



City of San Leandro

Meeting Date: July 15, 2019

Staff Report

File Number: 19-368

Agenda Section: PUBLIC HEARINGS

Agenda Number: 5.C.

TO: City Council

FROM: Jeff Kay
City Manager

BY: Debbie Pollart
Public Works Director

FINANCE REVIEW: David Baum
Finance Director

TITLE: Staff Report for a City of San Leandro City Council Resolution to Amend the City of San Leandro Administrative Code Title 6, Chapter 4, Section 6.4.110 to Adjust Sewer Service Rates

SUMMARY AND RECOMMENDATIONS

Upon completion of the public noticing, protest period, public hearing, and counting of protest votes, as required by Proposition 218, where a majority protest against the increase to the sewer rates was not achieved, staff recommends that the City Council by resolution amend the sewer service rates to the amounts shown in Exhibit A. Sewer rates in future years may be raised to the amounts shown in Exhibit B without further public notice and public hearing under Proposition 218 because such rates were noticed and heard under this current notice and hearing period. They will, however, be subject to City Council approval during the annual rates and fees adjustment process.

BACKGROUND

At the May 6, 2018 City Council meeting, the City Council accepted a Wastewater Utility Financial Plan and Rates Study ("Study"), and authorized City staff to move forward with sending notices to property owners, to open the legally required 45 day protest period, and to hold a public hearing to receive and count protest votes to ascertain whether a majority protest against the proposed sewer rates was achieved, all as required by and in compliance with Proposition 218.

Notices were mailed to all property owners in the City of San Leandro sewer service area on May 17, 2019, which allowed for more than the required 45-day protest period before the Public Hearing on July 15, 2019. The City Clerk kept a record of all protest notices received and will report on the total number of protest votes, including those made in person at the Public Hearing. City staff mailed 15,468 notices, so if fewer than 7,734 protests are received, the City Council is authorized under Proposition 218 to consider approving the proposed rates described in the

notice.

As is typical when studies of this type propose changes to rates, the first year of the proposed rate changes is primarily dedicated to fairly reallocating rates among classes of customers. The overall first year increase proposed by the Study was only slightly higher than the rates that the City Council authorized at its May 6, 2019 City Council meeting , which raised rates by a CPI of 3.87%. For this reason, some of the proposed rates are slightly lower than the rates already adopted by the City Council while others are slightly higher. In particular, residential customers would have a slight decrease in rates. Exhibit A shows Fiscal Year 2018-19 rates, Fiscal Year 2019-20 currently in effect, and the proposed rates for the next five years.

The proposed rates would be effective January 1, 2020. In future years, City Council would be authorized to raise rates up to the amounts shown in Exhibit B. Staff will calculate the authorized rate increase to meet the operational and fiscal goals as indicated in the Study and will present these to the City Council as part of the annual adjustments to rates and fees that start on July 1 of each year. If operational and fiscal needs for a particular year do not require the full rate amount authorized, customers would be charged only the amount required to meet the stated operational and fiscal need.

Previous Actions

- At the May 6, 2019 Council Meeting, Council passed Resolution Number 19-235 to adjust user fees and service charges effective July 1, 2019. Sewer rates and connection fees were increased by CPI of 3.87%.
- At the May 6, 2019 Council Meeting, Council passed Resolution Number 19-225 accepting the Wastewater Utility Financial Plan and Rates Study and directing staff to proceed with the processes and procedures to increase the sewer service rates as required by Proposition 218.

ATTACHMENTS

- Exhibit A: Summary of current and proposed sewer monthly rates
- Exhibit B: Maximum allowable increases for fiscal years 2021 through 2024.
- Wastewater Utility Financial Plan and Rates Study

PREPARED BY: Justin Jenson, Plant Manager, Public Works Department and Hayes Morehouse, Administrative Analyst II, Public Works Department

Exhibit A

The following chart shows the fiscal year 2018-19 rates, the fiscal year 2019-20 rates, which were increased according to the CPI of 3.87% and the proposed rates, which would be effective 1/1/2020.

	FY 2019 Rates Effective 7/1/2018	FY 2020 Rates Effective 7/1/2019	Proposed Rates Effective 1/1/2020
Monthly User Charges			
A. For Classification A Users (Residential), per each unit			
Single-Family Unit	\$35.75	\$37.13	\$37.00
Multiple-Family Unit	\$25.37	\$26.35	\$26.10
Accessory Dwelling Unit	\$25.37	\$26.35	\$26.10
B. For Classification B Users (Commercial & Institutional), per 100 cubic feet			
Commercial:			
Auto Services	\$8.26	\$8.58	\$8.68
Bakery, Wholesale	\$6.79	\$7.05	\$6.98
Laundries	\$4.81	\$5.00	\$4.97
Markets/Foods	\$8.10	\$8.41	\$8.52
Mixed Use	\$7.02	\$7.29	\$7.24
Restaurants	\$7.59	\$7.88	\$7.97
All Other	\$3.92	\$4.07	\$3.92
Institutional:			
Schools	\$3.23	\$3.36	\$3.39
Connection (per account)	0	0	\$6.30
C. For Classification C Users (Industrial & Other Large Users). Based on the total discharge volumes for the billing period.			
Volume, per million gallons	\$3,271.82	\$3,398.44	\$3,315
BOD (Biochemical oxygen demand), per thousand pounds	\$438.96	\$455.95	\$459.00
SS (Suspended solids) per thousand pounds	\$732.35	\$760.69	\$769.00
Connection (per account)	\$5.99	\$6.22	\$6.30

Exhibit B

The following chart shows the maximum allowable rates for fiscal years 2021-2024 if fewer than 7,734 protests are filed with the City Clerk by the July 15, 2019 Public Hearing. City staff will calculate the rates necessary to meet the fiscal goals proposed in the Wastewater Utility Financial Plan and Rates Study document and include the increases during the annual City-wide rate adjustment. Property owners have been notified that their rates may increase up to these amounts per the requirements of Proposition 218.

Maximum Allowable Rates				
	Effective 7/1/2020	Effective 7/1/2021	Effective 7/1/2022	Effective 7/1/2022
Monthly User Charges				
A. For Classification A Users (Residential), per each unit				
Single-Family Unit	\$40.50	\$44.30	\$48.60	\$53.20
Multiple-Family Unit	\$28.50	\$31.20	\$34.20	\$37.40
Accessory Dwelling Unit	\$28.50	\$31.20	\$34.20	\$37.40
B. For Classification B Users (Commercial & Institutional), per 100 cubic feet				
Commercial:				
Auto Services	\$9.50	\$10.40	\$11.39	\$12.47
Bakery, Wholesale	\$7.64	\$8.37	\$9.16	\$10.03
Laundries	\$5.44	\$5.96	\$6.53	\$7.15
Markets/Foods	\$9.33	\$10.22	\$11.19	\$12.25
Mixed Use	\$7.93	\$8.68	\$9.50	\$10.41
Restaurants	\$8.82	\$9.78	\$10.83	\$12.00
All Other	\$4.28	\$4.66	\$5.07	\$5.51
Institutional:				
Schools	\$3.77	\$4.19	\$4.66	\$4.91
Connection (per account, all Classification B users)	\$7.00	\$7.75	\$8.55	\$9.65
C. For Classification C Users (Industrial & Other Large Users). Based on the total discharge volumes for the billing period.				
Volume, per million gallons	\$3,630.00	\$3,974.00	\$4,352.00	\$4,766.00
BOD (Biochemical oxygen demand), per thousand pounds	\$502.00	\$550.00	\$602.00	\$659.00
SS (Suspended solids) per thousand pounds	\$851.00	\$943.00	\$1,044.00	\$1,142.00
Connection (per account)	\$7.00	\$7.75	\$8.55	\$9.65

Wastewater Utility Financial Plan and Rates Study

Prepared for
City of San Leandro, California
June 2019

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List of Abbreviations

BOD	Biochemical Oxygen Demand
CAFR	Comprehensive Annual Financial Report
CIP	Capital Improvement Program
City	City of San Leandro
DSC	debt service coverage
EBMUD	East Bay Municipal Utility District
FY	Fiscal year (July 1 to June 30)
FY20	July 1, 2019 to June 30, 2020
GASB	Governmental Accounting Standards Board
gpd	gallons per day
hcf	Hundred Cubic Feet (equal to ~ 748.1 gallons)
mg	million gallons
mgd	million gallons per day
mg/L	milligrams per Liter
O&M	Operation and maintenance
SRF	State Revolving Fund
SS	Suspended Solids
WPCP	Water Pollution Control Plant

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Executive Summary

The City of San Leandro, in conjunction with Municipal Financial Services, has analyzed the adequacy of revenues to meet projected expenditures of the wastewater enterprise fund to determine whether revenues will be adequate to cover operating and maintenance costs as well as needed capital costs while supporting debt service obligations. Rates and charges were developed for the five-year period Fiscal Year 2019 – 20 (FY20) through FY24.

Prior Rate Study and Current Rates and Charges

The previous rate study was in 2010 and resulted in adoption of wastewater rates for FY11 through FY15 (five fiscal years). Rate increase for FY16 – FY19 were based on changes in the cost-of-living index. Current rates are listed in the table below.

Table ES-1. Current Rates	
Description	2018-2019 Fees
A. For Classification A Users (Residential):	
• Single-Family Unit	\$35.75 each per month
• Multiple-Family Unit	\$25.37 each per month
• Accessory Dwelling Unit	\$25.37 each per month
B. For Classification B Users (Commercial & Institutional):	
<i>Commercial</i>	
• Auto Services	\$8.26 per 100 cubic feet
• Bakery, Wholesale	\$6.79 per 100 cubic feet
• Laundries	\$4.81 per 100 cubic feet
• Markets/Foods	\$8.10 per 100 cubic feet
• Mixed Use	\$7.02 per 100 cubic feet
• Restaurants	\$7.59 per 100 cubic feet
• All Other	\$3.92 per 100 cubic feet
<i>Institutional:</i>	
• Schools	\$3.23 per 100 cubic feet
C. For Classification C Users (Industrial & Other Large Users):	
Loading Charge – based on the total discharge volumes for the billing period.	
Connection	\$5.99 each per month
Volume	\$3,271.82 per Million Gallons
BOD (Biochemical oxygen demand)	\$438.96 per Thousand Pounds
SS (Suspended solids)	\$732.35 per Thousand Pounds

Legend: BOD-Biochemical Oxygen Demand; SS-Suspended Solids

Projected Capital Improvement Program Expenditures and Funding

Between FY20 and FY24 (six fiscal years), total projected CIP expenditures are approximately \$23,400,000 million. FY19 CIP expenditures are shown for information. CIP expenditures are projected to be funded with cash from wastewater rates and charges and no new debt will be issued. CIP expenditures are summarized in the table below.

Table ES-2. Projected CIP Expenditures, FY19 - FY24							
	Budget FY19	Projected					Total FY20-FY24
		FY20	FY21	FY22	FY23	FY24	
Collection System & Plant	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	10,000,000
FY19							
Solar	1,900,000						
As-built	500,000						
Dirt Relocation	6,600,000						
FY20							
Treatment Wetland		3,500,000					3,500,000
FY21							
FFR Demo and disposal			2,000,000				2,000,000
Collection crew dump			400,000				400,000
FY22							
Lift station replacement				3,500,000			3,500,000
FY23							
Eden Road land purchase and frontage fees					2,500,000		2,500,000
FY24							
Planning and Design for Nutrient caps						1,500,000	1,500,000
Total	11,000,000	5,500,000	4,400,000	5,500,000	4,500,000	3,500,000	23,400,000

Wastewater Fund 593 Revenues, Expenditures and Fund Balance

Revenues, Expenditures and Fund Balance for Wastewater Fund 593 are summarized in the table below. The approximate amount of revenues required from rates (treatment charges) for the five-year period, FY20 through FY24, is \$81.5 million. Another \$7.4 million in revenues is projected from other sources. Expenditures during the same period are projected to be approximately \$91.6 million. The operating fund balance is projected to decline from approximately \$18.0 to \$14.6 million during the five-year period. The budgeted minimum operating reserve balance in FY24 is \$5.7 million. Fund balance above the budgeted minimum is required to pay for regulatory compliance capital projects planned for FY25-FY29.

Table ES-3. Projected Wastewater Fund 593 Revenues, Expenditures and Fund Balance

All Cash Flow in \$millions	Actual	Budget	Projected Five-Year Plan					FY20-
	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY24
REVENUES								
Treatment Charges	\$12.6	\$12.9	13.5	14.8	16.2	17.7	19.4	\$81.5
Other Revenues	0.6	0.8	0.8	0.8	0.8	0.8	0.8	3.9
General Fund Loan Repayment	0.5	0.5	0.5	0.5	0.6	0.6	0.6	2.8
Interest Income	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.7
Total Revenues	13.8	14.5	15.0	16.2	17.6	19.2	20.9	88.9
EXPENDITURES								
Operating & Maintenance	10.0	9.9	10.2	10.5	10.9	11.2	11.5	54.4
Debt Service	2.8	2.8	2.8	2.8	2.8	2.8	2.8	13.8
Capital (cash)	3.6	11.0	5.5	4.4	5.5	4.5	3.5	23.4
Total Expenditures	16.3	23.7	18.5	17.7	19.1	18.5	17.8	91.6
NET TRANSFERS	(0.2)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.7)
Wastewater Fund Ending Balance	27.4	18.0	14.4	12.7	11.1	11.6	14.6	(3.4)
Min. Op. Balance 180 (days cash O&M)	4.9	4.9	5.0	5.2	5.4	5.5	5.7	
Single Family Monthly Bill, \$	\$34.71	\$35.75	\$37.00	\$40.50	\$44.30	\$48.60	\$53.20	
Single Family Monthly Bill, \$ Diff	\$0.68	\$1.04	\$1.25	\$3.50	\$3.80	\$4.30	\$4.60	
Single Family Monthly Bill, % Diff	2.0%	3.0%	3.5%	9.5%	9.4%	9.7%	9.5%	
Debt Service Coverage Ratio	1.34x	1.59x	1.65x	2.00x	2.39x	2.83x	3.32x	

Recommended Wastewater Rates

The current (FY19) and recommended rates for FY20 – FY24 are shown in the table below. The effective dates for the recommended rates are July 1 of each fiscal year. Note that Industrial rate descriptions include the terms “BOD” and “SS”. BOD is an acronym for Biochemical Oxygen Demand. SS is an acronym for Suspended Solids. BOD and SS are the two primary pollutants removed during the wastewater treatment process. Rate categories shown in bold type have their FY20 rates adjusted so that the FY20 change in rates is spread over the next three years (FY21-FY23).

Table ES-4. Current and Recommended FY20 – FY24 Wastewater Rates											
	Current	Recommended					FY20	FY21	FY22	FY23	FY24
	FY19	FY20	FY21	FY22	FY23	FY24					
Residential, \$ per month											
Single family	\$35.75	\$37.00	\$40.50	\$44.30	\$48.60	\$53.20	3.5%	9.5%	9.4%	9.7%	9.5%
Multiple family	\$25.37	\$26.10	\$28.50	\$31.20	\$34.20	\$37.40	2.9%	9.2%	9.5%	9.6%	9.4%
Commercial, \$ per 100 cubic feet											
Auto, Steam cleaning	\$8.26	\$8.68	\$9.50	\$10.40	\$11.39	\$12.47	5.1%	9.4%	9.5%	9.5%	9.5%
Bakeries	\$6.79	\$6.98	\$7.64	\$8.37	\$9.16	\$10.03	2.8%	9.5%	9.6%	9.4%	9.5%
Laundries	\$4.81	\$4.97	\$5.44	\$5.96	\$6.53	\$7.15	3.3%	9.5%	9.6%	9.6%	9.5%
Markets & foods	\$8.10	\$8.52	\$9.33	\$10.22	\$11.19	\$12.25	5.2%	9.5%	9.5%	9.5%	9.5%
Mixed Use	\$7.02	\$7.24	\$7.93	\$8.68	\$9.50	\$10.41	3.1%	9.5%	9.5%	9.4%	9.6%
Restaurants	\$7.59	\$7.97	\$8.82	\$9.78	\$10.83	\$12.00	5.0%	10.7%	10.8%	10.7%	10.9%
All other	\$3.92	\$3.92	\$4.28	\$4.66	\$5.07	\$5.51	0.0%	9.1%	8.9%	8.8%	8.7%
Institutional											
Schools	\$3.23	\$3.39	\$3.77	\$4.19	\$4.66	\$4.91	5.0%	11.1%	11.3%	11.2%	11.0%
Industrial											
Volume, \$ per Million Gallons	\$3,271.82	\$3,315.00	\$3,630.00	\$3,974.00	\$4,352.00	\$4,766.00	1.3%	9.5%	9.5%	9.5%	9.5%
BOD, \$ per Thousand Pounds	\$438.96	\$459.00	\$502.00	\$550.00	\$602.00	\$659.00	4.6%	9.4%	9.6%	9.5%	9.5%
SS, \$ per Thousand Pounds	\$732.35	\$769.00	\$851.00	\$943.00	\$1,044.00	\$1,142.00	5.0%	10.7%	10.8%	10.7%	10.7%
Commercial/Institutional/Industrial (applies only to Industrial in FY19)											
Each Account, \$ per month	\$5.99	\$6.30	\$7.00	\$7.75	\$8.55	\$9.65	5.0%	10.9%	10.8%	10.6%	10.9%

Legend: BOD-Biochemical Oxygen Demand; SS-Total Suspended Solids

Section 1

Introduction

This section describes the organization of the report, rate-making objectives, the rate-setting process, and a general description of the wastewater system.

