Laguna County Sanitation District

Sewer Utility Rate and Connection Charge Study

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Abbreviations

AWWA	American Water Works Association
BOD	Biological oxygen demand
Carollo	Carollo Engineers, Inc.
CCF	Hundred cubic feet
CIP	Capital Improvement Plan
District	Laguna County Sanitation District
EDU	Equivalent dwelling unit
FYE	Fiscal year ending
IRWMP	Santa Barbara County Integrated Regional Water Management Program
M1 Manual	*Principles of Water Rates, Fees and Charges: Manual of Water Supply Practices*, published by AWWA
MFR	Multifamily residential
MG	Million gallons
mgd	Million gallons per day
MOP 27	*Manual of Practice 27: Financing and Charges for Wastewater Systems*, published by WEF
O&M	Operations and maintenance
R&R	Repair and replacement
SFR	Single family residential
Study	Rates and fees study
TDS	Total dissolved solids
TSS	Total suspended solids
WEF	Water Environment Federation
WWRP	Wastewater reclamation plant

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1.0 Introduction

1.1 Laguna County Sanitation District Service Area Overview

The Laguna County Sanitation District (District) provides wastewater services to the Orcutt and unincorporated Santa Maria area in northern Santa Barbara County. It is a dependent district to the County of Santa Barbara and is managed through the Public Works Department, Resource Recovery and Waste Management Division. The District operates a wastewater reclamation plant that serves approximately 12,000 customers. The facility currently receives, treats, and disposes of approximately 1.7 million gallons per day (mgd) of wastewater. The District maintains one pump station and 128 miles of collection system, including 21 miles of trunk sewers. Residential connections produce greater than 85 percent of LCSD's wastewater flows, based on estimates from potable water demand.

1.2 Study Background

1.2.1 Purpose and Key Drivers

Funding for upcoming capital projects is a key driver behind this rate study. The District has several ongoing capital projects as discussed in the 2010 *Wastewater Reclamation Plant Facilities and Financial Master Plan*. In addition to these projects, the District plans to upgrade and expand its wastewater reclamation plant (WWRP). The District anticipates service area expansion based on the County of Santa Barbara Orcutt Community Plan and other known proposed developments.

The WWRP consists of two parallel treatment trains: a low total dissolved solids (TDS) train where the bulk of the flow is treated and a high TDS plant where up to 450,000 gallons per day (gpd) of high salt concentration influent flow is treated and desalinated. The low TDS plant was constructed in 1959. Some of its assets have reached the end of their useful lives after more than 50 years in service and need to be replaced.

Based on a series of financial and engineering feasibility analyses, the plant upgrade and expansion are planned to occur in phases, with Phase I construction commencing in the spring of 2020 and completing in the summer of 2023. Total Phase I costs are estimated at $52.1M, a portion of which has already been expended. These costs include all items associated with the project, including design, construction, and planning stages. Phase II construction is planned for 2035 and will add treatment capacity. Total Phase II costs are estimated at $36.0M.[1]

The Phase I project will be partially debt-funded. The District is preparing for the debt service obligations that will come along with this upgrade and planning for the funding approach for the eventual Phase II costs.

[1] The Phase II costs are presented in present day dollars.

1.3 Overview of the Rate Development Process

1.3.1 Step-By-Step Rate Development Approach

Carollo used an industry standard step-by-step approach when reviewing the District's rate structure. This approach is consistent with industry standards established within the Water Environment Federation's Manual of Practice No. 27 *Financing and Charges for Wastewater Systems*. This step-by-step approach is outlined in the diagram to the right.

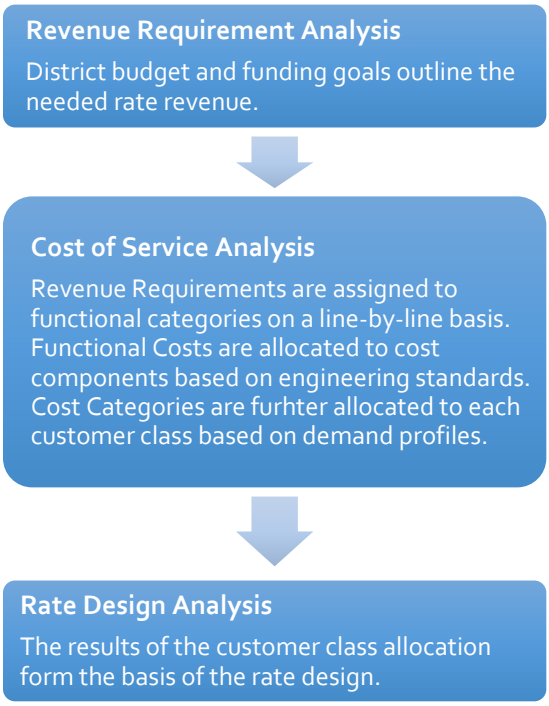

Figure 1 Overview of Rate-Setting Process

1.3.1.1 Revenue Requirements Overview

The revenue requirements analysis tests the utility's fiscal health. It compares the District's forecasted revenues to its forecasted O&M expenses, capital improvement costs, and reserve policies to determine the adequacy of the existing rates to recover costs. If the District falls short of any of these benchmarks, then rate revenue likely needs adjustment.

Cash Flow Test

Carollo compiled the District's FYE 2020 expenses (budgeted) as the base year for O&M expenses. Carollo also collected information related to current cash and restricted fund balances and policies, and all other operating and non-operating future revenues and expenditures. With these cost drivers established, a cash flow sufficiency test is typically used to define the annual revenues necessary in the event net cash flow at the end of each FYE is negative.

Debt Coverage Test

Debt coverage is the amount of revenue in excess of operating expenses and debt service that the District must generate. This amount is represented as a percentage of the annual debt service and is outlined in the official statement for each debt issuance. The District's current annual debt coverage ratio minimum is 150 percent of the annual debt service.

Reserve Funds Test

The reserve funds test reviews end of fiscal year reserve balances compared with District reserve policies. This analysis reviewed the projected reserve balances at the end of the fiscal year compared with these policy targets.

1.3.1.2 Cost of Service Overview

The goal of the cost of service evaluation is to identify an equitable and fair nexus between the costs incurred by the District and the rates assessed to each customer.

Carollo reviewed historical customer billing data to confirm the number of equivalent dwelling units (EDUs) connected to the system, cost drivers, and cost allocations. Carollo then identified how fixed costs versus variable costs align to functional categories. For the District, costs are

primarily related to flow in million gallons (MG) and discharge characteristics such as biological oxygen demand (BOD), and total suspended solids (TSS). The cost of service analysis takes the projected revenues from the previous step and allocates them to flow, BOD, TSS, and customer service functions based on the baseline system profile. These functionalized costs are allocated to each customer class in accordance with system demands.

1.3.1.3 Rate Design Analysis

The Rate Design Analysis ties together the preceding steps into a final rate for each customer class. The rates calculated in this step incorporate the projected revenue requirements and the cost of service allocations into a fair and equitable cost recovery mechanism.

2.0 Revenue Requirements Analysis

The revenue requirements analysis has two main purposes – it serves as a means of evaluating each cost center's fiscal health and adequacy of current rate levels; and it sets the basis for near- and long-term rate planning.

