.92	\$ 5.41	\$ 5.55	\$ 5.72	\$ 5.89	
percentage adjustment			-27%	9%	3%	3%	3%	
High-Strength	Mo. Vol. Chrg (\$/hcf)	\$ 5.51	\$ 4.35	\$ 4.79	\$ 4.91	\$ 5.06	\$ 5.21	
percentage adjustment			-27%	9%	2%	3%	3%	
High-Irrigation-Strength	Mo. Vol. Chrg (\$/hcf)	\$ 6.31	\$ 4.98	\$ 5.48	\$ 5.62	\$ 5.79	\$ 5.96	
percentage adjustment			-27%	9%	2%	3%	3%	
Commercial Non-Metered Rates								
Non-Metered Units	Mo. Flat Rate (\$/mo)	\$ 123.51	\$ 127.99	\$ 130.55	\$ 133.16	\$ 135.82	\$ 138.54	
percentage adjustment			4%	2%	2%	2%	2%	
Grease Interceptor Inspection	Qtr. Flat Rate (\$/qtr)	\$ 64.90	\$ 67.49	\$ 70.19	\$ 71.59	\$ 73.03	\$ 74.49	
percentage adjustment			4%	4%	2%	2%	2%	