1.1 Organization of the Report

This report is divided into seven sections. This introduction provides an overview of the study objectives and description of the City's wastewater system.

Section 2 discusses the wastewater discharge characteristics of customers. The number and type of connections and wastewater flow and strength projected for FY19 – FY24 is developed in this section.

Section 3 summarizes the five-year Financial Plan for the wastewater enterprise and describes the development of revenue required from wastewater rates.

Section 4 describes the allocation of revenue requirements to defined billable parameters.

Section 5 describes the development of the wastewater rate structure and wastewater rates.

Section 6 describes the impact of recommended wastewater rates upon customer bills.

Section 7 describes the limitations of the study document.

1.2 Rate-Making Objectives

There are numerous rate-making objectives that must be considered when developing rates and rate structures.

Revenue sufficiency. Generate enough revenue to fund operating costs, capital costs, bonded debt, and adequate reserves.

Revenue stability. Recover revenue from rates that will cover fixed and variable costs.

Meet Fiscal Management Goals. Meet financial goals and metrics that will support the best credit rating and reduced risk of default.

Administrative ease and cost of implementation. Enable easy and cost-efficient implementation and ongoing administration, including monitoring and updating.

Affordability. Be as affordable as possible while maintaining the utilities sound financial position and credit rating.

Customer acceptance. Be as simple as possible to facilitate customer understanding and acceptance.

Fairness. Provide for each customer class to pay its proportionate share of the required revenue in compliance with legal rate-making requirements.

1.3 Overview of Utility Rate Setting Process

Rate studies classically have three categories of technical analysis – the development of revenue required from rates, the allocation of costs among billable parameters (cost-of-service analysis) and the design of a rate structure. An overview of the rate-setting analytical steps is shown in Figure 1-1.

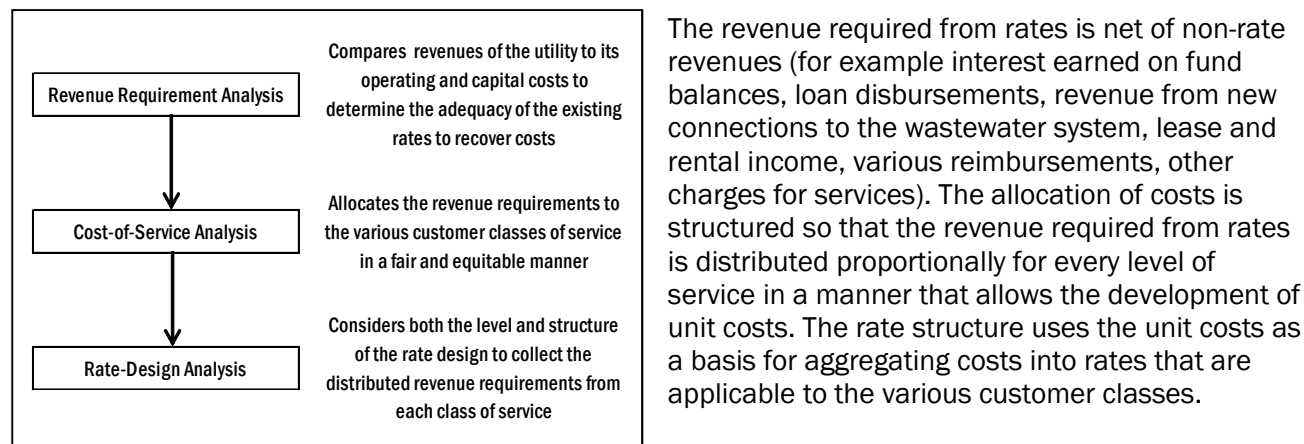


Figure 1-1. Overview of Rate Setting Analytical Steps

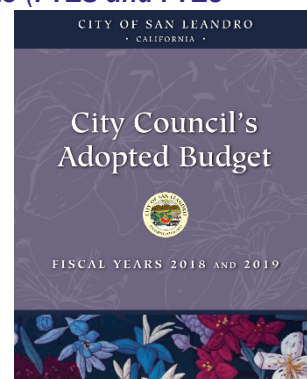
Rates for residential customer classes (single family and multiple family) are flat rates. The rates are in units of dollars per month. Rates for nonresidential customer classes (commercial and institutional) are variable rates plus a monthly charge per account. The variable rates are in units of dollars per hundred cubic feet of metered water use. Monthly bills for industrial users may be calculated based on the measured flow and loading (of BOD and SS) of each users' wastewater times the unit cost for flow (in \$ per million gallons, BOD loading (in \$ per thousand pounds, and SS loading (in \$ per thousand pounds).

1.4 Customer and Financial Data

Information and data for the development of rates and preparation of this report comes from many documents provided by the City. The list of documents, and the key information and data from each used in this study, are summarized below.

City of San Leandro City Council's Adopted Budget Fiscal Years 2018 and 2019 (FY18 and FY19 Budgets).

The City of San Leandro Annual Budget is the most important document the City produces. It outlines the City's spending plan and priorities for two fiscal years, which run from July 1st to June 30th. The city's budget is developed in conjunction with the Mayor, City Manager and all city departments. The budget is then reviewed and approved by the City Council. The result is a budget that closely matches the community's highest priorities each fiscal year.



All revenue, expenditure and fund balance data used in the development of wastewater rates and charges in this study were provided by the City.

City of San Leandro Fiscal Year 2016-2017 Comprehensive Annual Financial Report (FY17 CAFR).

The City of San Leandro *Comprehensive Annual Financial Report* shows the financial position and results of the City's operations as represented by the financial activity of its various funds.

Utility Billing System data. The City provided billing data from its Utility Billing system for connections.

Section 2

User Characteristics

The purpose of this section is to summarize use of the wastewater system by all customers connected to the system. The data used in this section comes from the City's Utility Billing system, invoices for services provided by the Wastewater Management Division, data bases with customer discharge data and operating data for the City's Water Pollution Control Plant. Customer data is used for the allocation of costs, development of rates, and analysis of the impact on customer bills.

2.1 Residential Wastewater Charges Tax Roll Assessment Data

Wastewater charges for residential dwelling units (houses, apartments, condominiums and the like) for the period of July 1 to and including June 30 of each fiscal year are filed with the County Auditor of the County of Alameda who then enters such charges as an assessment of the tax roll against the respective premises. The City provided a list of assessments of residential wastewater charges for Fiscal Year July 1, 2017 – June 30, 2018. The data is summarized in Appendix A, Table A-1. This data is used to project the number of residential accounts.

2.2 EBMUD Metered Water Use Data

At the City's request, EBMUD (East Bay Municipal Utility District) provided monthly water meter reading data for accounts within San Leandro. The data is used to estimate the projected number of commercial and institutional accounts and the amount of wastewater discharge to the sanitary sewer by the City's residential, commercial and institutional customer classes. The data provided by EBMUD is summarized in tables in Appendix A: Table A-2 (number of meters), Table A-3 (monthly metered water use) and Table A-4 (monthly average metered water use per meter). Table A-5 shows the estimated amount of wastewater discharge to the sanitary sewer by the City's residential, commercial and institutional customer classes.

The City's residential customer class has two categories: single family and multiple family.¹ Because EBMUD and the City define the multiple family customer class differently it was not possible to calculate precisely the average wastewater discharge per multiple family billing unit. Estimates of the average number of multiple family billing units in the tax roll assessment data and multiple family accounts in the EBMUD data were developed and support the current rate structure estimate of the percent difference between average single family wastewater discharge and average multiple family billing unit wastewater discharge. The current rate structure uses an average multiple family billing unit wastewater discharge difference that is 16 percent less than that for single family customers.

2.3 Industrial Wastewater Discharge Data

The City monitors and analyzes the wastewater discharge for 20 Industrial User customers. The wastewater discharge monitoring and analysis data is summarized in Appendix A, Table A-6. This data is used to project the wastewater discharge of Industrial User accounts.

¹ Note that the EBMUD multiple family category is defined differently than the City's multiple family category. The EBMUD multiple family category is split into accounts with 5+ units (Apartments) and accounts with 2, 3 or four units. Section 12.5.100(m) of the San Leandro Administrative Code defines multiple family as "Any residential unit designed to house one family in a building containing more than two such units, including triplexes, quadplexes, and apartments. For the purpose of this Code, mobile homes located in a mobile home park shall be considered multiple-family dwellings."

2.4 Customer Class Wastewater Flow and BOD/SS Concentrations

Listed in the table below are flows and BOD/SS concentrations for each customer class that are used to develop wastewater rates. Residential customer class wastewater flow is based on metered winter water use. Commercial customer classes wastewater flow is based on metered potable water use. Industrial User wastewater flow is based on effluent meter measurements. Flow from Inflow/Infiltration (I/I) is based on a comparison of summer and winter flows to the City's Water Pollution Control Plant (WPCP).² All flow data is for FY18.

Residential wastewater BOD/SS concentration estimates for the Residential customer class are based on a mass loading analysis.³ Wastewater BOD/SS concentration estimates for Commercial customer classes are based on data gathered by other wastewater agencies. Industrial User wastewater BOD/SS concentration are based on sampling and analysis of wastewater discharge from each user. Wastewater BOD/SS concentration estimates for I/I are based on data gathered by other wastewater agencies. All BOD/SS concentration data is for FY18.

Table 2-1. Customer Class Wastewater Discharge Characteristics						
	Number of Billing Units	Flow Average gpd/Unit	Data Source	BOD mg/L	Strength SS mg/L	Data Source
Residential						
Single family	14,142	145	<i>water meter</i>	300	320	<i>mass loading analysis</i>
Multiple family	4,243	121	<i>water meter</i>	300	320	
Nonres						
Auto, Steam cleaning	63	680	<i>water meter</i>	1,000	1,100	<i>data generated by other wastewater agencies</i>
Bakeries	3	74	<i>water meter</i>	1,000	600	
Laundries	23	3,024	<i>water meter</i>	450	240	
Markets & foods	34	1,026	<i>water meter</i>	800	900	
Mixed Use	265	333	<i>water meter</i>	800	800	
Restaurants	97	968	<i>water meter</i>	1,000	600	
Other Commercial	1,182	611	<i>water meter</i>	300	320	
Institutional						
Schools	31	1,180	<i>water meter</i>	300	320	<i>lab analysis</i>
Industrial	20	26,649	<i>effluent meter</i>	1,574	605	
Inflow/Infiltration	1	210,046	<i>estimated</i>	20	60	

² Inflow is stormwater that enters into sanitary sewer systems at points of direct connection to the systems. Various sources contribute to the inflow, including footing/foundation drains, roof drains or leaders, downspouts, drains from window wells, outdoor basement stairwells, drains from driveways, groundwater/basement sump pumps, and even streams. Infiltration is groundwater that enters sanitary sewer systems through cracks and/or leaks in the sanitary sewer pipes. Cracks or leaks in sanitary sewer pipes or manholes may be caused by age related deterioration, loose joints, poor design, installation or maintenance errors, damage or root infiltration.

³ A mass loading analysis compares the amount of BOD and SS treated at the City's Water Pollution Control Plant with the amount of BOD and SS discharged by Residential customers, Commercial customers, Industrial User customers and added by Inflow/Infiltration.

2.5 Customer Class Wastewater Volume and BOD/TSS Loads

Flows and BOD/TSS concentrations shown in the previous section for the various customer classes are the basis for development of projected wastewater discharge volumes (in million gallons – mg) and BOD/TSS loads (in thousand pounds – klbs).

Calculation of projected customer and WPCP wastewater discharge volumes and BOD/TSS loads and number of Accounts – Dwelling Units for FY19 – FY24 are shown in Appendix B, Table B-1 (Accounts and Billing Units), Table B-2 (Average and Annual Wastewater Discharge), Table B-3 (Average and Annual Wastewater BOD), Table B-4 (Average and Annual Wastewater SS), and Table B-5 (Water Pollution Control Plant Influent Characteristics).

The sum of projected FY20 wastewater discharge volumes and BOD/TSS loads for the various customer class and I/I are compared to FY20 WPCP values in Figure 2-1.

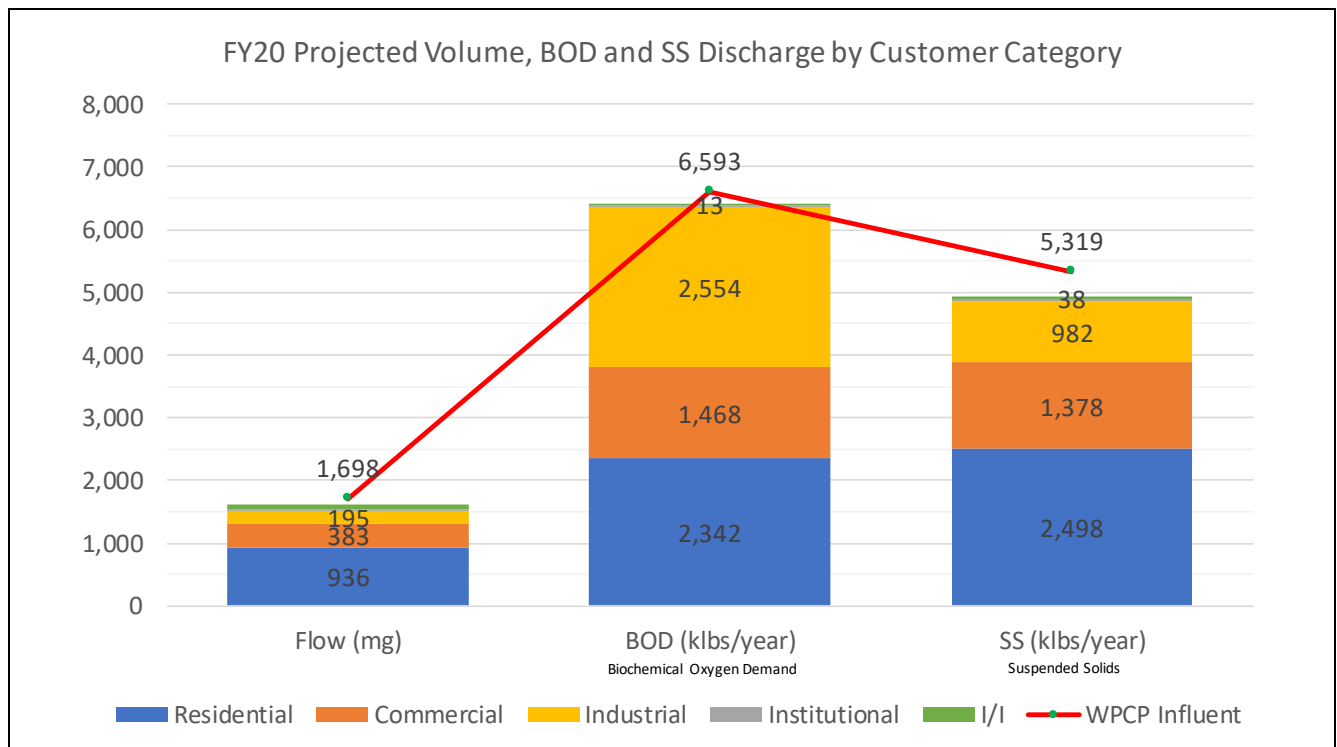


Figure 2-1. FY20 Volume, BOD and SS Discharge by Customer Category

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Section 3

Financial Plan and Revenue Requirements

Revenue from rates must be enough to meet the following financial planning criteria:

1. Provide funds for operating, capital and debt service expenditures;
2. Maintain annual fund balances that meet annual target fund balances;
3. Meet debt service coverage requirements;
4. Satisfy Financial Management Plan goals; and
5. Meet legal requirements.

3.1 Operation and Maintenance Expenditures

O&M expenditures include the cost of employee services, professional and other services, supplies, interdepartmental charges.⁴ O&M expenditures also include the costs of providing technical services such as water quality testing services and other administrative costs of the wastewater system. These costs are a normal obligation of the system and are met from operating revenues as they are incurred. They enable the City to provide wastewater collection, treatment and disposal services that meets all current State and Federal quality mandates and satisfy wastewater discharge needs of residential, commercial, institutional, and industrial customers.

Detailed O&M expenditures for FY19 are listed in detail in Table C-1 in Appendix C. Projected O&M, debt service, capital project and transfer expenditures for FY19 – FY24 are summarized in Table C-2 in Appendix C.

⁴ FY19 values are from the City of San Leandro *City Council's Adopted Budget Fiscal Years 2018 and 2019*. Values for FY20 – FY24 are based on projections from FY19.

3.2 Capital Improvement Program Expenditures

Between FY20 and FY24 (six fiscal years), total projected CIP expenditures are approximately \$23,400,000 million. FY19 CIP expenditures are shown for information. CIP expenditures are projected to be funded with cash from wastewater rates and charges and no new debt will be issued. CIP expenditures are summarized in the table below.

Table 3-1. Projected CIP Expenditures, FY19– FY24							
	Budget FY19	Projected					Total FY20-FY24
		FY20	FY21	FY22	FY23	FY24	
Collection System & Plant	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	10,000,000
FY19							
Solar	1,900,000						
As-built	500,000						
Dirt Relocation	6,600,000						
FY20							
Treatment Wetland		3,500,000					3,500,000
FY21							
FFR Demo and disposal			2,000,000				2,000,000
Collection crew dump station			400,000				400,000
FY22							
Lift station replacement				3,500,000			3,500,000
FY23							
Eden Road land purchase and frontage fees					2,500,000		2,500,000
FY24							
Planning and Design for Nutrient caps						1,500,000	1,500,000
Total	11,000,000	5,500,000	4,400,000	5,500,000	4,500,000	3,500,000	23,400,000

3.3 Revenue Required from Rates and Cash Flow

Revenues, Expenditures and Fund Balance for Wastewater Fund 593 are summarized in the table below. The approximate amount of revenues required from rates (treatment charges) for the five-year period, FY20 through FY24, is \$81.5 million. Another \$7.4 million in revenues is projected from other sources. Expenditures during the same period are projected to be approximately \$91.6 million. The operating fund balance is projected to decline from approximately \$18.0 to \$14.6 million during the five-year period. The budgeted minimum operating reserve balance in FY24 is \$5.7 million. Fund balance above the budgeted minimum is required to pay for regulatory compliance capital projects planned for FY25-FY29.