There are three tests utilized to define the recommended annual revenues necessary:

- **Cash Flow Sufficiency Test** – The cash flow test defines the amount of annual revenues that must be generated in order to meet annual expenditure obligations of the utility.
- **Debt Coverage Test** – Debt coverage refers to the collection of revenues to meet all operating expenses and debt service obligations plus an additional multiple of that debt service. LCSD has a legally required minimum bond coverage ratio of 1.25x; however, for the purpose of prudent financial planning the bond coverage test was set to meet a 1.5x coverage ratio. This higher bond coverage ratio signals creditworthiness to ratings agencies and will support the District's current bond rating or potentially increase it.
- **Reserve Test**- End of year reserve balances for each of the District's unrestricted reserves should meet minimum balance targets.

If revenues fail one of the tests, then the shortfall sets the revenue increase. If multiple tests are failed, the greater shortfall defines the revenue increase.

Data was provided by District staff based on current projections for operating and non-operating expenditures, capital improvement programs (CIP), debt service, as well as baseline revenues. The District also provided baseline reserve balances and restricted fund targets.

2.1 Revenue Requirements Prior to Rate Increases

2.1.1 Expenditures

Table 1 and Table 2 summarize the District's operating and non-operating expenditures forecasted during the study period, respectively. Table 3 summarizes the District's capital expenditures. Operating expenses are escalated by 3 percent annually. Capital costs are escalated into future dollars using assumed inflation of 3 percent.

Table 1 Operating Expenditure Forecast

	FYE 2020	FYE 2021	FYE 2022	FYE 2023	FYE 2024	FYE 2025
Salaries and Benefits	$2,447	$2,702	$2,813	$2,883	$2,971	$3,065
Services & Supplies	$3,471	$3,519	$3,625	$3,734	$5,663	$5,073
Other Charges	$515	$284	$293	$302	$311	$320
Total Operating Expenses	**$6,433**	**$6,505**	**$6,731**	**$6,918**	**$8,945**	**$8,458**

Notes:
(1) All values are in thousand dollars. Totals may not tie due to rounding.

Table 2 Non-Operating Expenditure Forecast

	FYE 2020	FYE 2021	FYE 2022	FYE 2023	FYE 2024	FYE 2025
Existing Debt Service	$982	$972	$967	$956	$350	$339
New Debt Service	-	$994	$995	$995	$994	$996
Depreciation	$1,213	$1,456	$1,555	$1,743	$2,766	$2,740
Total Non-Operating Expenses	**$2,195**	**$3,422**	**$3,517**	**$3,694**	**$4,109**	**$4,075**

Notes:
(1) All values are in thousand dollars. Totals may not tie due to rounding.

Table 3 Capital Expenditure Forecast

	FYE 2020	FYE 2021	FYE 2022	FYE 2023	FYE 2024	FYE 2025
Plant Upgrade - PLEXP1	$4,952	$17,370	$16,962	$8,832	$0	$0
Capital - Land Acquisition	$0	$0	$0	$0	$0	$0
Capital - Plant and Land Improvements	$7,078	$3,420	$3,420	$0	$0	$4,000
Capital - Sewer Systems	$1,050	$1,857	$1,857	$1,857	$1,857	$1,857
Capital - Equipment	$1,225	$200	$738	$200	$250	$200
Total Operating Expenses	**$14,305**	**$22,847**	**$22,976**	**$10,888**	**$2,107**	**$6,057**

Notes:
(1) All values are in thousand dollars. Totals may not tie due to rounding.

2.1.2 Revenues

Table 4 summarizes the District's forecasted revenues during the study period assuming no revenue increases or growth.

Table 4 Revenue Forecast Prior to Rates and Fees Increase

	FYE 2020	FYE 2021	FYE 2022	FYE 2023	FYE 2024	FYE 2025
Rate Revenue	$13,508	$13,508	$13,508	$13,508	$13,508	$13,508
Connection Charges	$811	$300	$300	$300	$300	$300
Trunk Line Fees	$129	$129	$129	$129	$129	$129
Liquid Waste Water Disposal Fees	$94	$94	$94	$94	$94	$94
Recycled Water Sales Revenues	$50	$50	$50	$50	$50	$50
State Grant Funding	$0	$0	$0	$0	$0	$0
Federal Subsidy on RZEDB/QECB	$65	$56	$47	$37	$28	$18
Interest Income	$520	$0	$0	$0	$0	$0
Unrealized Gain/Loss Investments	$0	$0	$0	$0	$0	$0
Rental Income	$37	$37	$37	$37	$37	$37
Other Revenue	$20	$20	$20	$20	$20	$20
One Time Revenues	$29	$29	$29	$29	$29	$29
Revenues Pre-Increase	**$15,262**	**$14,223**	**$14,213**	**$14,203**	**$14,194**	**$14,184**

Notes:
(1) All values are in thousand dollars. Totals may not tie due to rounding.

2.2 Cash Flow Test

Table 5 summarizes the District's cash flow forecast during the study period. The District is projected to meet its cash flow needs throughout the period of the study.

Table 5 Cash Flow Test Prior to Rates and Fees Increase

	FYE 2020	FYE 2021	FYE 2022	FYE 2023	FYE 2024	FYE 2025
Total Revenues [2]	$14,323	$13,794	$13,785	$13,775	$13,766	$13,756
Total Operating Expenses	$6,433	$6,505	$6,731	$6,918	$8,945	$8,458
Debt Service	$982	$1,966	$1,962	$1,951	$1,343	$1,335
Depreciation	$1,213	$1,456	$1,555	$1,743	$2,766	$2,740
Cash Flow Prior to Increase	**$5,696**	**$3,867**	**$3,537**	**$3,163**	**$712**	**$1,223**
Less: Depreciation	($1,213)	($1,456)	($1,555)	($1,743)	($2,766)	($2,740)
Cash Flow Prior to Increase w/o Depr.	**$6,909**	**$5,323**	**$5,092**	**$4,906**	**$3,477**	**$3,963**

Notes:
(1) All values are in thousand dollars. Totals may not tie due to rounding.
(2) Excludes Connection and Trunk Line Fees, which are deposited in the District's Capital Expansion fund and not used for meeting operating expenses.

2.3 Debt Coverage Test

Table 6 summarizes the District's debt coverage forecast during the study period. Debt service coverage is calculated as the ratio of the District's net income to its annual debt service. The District is projected to meet its debt service coverage target of 150 percent (1.5x) in all years of the forecast, including after its new debt issuance planned for this coming year.

Table 6 Debt Coverage Test Prior to Rates and Fees Increase

	FYE 2020	FYE 2021	FYE 2022	FYE 2023	FYE 2024	FYE 2025
Operating Revenues [2]	$14,323	$13,794	$13,785	$13,775	$13,766	$13,756
Operating Expenses	$6,433	$6,505	$6,731	$6,918	$8,945	$8,458
Net Income Available for Debt Service	$7,890	$7,289	$7,054	$6,857	$4,821	$5,298
Debt Service	$982	$1,966	$1,962	$1,951	$1,343	$1,335
Coverage Ratio	**8.0 x**	**3.7 x**	**3.6 x**	**3.5 x**	**3.6 x**	**4.0 x**

Notes:
(1) All values are in thousand dollars. Totals may not foot due to rounding.
(2) Excludes Connection and Trunk Line Fees, which are deposited in the District's Capital Expansion fund and not used for debt services repayment.