Table 3-3. Projected FY18 – FY24 Cash Flow

All Cash Flow in \$millions	Actual	Budget	Projected Five-Year Plan					FY20- FY24
	FY18	FY19	FY20	FY21	FY22	FY23	FY24	
REVENUES								
Treatment Charges	\$12.6	\$12.9	13.5	14.8	16.2	17.7	19.4	\$81.5
Other Revenues	0.6	0.8	0.8	0.8	0.8	0.8	0.8	3.9
General Fund Loan Repayment	0.5	0.5	0.5	0.5	0.6	0.6	0.6	2.8
Interest Income	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.7
Total Revenues	13.8	14.5	15.0	16.2	17.6	19.2	20.9	88.9
EXPENDITURES								
Operating & Maintenance	10.0	9.9	10.2	10.5	10.9	11.2	11.5	54.4
Debt Service	2.8	2.8	2.8	2.8	2.8	2.8	2.8	13.8
Capital (cash)	3.6	11.0	5.5	4.4	5.5	4.5	3.5	23.4
Total Expenditures	16.3	23.7	18.5	17.7	19.1	18.5	17.8	91.6
NET TRANSFERS	(0.2)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.7)
Wastewater Fund Ending Balance	27.4	18.0	14.4	12.7	11.1	11.6	14.6	(3.4)
Min. Op. Balance 180 (days cash O&M)	4.9	4.9	5.0	5.2	5.4	5.5	5.7	
Single Family Monthly Bill, \$	\$34.71	\$35.75	\$37.00	\$40.50	\$44.30	\$48.60	\$53.20	
Single Family Monthly Bill, \$ Diff	\$0.68	\$1.04	\$1.25	\$3.50	\$3.80	\$4.30	\$4.60	
Single Family Monthly Bill, % Diff	2.0%	3.0%	3.5%	9.5%	9.4%	9.7%	9.5%	
Debt Service Coverage Ratio	1.34x	1.59x	1.65x	2.00x	2.39x	2.83x	3.32x	

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Section 4

Cost of Service Analysis

The total amount of revenue required from rates is allocated between amounts to be recovered from the billable parameters of flow, BOD, SS and accounts/units. Allocation is accomplished by the development of percentage allocations among the four parameters. The four parameters and the allocations are based on principles and methodology found in the State of California *Revenue Program Guidelines*. The use of these industry standard principles and methods ensures that revenue requirements are equitably recovered from classes of customers in proportion to the cost of serving those customers.

The general cost of service process includes the following steps:

1. Identification of annual revenue requirements;
2. Allocation of annual revenue requirements to billable parameters;
3. Development of unit costs of service for each billable parameter; and
4. Distribution of costs to customer classes.

Annual revenues required from rates were identified in Section 3. Development of unit costs of service and distribution of costs to customer classes is presented in this section.

4.1 Billable Parameters

The billable parameters are flow, BOD, SS and accounts/units. Each of the billable parameters is described below.

Flow. Flow is the rate at which wastewater is discharged to the sanitary sewer. Units of measure include gallons per day (gpd), million gallons per day (mgd). Flow is often expressed in terms of volume. Volume units of measure include hundred cubic feet (hcf) and million gallons. The two terms are used interchangeably with their corresponding unit of measure. For example, average monthly wastewater discharge for a customer could be expressed as a volume of 6 hcf or a flow of 148 gpd.

BOD. BOD is an acronym for Biochemical Oxygen Demand. BOD is one of the two primary contaminants removed during the treatment process.

SS. SS is an acronym for Suspended Solids. SS is one of the two primary contaminants removed during the treatment process.

Account/Billing Unit. The source of the wastewater discharge with a connection (direct or indirect) to the sanitary sewer. Dwelling units in multiple family dwellings are connected to the sanitary sewer through an account with a direct connection to the sanitary sewer. Account/Dwelling Unit charges are based on costs of serving every account regardless of the flow or strength (BOD and SS levels) of wastewater discharge.

4.2 Allocation of Revenue Requirements to Billable Parameters

The allocation of FY20 – FY24 O&M expenses, debt service, capital improvements (cash funded) and transfers to billable parameters is summarized in the table below. Allocations to billable parameters are used to allocate annual revenue requirements to billable parameters for rate development. The allocation of revenue requirements to billable parameters is based on industry standard principles and methods.

Table 4-1. Allocation of Expenditures to Billable Parameters

	Notes	FY20-FY24				Account/ Dwelling Unit	Allocation			
		Total	Flow	BOD	SS		Flow	BOD	SS	Account/ Dwelling Unit
Expenditures										
Collection System	1	\$8.9	\$8.4	\$0.0	\$0.0	\$0.5	94.0%	0.0%	0.0%	6.0%
WPCP Operations	1, 2	\$37.1	\$8.9	\$11.1	\$14.9	\$2.2	24.0%	30.0%	40.0%	6.0%
Administrative Support	1	\$4.0	\$0.0	\$0.0	\$0.0	\$4.0	0.0%	0.0%	0.0%	100.0%
EBDA		\$3.9	\$2.9	\$0.0	\$0.0	\$1.0	73.3%	0.0%	0.0%	26.7%
EBMUD	1	\$0.4	\$0.0	\$0.0	\$0.0	\$0.4	0.0%	0.0%	0.0%	100.0%
Transfers	1	\$0.7	\$0.0	\$0.0	\$0.0	\$0.7	0.0%	0.0%	0.0%	100.0%
Debt Service	3	\$13.8	\$6.0	\$3.3	\$4.5	\$0.0	43.7%	24.1%	32.2%	0.0%
Capital Projects	3	\$23.4	\$10.2	\$5.6	\$7.5	\$0.0	43.7%	24.1%	32.2%	0.0%
Total		\$92.3	\$36.4	\$20.1	\$26.8	\$8.9	39.4%	21.8%	29.1%	9.7%

Notes:

- 1 The portion of expenditures allocated to Account/Dwelling Unit is independent of flow or strength of wastewater discharge.
- 2 The portion of expenditures allocated to Flow, BOD and SS is based on industry standards and State guidelines.
- 3 Debt Service and Capital Project expenditures allocations are a composite of the other expenditure categories excluding allocations to the Account/Dwelling Unit function.

The allocation of annual revenue required from rates to billable parameters is summarized in the table below.

Table 4-2. Allocation of Annual Revenue Required from Rates to Billable Parameters

			FY20	FY21	FY22	FY23	FY24
Revenue Required from Rates	<i>from Table C-3</i>		\$13,477,000	\$14,757,000	\$16,159,000	\$17,694,000	\$19,375,000
Allocation to Functional Cost Categories							
Flow	<i>from Table 4-1</i>	39%	\$5,314,513	\$5,819,268	\$6,372,132	\$6,977,443	\$7,640,328
BOD	<i>from Table 4-1</i>	22%	\$2,938,955	\$3,218,087	\$3,523,824	\$3,858,564	\$4,225,143
SS	<i>from Table 4-1</i>	29%	\$3,918,606	\$4,290,782	\$4,698,431	\$5,144,752	\$5,633,524
Account/Billing Units	<i>from Table 4-1</i>	10%	\$1,304,925	\$1,428,863	\$1,564,613	\$1,713,241	\$1,876,006

4.3 Billable Parameter Unit Costs

Unit costs for each billable parameter are calculated by dividing the annual revenue requirement for each parameter (listed in Table 4-2) by the annual amount of discharge for each parameter or the number of accounts/dwelling units (listed in Tables B-1 through B-4). The calculation of billable parameters unit costs for FY20 – FY24 is summarized in the table below.

		FY20	FY21	FY22	FY23	FY24
Calculation of Flow Unit Cost						
Revenue Requirement, \$		\$5,314,513	\$5,819,268	\$6,372,132	\$6,977,443	\$7,640,328
Units of Use, Million Gallons (MG)	<i>from Table B-2</i>	1,603	1,603	1,603	1,603	1,603
Unit Cost, \$ per MG		\$3,315	\$3,630	\$3,974	\$4,352	\$4,766
Calculation of BOD Unit Cost						
Revenue Requirement, \$		\$2,938,955	\$3,218,087	\$3,523,824	\$3,858,564	\$4,225,143
Units of Use, Thousand Pounds (Klbs)	<i>from Table B-3</i>	6,410	6,410	6,410	6,410	6,410
Unit Cost, \$ per Klbs		\$459	\$502	\$550	\$602	\$659
Calculation of SS Unit Cost						
Revenue Requirement, \$		\$3,918,606	\$4,290,782	\$4,698,431	\$5,144,752	\$5,633,524
Units of Use, Thousand Pounds (Klbs)	<i>from Table B-4</i>	4,931	4,931	4,931	4,931	4,931
Unit Cost, \$ per Klbs		\$795	\$870	\$953	\$1,043	\$1,142
Calculation of Account/Billing Units Unit Cost						
Revenue Requirement, \$		\$1,304,925	\$1,428,863	\$1,564,613	\$1,713,241	\$1,876,006
Units of Use, Accounts/Billing Units	<i>from Table B-1</i>	16,221	16,221	16,221	16,221	16,221
Unit Cost, \$ per Account/Billing Unit		\$80	\$88	\$96	\$106	\$116
Unit Cost per Month, \$ per Account/Billing Unit		\$6.70	\$7.35	\$8.05	\$8.80	\$9.65

The unit costs for each billable parameter listed in the table above are used to develop revenue required from rates for every customer class. Use of these unit costs to develop revenue requirements, rates and monthly bills ensures that revenue requirements are equitably recovered from customer classes in proportion to the cost of serving those customer classes.

4.4 Allocation of Revenue to Customer Classes

The unit costs for each billable parameter are used to allocate revenue required from rates to each customer class. Calculation of customer class revenue requirements are shown in tables in Appendix D: Table D-1 (Accounts and Billing Units Revenue by Customer Class), Table D-2 (Flow Revenue by Customer Class), Table D-3 (BOD Revenue by Customer Class), and Table D-4 (SS Revenue by Customer Class). The sum of Flow, BOD, and SS revenue requirements by customer class is shown in Table D-5.

Revenue requirements by customer class include “Inflow/Infiltration (I/I)” as a customer class. Revenue requirements for I/I are then allocated among the remaining customer classes as shown in Table D-6.

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Section 5

Rates and Charges

Distribution of costs to billable parameters and customer classes shown in the preceding section is followed by the calculation of rates and monthly charges in this section.

5.1 Recommended Changes to Rate Structure

The current wastewater rate structure has been in place since 2010. The term “rate structure” refers to the selection of customer classes and corresponding Flow, BOD and SS assignments and the type of rate applied to recover costs – volumetric (in units of \$/hcf, for example) or fixed (in units of \$/month, for example). Recommended changes to the rate structure are described below.

Apply the “Account/Billing Unit Charge” Separately from the Flow/BOD/SS Rate for Commercial and Institutional Customer Classes. Currently, there is an account charge applied to the monthly bill for account in the Industrial User customer class. Account charges for the Residential customer class are added to the monthly charge. Account charges for the Commercial and Institutional customer classes are added to the volumetric charge. By adding the account charges to the volumetric charge (instead of collecting it separately or added to the monthly charge), each subclass in the Commercial and Institutional customer classes pays a different portion of the account charge revenue requirements.

It is recommended that the same Account/Billing Unit charge be applied to every monthly bill in addition to the portion of the monthly bill with the Flow/BOD/SS charges.

5.2 Residential Monthly Charges

For the Residential customer class, the monthly charge has three components: 1) account/billing unit costs; 2) Flow, BOD and SS costs; and 3) I/I costs. Development of the monthly charge for both Single Family accounts and for Multiple Family accounts is shown in Appendix E, Table E-1.

5.3 Commercial and Institutional Rates and Monthly Charges

For the Commercial and Institutional customer classes, the monthly charge has two components: 1) account/billing unit costs; and 2) Flow, BOD, SS and I/I costs. The Flow, BOD, SS and I/I costs are recovered through a volumetric charge which varies based on the BOD and SS characteristics of each account. Development of the rates and monthly charges for Commercial and Institutional customer classes is shown in Appendix E, Table E-2.

5.4 Industrial Rates and Monthly Charges

Monthly charges for each billable parameter are calculated by multiplying the unit cost for each parameter (listed in Table 4-2) by the amount of discharge for each parameter and the number of accounts.

5.5 Current and Calculated Rates and Charges

The table below lists current and calculated rates for each of the existing customer classes. Calculations are based on the unit costs developed in Section 4.

Table 5-1. Current and Calculated Wastewater Rates and Charges, FY19 – FY24											
	Current	Calculated									
	FY19	FY20	FY21	FY22	FY23	FY24	FY20	FY21	FY22	FY23	FY24
Residential, \$ per month											
Single family	\$35.75	\$37.00	\$40.50	\$44.30	\$48.60	\$53.20	3.5%	9.5%	9.4%	9.7%	9.5%
Multiple family	\$25.37	\$26.10	\$28.50	\$31.20	\$34.20	\$37.40	2.9%	9.2%	9.5%	9.6%	9.4%
Commercial, \$ per 100 cubic feet											
Auto, Steam cleaning	\$8.26	\$8.68	\$9.50	\$10.40	\$11.39	\$12.47	5.1%	9.4%	9.5%	9.5%	9.5%
Bakeries	\$6.79	\$6.98	\$7.64	\$8.37	\$9.16	\$10.03	2.8%	9.5%	9.6%	9.4%	9.5%
Laundries	\$4.81	\$4.97	\$5.44	\$5.96	\$6.53	\$7.15	3.3%	9.5%	9.6%	9.6%	9.5%
Markets & foods	\$8.10	\$8.52	\$9.33	\$10.22	\$11.19	\$12.25	5.2%	9.5%	9.5%	9.5%	9.5%
Mixed Use	\$7.02	\$7.24	\$7.93	\$8.68	\$9.50	\$10.41	3.1%	9.5%	9.5%	9.4%	9.6%
Restaurants	\$7.59	\$8.35	\$9.14	\$10.01	\$10.96	\$12.00	10.0%	9.5%	9.5%	9.5%	9.5%
All other	\$3.92	\$3.83	\$4.20	\$4.60	\$5.03	\$5.51	-2.3%	9.7%	9.5%	9.3%	9.5%
Institutional											
Schools	\$3.23	\$3.42	\$3.74	\$4.10	\$4.49	\$4.91	5.9%	9.4%	9.6%	9.5%	9.4%
Industrial											
Volume, \$ per Million Gallons	\$3,271.82	\$3,315.00	\$3,630.00	\$3,974.00	\$4,352.00	\$4,766.00	1.3%	9.5%	9.5%	9.5%	9.5%
BOD, \$ per Thousand Pounds	\$438.96	\$459.00	\$502.00	\$550.00	\$602.00	\$659.00	4.6%	9.4%	9.6%	9.5%	9.5%
SS, \$ per Thousand Pounds	\$732.35	\$795.00	\$870.00	\$953.00	\$1,043.00	\$1,142.00	8.6%	9.4%	9.5%	9.4%	9.5%
Commercial/Institutional/Industrial (applies only to Industrial in FY19)											
Each Account, \$ per month	\$5.99	\$6.70	\$7.35	\$8.05	\$8.80	\$9.65	11.9%	9.7%	9.5%	9.3%	9.7%

5.6 Current and Recommended Rates and Charges

The calculated rates are adjusted for four rate categories so that rates for FY20 do not decrease or do not increase more than 5.2 percent. Rates for Restaurants, Commercial All Other, Industrial SS and the Commercial/Industrial Monthly Charge are changed in FY20, FY21, FY22 and FY23 until they ultimately match the “unchanged” FY24 rates. The table below lists current and recommended rates for each of the existing customer classes. Rates for Restaurants, Commercial All Other, Industrial SS and the Commercial/Industrial Monthly Charge are shown in bold font.

Table 5-2. Current and Recommended Wastewater Rates and Charges, FY19 – FY24

	Current	Recommended									
	FY19	FY20	FY21	FY22	FY23	FY24	FY20	FY21	FY22	FY23	FY24
Residential, \$ per month											
Single family	\$35.75	\$37.00	\$40.50	\$44.30	\$48.60	\$53.20	3.5%	9.5%	9.4%	9.7%	9.5%
Multiple family	\$25.37	\$26.10	\$28.50	\$31.20	\$34.20	\$37.40	2.9%	9.2%	9.5%	9.6%	9.4%
Commercial, \$ per 100 cubic feet											
Auto, Steam cleaning	\$8.26	\$8.68	\$9.50	\$10.40	\$11.39	\$12.47	5.1%	9.4%	9.5%	9.5%	9.5%
Bakeries	\$6.79	\$6.98	\$7.64	\$8.37	\$9.16	\$10.03	2.8%	9.5%	9.6%	9.4%	9.5%
Laundries	\$4.81	\$4.97	\$5.44	\$5.96	\$6.53	\$7.15	3.3%	9.5%	9.6%	9.6%	9.5%
Markets & foods	\$8.10	\$8.52	\$9.33	\$10.22	\$11.19	\$12.25	5.2%	9.5%	9.5%	9.5%	9.5%
Mixed Use	\$7.02	\$7.24	\$7.93	\$8.68	\$9.50	\$10.41	3.1%	9.5%	9.5%	9.4%	9.6%
Restaurants	\$7.59	\$7.97	\$8.82	\$9.78	\$10.83	\$12.00	5.0%	10.7%	10.8%	10.7%	10.9%
All other	\$3.92	\$3.92	\$4.28	\$4.66	\$5.07	\$5.51	0.0%	9.1%	8.9%	8.8%	8.7%
Institutional											
Schools	\$3.23	\$3.39	\$3.77	\$4.19	\$4.66	\$4.91	5.0%	11.1%	11.3%	11.2%	11.0%
Industrial											
Volume, \$ per Million Gallons	\$3,271.82	\$3,315.00	\$3,630.00	\$3,974.00	\$4,352.00	\$4,766.00	1.3%	9.5%	9.5%	9.5%	9.5%
BOD, \$ per Thousand Pounds	\$438.96	\$459.00	\$502.00	\$550.00	\$602.00	\$659.00	4.6%	9.4%	9.6%	9.5%	9.5%
SS, \$ per Thousand Pounds	\$732.35	\$769.00	\$851.00	\$943.00	\$1,044.00	\$1,142.00	5.0%	10.7%	10.8%	10.7%	10.7%
Commercial/Institutional/Industrial (applies only to Industrial in FY19)											
Each Account, \$ per month	\$5.99	\$6.30	\$7.00	\$7.75	\$8.55	\$9.65	5.0%	10.9%	10.8%	10.6%	10.9%

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Section 6

Impact of Rate Changes on Customer Bills

The impact on customers is summarized in terms of annual changes in revenue required from each customer class, annual changes in wastewater rates and charges, and annual changes in monthly bills.

6.1 Impact on Residential Monthly Bills

The impact on residential bills varies depending on the customer class. The impact on Single Family and Multiple Family customer classes is shown in the table below.

Table 6-1. Residential Monthly Bills, Current vs Recommended FY20 – FY24

	Current		Recommended			
	FY19	FY20	FY21	FY22	FY23	FY24
Residential, \$ per month						
Single family	\$35.75	\$37.00	\$40.50	\$44.30	\$48.60	\$53.20
Multiple family	\$25.37	\$26.10	\$28.50	\$31.20	\$34.20	\$37.40
Change in Bill, \$ per month						
Single family	\$1.04	\$1.25	\$3.50	\$3.80	\$4.30	\$4.60
Multiple family	\$0.74	\$0.73	\$2.40	\$2.70	\$3.00	\$3.20
Percent Change in Bill						
Single family	3%	3%	9%	9%	10%	9%
Multiple family	3%	3%	9%	9%	10%	9%

6.2 Impact on Nonresidential Annual Charges

The impact on nonresidential annual charges varies depending on the customer class. The impact on Commercial, Institutional and Industrial customer classes is shown in the table below.

Table 6-2. Nonresidential Annual Revenue from Rates, Current vs Recommended FY20 – FY24						
	Current FY19	FY20	FY21	Recommended FY22	FY23	FY24
Revenue from Rates, \$ per year						
Commercial						
Auto, Steam cleaning	\$215,214	\$226,157	\$247,523	\$270,972	\$296,766	\$324,906
Bakeries	\$917	\$942	\$1,031	\$1,130	\$1,237	\$1,354
Laundries	\$159,711	\$165,024	\$180,630	\$197,896	\$216,822	\$237,409
Markets & foods	\$149,920	\$157,694	\$172,686	\$189,159	\$207,112	\$226,732
Mixed Use	\$368,345	\$379,888	\$416,093	\$455,446	\$498,472	\$546,220
Restaurants	\$346,969	\$364,363	\$403,403	\$446,857	\$494,866	\$548,568
All other	\$1,792,774	\$1,792,774	\$1,955,676	\$2,130,706	\$2,317,650	\$2,519,945
Account Charges	\$0	\$125,937	\$139,930	\$154,923	\$170,915	\$192,904
Institutional						
Schools	\$82,182	\$86,277	\$95,813	\$106,660	\$118,614	\$124,927
Account Charges	\$0	\$2,306	\$2,562	\$2,837	\$3,129	\$3,532
Industrial						
Total	\$5,594,576	\$5,875,569	\$6,441,381	\$7,062,696	\$7,737,456	\$8,461,030
Change in Revenues, \$ per year						
Commercial						
	<i># of accounts</i>					
Auto, Steam cleaning	63	\$10,943	\$21,365	\$23,450	\$25,794	\$28,139
Bakeries	3	\$26	\$89	\$99	\$107	\$117
Laundries	23	\$5,313	\$15,606	\$17,266	\$18,926	\$20,586
Markets & foods	34	\$7,774	\$14,992	\$16,473	\$17,953	\$19,619
Mixed Use	265	\$11,544	\$36,205	\$39,353	\$43,026	\$47,748
Restaurants	97	\$17,394	\$39,039	\$43,454	\$48,009	\$53,702
All other	1,182	\$0	\$162,902	\$175,030	\$186,945	\$202,294
Account Charges		\$125,937	\$13,993	\$14,993	\$15,992	\$21,989
Institutional						
Schools	31	\$4,095	\$9,536	\$10,847	\$11,954	\$6,313
Account Charges		\$2,306	\$256	\$275	\$293	\$403
Industrial						
Total	1,716	\$280,993	\$565,812	\$621,315	\$674,761	\$723,574
Percent Change in Annual Revenue						
Commercial						
Auto, Steam cleaning		5%	9%	9%	10%	9%
Bakeries		3%	9%	10%	9%	9%
Laundries		3%	9%	10%	10%	9%
Markets & foods		5%	10%	10%	9%	9%
Mixed Use		3%	10%	9%	9%	10%
Restaurants		5%	11%	11%	11%	11%
All other		0%	9%	9%	9%	9%
Account Charges		na	11%	11%	10%	13%
Institutional						
Schools		5%	11%	11%	11%	5%
Account Charges		na	11%	11%	10%	13%
Industrial						
Total		4%	10%	10%	10%	9%
Total		5%	10%	10%	10%	9%

6.3 Single Family Monthly Bills Survey

The City’s current (FY19) and recommended (F20) single family monthly bills were compared to the monthly bills for seven other agencies. Results of the survey are shown in Figure 6-1.

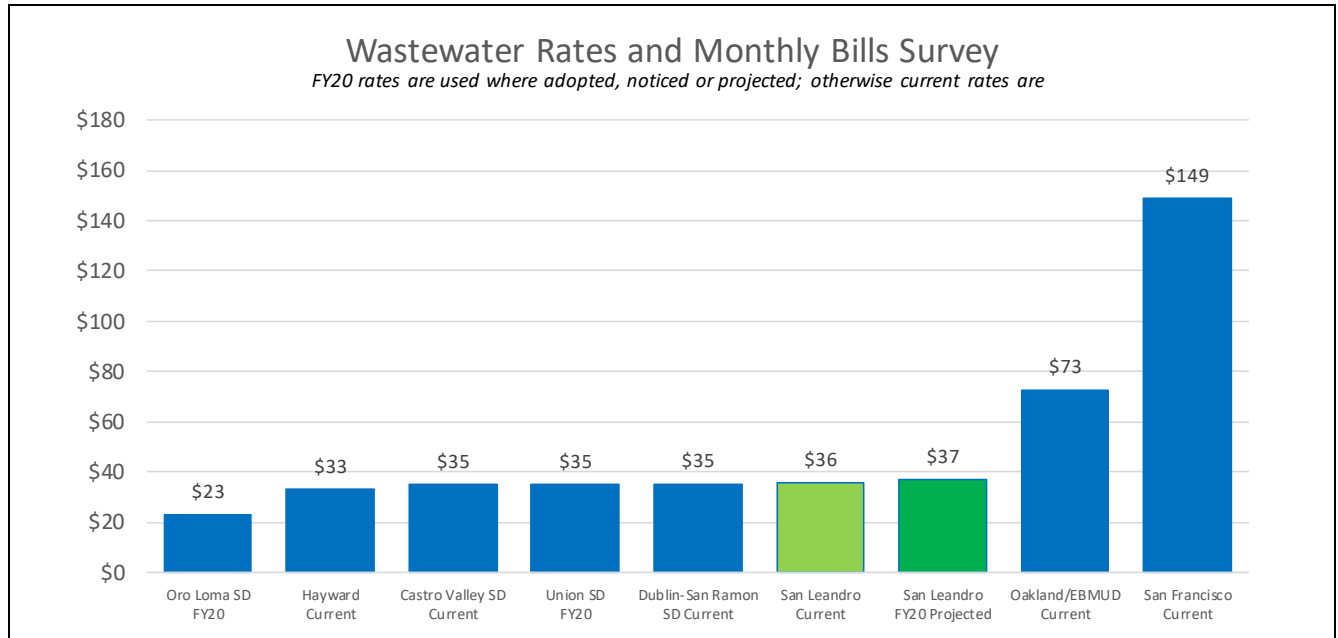


Figure 6-1. Residential Monthly Bills Survey

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Section 7

Limitations

This document was prepared solely for City of San Leandro in accordance with professional standards at the time the services were performed and in accordance with the contract between City of San Leandro and Municipal Financial Services dated April 30, 2018. This document is governed by the specific scope of work authorized by City of San Leandro; it is not intended to be relied upon by any other party. We have relied on information or instructions provided by City of San Leandro and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information.

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Appendix A: Customer Current Wastewater Discharge Characteristics

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Table A-1
 FY18 Residential Number of Accounts and Billing Units

	Number of Accounts				Sum of Billing Units			
	R	M	MIXED	Total	R	M	MIXED	Total
2 UNITS, LESSER QUALITY THAN 2200 OR UNKNOWN LEGAL	43	2		45	83	6		89
3 UNITS, LESSER QUALITY THAN 2300 OR UNKNOWN LEGAL	7	9	1	17	19	27	3	49
4 UNITS, LESSER QUALITY THAN 2400 OR UNKNOWN LEGAL		4		4		17		17
CHURCH	3			3	4			4
COMMERCIAL REPAIR GARAGE	1			1	1			1
CONDOMINIUM-OFFICE	1			1	1			1
CONDOMINIUMS - SINGLE RESIDENTIAL LIVING UNIT	729			729	729			729
DOUBLE OR DUPLEX TYPE - TWO UNITS	345	1	1	347	686	3	3	692
FIVE OR MORE SINGLE FAMILY RES HOMES	1	2	1	4	8	10	4	22
FOUR LIVING UNITS; E.G. FOURPLEX OR TRIPLEX W/SFR	6	83	1	90	24	331	3	358
HISTORICAL RESIDENTIAL	2			2	2			2
INDUSTRIAL LIGHT/MANUFACTURING	1			1	2			2
MEDICAL - DENTAL BUILDING	4	1		5	6	25		31
MEDICAL-RESIDENTIAL CARE FACILITY (SFR) <7 PATIENT	2			2	3			3
MISC. INDUSTRIAL (IMPROVED); NO OTHER IND CODE	3			3	7			7
MISCELLANEOUS IMPROVED COMMERCIAL	15	2		17	22	7		29
MOBILE HOME PARK PARCEL WITH IMPROVEMENTS		1		1		48		48
MORE THAN 1 MOBILE HOME, OR M/H W/OTHER RES UNITS	1			1	2			2
MULTIPLE RESIDENTIAL BUILDING OF 5 OR MORE UNITS.	7	179	13	199	68	3,217	94	3,379
NURSING/CUSTODIAL CARE FACILITY	4	2		6	4	77		81
ONE STORY STORE	10			10	19			19
ONE TO FIVE STORY OFFICE BUILDING	6			6	7			7
RESIDENTIAL IMPS ON COMMERCIAL LAND	2	1		3	2	3		5
RESIDENTIAL PROPERTY CONVERTED TO 5 OR MORE UNITS		6	4	10		45	15	60
RESTAURANT	1			1	1			1
RESTRICTED RESIDENTIAL INCOME PROPERTY		2		2		111		111
SFR - PLANNED DEVELOPMENT TRACT WITH COMMON AREA	114			114	114			114
SINGLE FAMILY RES - MANUFACTURED	1			1	1			1
SINGLE FAMILY RES HOME WITH NON-ECONOMIC 2ND UNIT	56	3		59	72	15		87
SINGLE FAMILY RES HOME WITH SLIGHT COMMERCIAL/IND	4			4	4			4
SINGLE FAMILY RESIDENTIAL HOME, R&T 402.1	6			6	6			6
SINGLE FAMILY RESIDENTIAL HOMES USED AS SUCH	10,801		1	10,802	10,868		3	10,871
STORE ON 1ST FLOOR, WITH OFFICES, APTS/LOFTS 2ND/3	11	8	1	20	16	65	4	85
TOWNHOUSE - PLANNED DEVELOPMENT	387			387	387			387
TOWNHOUSE - PLANNED DEVELOPMENT, R&T 402.1	30			30	30			30
TOWNHOUSE STYLE - CONDOMINIUM	333			333	333			333
TRIPLEX; DOUBLE OR DUPLEX WITH SINGLE FAMILY HOME	77	28	1	106	229	87	3	319
TWO, THREE OR FOUR SINGLE FAMILY HOMES	183	3	1	187	374	11	3	388
VACANT RESIDENTIAL LAND, ZONED 4 UNITS OR LESS	2			2	2			2
WAREHOUSE	2	1		3	3	3		6
WAREHOUSE-SELF STORAGE	1			1	2			2
(blank)	1			1	1			1
Grand Total	13,203	338	25	13,566	14,142	4,108	135	18,385

Table A-2
Monthly Number of Meters

BCC	Category	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Total
700	Other Commercial	2		2		2		2		2		2		12
1500	Other Commercial	4	2	4	3	4	2	4	3	4	2	4	2	38
2010	Markets & Foods	5		5	1	4		4		4		4		27
2020	Markets & Foods	1		1		1		1		1		1		6
2030	Markets & Foods	1		1		1		1		1		1		6
2040	Markets & Foods	1		1	1	1		1		1		1		7
2050	Bakeries	1	2	1	2	1	2	1	2	1	2	1	2	18
2051	Bakeries													0
2070	Other Commercial	1		1		1		1		1		1		6
2080	Markets & Foods													0
2090	Markets & Foods	1		1		1		1		1		1		6
2091	Markets & Foods													0
2300	Other Commercial	1	2	1	2	1	2	1	2	1	2	1	2	18
2400	Other Commercial	2	2	1	1	1	1	2		1	1	1	1	11
2500	Other Commercial	6	8	7	6	5	5	10	3	8	5	8	5	76
2600	Other Commercial	2	3		3		3		3		3		3	20
2700	Other Commercial	6	4	6	2	5	1	6	1	7	1	6	1	46
2810	Other Commercial	2		2		2		2		2		2		12
2820	Other Commercial	5		5		5		5		5		5		30
2830	Other Commercial													0
2840	Other Commercial	1		1	1			1		1		1		6
2850	Other Commercial	3	1	3	1	3	1	3	1	3	1	3	1	24
2893	Other Commercial	2	2	2	2	2	2	2	2	2	2	2	2	24
3200	Other Commercial	2	3	3	2	2	2	4	1	3	2	3	2	29
3300	Other Commercial	10	2	11	1	11	1	12		11	4	10	2	75
3400	Other Commercial	19	8	21	6	19	6	23	4	21	8	19	6	160
3470	Other Commercial	2	1	1	1	2		2		2		2		13
3500	Other Commercial	7	1	7	2	6	1	7	1	7	1	7	1	48
3590	Other Commercial	13	10	13	11	11	9	13	9	13	9	13	9	133
3600	Other Commercial	3	9	7	5	3	5	11	1	7	7	6	6	70
3700	Other Commercial	10		8		8		8		8		8		50
3800	Other Commercial	1	1	1	1	1	1	2	1	1	1	1	1	13
3900	Other Commercial	18	5	22	8	11	5	19	5	17	5	17	5	137
4100	Other Commercial	1	2	1	2	1	2	1	2	1	2	1	2	18
4200	Other Commercial	139	57	146	70	125	54	149	52	142	63	145	56	1,198
4400	Other Commercial	1	13	1	13	1		14		14		14		71
4500	Other Commercial		1		1		1		1		1		1	6
4700	Other Commercial	7	3	7	3	7	3	7	3	7	3	7	3	60
4800	Other Commercial	2	1	2	1	2	1	2		3		3	1	18
4900	Other Commercial	1		1		1		1		1		1		6
4950	Other Commercial	5	4	5	3	5	3	5	3	5	5	4	4	51
5000	Other Commercial	24	27	28	27	24	25	33	23	28	30	28	24	321
5300	Other Commercial	160	59	155	59	153	53	162	34	176	33	176	60	1,280
5400	Markets & Foods	17	9	16	10	16	7	18	6	19	7	19	8	152
5540	Other Commercial	17	5	15	5	15	2	18	4	17	4	17	4	123
5811	Restaurants	19	7	19	7	17	6	20	7	18	6	18	9	153
5812	Restaurants	46	25	46	25	44	16	56	8	62	15	61	24	428
5813	Other Commercial	6	3	6	3	6	3	6		9		9	3	54
6513	Multiple Family 5+	209	83	203	83	209	69	232	76	216	94	204	108	1,786
6514	Multiple Family <5	347	116	344	120	344	109	349	74	387	71	387	112	2,760
6800	Mixed Use	147	120	155	110	146	103	166	93	171	98	167	112	1,588
7000	Other Commercial		2		2		2		2		2	2	2	14
7001	Other Commercial		4	2	2		2	4		2	4	2	2	24
7020	Other Commercial	3	1	3	1	3	1	3	1	3	1	4	1	25
7200	Other Commercial	44	30	44	34	40	24	49	15	60	15	58	29	442
7210	Laundries	3	3	3	3	3	3	3	3	3	3	3	3	36
7215	Laundries	6		6		6		6		6		6		36
7216	Laundries	6	3	6	5	5	1	8	1	8	1	8	3	55
7218	Laundries	1		1		1		1		1		2	1	8
7260	Other Commercial		2		2		2		2		2		2	12
7300	Other Commercial		1		1		1		1		1		1	6
7342	Other Commercial	1		1		1		1		1		1		6
7500	Auto, Steam cleaning	51	8	51	8	49	7	49	6	53	4	53	7	346
7539	Other Commercial	1	2	1	2	1	2	1	2	1	2	1	2	18
7542	Auto, Steam cleaning	4	1	4	1	4	1	4	2	4	1	4	1	31
7600	Other Commercial	4	3	4	3	4	3	4	2	6	3	5	2	43
7900	Other Commercial	7	7	9	5	7	4	13	2	10	4	10	4	82
7950	Other Commercial	143	71	136	76	133	40	173	43	169	42	168	56	1,250
7990	Other Commercial	6	20	13	13	6	8	25	1	18	14	18	9	151
8000	Other Commercial	15	34	14	35	15	35	15	30	18	34	17	36	298
8060	Other Commercial	4	9	4	9	4	9	4	8	5	8	7	9	80
8200	Schools	15	15	17	13	15	13	20	9	20	14	18	14	183
8600	Other Commercial	48	16	48	18	46	16	48	12	52	13	51	16	384
8800	Single Family	7,397	6,177	6,847	7,096	5,929	4,374	8,606	3,629	9,360	3,638	9,316	4,674	77,043
Total		9,037	7,010	8,503	7,933	7,501	5,054	10,425	4,196	11,212	4,296	11,144	5,456	91,767