2.3.1 Capital Planning and Reserves

The projected reserve balances are presented in Table 8. Starting reserve balances for FYE 2020 and the current targets were provided by the District. The District is projected to fall short of reserve policy targets beginning in FYE 2023.

Table 7 Reserves Forecast Prior to Rates and Fees Increase

	FYE 2020	FYE 2021	FYE 2022	FYE 2023	FYE 2024	FYE 2025
Beginning Balance	$44,600	$53,143	$36,048	$18,592	$13,038	$14,838
Revenues	$15,262	$14,223	$14,213	$14,203	$14,194	$14,184
Operating Expenses	($6,433)	($6,505)	($6,731)	($6,918)	($8,945)	($8,458)
Debt Service	($982)	($1,966)	($1,962)	($1,951)	($1,343)	($1,335)
Capital Expenses	($14,305)	($22,847)	($22,976)	($10,888)	($2,107)	($6,057)
Bond Proceeds	$15,000	-	-	-	-	-
Net Change	$8,543	($17,095)	($17,456)	($5,554)	$1,799	($1,666)
Ending Balance	**$53,143**	**$36,048**	**$18,592**	**$13,038**	**$14,838**	**$13,172**
Reserve Targets						
Operating Reserve [2]	$3,216	$3,253	$3,366	$3,459	$4,472	$4,229
Emergency Capital [3]	$2,827	$3,012	$3,198	$3,384	$3,569	$3,755
Capital Expansion [4]	$6,375	$6,675	$6,975	$7,275	$7,575	$7,875
Loan Reserve [5]	$778	$778	$778	$778	$778	$0
Total Reserve Target	$13,196	$13,718	$14,317	$14,896	$16,395	$15,860
Reserve Surplus / (Deficit)	**$39,947**	**$22,330**	**$4,276**	**($1,857)**	**($1,558)**	**($2,688)**

Notes:
(1) All values are in thousand dollars. Totals may not tie due to rounding.
(2) District's minimum operations and maintenance reserve balance is 180 days of operating expenses (from Table 1).
(3) Equal to 10 percent of the District's original sewer system book value, updated annually for asset repair and replacement.
(4) Restricted funds containing all connection charge receipts, net of any projects funded from these fees.
(5) Loan reserve balance is set based on terms of debt issuance.

2.4 Revenue Requirements with Recommended Rate Increase

Based on the projected deficits in the reserve test presented in Table 8, Carollo recommends an initial revenue increase of 2 percent in FYE 2021 followed by 1.5 percent increases in subsequent years. This revenue plan is projected to generate enough revenue to meet all three financial tests, as indicated in Table 8.

Table 8 Revenue Requirements Forecast with Recommended Revenue Adjustment

	FYE 2021	FYE 2022	FYE 2023	FYE 2024	FYE 2025
Revenue Increase	2.0%	1.5%	1.5%	1.5%	1.5%
Baseline Rate Revenue	$13,508	$13,509	$13,510	$13,511	$13,512
Revenue from Increase	$270	$476	$685	$897	$1,112
Cash Flow	$6,677	$6,461	$6,166	$5,910	$3,043
DCS Ratio	4.x	3.9x	3.9x	4.3x	4.9x
Reserve Surplus / (Deficit)	$22,961	$5,578	$248	$1,545	$1,647

Notes:
(1) All values are in thousand dollars. Totals may not tie due to rounding.

3.0 Cost of Service

The cost of service portion of the rate analysis creates an equitable and fair basis for collecting rates from each customer class. This analysis initially allocates costs to functional categories based on how the District's system is designed. These functional category costs are then allocated to each customer class based on how that class uses the system, as measured by the units for each functional category. For instance, customer classes with higher overall flow will be assigned a greater share of costs incurred to convey and treat that flow. Classes with higher BOD or TSS concentrations in its wastewater discharge will be allocated a greater share of costs to handle and treat these constituents.

The Functional Cost Allocation takes these projected revenue needs and allocates them to individual functional costs related to the District's collection, treatment, and administrative processes. Each of the District's expenses are allocated based on what function it serves. In the District's case, these functions are flow, BOD, TSS, and customer service.

The Customer Class Allocation takes these functional costs and assigns them to each class based on typical usage of the system. Classes that generate more flow or have more accounts are assigned a greater share of flow or customer service costs, respectively. Finally, the Rate Design calculates a rate for each class based on the total allocated costs and the units for cost recovery.

3.1 Functional Cost Allocation

The District's last rate study in 2010 and a subsequent rate model update in 2012 developed a series of cost allocation factors based on the District's cost profile and planned capital projects. The approach used in that study is used here because the District's cost drivers are largely unchanged. Operating expenses are split based on the percentages developed in the District's

2010 rate study, with 9, 85, and 6 percent of operating costs being assigned to collection, treatment, and administration, respectively.

Table 9 outlines the District's four primary cost allocation categories. All of allocations are based on the 2012 study update, except for the Collection expense category, which has been allocated with increased weighting on Flow based on common industry practice. It was previously allocated 34, 33, and 33 percent to Flow, BOD, and TSS, respectively.

Table 9 Cost Allocation Percentage Bases

Allocation Item	Flow	BOD	TSS	Customer Service	As All Others
Operating Expenses					
Collection	90%	5%	5%	-	-
Treatment	34%	33%	33%	-	-
Administration	-	-	-	100%	-
Non-Operating Expenses					
Existing Debt Service	-	-	-	-	100%
New Debt Service	-	-	-	-	100%
Depreciation	-	-	-	-	100%
As All Others	-	-	-	-	**100%**

Costs are allocated to Flow, BOD, TSS, or Customer Service using these factors. A fifth category, "As All Others," is used for costs that serve multiple purposes and cannot be directly allocated. For instance, administrative staff often uses time and resources across all District functional costs (BOD, TSS, Flow, and Customer Service). It would be difficult to allocate all costs associated with these resources to each of the three categories. The As All Others category is used to allocate these cost centers under the assumption that these indirect costs are incurred generally in alignment with the rest of the system.

The functional allocation uses the five-year average of the District's budget. This approach smooths out any single year costs and incorporates any planned new debt service or capital funding. The five-year period began with the latest budgeted year (FYE 2020).

The results of the cost allocation are shown in Table 10.

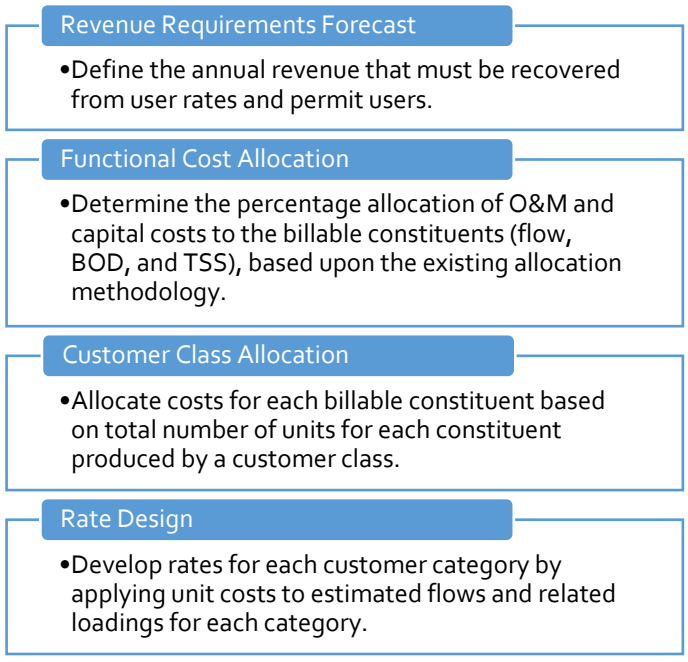

Figure 2 Step-by-Step Approach to Cost of Service and Rate Design

Table 10 Cost Allocation Results

Expenditure Item [1]	Five-Year Average [2]	Flow	BOD	TSS	Customer Service	As All Others
Operating Expenses						
Collection	$640	$576	$32	$32	$-	$-
Treatment	$6,040	$2,054	$1,993	$1,993	$-	$-
Administration	$426	$-	$-	$-	$426	$-
Non-Operating Expenses						
Existing Debt Service	$-	$-	$-	$-	$-	$845
New Debt Service	$-	$-	$-	$-	$-	$796
Depreciation	$-	$-	$-	$-	$-	$1,747
Less: Offsetting Revenues						
Other Income	($529)	$-	$-	$-	$-	$(529)
Trunk Line Fees	($133)	$-	$-	$-	$-	$(133)
Subtotal	**$9,831**	**$2,629**	**$2,025**	**$2,025**	**$426**	**$2,725**
Subtotal Percentage		**37.0%**	**28.5%**	**28.5%**	**6.0%**	
Re-Allocation of As All Others		$1,008	$777	$777	$164	
Total	**$9,831**	**$3,638**	**$2,802**	**$2,802**	**$590**	
Percentage Results		**37.0%**	**28.5%**	**28.5%**	**6.0%**	

Notes:
(1) All values are in thousand dollars. Totals may not tie due to rounding.
(2) Based on average annual projected expenses for FYE 2020 through FYE 2024.

As shown in Table 10, the District's O&M operating costs are largely driven by Flow (37 percent), and then BOD and TSS (both at 28.5 percent). The remaining 6 percent of costs are related to Customer Service. The five-year revenue requirement forecast from Table 8 is allocated to each function category in Table 11.

Table 11 Five-Year Functional Cost Allocation

Function	Allocation	FYE 2021	FYE 2022	FYE 2023	FYE 2024	FYE 2025
Flow	37%	$5,098	$5,175	$5,252	$5,331	$5,411
BOD	28.5%	$3,927	$3,986	$4,046	$4,106	$4,168
TSS	28.5%	$3,927	$3,986	$4,046	$4,106	$4,168
Customer Service	6%	$827	$839	$852	$864	$877
Total Revenue Requirement		**$13,779**	**$13,985**	**$14,195**	**$14,408**	**$14,624**

Notes:
(1) All values are in thousand dollars. Totals may not tie due to rounding.

3.2 Customer Class Allocation

The annual allocated revenue requirements are allocated to each customer class based on the number of units of service that each customer class has for that category. That starts by measuring the units of service for each class. The total number of accounts, annual flow, and annual BOD and TSS loadings are shown in Table 12. This table also shows the percent of the total for each class for that constituent.

For this analysis, Carollo and the District updated the assumed BOD and TSS concentrations from the previous rate study. In recent years, the District has seen substantial water conservation in its service area, like many wastewater utilities in California. At the same time, BOD and TSS mass loadings have remained relatively constant at the District's facilities. This indicates that while total and per account wastewater flows have declined, the BOD and TSS concentrations have increased. Carollo reviewed BOD and TSS concentrations among peer agencies and adjusted the concentrations for each class based on this survey as well as a mass balance of loadings at District facilities. These revisions are used in Table 12.

Table 12 Accounts, Flow, BOD, and TSS by Class

Class	Customer Service		Flow			BOD			TSS		
	Accts.	%	GPD	MG	%	mg/L	lbs. (1)	%	mg/L	lbs. (1)	%
Single-Family Residential	9,403	75	149	513	72%	363	1,552	73%	313	1,339	75%
Multiple-Family Dwellings	2,681	22	120	117	16%	363	354	17%	313	305	17%
Schools	16	0.1	7,740	45	6.3%	192	73	3.4%	132	50	2.8%
Auto Service and Gas Stations	5	0.0	104	0	0.0%	266	0	0.0%	368	1	0.0%
Bakeries	2	0.0	209	0	0.0%	1,480	2	0.1%	789	1	0.1%
Bar	1	0.0	277	0	0.0%	296	0	0.0%	263	0	0.0%
Beauty, Barber Pet Grooming	22	0.2	116	1	0.1%	363	3	0.1%	313	2	0.1%
Car Washes	3	0.0	2,322	3	0.4%	30	1	0.0%	197	4	0.2%
Churches	25	0.2	258	2	0.3%	363	7	0.3%	313	6	0.3%
Laundromat	1	0.0	8,184	3	0.4%	222	6	0.3%	145	4	0.2%
Medical	34	0.3	156	2	0.3%	192	3	0.1%	105	2	0.1%
Professional Offices	112	0.9	90	4	0.5%	192	6	0.3%	105	3	0.2%
Recreational and Meeting	39	0.3	552	8	1.1%	363	24	1.1%	313	21	1.1%
Restaurants	38	0.3	501	7	1.0%	1,480	86	4.0%	789	46	2.6%
Retail	69	0.6	200	5	0.7%	222	9	0.4%	197	8	0.5%
Convalescent Rest Homes	4	0.0	1,533	2	0.3%	370	7	0.3%	132	2	0.1%
Total	**12,455**			**712**			**2,132**			**1,794**	

Notes:
(1) Values are in thousand pounds.

Each of the functional categories are allocated to each class by multiplying the annual revenue requirements in Table 11 by the percentage for the class in Table 12. This step is repeated for each of the four constituents (Customer Service, Flow, BOD, and TSS). The results for each of the four constituents is shown in the appendix of this report in Table 24, Table 25, Table 26, and Table 27. The total cost allocation for each class is shown in Table 13.

Table 13 Total Cost Allocation by Class

Class	FYE 2021 (1)	FYE 2022	FYE 2023	FYE 2024	FYE 2025
Single-Family Residential	$10,085	$10,236	$10,390	$10,546	$10,704
Multiple-Family Dwellings	$2,336	$2,371	$2,407	$2,443	$2,479
Schools	$567	$576	$584	$593	$602
Auto Service and Gas Stations	$3.7	$3.8	$3.8	$3.9	$4.0
Bakeries	$6.9	$7.0	$7.1	$7.2	$7.3
Bar	$1.7	$1.8	$1.8	$1.8	$1.8
Beauty, Barber Pet Grooming	$19	$19	$19	$19	$20
Car Washes	$29	$29	$30	$30	$30
Churches	$45	$46	$47	$47	$48
Laundromat	$40	$40	$41	$41	$42
Medical	$26	$26	$26	$27	$27
Professional Offices	$52	$53	$53	$54	$55
Recreational and Meeting	$148	$150	$152	$154	$157
Restaurants	$311	$315	$320	$325	$330
Retail	$76	$77	$78	$79	$81
Convalescent Rest Homes	$34	$35	$35	$36	$36
Total	**$13,779**	**$13,985**	**$14,195**	**$14,408**	**$14,624**

Notes:
(1) All values are in thousand dollars. Totals may not tie due to rounding.