Table A-3
Monthly Metered Water Use, Hundred Cubic Feet

BCC	Category	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Total
700	Other Commercial	28		28		28		27		26		26		163
1500	Other Commercial	124	7	144	14	157	3	75	5	83	5	104	3	724
2010	Markets & Foods	122		130	4	177		170		181		200		984
2020	Markets & Foods	56		53		44		44		53		57		307
2030	Markets & Foods	10		13		12		15		21		24		95
2040	Markets & Foods	5		6	3	3		7		8		7		39
2050	Bakeries	1	27	2	24	3	23	1	19	2	16	1	16	135
2051	Bakeries													0
2070	Other Commercial	313		367		476		214		224		301		1,895
2080	Markets & Foods													0
2090	Markets & Foods	1,436		1,501		1,883		1,374		1,180		1,244		8,618
2091	Markets & Foods													0
2300	Other Commercial	3	9	2	6	3	9	2	13	2	12	3	12	76
2400	Other Commercial		40	21	32		22	30		18	19	16	13	211
2500	Other Commercial	65	656	270	394	47	332	269	153	204	239	153	272	3,054
2600	Other Commercial	20	66		72		58		54		63		94	427
2700	Other Commercial	148	43	69	40	74	3	140	11	114	1	107	0	750
2810	Other Commercial	162		155		179		208		209		178		1,091
2820	Other Commercial	368		307		343		367		343		367		2,095
2830	Other Commercial													0
2840	Other Commercial	317		367	340			334		429		386		2,173
2850	Other Commercial	50	7	46	8	32	4	25	3	42	5	45	8	275
2893	Other Commercial	48	114	51	126	47	100	22	66	31	86	23	91	805
3200	Other Commercial	127	84	126	67	127	72	146	64	159	64	140	66	1,242
3300	Other Commercial	720	789	1,166	416	740	423	1,364		1,215	777	688	859	9,157
3400	Other Commercial	481	309	714	168	616	174	648	79	732	308	627	262	5,118
3470	Other Commercial	16	3	13	2	12		17		16		16		95
3500	Other Commercial	83	3	91	22	85	2	60	0	76	2	76	1	501
3590	Other Commercial	573	159	595	136	597	109	458	74	536	79	627	78	4,021
3600	Other Commercial	345	418	636	737	441	175	456	3	452	466	163	560	4,852
3700	Other Commercial	102		190		143		454		153		101		1,143
3800	Other Commercial	159	85	157	76	113	112	123	15	46	68	117	39	1,110
3900	Other Commercial	1,737	1,076	2,737	1,248	403	1,224	1,472	1,083	1,564	1,141	1,476	948	16,109
4100	Other Commercial	11	347	15	392	14	352	11	348	13	353	14	317	2,187
4200	Other Commercial	9,155	2,522	10,179	2,268	9,253	2,205	9,082	1,315	8,118	3,164	7,850	3,136	68,247
4400	Other Commercial	97	1,271	74	682	89		477		296		304		3,290
4500	Other Commercial		6		7		6		6		7		8	40
4700	Other Commercial	329	243	361	237	347	133	360	102	386	137	362	198	3,195
4800	Other Commercial	83	14	93	14	110	11	104		64		61	12	566
4900	Other Commercial	4		0		1		0		1		1		7
4950	Other Commercial	391	89	260	149	307	86	45	76	83	138	39	551	2,214
5000	Other Commercial	388	1,338	831	1,045	488	1,189	2,029	652	975	1,550	1,002	1,155	12,642
5300	Other Commercial	6,918	2,125	6,442	2,202	6,074	1,465	6,063	1,039	6,068	1,039	6,150	1,585	47,170
5400	Markets & Foods	1,330	233	1,306	250	1,176	161	1,272	114	1,291	104	1,103	159	8,499
5540	Other Commercial	981	155	905	229	706	154	614	275	970	282	450	483	6,204
5811	Restaurants	824	515	864	530	782	294	858	314	816	305	806	308	7,216
5812	Restaurants	3,515	2,230	3,665	2,160	3,608	1,300	4,470	942	4,667	1,831	3,486	2,325	34,199
5813	Other Commercial	324	25	290	28	284	27	206		246		234	32	1,696
6513	Multiple Family 5+	34,206	13,949	34,154	14,469	33,596	10,553	36,802	11,105	32,653	16,148	27,418	18,947	284,000
6514	Multiple Family <5	11,283	3,143	11,385	3,139	10,551	2,529	10,622	1,857	11,039	1,722	11,133	2,906	81,309
6800	Mixed Use	6,902	3,539	7,454	3,127	6,251	3,132	4,782	2,322	4,706	2,465	4,520	3,411	52,611
7000	Other Commercial		1,208		1,280		896		946		898	352	726	6,306
7001	Other Commercial		1,567	696	622		552	1,127		592	661	440	544	6,801
7020	Other Commercial	832	675	735	789	561	762	584	544	585	527	788	217	7,599
7200	Other Commercial	412	319	399	234	392	197	438	164	421	166	423	251	3,816
7210	Laundries	174	41	159	43	165	48	139	46	151	39	155	37	1,197
7215	Laundries	1,934		1,940		1,783		2,117		2,043		1,991		11,808
7216	Laundries	222	49	232	147	159	38	260	39	233	37	254	44	1,714
7218	Laundries	1,621		1,741		1,870		1,799		1,790	1,241		1,718	11,780
7260	Other Commercial		171		229		181		168		159		289	1,197
7300	Other Commercial		4		5		6		7		7		8	37
7342	Other Commercial	11		4		6		9		6		23		59
7500	Auto, Steam cleaning	3,882	115	4,075	113	4,111	139	3,767	94	2,896	66	2,777	38	22,073
7539	Other Commercial	1,126	1	1,151	1	865	2	993	1	481	2	0	1	4,624
7542	Auto, Steam cleaning	558	379	573	149	441	84	317	142	379	133	418	342	3,915
7600	Other Commercial	123	44	86	121	64	88	87	18	102	6	72	61	872
7900	Other Commercial	128	143	96	119	108	7	145	6	158	8	172	10	1,100
7950	Other Commercial	21,618	11,627	20,789	8,906	15,231	2,284	6,193	2,750	4,675	1,437	6,032	7,897	109,439
7990	Other Commercial	1,169	8,402	3,298	3,658	1,148	333	1,770	32	1,008	503	2,214	2,320	25,855
8000	Other Commercial	1,290	2,600	1,362	2,563	1,269	2,361	1,249	2,124	1,329	2,508	697	2,855	22,207
8060	Other Commercial	1,584	7,149	977	7,153	735	4,829	355	4,060	829	4,538	938	5,610	38,757
8200	Schools	3,174	3,042	3,730	2,828	2,940	1,001	2,234	690	2,300	626	1,162	1,665	25,392
8600	Other Commercial	3,004	1,671	3,287	1,432	2,816	1,072	2,114	990	2,047	1,140	2,194	1,233	23,000
8800	Single Family	108,234	99,893	100,088	105,999	77,808	55,679	107,389	42,824	111,835	39,659	113,275	67,905	1,030,588
Total		235,456	174,739	233,653	171,254	192,894	97,001	219,405	77,754	214,371	86,957	206,583	132,626	2,042,693

Table A-4
Monthly Average Water Use

BCC	Category	Number of Meters (from Table A-2)							Bimonthly Metered Water Use (from Table A-3)						
		Jul-17 Aug-17	Sep-17 Oct-17	Nov-17 Dec-17	Jan-18 Feb-18	Mar-18 Apr-18	May-18 Jun-18	2-Month Average	Jul-17 Aug-17	Sep-17 Oct-17	Nov-17 Dec-17	Jan-18 Feb-18	Mar-18 Apr-18	May-18 Jun-18	2-Month Average
700	Other Commercial	2	2	2	2	2	2	2	28	28	28	27	26	26	27
1500	Other Commercial	6	7	6	7	6	6	6	131	158	160	80	88	107	121
2010	Markets & Foods	5	6	4	4	4	4	5	122	134	177	170	181	200	164
2020	Markets & Foods	1	1	1	1	1	1	1	56	53	44	44	53	57	51
2030	Markets & Foods	1	1	1	1	1	1	1	10	13	12	15	21	24	16
2040	Markets & Foods	1	2	1	1	1	1	1	5	9	3	7	8	7	7
2050	Bakeries	3	3	3	3	3	3	3	28	26	26	20	18	17	23
2051	Bakeries	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2070	Other Commercial	1	1	1	1	1	1	1	313	367	476	214	224	301	316
2080	Markets & Foods	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2090	Markets & Foods	1	1	1	1	1	1	1	1,436	1,501	1,883	1,374	1,180	1,244	1,436
2091	Markets & Foods	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2300	Other Commercial	3	3	3	3	3	3	3	12	8	12	15	14	15	13
2400	Other Commercial	2	2	1	2	2	2	2	40	53	22	30	37	29	35
2500	Other Commercial	14	13	10	13	13	13	13	721	664	379	422	443	425	509
2600	Other Commercial	5	3	3	3	3	3	3	86	72	58	54	63	94	71
2700	Other Commercial	10	8	6	7	8	7	8	191	109	77	151	115	107	125
2810	Other Commercial	2	2	2	2	2	2	2	162	155	179	208	209	178	182
2820	Other Commercial	5	5	5	5	5	5	5	368	307	343	367	343	367	349
2830	Other Commercial	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2840	Other Commercial	1	2	0	1	1	1	1	317	707	0	334	429	386	362
2850	Other Commercial	4	4	4	4	4	4	4	57	54	36	28	47	53	46
2893	Other Commercial	4	4	4	4	4	4	4	162	177	147	88	117	114	134
3200	Other Commercial	5	5	4	5	5	5	5	211	193	199	210	223	206	207
3300	Other Commercial	12	12	12	12	15	12	13	1,509	1,582	1,163	1,364	1,992	1,547	1,526
3400	Other Commercial	27	27	25	27	29	25	27	790	882	790	727	1,040	889	853
3470	Other Commercial	3	2	2	2	2	2	2	19	15	12	17	16	16	16
3500	Other Commercial	8	9	7	8	8	8	8	86	113	87	60	78	77	84
3590	Other Commercial	23	24	20	22	22	22	22	732	731	706	532	615	705	670
3600	Other Commercial	12	12	8	12	14	12	12	763	1,373	616	459	918	723	809
3700	Other Commercial	10	8	8	8	8	8	8	102	190	143	454	153	101	191
3800	Other Commercial	2	2	2	3	2	2	2	244	233	225	138	114	156	185
3900	Other Commercial	23	30	16	24	22	22	23	2,813	3,985	1,627	2,555	2,705	2,424	2,685
4100	Other Commercial	3	3	3	3	3	3	3	358	407	366	359	366	331	365
4200	Other Commercial	196	216	179	201	205	201	200	11,677	12,447	11,458	10,397	11,282	10,986	11,375
4400	Other Commercial	14	14	1	14	14	14	12	1,368	756	89	477	296	304	548
4500	Other Commercial	1	1	1	1	1	1	1	6	7	6	6	7	8	7
4700	Other Commercial	10	10	10	10	10	10	10	572	598	480	462	523	560	533
4800	Other Commercial	3	3	3	2	3	4	3	97	107	121	104	64	73	94
4900	Other Commercial	1	1	1	1	1	1	1	4	0	1	0	1	1	1
4950	Other Commercial	9	8	8	8	10	8	9	480	409	393	121	221	590	369
5000	Other Commercial	51	55	49	56	58	52	54	1,726	1,876	1,677	2,681	2,525	2,157	2,107
5300	Other Commercial	219	214	206	196	209	236	213	9,043	8,644	7,539	7,102	7,107	7,735	7,862
5400	Markets & Foods	26	26	23	24	26	27	25	1,563	1,556	1,337	1,386	1,395	1,262	1,417
5540	Other Commercial	22	20	17	22	21	21	21	1,136	1,134	860	889	1,252	933	1,034
5811	Restaurants	26	26	23	27	24	27	26	1,339	1,394	1,076	1,172	1,121	1,114	1,203
5812	Restaurants	71	71	60	64	77	85	71	5,745	5,825	4,908	5,412	6,498	5,811	5,700
5813	Other Commercial	9	9	9	6	9	12	9	349	318	311	206	246	266	283
6513	Multiple Family 5+	292	286	278	308	310	312	298	48,155	48,623	44,149	47,907	48,801	46,365	47,333
6514	Multiple Family <5	463	464	453	423	458	499	460	14,426	14,524	13,080	12,479	12,761	14,039	13,552
6800	Mixed Use	267	265	249	259	269	279	265	10,441	10,581	9,383	7,104	7,171	7,931	8,769
7000	Other Commercial	2	2	2	2	2	4	2	1,208	1,280	896	946	898	1,078	1,051
7001	Other Commercial	4	4	2	4	6	4	4	1,567	1,318	552	1,127	1,253	984	1,134
7020	Other Commercial	4	4	4	4	4	5	4	1,507	1,524	1,323	1,128	1,112	1,005	1,267
7200	Other Commercial	74	78	64	64	75	87	74	731	633	589	602	587	674	636
7210	Laundries	6	6	6	6	6	6	6	215	202	213	185	190	192	200
7215	Laundries	6	6	6	6	6	6	6	1,934	1,940	1,783	2,117	2,043	1,991	1,968
7216	Laundries	9	11	6	9	9	11	9	271	379	197	299	270	298	286
7218	Laundries	1	1	1	1	3	1	1	1,621	1,741	1,870	1,799	3,031	1,718	1,963
7260	Other Commercial	2	2	2	2	2	2	2	171	229	181	168	159	289	200
7300	Other Commercial	1	1	1	1	1	1	1	4	5	6	7	7	8	6
7342	Other Commercial	1	1	1	1	1	1	1	11	4	6	9	6	23	10
7500	Auto, Steam cleanii	59	59	56	55	57	60	58	3,997	4,188	4,250	3,861	2,962	2,815	3,679
7539	Other Commercial	3	3	3	3	3	3	3	1,127	1,152	867	994	483	1	771
7542	Auto, Steam cleanii	5	5	5	6	5	5	5	937	722	525	459	512	760	653
7600	Other Commercial	7	7	7	6	9	7	7	167	207	152	105	108	133	145
7900	Other Commercial	14	14	11	15	14	14	14	271	215	115	151	166	182	183
7950	Other Commercial	214	212	173	216	211	224	208	33,245	29,695	17,515	8,943	6,112	13,929	18,240
7990	Other Commercial	26	26	14	26	32	27	25	9,571	6,956	1,481	1,802	1,511	4,534	4,309
8000	Other Commercial	49	49	50	45	52	53	50	3,890	3,925	3,630	3,373	3,837	3,552	3,701
8060	Other Commercial	13	13	13	12	13	16	13	8,733	8,130	5,564	4,415	5,367	6,548	6,460
8200	Schools	30	30	28	29	34	32	31	6,216	6,558	3,941	2,924	2,926	2,827	4,232
8600	Other Commercial	64	66	62	60	65	67	64	4,675	4,719	3,888	3,104	3,187	3,427	3,833
8800	Single Family	13,574	13,943	10,303	12,235	12,998	13,990	12,841	208,127	206,087	133,487	150,213	151,494	181,180	171,765
Total		16,047	16,436	12,555	14,621	15,508	16,600	15,295	410,195	404,907	289,895	297,159	301,328	339,209	340,449

Table A-4
Monthly Average Water Use

		Monthly Average Water Use per Meter, HCF							
BCC	Category	Jul-17	Sep-17	Nov-17	Jan-18	Mar-18	May-18	Average	
		Aug-17	Oct-17	Dec-17	Feb-18	Apr-18	Jun-18		
700	Other Commercial	14	14	14	14	13	13	14	
1500	Other Commercial	22	23	27	11	15	18	19	
2010	Markets & Foods	24	22	44	43	45	50	38	
2020	Markets & Foods	56	53	44	44	53	57	51	
2030	Markets & Foods	10	13	12	15	21	24	16	
2040	Markets & Foods	5	5	3	7	8	7	6	
2050	Bakeries	9	9	9	7	6	6	8	
2051	Bakeries	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
2070	Other Commercial	313	367	476	214	224	301	316	
2080	Markets & Foods	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
2090	Markets & Foods	1,436	1,501	1,883	1,374	1,180	1,244	1,436	
2091	Markets & Foods	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
2300	Other Commercial	4	3	4	5	5	5	4	
2400	Other Commercial	20	27	22	15	19	15	19	
2500	Other Commercial	52	51	38	32	34	33	40	
2600	Other Commercial	17	24	19	18	21	31	22	
2700	Other Commercial	19	14	13	22	14	15	16	
2810	Other Commercial	81	78	90	104	105	89	91	
2820	Other Commercial	74	61	69	73	69	73	70	
2830	Other Commercial	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	
2840	Other Commercial	317	354	#DIV/0!	334	429	386	#DIV/0!	
2850	Other Commercial	14	14	9	7	12	13	11	
2893	Other Commercial	41	44	37	22	29	29	34	
3200	Other Commercial	42	39	50	42	45	41	43	
3300	Other Commercial	126	132	97	114	133	129	122	
3400	Other Commercial	29	33	32	27	36	36	32	
3470	Other Commercial	6	8	6	9	8	8	7	
3500	Other Commercial	11	13	12	8	10	10	10	
3590	Other Commercial	32	30	35	24	28	32	30	
3600	Other Commercial	64	114	77	38	66	60	70	
3700	Other Commercial	10	24	18	57	19	13	23	
3800	Other Commercial	122	117	113	46	57	78	89	
3900	Other Commercial	122	133	102	106	123	110	116	
4100	Other Commercial	119	136	122	120	122	110	122	
4200	Other Commercial	60	58	64	52	55	55	57	
4400	Other Commercial	98	54	89	34	21	22	53	
4500	Other Commercial	6	7	6	6	7	8	7	
4700	Other Commercial	57	60	48	46	52	56	53	
4800	Other Commercial	32	36	40	52	21	18	33	
4900	Other Commercial	4	0	1	0	1	1	1	
4950	Other Commercial	53	51	49	15	22	74	44	
5000	Other Commercial	34	34	34	48	44	41	39	
5300	Other Commercial	41	40	37	36	34	33	37	
5400	Markets & Foods	60	60	58	58	54	47	56	
5540	Other Commercial	52	57	51	40	60	44	51	
5811	Restaurants	52	54	47	43	47	41	47	
5812	Restaurants	81	82	82	85	84	68	80	
5813	Other Commercial	39	35	35	34	27	22	32	
6513	Multiple Family 5+	165	170	159	156	157	149	159	
6514	Multiple Family <5	31	31	29	30	28	28	29	
6800	Mixed Use	39	40	38	27	27	28	33	
7000	Other Commercial	604	640	448	473	449	270	481	
7001	Other Commercial	392	330	276	282	209	246	289	
7020	Other Commercial	377	381	331	282	278	201	308	
7200	Other Commercial	10	8	9	9	8	8	9	
7210	Laundries	36	34	36	31	32	32	33	
7215	Laundries	322	323	297	353	341	332	328	
7216	Laundries	30	34	33	33	30	27	31	
7218	Laundries	1,621	1,741	1,870	1,799	1,010	1,718	1,627	
7260	Other Commercial	86	115	91	84	80	145	100	
7300	Other Commercial	4	5	6	7	7	8	6	
7342	Other Commercial	11	4	6	9	6	23	10	
7500	Auto, Steam cleanii	68	71	76	70	52	47	64	
7539	Other Commercial	376	384	289	331	161	0	257	
7542	Auto, Steam cleanii	187	144	105	77	102	152	128	
7600	Other Commercial	24	30	22	18	12	19	21	
7900	Other Commercial	19	15	10	10	12	13	13	
7950	Other Commercial	155	140	101	41	29	62	88	
7990	Other Commercial	368	268	106	69	47	168	171	
8000	Other Commercial	79	80	73	75	74	67	75	
8060	Other Commercial	672	625	428	368	413	409	486	
8200	Schools	207	219	141	101	86	88	140	
8600	Other Commercial	73	72	63	52	49	51	60	
8800	Single Family	15.3	14.8	13.0	12.3	11.7	13.0	13.3	
Total		26	25	23	20	19	20	22	

Table A-5
 Summary of EBMUD Water Use Data and Estimated Wastewater Discharge

	Water Use		FY18 Wastewater Annual (Winter x 6) HCF	Wastewater Use Divided by Water Use Factor	Average Number of Meters or Accounts	FY18 Average Monthly Wastewater Discharge	
	Jul-17 to Jun-18 Annual HCF <i>from Table A-3</i>	Mar-18 to Apr-18 Winter HCF <i>from Table A-4</i>				HCF	HCF
Residential							
Single family	1,030,588	151,494	908,964	0.882	12,841	5.9	145
Multiple Family 5+	284,000	46,365	278,190	0.980	298	77.9	1,915
Multiple Family <5	81,309	14,039	84,234	1.036	460	15.3	375
Multiple Family All	365,309	60,404	362,424	0.992	758	39.9	89
Commercial							
Auto, Steam cleaning	25,988	3,474	20,844	0.802	63	28	680
Bakeries	135	18	108	0.800	3	3	74
Laundries	26,499	5,534	33,204	1.253	23	123	3,024
Markets & Foods	18,542	2,838	17,028	0.918	34	42	1,026
Mixed Use	52,611	7,171	43,026	0.818	265	14	333
Restaurants	41,415	7,619	45,714	1.104	97	39	968
Other Commercial	456,214	58,692	352,152	0.772	1,182	25	611
Institutional							
Schools	25,392	2,926	17,556	0.691	31	48	1,180

Table A-6
 FY18 SIU Flow, BOD, and SS

User	Account Name	Flow MG	Flow HCF	BOD Klbs	SS Klbs	Average BOD mg/L	Average SS mg/L
1	21st Amendment Brewery	4.7	6,267	323	104		
2	Alexandre Family Creamery	0.8	1,030	4	1		
3	Aryzta Cookie	2.0	2,669	45	30		
4	Bakery St.	0.4	497	6	2		
5	Coca Cola	55.7	74,416	500	152		
6	Costco	3.9	5,184	31	16		
7	Drake's Brewing	5.0	6,667	149	27		
8	Davis Street Transfer Station	7.1	9,461	14	30		
9	Georgia Pac Corrug	7.5	10,075	66	63		
10	Berber Food/Mi Rancho	1.0	1,376	39	48		
11	National Construction	1.6	2,201	13	11		
12	Saags Sausage	10.4	13,845	53	10		
13	Safeway Milk Processing Plant	66.6	88,971	1,195	444		
14	San Francisco Foods	5.0	6,674	23	18		
15	Spar Sausage Company	0.5	696	2	1		
16	True World Foods, Inc	1.0	1,390	6	3		
17	Weber's Quality Meats	0.7	941	13	6		
18	Wills Family Favorites	1.6	2,098	10	9		
19	WMT Oyster Bay	18.6	24,812	56	0		
20	Wycen	0.6	792	7	7		
Total		194.5	260,062	2,554	982	1,574	605

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Appendix B: Customer Projected Wastewater Discharge Characteristics

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Table B-1
Accounts and Billing Units

	FY19	FY20	FY21	FY22	FY23	FY24
Accounts						
Residential						
Single family	14,142	14,142	14,142	14,142	14,142	14,142
Multiple family	363	363	363	363	363	363
Commercial						
Auto, Steam cleaning	63	63	63	63	63	63
Bakeries	3	3	3	3	3	3
Laundries	23	23	23	23	23	23
Markets & foods	34	34	34	34	34	34
Mixed Use	265	265	265	265	265	265
Restaurants	97	97	97	97	97	97
All other	1,182	1,182	1,182	1,182	1,182	1,182
Institutional						
Schools	31	31	31	31	31	31
Industrial	20	20	20	20	20	20
Inflow/Infiltration	1	1	1	1	1	1
Total Accounts	16,222	16,222	16,222	16,222	16,222	16,222
Billing Units						
Residential						
Single family	14,142	14,142	14,142	14,142	14,142	14,142
Multiple family	4,243	4,243	4,243	4,243	4,243	4,243
Commercial						
Auto, Steam cleaning	63	63	63	63	63	63
Bakeries	3	3	3	3	3	3
Laundries	23	23	23	23	23	23
Markets & foods	34	34	34	34	34	34
Mixed Use	265	265	265	265	265	265
Restaurants	97	97	97	97	97	97
All other	1,182	1,182	1,182	1,182	1,182	1,182
Institutional						
Schools	31	31	31	31	31	31
Industrial	20	20	20	20	20	20
Inflow/Infiltration	1	1	1	1	1	1
Total Billing Units	20,102	20,102	20,102	20,102	20,102	20,102

Table B-2
Average and Annual Wastewater Discharge

	FY19	FY20	FY21	FY22	FY23	FY24
Wastewater Flow, gallons per day/billing unit	<u>Current Values</u>					
Residential	<u>Values</u>					
Single family	189	145	145	145	145	145
Multiple family	158	121	121	121	121	121
Commercial						
Auto, Steam cleaning	632	680	680	680	680	680
Bakeries	3,041	74	74	74	74	74
Laundries	1,353	3,024	3,024	3,024	3,024	3,024
Markets & foods	627	1,026	1,026	1,026	1,026	1,026
Mixed Use	700	333	333	333	333	333
Restaurants	896	968	968	968	968	968
All other	485	611	611	611	611	611
Institutional						
Schools	2,546	1,180	1,180	1,180	1,180	1,180
Industrial	26,649	26,649	26,649	26,649	26,649	26,649
Inflow/Infiltration	210,046	210,046	210,046	210,046	210,046	210,046
Wastewater Volume, million gallons						
Residential	<u>FY08</u>					
Single family	1,061	976	748	748	748	748
Multiple family	278	245	187	187	187	187
Commercial						
Auto, Steam cleaning	1.7	14.5	15.6	15.6	15.6	15.6
Bakeries	5.5	3.3	0.1	0.1	0.1	0.1
Laundries	0.7	11.1	24.8	24.8	24.8	24.8
Markets & foods	10.5	7.8	12.7	12.7	12.7	12.7
Mixed Use	0.2	67.6	32.2	32.2	32.2	32.2
Restaurants	27.7	31.7	34.2	34.2	34.2	34.2
All other	253.7	209.2	263.4	263.4	263.4	263.4
Institutional						
Schools	12.9	28.3	13.1	13.1	13.1	13.1
Industrial	195.0	195	195	195	195	195
Inflow/Infiltration	53.6	77	77	77	77	77
Total Wastewater Volume	1,906	1,865	1,603	1,603	1,603	1,603
Water Volume, million gallons	<u>Adjustment</u>					
Commercial	<u>Factor</u>					
Auto, Steam cleaning	0.800	18.11	19.49	19.49	19.49	19.49
Bakeries	0.800	4.16	0.10	0.10	0.10	0.10
Laundries	1.000	11.11	24.84	24.84	24.84	24.84
Markets & foods	0.920	8.46	13.85	13.85	13.85	13.85
Mixed Use	0.820	82.47	39.25	39.25	39.25	39.25
Restaurants	1.000	31.66	34.20	34.20	34.20	34.20
All other	0.770	271.63	342.11	342.11	342.11	342.11
Institutional						
Schools	0.690	41.08	19.03	19.03	19.03	19.03

Notes:

- 1 Baseline values for single family customers are decreased by 23% from 189 gpd to 145 gpd. Values for multiple family customers are based on 84% of single family values.

Table B-3
Average and Annual Wastewater BOD

	FY19	FY20	FY21	FY22	FY23	FY24
Average Concentration, milligrams / liter	<u>Current Values</u>					
Residential						
Single family	195	300	300	300	300	300
Multiple family	193	300	300	300	300	300
Commercial						
Auto, Steam cleaning	1,000	1,000	1,000	1,000	1,000	1,000
Bakeries	1,000	1,000	1,000	1,000	1,000	1,000
Laundries	450	450	450	450	450	450
Markets & foods	800	800	800	800	800	800
Mixed Use	800	800	800	800	800	800
Restaurants	1,000	1,000	1,000	1,000	1,000	1,000
All other	275	300	300	300	300	300
Institutional						
Schools	200	300	300	300	300	300
Industrial	1,574	1,574	1,574	1,574	1,574	1,574
Inflow/Infiltration	20	20	20	20	20	20
Wastewater BOD Load, thousand pounds						
Residential	<u>FY08</u>					
Single family	1,549	1,587	1,873	1,873	1,873	1,873
Multiple family	405	394	469	469	469	469
Commercial						
Auto, Steam cleaning	16.6	120.8	130.0	130.0	130.0	130.0
Bakeries	46.3	27.8	0.7	0.7	0.7	0.7
Laundries	2.7	41.7	93.2	93.2	93.2	93.2
Markets & foods	70.2	51.9	85.0	85.0	85.0	85.0
Mixed Use	1.1	451.2	214.7	214.7	214.7	214.7
Restaurants	231.2	264.1	285.2	285.2	285.2	285.2
All other	370.2	479.7	659.1	659.1	659.1	659.1
Institutional						
Schools	18.9	47.28	32.86	32.86	32.86	32.86
Industrial	3,708	2,554	2,554	2,554	2,554	2,554
Inflow/Infiltration	1,175	13	13	13	13	13
Total Wastewater BOD	7,602	6,032	6,410	6,410	6,410	6,410

Table B-4
Average and Annual Wastewater SS

	FY19	FY20	FY21	FY22	FY23	FY24
Average Concentration, milligrams / liter	<u>Current Values</u>					
Residential						
Single family	195	320	320	320	320	320
Multiple family	193	320	320	320	320	320
Commercial						
Auto, Steam cleaning	1,000	1,100	1,100	1,100	1,100	1,100
Bakeries	600	600	600	600	600	600
Laundries	240	240	240	240	240	240
Markets & foods	800	900	900	900	900	900
Mixed Use	800	800	800	800	800	800
Restaurants	600	600	600	600	600	600
All other	275	320	320	320	320	320
Institutional						
Schools	200	320	320	320	320	320
Industrial	605	605	605	605	605	605
Inflow/Infiltration	60	60	60	60	60	60
Wastewater SS Load, thousand pounds						
Residential	<u>FY08</u>					
Single family	1,549	1,587	1,998	1,998	1,998	1,998
Multiple family	405	394	500	500	500	500
Commercial						
Auto, Steam cleaning	18.0	120.8	143.0	143.0	143.0	143.0
Bakeries	27.8	16.7	0.4	0.4	0.4	0.4
Laundries	1.4	22.2	49.7	49.7	49.7	49.7
Markets & foods	70.2	51.9	95.6	95.6	95.6	95.6
Mixed Use	1.1	451.2	214.7	214.7	214.7	214.7
Restaurants	138.7	158.4	171.1	171.1	171.1	171.1
All other	370.2	479.7	703.0	703.0	703.0	703.0
Institutional						
Schools	18.9	47.28	35.05	35.05	35.05	35.05
Industrial	1,137	982	982	982	982	982
Inflow/Infiltration	1,140	38	38	38	38	38
Total Wastewater SS	4,885	4,349	4,931	4,931	4,931	4,931

Table B-5
Water Pollution Control Plant Influent Characteristics

Fiscal Year 2017-2018	Measured ⁽¹⁾	Calculated ⁽²⁾	Calculated ⁽²⁾	Measured ⁽¹⁾	Measured ⁽¹⁾	Days in Month
	Flow mg	BOD K lb	SS K lb	BOD mg/l	SS mg/l	
Jul-17	142	519	424	438	358	31
Aug-17	139	521	434	449	374	31
Sep-17	133	570	420	514	379	30
Oct-17	132	563	423	511	384	31
Nov-17	138	584	502	507	436	30
<u>Dec-17</u>	<u>131</u>	524	380	<u>480</u>	<u>348</u>	<u>31</u>
Jan-18	160	627	422	470	316	31
Feb-18	125	490	453	470	435	28
Mar-18	162	551	481	408	356	31
Apr-18	160	528	459	396	344	30
May-18	145	624	481	516	398	31
<u>Jun-18</u>	<u>131</u>	<u>493</u>	<u>440</u>	451	403	<u>30</u>
Total	1,698	6,593	5,319			365
Average Day	4.65	18.06	14.57	466	376	

<u>Inflow/Infiltration Calculation</u>	<u>Flow, mg</u>	<u>Months</u>	<u>mg/Month</u>		
Jan/Mar/Apr average with I/I >	482	3	161		
Monthly average without I/I >	1,216	9	135	Months	Total I/I, mg per year
monthly average I/I >			26	3	76.7

<u>Annual Summary</u>	<u>Flow, mg</u>	<u>BOD, K lb</u>	<u>SS, K lb</u>
Water Pollution Control Plant >	1,698	6,593	5,319
FY18 Customer ⁽³⁾ >	1,527	6,397	4,893
<u>I/I ></u>	<u>77</u>	<u>13</u>	<u>38</u>
Difference from WPCP >	95	184	389
<i>Difference as a % of WPCP ></i>	6%	3%	7%

Notes:

- 1 Measurements of flow, in million gallons; and BOD and SS, in milligrams per liter, were provided by the City.
- 2 Thousand pounds (K lb) was calculated using the formula: million gallons x mg/l x 8.34 [a conversion factor] / 1000.
- 3 Customer data was based on FY18 use.