4.0 Rate Design Analysis

The Rate Design Analysis ties together the prior two steps into a fair and equitable rate assessed for each customer. The allocated costs shown in Table 13 outline the costs to be recovered from each customer class. The rate design then calculates an appropriate unit cost for each customer class.

4.1 Residential Rates

Residential customers are charged a fixed rate on an annual basis on the property tax roll. The annual residential wastewater service rates are calculated by dividing the allocated costs in Table 13 by the number of accounts in Table 12. These rates are shown in Table 14.

Table 14 Annual Residential Rate Summary

Class	FYE 2020 (Current)	FYE 2021	FYE 2022	FYE 2023	FYE 2024	FYE 2025
Single-Family Residential	$1,047.85	$1,072.56	$1,088.65	$1,104.98	$1,121.55	$1,138.37
Multiple-Family Dwellings	$848.76	$871.32	$884.39	$897.66	$911.12	$924.79

For reference, the monthly rates are shown in Table 15

Table 15 Monthly Residential Rate Summary

Class	FYE 2020 (Current)	FYE 2021	FYE 2022	FYE 2023	FYE 2024	FYE 2025
Single-Family Residential	$87.32	$89.38	$90.72	$92.08	$93.46	$94.86
Multiple-Family Dwellings	$70.73	$72.61	$73.70	$74.81	$75.93	$77.07

4.2 Non-Residential Rates

Non-residential (commercial) sewer rates are based on water use (reported by meter by Golden State Water Company for the prior calendar year) and waste load by user class (i.e. BOD and TSS for retail, restaurant, professional office, etc.). These charges are also billed on the tax roll by assessor's parcel number such that grouped users are summed by parcel.

For reference, Carollo calculated the unit rate for wastewater service per hundred cubic feet (CCF) of water usage. These rates are shown in Table 16.

Table 16 Non-Residential Unit Costs

Class	Annual CCF	FYE 2020 (1)	FYE 2021	FYE 2022	FYE 2023	FYE 2024	FYE 2025
Auto Service and Gas Stations	11	$13.99	$14.76	$14.98	$15.21	$15.44	$15.67
Bakeries	204	$35.42	$33.80	$34.31	$34.83	$35.35	$35.88
Bar	10	$12.80	$12.84	$13.04	$13.23	$13.43	$13.63
Beauty, Barber Pet Grooming	1,242	$14.37	$14.98	$15.20	$15.43	$15.66	$15.90
Car Washes	7	$8.49	$8.45	$8.58	$8.71	$8.84	$8.97
Churches	3,152	$14.37	$14.33	$14.54	$14.76	$14.98	$15.21
Laundromat	8	$10.12	$9.90	$10.05	$10.20	$10.35	$10.51
Medical	2,589	$9.16	$9.88	$10.03	$10.18	$10.33	$10.48
Professional Offices	8	$9.16	$10.51	$10.67	$10.83	$11.00	$11.16
Recreational and Meeting	10,508	$14.37	$14.05	$14.26	$14.47	$14.69	$14.91
Restaurants	24	$35.42	$33.42	$33.93	$34.43	$34.95	$35.47
Retail	6,725	$10.90	$11.28	$11.45	$11.63	$11.80	$11.98
Convalescent Rest Homes	9	$11.78	$11.50	$11.67	$11.84	$12.02	$12.20

Notes:
(1) Based on FYE 2020 allocated revenue for each class. The District does not derive these rates for billing purposes but they represent the average unit cost for the customer class.

4.2.1 Schools

The District uses pupil and staff counts and assumed wastewater flow per capita in gallons per day to assess wastewater service fees for schools. A typical average flow rate per capita is 15 gpd.[2] The District currently assumes a typical wastewater flow of 12 gpd for each student or staff member at a school due to water conservation efforts. The total cost allocated for each school district is based on the assumed flow for all schools in that district.

Table 17 School Cost Allocation

School District	Total Students + Staff	Estimated Flow (gpd) (1)	Percent of Demand	Allocated Cost to School District	Cost per Person
1	89	1,068	1%	$5,154	$57.91
2	5,293	63,516	51%	$306,522	$57.91
3	352	4,224	3%	$20,385	$57.91
4	427	5,124	4%	$24,728	$57.91
5	1,123	13,476	11%	$65,034	$57.91
6	2,763	33,156	27%	$160,008	$57.91
7	273	3,276	3%	$15,810	$57.91

Notes:
(1) Based on assumed 12 gpd wastewater flow per student/staff.

[2] Metcalf & Eddy, *Wastewater Engineering Treatment and Reuse*, 4th Edition, Table 3-3, page 158.

5.0 Connection Charge

5.1 Background and Purpose

Carollo also analyzed the District's connection charge as part of this study. The District has maintained inflationary increases on its connection charges but has not performed a comprehensive review of its connections charge since 2012.

A connection charge, sometimes referred to as a capacity or system development charge, is a one-time fee assessed on new system connections. As the District builds its collection treatment systems, it needs to estimate a certain level of capacity needed to serve the peak demand periods. The connection charge covers the reservation of system capacity to serve that new connection. There are three industry-standard methods to calculating the connection charge:

- Buy-In approach, which is used most often by agencies that are fully built out and providing existing capacity to new connections.
- Incremental approach, which is used by agencies undergoing significant growth and building additional capacity.
- Hybrid approach, which is used when an agency is somewhere between full build-out and expansion.

Each of these three approaches will be detailed in this section.

5.2 Connection Charge Framework and Objectives

As with any rate-related analysis, the District prioritizes cost of service as a foundation of setting the connection charge. Several key criteria were at the center of this analysis:

- Do the connection charges represent a reasonable nexus to the costs incurred by the District on behalf of future customers and the benefits received?
- Is the connection charge methodology consistent with standards established in the American Water Works Association (AWWA) M1 manual, and does it meet Board policies and adhere to applicable legal requirements?
- Is the allocation approach consistent with industry practices and relevant California Government Code?
- Is it expected that the allocation approach will remain appropriate for use by the District in the future?

By setting these guiding principles, the results of this analysis are developed with legal, policy, and fiscal tests in mind.

5.2.1.1 Statutory Considerations

Connection charges in California are subject to the requirements of Government Code Sections 54999.7 and 66013. Connection charges are "charges for facilities in existence at the time the charge is imposed or charges for new facilities to be constructed in the future which are of benefit to the person or property being charged." Section 66013 provides that connection charges "shall not exceed the estimated reasonable cost of providing the service for which the fee or charge is imposed." Section 54999.7 establishes a similar cost of service requirement for serving public agencies, including schools.

This section is intended to demonstrate the costs and assumptions that are used in the District's connection charges. This analysis should not be considered a legal opinion or guidance, but rather, a documentation of costs and assumptions that support the District's connection charge as a reasonable recovery of costs from new connections for providing wastewater collection and treatment.

5.3 Current Connection Charge

The District's current connection charge was last reviewed in 2012, which reset the prior connection charge study from 2001. That analysis recommended a charge of $6,302 per equivalent dwelling unit (EDU). The connection charges from 2012 to present are outlined in Table 18. The current connection charge for new connections as of July 1, 2019 is $7,502 per EDU. The District has been adjusting the connection charge annual based on the Engineering News Record Construction Cost Index (ENR-CCI) for Los Angeles.