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Appendix C: Cash Flow Table

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Table C-1
Wastewater Fund 593 FY19 Expenditure Detail

Expense Code	Description	Collection System	WPCP Operations	East Bay Dischargers Authority	East Bay Municipal Utility District
4101	Regular Salaries-General	721,363.03	2,306,724.50	409,626.50	53,059.43
4103	Salaries-Temp/Part	0.00	66,483.61	0.00	0.00
4110	Overtime-General	45,429.94	47,110.58	5,739.60	0.00
4201	FICA/Regular	47,541.16	147,545.96	25,752.70	3,289.68
4210	PERS/General	260,052.00	837,503.41	148,203.35	19,525.87
4220	Health Insurance-General	137,588.42	348,175.26	50,796.44	0.00
4240	Medicare	11,118.50	35,094.62	6,022.81	769.36
4301	Vacancy Savings	-30,577.33	-94,715.95	-16,153.53	-1,916.11
5120	Consulting	0.00	30,000.00	0.00	0.00
5190	Miscellaneous	0.00	65,000.00	0.00	0.00
5240	Construction	0.00	55,000.00	0.00	0.00
5310	Equipment Room-Outside	2,600.00	56,800.00	200.00	0.00
5311	Software Maintenance	0.00	54,190.00	0.00	0.00
5330	Structural R&M	5,000.00	441,650.00	0.00	0.00
5340	Grounds R&M	0.00	28,200.00	0.00	0.00
5360	Laundry Service	2,200.00	9,000.00	0.00	0.00
5420	Electricity	30,000.00	550,000.00	0.00	0.00
5421	Gas	0.00	2,500.00	0.00	0.00
5430	Water	12,000.00	6,000.00	0.00	0.00
5440	Sewer	0.00	292,000.00	0.00	0.00
5450	Refuse	0.00	35,000.00	0.00	0.00
5510	Transportation/Training	2,850.00	22,000.00	0.00	0.00
5520	Memberships	1,000.00	7,300.00	0.00	0.00
5530	Notices/Publications	500.00	5,000.00	0.00	0.00
5540	Subscriptions	0.00	200.00	0.00	0.00
5610	Equipment-Outside	0.00	6,000.00	400.00	0.00
5830	Other Gov't Agency Fees	0.00	201,200.00	0.00	0.00
5890	Miscellaneous	0.00	46,892.00	2,700.00	0.00
6105	Hardware	0.00	7,000.00	100.00	0.00
6120	Electrical	0.00	30,000.00	750.00	0.00
6130	Plumbing & Irrigation	0.00	4,000.00	0.00	0.00
6140	Horticultural	0.00	500.00	0.00	0.00
6180	Fuel & Oil	0.00	25,500.00	0.00	0.00
6190	Miscellaneous	2,000.00	91,425.00	4,898.00	0.00
6210	Books	250.00	500.00	0.00	0.00
6220	Laboratory Supplies	0.00	25,000.00	8,000.00	500.00
6250	First Aid & Safety	0.00	9,000.00	0.00	0.00
6270	Uniforms	3,000.00	14,475.00	0.00	0.00
6290	Miscellaneous	24,150.00	217,000.00	2,000.00	0.00
6310	Postage & Delivery	100.00	500.00	0.00	0.00
6320	Stationary/Envelopes	0.00	6,000.00	0.00	0.00
6330	Forms Printing	0.00	350.00	0.00	0.00
7401	Fixed Assets <\$500	0.00	10,000.00	0.00	0.00
7410	Furniture & Equipment	7,000.00	31,700.00	0.00	0.00
7510	Automotive Equipment	0.00	6,500.00	0.00	0.00
8311	Vehicle R&M	274,246.45	174,849.04	28,904.76	0.00
8315	Information Technology	0.00	149,292.00	0.00	0.00
8320	Buildings R&M	0.00	165,436.31	0.00	0.00
8330	Insurance Services	69,395.03	215,458.59	36,534.66	4,305.05
8350	Administrative Support	0.00	726,109.00	0.00	0.00
	Total	1,628,807.20	7,518,448.93	714,475.29	79,533.28

Source: City of San Leandro Expenditure Budget Detail Fiscal Year 2019 pages 324-350.

Table C-2
 Projected Capital Expenditures

	Budget FY19	Projected					Total FY20-FY24
		FY20	FY21	FY22	FY23	FY24	
Collection System & Plant	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	10,000,000
FY19							
Solar	1,900,000						
As-built	500,000						
Dirt Relocation	6,600,000						
FY20							
Treatment Wetland		3,500,000					3,500,000
FY21							
FFR Demo and disposal			2,000,000				2,000,000
Collection crew dump station			400,000				400,000
FY22							
Lift station replacement				3,500,000			3,500,000
FY23							
Eden Road land purchase and frontage fees					2,500,000		2,500,000
FY24							
Planning and Design for Nutrient caps						1,500,000	1,500,000
Total	#####	5,500,000	4,400,000	5,500,000	4,500,000	3,500,000	23,400,000

Table C-3
Projected Cash Flow

	Budget FY18	Budget FY19	Projected				
			FY20	FY21	FY22	FY23	FY24
Beginning Fund Balance	30,070,299	27,397,504	18,041,376	14,344,216	12,702,073	11,048,699	11,607,926
Revenues							
Sewer Service Charges	12,559,635	12,933,970	13,477,000	14,757,000	16,159,000	17,694,000	19,375,000
Other Revenues	560,000	760,000	767,600	775,276	783,029	790,859	798,768
General Fund Loan Repayment	490,109	504,812	519,957	535,556	551,622	568,171	583,539
Interest Income	189,163	285,000	180,414	143,442	127,021	110,487	116,079
Total	13,798,907	14,483,782	14,944,971	16,211,274	17,620,672	19,163,517	20,873,386
Expenditures							
Collection System	1,513,274	1,628,807	1,677,671	1,728,001	1,779,841	1,833,236	1,888,233
WPCP Operations	6,702,207	6,792,340	6,996,110	7,205,993	7,422,173	7,644,838	7,874,183
Administrative Support	726,109	726,109	747,892	770,329	793,439	817,242	841,759
EBDA	912,619	714,475	735,909	757,986	780,726	804,148	828,272
EBMUD	97,916	79,533	81,919	84,377	86,908	89,515	92,200
Transfers	153,714	132,782	136,765	140,868	145,094	149,447	153,930
Debt Service	2,765,864	2,765,864	2,765,864	2,765,864	2,765,864	2,765,864	2,765,864
Capital Projects	3,600,000	11,000,000	5,500,000	4,400,000	5,500,000	4,500,000	3,500,000
Total	16,471,703	23,839,910	18,642,130	17,853,418	19,274,045	18,604,290	17,944,441
Annual Surplus / (Shortfall)	(2,672,795)	(9,356,128)	(3,697,159)	(1,642,144)	(1,653,373)	559,227	2,928,945
Ending Fund Balance	27,397,504	18,041,376	14,344,216	12,702,073	11,048,699	11,607,926	14,536,871
Debt Service Coverage Ratio							
Net Revenues							
Operating Revenues	13,798,907	14,483,782	14,944,971	16,211,274	17,620,672	19,163,517	20,873,386
Operating O&M	10,105,839	10,074,046	10,376,266	10,687,554	11,008,181	11,338,426	11,678,577
Net Revenues	3,693,069	4,409,736	4,568,705	5,523,720	6,612,491	7,825,091	9,194,809
Debt Service	2,765,864	2,765,864	2,765,864	2,765,864	2,765,864	2,765,864	2,765,864
Coverage Ratio							
Net Revenues	3,693,069	4,409,736	4,568,705	5,523,720	6,612,491	7,825,091	9,194,809
Debt Service	2,765,864	2,765,864	2,765,864	2,765,864	2,765,864	2,765,864	2,765,864
Coverage Ratio	1.34x	1.59x	1.65x	2.00x	2.39x	2.83x	3.32x

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Appendix D: Cost Allocation Tables

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Table D-1
Accounts and Billing Units Revenue by Customer Class

		FY20	FY21	FY22	FY23	FY24
Unit Cost, \$ per Account/Year	<i>from Table 4-2</i>	\$80.45	\$88.09	\$96.45	\$105.62	\$115.65
Accounts/Billing Units						
Residential						
Single family	<i>from Table B-1</i>	14,142	14,142	14,142	14,142	14,142
Multiple family	<i>from Table B-1</i>	363	363	363	363	363
Commercial						
Auto, Steam cleaning	<i>from Table B-1</i>	63	63	63	63	63
Bakeries	<i>from Table B-1</i>	3	3	3	3	3
Laundries	<i>from Table B-1</i>	23	23	23	23	23
Markets & foods	<i>from Table B-1</i>	34	34	34	34	34
Mixed Use	<i>from Table B-1</i>	265	265	265	265	265
Restaurants	<i>from Table B-1</i>	97	97	97	97	97
All other	<i>from Table B-1</i>	1,182	1,182	1,182	1,182	1,182
Institutional						
Schools	<i>from Table B-1</i>	31	31	31	31	31
Industrial	<i>from Table B-1</i>	20	20	20	20	20
Inflow/Infiltration	<i>from Table B-1</i>	not applicable				
Total Accounts		16,221	16,221	16,221	16,221	16,221
Revenue						
Residential						
Single family		\$1,137,653	\$1,245,704	\$1,364,053	\$1,493,629	\$1,635,530
Multiple family		\$29,202	\$31,975	\$35,013	\$38,339	\$41,981
Commercial						
Auto, Steam cleaning		\$5,055	\$5,535	\$6,061	\$6,636	\$7,267
Bakeries		\$241	\$264	\$289	\$317	\$347
Laundries		\$1,810	\$1,982	\$2,170	\$2,376	\$2,602
Markets & foods		\$2,735	\$2,995	\$3,279	\$3,591	\$3,932
Mixed Use		\$21,291	\$23,313	\$25,528	\$27,953	\$30,609
Restaurants		\$7,790	\$8,530	\$9,340	\$10,227	\$11,199
All other		\$95,086	\$104,117	\$114,009	\$124,839	\$136,699
Institutional						
Schools		\$2,454	\$2,687	\$2,942	\$3,221	\$3,527
Industrial		\$1,609	\$1,762	\$1,929	\$2,112	\$2,313
Inflow/Infiltration		not applicable				
Total Account/Billing Units Revenue		\$1,304,925	\$1,428,863	\$1,564,613	\$1,713,241	\$1,876,006

Table D-2
Flow Revenue by Customer Class

		FY20	FY21	FY22	FY23	FY24
Unit Cost, \$ per Million Gallons	<i>from Table 4-2</i>	\$3,315	\$3,630	\$3,974	\$4,352	\$4,766
Flow, Million Gallons						
Residential						
Single family	<i>from Table B-2</i>	748	748	748	748	748
Multiple family	<i>from Table B-2</i>	187	187	187	187	187
Commercial						
Auto, Steam cleaning	<i>from Table B-2</i>	16	16	16	16	16
Bakeries	<i>from Table B-2</i>	0	0	0	0	0
Laundries	<i>from Table B-2</i>	25	25	25	25	25
Markets & foods	<i>from Table B-2</i>	13	13	13	13	13
Mixed Use	<i>from Table B-2</i>	32	32	32	32	32
Restaurants	<i>from Table B-2</i>	34	34	34	34	34
All other	<i>from Table B-2</i>	263	263	263	263	263
Institutional						
Schools	<i>from Table B-2</i>	13	13	13	13	13
Industrial	<i>from Table B-2</i>	195	195	195	195	195
Inflow/Infiltration	<i>from Table B-2</i>	77	77	77	77	77
Total Accounts		1,603	1,603	1,603	1,603	1,603
Revenue						
Residential						
Single family		\$2,481,033	\$2,716,673	\$2,974,773	\$3,257,357	\$3,566,819
Multiple family		\$621,172	\$680,169	\$744,789	\$815,539	\$893,019
Commercial						
Auto, Steam cleaning		\$51,686	\$56,595	\$61,972	\$67,859	\$74,306
Bakeries		\$268	\$293	\$321	\$352	\$385
Laundries		\$82,335	\$90,154	\$98,720	\$108,097	\$118,367
Markets & foods		\$42,224	\$46,234	\$50,626	\$55,435	\$60,702
Mixed Use		\$106,690	\$116,823	\$127,922	\$140,073	\$153,381
Restaurants		\$113,355	\$124,121	\$135,913	\$148,824	\$162,963
All other		\$873,216	\$956,151	\$1,046,991	\$1,146,448	\$1,255,365
Institutional						
Schools		\$43,533	\$47,667	\$52,196	\$57,154	\$62,584
Industrial		\$644,866	\$706,113	\$773,197	\$846,646	\$927,081
Inflow/Infiltration		\$254,137	\$278,274	\$304,711	\$333,657	\$365,356
Total Flow Revenue		\$5,314,513	\$5,819,268	\$6,372,132	\$6,977,443	\$7,640,328

Table D-3
BOD Revenue by Customer Class

		FY20	FY21	FY22	FY23	FY24
Unit Cost, \$ per Thousand Pounds	<i>from Table 4-2</i>	\$459	\$502	\$550	\$602	\$659
BOD, Thousand Pounds						
Residential						
Single family	<i>from Table B-3</i>	1,873	1,873	1,873	1,873	1,873
Multiple family	<i>from Table B-3</i>	469	469	469	469	469
Commercial						
Auto, Steam cleaning	<i>from Table B-3</i>	130	130	130	130	130
Bakeries	<i>from Table B-3</i>	1	1	1	1	1
Laundries	<i>from Table B-3</i>	93	93	93	93	93
Markets & foods	<i>from Table B-3</i>	85	85	85	85	85
Mixed Use	<i>from Table B-3</i>	215	215	215	215	215
Restaurants	<i>from Table B-3</i>	285	285	285	285	285
All other	<i>from Table B-3</i>	659	659	659	659	659
Institutional						
Schools	<i>from Table B-3</i>	33	33	33	33	33
Industrial	<i>from Table B-3</i>	2,554	2,554	2,554	2,554	2,554
Inflow/Infiltration	<i>from Table B-3</i>	13	13	13	13	13
Total Accounts		6,410	6,410	6,410	6,410	6,410
Revenue						
Residential						
Single family		\$858,667	\$940,220	\$1,029,547	\$1,127,347	\$1,234,449
Multiple family		\$214,983	\$235,401	\$257,766	\$282,252	\$309,067
Commercial						
Auto, Steam cleaning		\$59,627	\$65,290	\$71,493	\$78,285	\$85,722
Bakeries		\$309	\$338	\$370	\$406	\$444
Laundries		\$42,743	\$46,803	\$51,249	\$56,117	\$61,449
Markets & foods		\$38,969	\$42,670	\$46,724	\$51,162	\$56,023
Mixed Use		\$98,465	\$107,817	\$118,061	\$129,276	\$141,557
Restaurants		\$130,771	\$143,191	\$156,795	\$171,690	\$188,001
All other		\$302,214	\$330,917	\$362,356	\$396,777	\$434,473
Institutional						
Schools		\$15,066	\$16,497	\$18,065	\$19,781	\$21,660
Industrial		\$1,171,277	\$1,282,521	\$1,404,368	\$1,537,773	\$1,683,868
Inflow/Infiltration		\$5,864	\$6,421	\$7,031	\$7,698	\$8,430
Total BOD Revenue		\$2,938,955	\$3,218,087	\$3,523,824	\$3,858,564	\$4,225,143

Table D-4
SS Revenue by Customer Class

		FY20	FY21	FY22	FY23	FY24
Unit Cost, \$ per Thousand Pounds	<i>from Table 4-2</i>	\$795	\$870	\$953	\$1,043	\$1,142
SS, Thousand Pounds						
Residential						
Single family	<i>from Table B-4</i>	1,998	1,998	1,998	1,998	1,998
Multiple family	<i>from Table B-4</i>	500	500	500	500	500
Commercial						
Auto, Steam cleaning	<i>from Table B-4</i>	143	143	143	143	143
Bakeries	<i>from Table B-4</i>	0	0	0	0	0
Laundries	<i>from Table B-4</i>	50	50	50	50	50
Markets & foods	<i>from Table B-4</i>	96	96	96	96	96
Mixed Use	<i>from Table B-4</i>	215	215	215	215	215
Restaurants	<i>from Table B-4</i>	171	171	171	171	171
All other	<i>from Table B-4</i>	703	703	703	703	703
Institutional						
Schools	<i>from Table B-4</i>	35	35	35	35	35
Industrial	<i>from Table B-4</i>	982	982	982	982	982
Inflow/Infiltration	<i>from Table B-4</i>	38	38	38	38	38
Total Accounts		4,931	4,931	4,931	4,931	4,931
Revenue						
Residential						
Single family		\$1,587,425	\$1,738,193	\$1,903,331	\$2,084,135	\$2,282,137
Multiple family		\$397,441	\$435,189	\$476,534	\$521,802	\$571,375
Commercial						
Auto, Steam cleaning		\$113,678	\$124,475	\$136,300	\$149,248	\$163,427
Bakeries		\$321	\$352	\$385	\$422	\$462
Laundries		\$39,510	\$43,262	\$47,372	\$51,872	\$56,801
Markets & foods		\$75,982	\$83,198	\$91,102	\$99,756	\$109,234
Mixed Use		\$170,657	\$186,865	\$204,618	\$224,056	\$245,342
Restaurants		\$135,989	\$148,904	\$163,051	\$178,540	\$195,502
All other		\$558,705	\$611,768	\$669,890	\$733,525	\$803,213
Institutional						
Schools		\$27,853	\$30,499	\$33,396	\$36,569	\$40,043
Industrial		\$780,559	\$854,694	\$935,895	\$1,024,799	\$1,122,159
Inflow/Infiltration		\$30,488	\$33,384	\$36,555	\$40,028	\$43,831
Total SS Revenue		\$3,918,606	\$4,290,782	\$4,698,431	\$5,144,752	\$5,633,524