Table 18 LCSD Connection Charges, 2012-Present

Date Effective	Connection Charge ($/EDU)
July 1, 2012	$6,302
July 1, 2013	$6,415
July 1, 2014	$6,704
July 1, 2015	$6,872
July 1, 2016	$6,941
July 1, 2017	$7,219
July 1, 2018	$7,457
July 1, 2019	$7,502

5.4 Connection Charge Methodologies

The connection charge is a straightforward calculation: divide system value by system capacity to determine a per connection charge. However, determining those system value and capacity inputs can be complex and will vary from utility to utility. This determination varies based on several factors, including but not limited to:

- Age, size, and density of the system
- Planned expansion capital projects
- Anticipated growth

There are three widely accepted methodologies for calculating wastewater connection charges. The selection of the best methodology depends on the nature of the system, the level of planned investment, and the projected need for system capacity.

5.4.1 Buy-In Approach

This methodology is most appropriate when existing capacity is enough to serve both existing connections and forecasted future connections and planned future expansion investment is minimal. These agencies typically have some "buffer capacity" at hand where new connections

can benefit from existing capacity that has been built before the agency needs to plan further expansion.

The purpose of the buy-in approach is to recover costs that have already been incurred by the wastewater agency. Existing customers have paid for this system over time through their user rates (through direct capital financing or retired debt). The buy-in approach (or the buy-in component, if used in the hybrid approach discussed below) of a connection charge provides a mechanism to reimburse existing system users for the carrying costs of constructing system capacity that is available to be used by future users.

5.4.1.1 System Valuation

The buy-in approach begins with estimating the current value of the agency's assets. The Water Environment Federation's *Financing & Charges for Wastewater Systems, Manual of Practice #27* outlines four possible valuation approaches, outlined in Table 19.

Table 19 System Valuation Approaches from MOP 27

Method	Asset Valuation Approach
Original Cost	Nominal value paid at the time of construction
Net Book Value	Original value, less accumulated depreciation
Replacement Cost (as New), Less Depreciation (RCNLD)	Original cost less accumulated depreciation, adjusted to represent cost of replacement in current dollars
Replacement Cost (RCN)	Original cost, adjusted to represent cost of replacement in current dollars; no depreciation is subtracted

This analysis used the Net Book Value approach because this data was most readily available and matched previous connection charge analyses.

The Net Book Value provides a snapshot of the District system value based on its current state. In order to develop a buy-in basis, this system value must be adjusted by several factors:

- Any donated or contributed assets are deducted because system users did not fund the construction of these assets. The District does not have any of these assets on the books currently.
- Outstanding principal on existing debt service is deducted because existing users have yet to gain full equity for the associated assets. Therefore, new users cannot buy-in for these assets.
- Interest on existing debt service was paid for by current system users but this cost is not reflected in the asset registry. Therefore, interest paid is added to the system equity.
- Total cash reserves are added to the system value because rates paid by current users and previous connections built these funds over time.

5.4.1.2 System Capacity and Charge Calculation

The final step in calculating a buy-in based connection charge is to estimate the total system capacity. This is typically expressed in equivalent dwelling units (EDUs). EDUs are intended to represent the approximate demand on the system placed by a typical single-family residential (SFR) dwelling. Each agency calculates this by taking into account the estimated flow, biochemical oxygen demand (BOD), and total suspended solids (TSS) returned to the

wastewater system by a SFR household. The fee is then calculated by dividing the system value by the total capacity of the system in EDUs, including all used and unused capacity.

Equation 1 Buy-In Connection Charge Calculation

$$Buy-In\ Connection\ Charge = \frac{Adjusted\ Existing\ System\ Value}{Existing\ Capacity\ in\ EDUs}$$

5.4.2 Incremental Approach

In contrast with the buy-in approach, which can be described as "backward looking" at historical system investment and capacity, the incremental approach is "forward looking" by looking at planned expansion and growth of the system. The buy-in approach typically serves built-out systems better than systems that are growing and expanding. While the buy-in approach looks at the unit cost of existing capacity in the system, the incremental approach looks at the cost to add marginal capacity to a system where that demand cannot be served by existing capacity. The incremental approach can be neatly summed up by the philosophy of "growth pays for growth."

5.4.2.1 Incremental System Expansion Valuation

Like the buy-in approach, the incremental approach first looks at the cost of capacity. In the incremental case however, that cost is based on expanded future capacity, rather than a portion of the existing system capacity. To estimate that cost, the CIP is allocated to either the repair and replacement (R&R) of existing assets or the installation of new assets for new capacity. The costs are allocated in present day dollars, regardless of project timing.

Not all projects fit entirely in one allocation or the other. Some projects may serve both categories. For instance, pipe R&R can have an expansion element to it if the pipe replacement is upsized from the original pipe diameter and adds capacity.

5.4.2.2 System Capacity and Charge Calculation

Like the buy-in approach, the incremental approach calculation becomes a division of the cost of the system capacity by the number of EDUs served by those assets. The number of EDUs is based on the capacity served at the end of the CIP forecast.

Equation 2 Incremental Connection Charge Calculation

$$Incremental\ Connection\ Charge = \frac{Present\ Value\ of\ Future\ CIP}{Added\ Capacity\ in\ EDUs}$$

5.4.3 Hybrid Approach

For agencies that are between build-out and expansion, a hybrid approach is often appropriate. This combines elements of both approaches to form one connection charge.

To develop a hybrid connection charge, both system valuation approaches are performed—RCNLD of the existing system, along with allocation of expansion projects. Rather than dividing

these by the EDUs associated with current and future capacity however, the combined system values are divided by the combined EDUs served, as demonstrated in Equation 3.

Equation 3 Hybrid Connection Charge Calculation

$$Hybrid\ Connection\ Charge = Incremental\ Portion + Buy - In\ Portion$$

The District used the hybrid approach in its previous connection charge. That same approach is recommended going forward.

5.5 System Capacity

5.5.1 Existing System Capacity

The District's treatment and collection system has a current treatment capacity of 3.7 mgd. The District's system projections assume each EDU will require 175 gpd of capacity. Therefore, the current capacity is 21,142 EDUs.

5.5.2 Future System Capacity

The District currently has one expansion project planned. The Phase II expansion is projected to add approximately 1.3 mgd of treatment capacity to the District's treatment plant. This translates to capacity for another 7,428 EDUs. This additional capacity is needed to support future planned developments outlined in the Santa Barbara County Orcutt Community Plan, in addition to other planned developments.

5.5.3 Equivalent Dwelling Units for Non-Residential Classes

Flow and loadings vary for a typical connection for each customer class. The District uses standard flow discharge characteristics to estimate the number of EDUs for each non-residential class. 69 percent of the EDU is based on relative flow, 15 percent on BOD, and 16 percent on TSS.

These percentages are based on a weighted allocation of the District's fixed asset registry across the three categories. For instance, mains are allocated 100 percent to Flow, while grit removal processes are allocated completely to TSS and digester structures are allocated 50/50 to BOD and TSS. Following this allocation, EDU profile is based on the weighted share of original asset costs. The allocation percentages are shown in Table 20.

Table 20 Fixed Asset Allocation Results

Asset Type	Gross Book Value [1]	Flow	BOD	TSS	As All Others
Collection System	$13,608	90%	5%	5%	-
Effluent Disposal & Recycled Distribution	$7,348	100%	-	-	-
Treatment Processes	$7,196	-	50%	50%	-
Solids Handling	$356	-	-	100%	-
As All Others	$18,755	-	-	-	100%
Subtotal	**$47,263**	**$19,595**	**$4,278**	**$4,634**	**$18,755**
Subtotal Percentage		**69%**	**15%**	**16%**	
Re-Allocation of As All Others	$12,891	$2,815	$3,049	$12,891	
Total	**$47,263**	**$32,487**	**$7,093**	**$7,683**	
Percentage Results		**69%**	**15%**	**16%**	

Notes:
(1) All values are in thousand dollars. Totals may not tie due to rounding.

This allocation changes from the original percentage allocation was 70, 16, and 14 percent to Flow, BOD, and TSS, respectively.

The calculation of each class's EDU is as follows:

Equation 4 EDU Formula for Each Customer Class

$$EDU_{Class} = 69\% \times \frac{Flow_{Class}}{Flow_{SFR}} + 15\% \times \frac{BOD_{Class}}{BOD_{SFR}} + 16\% \times \frac{TSS_{Class}}{TSS_{SFR}}$$

The assumed flow and concentrations along with resulting EDU ratios are found in the appendix. The District assesses its connection charges based on the number of drainage fixture units (DFU). Each EDU for a non-residential connection is based on an assumed 20 DFU.

5.6 System Valuation

5.6.1 Existing System Value

The District's fixed asset registry is divided into capital asset categories. These categories are outlined below in Table 21. Original book value for each of the District's asset classes are first added. Accumulated depreciation is then deducted, along with any outstanding principal payments. Principal payments are deducted because the associated assets are not fully part of the system value. Interest expenses paid and cash reserve balances are finally added to yield the net plant value for the buy-in calculation.

Table 21 Existing System Buy-In Value

System Component	FYE 2019 Balance (1)
Land	$3,689
Land Improvements	$484
Structures and Improvements	$7,664
Equipment	$7,933
Office Furniture & Equipment	$7.8
Construction in Progress	$4,626
Sewer Systems	$27,218
Less: Accumulated Depreciation	($18,914)
Less: Outstanding Principal Payments on Debt	($4,335)
Interest Expense Paid	$2,763
Cash Reserves	$44,600
Net Plant Buy-In Value	**$75,734**

Notes:
(1) All values are in thousand dollars. Totals may not tie due to rounding.

5.6.2 Future Added System Value

The Phase II plant upgrade is the only project in the District's projected CIP that increases system capacity. The current cost estimate for this project is $36.0 million.

5.7 Connection Charge Calculation

5.7.1 Baseline Per EDU Charge

The connection charge calculation for the Hybrid approach is the sum of the Incremental and Buy-In fee components. Each of these component calculations is summarized in Table 22.

The Buy-In component is $3,583 per EDU. The Incremental portion is $4,846 per EDU. The combined Hybrid fee is $8,429 per EDU.

Table 22 Connection Charge Calculation

Calculation	Buy-In	Incremental
System Value (1)	$75,734	$35,995
EDU Capacity	21,142	7,428
Connection Charge Component per EDU	$3,583	$4,846
	42.5%	57.5%
Hybrid Connection Charge per EDU	**$8,429**	

Notes:
(1) All values in this row are in thousand dollars.

5.7.2 Connection Charges for Each Class

The District uses assumed flow weighting factors for each class based on state guidance for flow and loadings characteristics from other classes. The $8,429 per EDU fee is based on a single-family residence with typical flow characteristics. This fee changes for classes with other flow characteristics. EDUs for single family and multiple family residential customers is set at 1.0 and 0.81, respectively. This is based on assumed flow (175 gpd for single-family residential and 142 gpd for multi-family). The assumed flows are based on standards for residential flow in California. EDUs for non-residential customers are assigned on a per 20 DFU basis.

These fees and EDUs for each class are shown in Table 23.

5.7.3 Future Connection Charges

The District currently used the ENR-CCI for Los Angeles to adjust its connection charges each year. ENR collects data from Los Angeles and 19 other cities across the United States and compiles these 20 cities into a nationwide average of cost drivers. Carollo recommends that the District use the average ENR-CCI for these 20 cities.

This change would better account for changes in the value of the system and cost escalation for CIP projects. The 20-cities average demonstrates less volatility and tends to escalate more steadily throughout the year. In contrast, the local index often fluctuates due to labor strikes, supply shortages, and other factors that may not be relevant to the District's cost drivers.

Table 23 Connection Charges for Customer Classes

System Component	EDU per 20 DFU	FYE 2021 Fee per EDU
Single Family Residence	1.00	$8,429
Multiple Family Residence	0.81	$6,827
Retail	0.18	$1,548
Barber/Beauty Salon/Pet Grooming	0.63	$5,268
Lumber Yards/Nurseries/Business Services	0.19	$1,566
Offices/Financial Institutions	0.26	$2,152
Medical Offices/Veterinary Clinics	0.52	$4,390
Restaurants/Fast Food	3.21	$27,021
Other Food Services	0.94	$7,959
Banquet Facilities/Patio Dining	0.94	$7,922
Bakeries	3.17	$26,721
Common Areas	0.17	$1,405
Auto/Transportation Services	0.35	$2,985
Car Wash, Non-Recycle	12.37	$104,226
Car Wash, Recycle	2.92	$24,648
Dry Cleaner without Laundry	0.21	$1,756
Laundromats	10.68	$90,019
Meeting Halls/Theaters/Entertainment	0.25	$2,107
Bowling Alleys	0.27	$2,283
Golf Course/Country Club/Health Club	0.94	$7,922
Warehouse	0.10	$878
Market/Supermarket	0.45	$3,779
Skilled Nursing	1.80	$15,161
Residential Care for the Elderly	0.76	$6,384
Hospitals	2.27	$19,151
Hotels/Motels	0.94	$7,922
Churches	0.21	$1,756
Schools with Cafeteria, with Gym/Showers	0.71	$6,011
Schools with Cafeteria, without Gym/Showers	0.42	$3,520
Schools without Cafeteria, with Gym/Showers	0.63	$5,281
Schools without Cafeteria, without Gym/Showers	0.35	$2,934

Appendix A

CUSTOMER CLASS ALLOCATION OF CUSTOMER SERVICE, FLOW, BOD, AND TSS

Table 24 Customer Service Cost Allocation by Class

Class	FYE 2021	FYE 2022	FYE 2023	FYE 2024	FYE 2025
Single-Family Residential	$624	$633	$643	$653	$662
Multiple-Family Dwellings	$178	$181	$183	$186	$189
Schools	$1.06	$1.08	$1.09	$1.11	$1.13
Auto Service and Gas Stations	$0.33	$0.34	$0.34	$0.35	$0.35
Bakeries	$0.13	$0.13	$0.14	$0.14	$0.14
Bar	$0.07	$0.07	$0.07	$0.07	$0.07
Beauty, Barber Pet Grooming	$1.46	$1.48	$1.50	$1.53	$1.55
Car Washes	$0.20	$0.20	$0.21	$0.21	$0.21
Churches	$1.66	$1.68	$1.71	$1.74	$1.76
Laundromat	$0.07	$0.07	$0.07	$0.07	$0.07
Medical	$2.26	$2.29	$2.33	$2.36	$2.40
Professional Offices	$7.43	$7.55	$7.66	$7.77	$7.89
Recreational and Meeting	$2.59	$2.63	$2.67	$2.71	$2.75
Restaurants	$2.52	$2.56	$2.60	$2.64	$2.68
Retail	$4.58	$4.65	$4.72	$4.79	$4.86
Convalescent Rest Homes	$0.27	$0.27	$0.27	$0.28	$0.28
Total	**$827**	**$839**	**$852**	**$864**	**$877**

Table 25 Flow Cost Allocation by Class

Class	FYE 2021	FYE 2022	FYE 2023	FYE 2024	FYE 2025
Single-Family Residential	$3,672	$3,727	$3,783	$3,840	$3,897
Multiple-Family Dwellings	$838	$850	$863	$876	$889
Schools	$324	$329	$333	$338	$344
Auto Service and Gas Stations	$1.4	$1.4	$1.4	$1.4	$1.4
Bakeries	$1.1	$1.1	$1.1	$1.1	$1.2
Bar	$0.7	$0.7	$0.7	$0.8	$0.8
Beauty, Barber Pet Grooming	$6.7	$6.8	$6.9	$7.0	$7.1
Car Washes	$18	$18	$19	$19	$19
Churches	$17	$17	$17	$18	$18
Laundromat	$21	$22	$22	$22	$23
Medical	$14	$14	$14	$15	$15
Professional Offices	$26	$27	$27	$28	$28
Recreational and Meeting	$56	$57	$58	$59	$60
Restaurants	$50	$51	$51	$52	$53
Retail	$36	$37	$37	$38	$38
Convalescent Rest Homes	$16	$16	$17	$17	$17
Total	**$5,098**	**$5,175**	**$5,252**	**$5,331**	**$5,411**

Table 26 BOD Cost Allocation by Class

Class	FYE 2021	FYE 2022	FYE 2023	FYE 2024	FYE 2025
Single-Family Residential	$2,858	$2,901	$2,945	$2,989	$3,034
Multiple-Family Dwellings	$652	$662	$672	$682	$692
Schools	$134	$136	$138	$140	$142
Auto Service and Gas Stations	$0.8	$0.8	$0.8	$0.8	$0.8
Bakeries	$3.5	$3.5	$3.6	$3.6	$3.7
Bar	$0.5	$0.5	$0.5	$0.5	$0.5
Beauty, Barber Pet Grooming	$5.2	$5.3	$5.3	$5.4	$5.5
Car Washes	$1.2	$1.2	$1.2	$1.2	$1.2
Churches	$13	$13	$14	$14	$14
Laundromat	$10.2	$10.3	$10.5	$10.7	$10.8
Medical	$5.7	$5.8	$5.9	$6.0	$6.1
Professional Offices	$10.9	$11.1	$11.2	$11.4	$11.6
Recreational and Meeting	$44	$44	$45	$46	$47
Restaurants	$158	$161	$163	$165	$168
Retail	$17	$17	$18	$18	$18
Convalescent Rest Homes	$13	$13	$13	$13	$14
Total	**$3,927**	**$3,986**	**$4,046**	**$4,106**	**$4,168**

Table 27 TSS Cost Allocation by Class

Class	FYE 2021	FYE 2022	FYE 2023	FYE 2024	FYE 2025
Single-Family Residential	$2,931	$2,975	$3,019	$3,065	$3,111
Multiple-Family Dwellings	$668	$679	$689	$699	$709
Schools	$109	$110	$112	$114	$115
Auto Service and Gas Stations	$1.3	$1.3	$1.3	$1.3	$1.3
Bakeries	$2.2	$2.2	$2.3	$2.3	$2.3
Bar	$0.5	$0.5	$0.5	$0.5	$0.5
Beauty, Barber Pet Grooming	$5.3	$5.4	$5.5	$5.6	$5.6
Car Washes	$9.2	$9.3	$9.4	$9.6	$9.7
Churches	$13	$14	$14	$14	$14
Laundromat	$7.9	$8.0	$8.1	$8.3	$8.4
Medical	$3.7	$3.8	$3.8	$3.9	$3.9
Professional Offices	$7.1	$7.2	$7.3	$7.4	$7.5
Recreational and Meeting	$45	$46	$46	$47	$48
Restaurants	$100	$102	$103	$105	$106
Retail	$18	$18	$19	$19	$19
Convalescent Rest Homes	$5.4	$5.5	$5.5	$5.6	$5.7
Total	**$3,927**	**$3,986**	**$4,046**	**$4,106**	**$4,168**

Table 28 Connection Charge EDUs for Each Class

Class	Flow	BOD	TSS	EDUs
Single Family Residence	175 gpd	245 mg/L	238 mg/L	1.00
Multiple Family Residence	142 gpd	245 mg/L	238 mg/L	0.81
Retail	36 gpd	150 mg/L	150 mg/L	0.18
Barber/Beauty Salon/Pet Grooming	109 gpd	245 mg/L	238 mg/L	0.63
Lumber Yards/Nurseries/Business Services	36 gpd	100 mg/L	210 mg/L	0.19
Offices/Financial Institutions	55 gpd	100 mg/L	100 mg/L	0.26
Medical Offices/Veterinary Clinics	91 gpd	245 mg/L	238 mg/L	0.52
Restaurants/Fast Food	328 gpd	1,000 mg/L	600 mg/L	3.21
Other Food Services	168 gpd	230 mg/L	230 mg/L	0.94
Banquet Facilities/Patio Dining	146 gpd	340 mg/L	340 mg/L	0.94
Bakeries	324 gpd	1,000 mg/L	600 mg/L	3.17
Common Areas	29 gpd	245 mg/L	238 mg/L	0.17
Auto/Transportation Services	62 gpd	245 mg/L	238 mg/L	0.35
Car Wash, Non-Recycle	2698 gpd	20 mg/L	150 mg/L	12.37
Car Wash, Recycle	638 gpd	20 mg/L	150 mg/L	2.92
Dry Cleaner without Laundry	36 gpd	245 mg/L	238 mg/L	0.21
Laundromats	2188 gpd	150 mg/L	110 mg/L	10.68
Meeting Halls/Theaters/Entertainment	44 gpd	245 mg/L	238 mg/L	0.25
Bowling Alleys	47 gpd	245 mg/L	238 mg/L	0.27
Golf Course/Country Club/Health Club	146 gpd	340 mg/L	340 mg/L	0.94
Warehouse	18 gpd	245 mg/L	238 mg/L	0.10
Market/Supermarket	73 gpd	300 mg/L	300 mg/L	0.45
Skilled Nursing	346 gpd	250 mg/L	100 mg/L	1.80
Residential Care for the Elderly	146 gpd	250 mg/L	100 mg/L	0.76
Hospitals	438 gpd	250 mg/L	100 mg/L	2.27
Hotels/Motels	146 gpd	340 mg/L	340 mg/L	0.94
Churches	36 gpd	245 mg/L	238 mg/L	0.21
School with Cafeteria, with Gym/Showers	146 gpd	130 mg/L	130 mg/L	0.71
School with Cafeteria, without Gym/Showers	88 gpd	130 mg/L	100 mg/L	0.42
School without Cafeteria, with Gym/Showers	131 gpd	130 mg/L	100 mg/L	0.63
School without Cafeteria, without Gym/Showers	73 gpd	130 mg/L	100 mg/L	0.35