Table D-5
Flow, BOD, and SS Revenue by Customer Class

	FY20	FY21	FY22	FY23	FY24
Revenue					
Residential					
Single family	\$4,927,125	\$5,395,087	\$5,907,651	\$6,468,840	\$7,083,405
Multiple family	\$1,233,597	\$1,350,759	\$1,479,089	\$1,619,593	\$1,773,461
Commercial					
Auto, Steam cleaning	\$224,991	\$246,360	\$269,765	\$295,391	\$323,455
Bakeries	\$898	\$983	\$1,077	\$1,179	\$1,291
Laundries	\$164,587	\$180,219	\$197,341	\$216,087	\$236,616
Markets & foods	\$157,174	\$172,102	\$188,452	\$206,354	\$225,959
Mixed Use	\$375,812	\$411,505	\$450,600	\$493,404	\$540,280
Restaurants	\$380,115	\$416,217	\$455,760	\$499,054	\$546,466
All other	\$1,734,134	\$1,898,836	\$2,079,237	\$2,276,751	\$2,493,051
Institutional					
Schools	\$86,453	\$94,664	\$103,657	\$113,504	\$124,287
Industrial	\$2,596,701	\$2,843,327	\$3,113,460	\$3,409,218	\$3,733,107
Inflow/Infiltration	\$290,488	\$318,078	\$348,297	\$381,383	\$417,616
Total Revenue	\$12,172,075	\$13,328,137	\$14,594,387	\$15,980,759	\$17,498,994
Percent of Total Revenue					
Residential					
Single family	40%	40%	40%	40%	40%
Multiple family	10%	10%	10%	10%	10%
Commercial					
Auto, Steam cleaning	2%	2%	2%	2%	2%
Bakeries	0%	0%	0%	0%	0%
Laundries	1%	1%	1%	1%	1%
Markets & foods	1%	1%	1%	1%	1%
Mixed Use	3%	3%	3%	3%	3%
Restaurants	3%	3%	3%	3%	3%
All other	14%	14%	14%	14%	14%
Institutional					
Schools	1%	1%	1%	1%	1%
Industrial	21%	21%	21%	21%	21%
Inflow/Infiltration	2%	2%	2%	2%	2%
Total Percent of Revenue	100%	100%	100%	100%	100%

Table D-6
Wastewater Inflow/Infiltration Allocation by Customer Class

		FY20	FY21	FY22	FY23	FY24
Revenue						
Revenue required from charges	<i>from Table D-5</i>	\$290,488	\$318,078	\$348,297	\$381,383	\$417,616
Number of Units, Accounts/Billing Units	<i>from Table B-1</i>	20,101	20,101	20,101	20,101	20,101
Annual Charge		\$14.45	\$15.82	\$17.33	\$18.97	\$20.78
Accounts/Billing Units						
Residential						
Single family	<i>from Table B-1</i>	14,142	14,142	14,142	14,142	14,142
Multiple family	<i>from Table B-1</i>	4,243	4,243	4,243	4,243	4,243
Commercial						
Auto, Steam cleaning	<i>from Table B-1</i>	63	63	63	63	63
Bakeries	<i>from Table B-1</i>	3	3	3	3	3
Laundries	<i>from Table B-1</i>	23	23	23	23	23
Markets & foods	<i>from Table B-1</i>	34	34	34	34	34
Mixed Use	<i>from Table B-1</i>	265	265	265	265	265
Restaurants	<i>from Table B-1</i>	97	97	97	97	97
All other	<i>from Table B-1</i>	1,182	1,182	1,182	1,182	1,182
Institutional		0	0	0	0	0
Schools	<i>from Table B-1</i>	31	31	31	31	31
Industrial	<i>from Table B-1</i>	20	20	20	20	20
Inflow/Infiltration	<i>from Table B-1</i>	not applicable				
Total Accounts		20,101	20,101	20,101	20,101	20,101
Revenue Allocation to Customer Classes						
Residential						
Single family		\$204,369	\$223,779	\$245,039	\$268,317	\$293,808
Multiple family		\$61,316	\$67,140	\$73,519	\$80,503	\$88,151
Commercial						
Auto, Steam cleaning		\$908	\$994	\$1,089	\$1,192	\$1,305
Bakeries		\$43	\$47	\$52	\$57	\$62
Laundries		\$325	\$356	\$390	\$427	\$467
Markets & foods		\$491	\$538	\$589	\$645	\$706
Mixed Use		\$3,825	\$4,188	\$4,586	\$5,022	\$5,499
Restaurants		\$1,399	\$1,532	\$1,678	\$1,837	\$2,012
All other		\$17,081	\$18,704	\$20,481	\$22,426	\$24,557
Institutional						
Schools		\$441	\$483	\$528	\$579	\$634
Industrial		\$289	\$316	\$347	\$379	\$416
Total		\$290,488	\$318,078	\$348,297	\$381,383	\$417,616

Appendix E: Rates and Charges Tables

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Table E-1
Calculation of Residential Charges

		FY20	FY21	FY22	FY23	FY24
Single family						
Revenue required from charges						
Account and Billing Unit Costs	<i>from Table D-1</i>	\$1,137,653	\$1,245,704	\$1,364,053	\$1,493,629	\$1,635,530
Flow, BOD, SS Costs	<i>from Table D-5</i>	\$4,927,125	\$5,395,087	\$5,907,651	\$6,468,840	\$7,083,405
Inflow/Infiltration Costs	<i>from Table D-6</i>	\$204,369	\$223,779	\$245,039	\$268,317	\$293,808
Total Revenue Requirement		\$6,269,147	\$6,864,570	\$7,516,744	\$8,230,785	\$9,012,743
Number of Units, Accounts/Billing Units	<i>from Table B-1</i>	14,142	14,142	14,142	14,142	14,142
Monthly Charge		\$37.00	\$40.50	\$44.30	\$48.60	\$53.20
Multiple family						
Revenue required from charges						
Account and Billing Unit Costs	<i>from Table D-1</i>	\$29,202	\$31,975	\$35,013	\$38,339	\$41,981
Flow, BOD, SS Costs	<i>from Table D-5</i>	\$1,233,597	\$1,350,759	\$1,479,089	\$1,619,593	\$1,773,461
Inflow/Infiltration Costs	<i>from Table D-6</i>	\$61,316	\$67,140	\$73,519	\$80,503	\$88,151
Total Revenue Requirement		\$1,324,115	\$1,449,875	\$1,587,621	\$1,738,435	\$1,903,593
Number of Units, Billing Units	<i>from Table B-1</i>	4,243	4,243	4,243	4,243	4,243
Monthly Charge		\$26.10	\$28.50	\$31.20	\$34.20	\$37.40

Table E-2
Calculation of Commercial and Institutional Rates and Monthly Charges

		FY20	FY21	FY22	FY23	FY24
Account and Billing Unit Portion						
Account and Billing Unit Costs	<i>from Table D-1</i>	\$136,462	\$149,422	\$163,618	\$179,161	\$196,182
Number of Units, Accounts/Billing Units	<i>from Table B-1</i>	1,696	1,696	1,696	1,696	1,696
Total Monthly Charge		\$6.70	\$7.35	\$8.05	\$8.80	\$9.65
Flow, BOD, SS and I/I Portion						
Revenue required from charges, Flow/BOD/SS						
Commercial						
Auto, Steam cleaning	<i>from Table D-5</i>	\$224,991	\$246,360	\$269,765	\$295,391	\$323,455
Bakeries	<i>from Table D-5</i>	\$898	\$983	\$1,077	\$1,179	\$1,291
Laundries	<i>from Table D-5</i>	\$164,587	\$180,219	\$197,341	\$216,087	\$236,616
Markets & foods	<i>from Table D-5</i>	\$157,174	\$172,102	\$188,452	\$206,354	\$225,959
Mixed Use	<i>from Table D-5</i>	\$375,812	\$411,505	\$450,600	\$493,404	\$540,280
Restaurants	<i>from Table D-5</i>	\$380,115	\$416,217	\$455,760	\$499,054	\$546,466
All other	<i>from Table D-5</i>	\$1,734,134	\$1,898,836	\$2,079,237	\$2,276,751	\$2,493,051
Institutional						
Schools	<i>from Table D-5</i>	\$86,453	\$94,664	\$103,657	\$113,504	\$124,287
Revenue required from charges, Inflow/Infiltration						
Commercial						
Auto, Steam cleaning	<i>from Table D-6</i>	\$908	\$994	\$1,089	\$1,192	\$1,305
Bakeries	<i>from Table D-6</i>	\$43	\$47	\$52	\$57	\$62
Laundries	<i>from Table D-6</i>	\$325	\$356	\$390	\$427	\$467
Markets & foods	<i>from Table D-6</i>	\$491	\$538	\$589	\$645	\$706
Mixed Use	<i>from Table D-6</i>	\$3,825	\$4,188	\$4,586	\$5,022	\$5,499
Restaurants	<i>from Table D-6</i>	\$1,399	\$1,532	\$1,678	\$1,837	\$2,012
All other	<i>from Table D-6</i>	\$17,081	\$18,704	\$20,481	\$22,426	\$24,557
Institutional						
Schools	<i>from Table D-6</i>	\$441	\$483	\$528	\$579	\$634
Metered Water Use, Million Gallons						
Commercial						
Auto, Steam cleaning	<i>from Table B-2</i>	19.49	19.49	19.49	19.49	19.49
Bakeries	<i>from Table B-2</i>	0.10	0.10	0.10	0.10	0.10
Laundries	<i>from Table B-2</i>	24.84	24.84	24.84	24.84	24.84
Markets & foods	<i>from Table B-2</i>	13.85	13.85	13.85	13.85	13.85
Mixed Use	<i>from Table B-2</i>	39.25	39.25	39.25	39.25	39.25
Restaurants	<i>from Table B-2</i>	34.20	34.20	34.20	34.20	34.20
All other	<i>from Table B-2</i>	342.11	342.11	342.11	342.11	342.11
Institutional						
Schools	<i>from Table B-2</i>	19.03	19.03	19.03	19.03	19.03
Rate, \$/100 cubic feet						
Commercial						
Auto, Steam cleaning		\$8.68	\$9.50	\$10.40	\$11.39	\$12.47
Bakeries		\$6.98	\$7.64	\$8.37	\$9.16	\$10.03
Laundries		\$4.97	\$5.44	\$5.96	\$6.53	\$7.15
Markets & foods		\$8.52	\$9.33	\$10.22	\$11.19	\$12.25
Mixed Use		\$7.24	\$7.93	\$8.68	\$9.50	\$10.41
Restaurants		\$8.35	\$9.14	\$10.01	\$10.96	\$12.00
All other		\$3.83	\$4.20	\$4.60	\$5.03	\$5.51
Institutional						
Schools		\$3.42	\$3.74	\$4.10	\$4.49	\$4.91



City of San Leandro

Meeting Date: July 15, 2019

Resolution - Council

File Number: 19-369

Agenda Section: PUBLIC HEARINGS

Agenda Number:

TO: City Council

FROM: Jeff Kay
City Manager

BY: Debbie Pollart
Public Works Director

FINANCE REVIEW: David Baum
Finance Director

TITLE: RESOLUTION of the City of San Leandro City Council to Amend Title 6, Chapter 4, Section 6.4.110 of the City of San Leandro Administrative Code Relating to Fees and Charges for Services Provided by City Departments to Adjust Fees in the "Public Works Service Department -- Waste Water Discharge Fees" Section

The City Council of the City of San Leandro does **RESOLVE** as follows:

- That following public notice and public hearing as required by law, Title 6, Chapter 4, Section 6.4.110 of the San Leandro Administrative Code ("Fee Schedule") is hereby amended by the attachment hereto, which is made a part hereof;
- That the Fee Schedule section entitled "PUBLIC WORKS SERVICES DEPARTMENT - Waste Water Discharge Fees, Section 1. Monthly User Charges" is made a part of this resolution and is enacted thereby; and
- That the provisions of the amended Fee Schedule identified herein as the attachment hereto shall take effect on January 1, 2020.

Exhibit A

The City of San Leandro Administrative Code, Title 6, Chapter 4, Section 6.4.110, Section titled “Public Works Services Department – Waste Water Discharge Fees”, Section 1. Monthly User Charges shall be amended to read as follows. These rates shall be effective January 1, 2020.

PUBLIC WORKS SERVICES DEPARTMENT – Waste Water Discharge Fees			
1.	Monthly User Charges		
	A. For Classification A Users (Residential):		
	• Single-Family Unit	\$37.00 Each	
	• Multiple-Family Unit	\$26.10 Each	
	• Accessory Dwelling Unit	\$26.10 Each	
	B. For Classification B Users (Commercial & Institutional):		
	Connection	\$6.30 Each	
	Commercial:		
	Auto Services	\$8.68/100 cubic feet	
	Bakery, Wholesale	\$6.98/100 cubic feet	
	Laundries	\$4.97/100 cubic feet	
	Markets/Foods	\$8.52/100 cubic feet	
	Mixed Use	\$7.24/100 cubic feet	
	Restaurants	\$7.97/100 cubic feet	
	All Other	\$3.92/100 cubic feet	
	Institutional:		
	Schools	\$3.39/100 cubic feet	
	C. For Classification C Users (Industrial & Other Large Users):		
	Loading Charge – based on the total discharge volumes for the billing period.		
	Connection	\$6.30 Each	
	Volume	\$3,315.00/million gallons	
	BOD (Biochemical oxygen demand)	\$459.00/thousand pounds	
	SS (Suspended solids)	\$769.00/thousand pounds	



City of San Leandro

Meeting Date: July 15, 2019

Staff Report

File Number: 19-370

Agenda Section: PUBLIC HEARINGS

Agenda Number:

TO: City Council

FROM: Jeff Kay
City Manager

BY: Debbie Pollart
Public Works Director

FINANCE REVIEW: David Baum
Finance Director

TITLE: Staff Report for a City of San Leandro City Council Resolution to Receive a Report on Wastewater Utility Capacity Charges and to Amend the City of San Leandro Administrative Code Title 6, Chapter 4, Section 6.4.110 to Reflect Connection Fees Recommended by the Report

SUMMARY AND RECOMMENDATIONS

Staff recommends that the City Council receive a report titled "Wastewater Utility Capacity Charges Study," which analyzes the fees paid when adding new demand to the City sewer system. Staff further recommends that the City Council update the connection fees according to the recommendations in the report.

BACKGROUND

Capacity charges are assessed when new demands are put on the sewer and treatment system, such as new development or increases in production. They are meant to pay for facilities in existence and for facilities that will be constructed in the future. They can only be used for funding capital improvements. Sometimes, capacity charges are referred to as "connection fees." For the purposes of this report, these terms are synonymous.

In 2018, the City contracted with Municipal Financial Services to evaluate current capacity charges and recommend changes to the schedule. The study calculated the value of the wastewater treatment system and the total capacity of the system in terms of flow, biochemical oxygen demand (BOD) and suspended solids. It then found unit costs for each of these measures.

For new residential construction, the capacity charge is calculated by using the expected average usage as found in the Wastewater Utility Financial Plan and Rates Study. For non-residential users, staff calculates the capacity charge when issuing the building permit by using estimates of expected discharge and multiplying by the unit costs. The fee may be adjusted at the end of one

year for non-residential users that have a record of actual wastewater discharge.

Because average residential water usage has declined as a result of water conservation, the capacity charges would go down from the Fiscal Year 2018-19 rate of \$4,389 to \$3,920. Multiple family units, which means each unit in buildings with more than two units, would decrease from \$3,664 to \$3,270. Accessory dwelling units are similar in water usage to multiple family units and therefore are charged the same fee. Accessory dwelling units, therefore, will benefit from this proposed fee reduction.

These costs should be adjusted annually based on the “ENR 20-City Construction Cost Index” as published by the Engineering News-Record. This provides a more accurate value of the assets than the Consumer Price Index because it is focused on construction costs.

Staff recommends these rates be effective as of January 1, 2020.

Previous Actions

- At the May 6, 2019 City Council meeting, the City Council passed Resolution 19-235 to adjust user fees and service charges.
- At the May 6, 2019 City Council meeting, staff presented a draft of the Capacity Charges Study and previewed the rates as part of a discussion of sewer rates.

ATTACHMENTS

- Summary of Fiscal Year 2018-19, Fiscal Year 2019-20 as adopted, and Proposed Rates
- Wastewater Utility Capacity Charges Study

PREPARED BY: Justin Jenson, Plant Manager, Public Works Department and Hayes Morehouse, Administrative Analyst II, Public Works Department

Exhibit A

The following chart shows the current capacity charge (called “connection fee” in the City’s list of fees) and the proposed capacity charge based on current valuations.

	FY 2019 - 2020 Fees	FY 2020 Fees (effective 7/1/2019)	Proposed Fees (effective 1/1/2020)
Dwelling units, per additional unit:			
• Single-Family Unit	\$4,389	\$4,558.85	\$3,920
• Multiple-Family Unit	\$3,664	\$3,805.80	\$3,270
• Accessory Dwelling Unit	\$3,664	\$3,805.80	\$3,270
Converting an existing apartment building to condominium units	\$179	\$179	\$179
Non-residential users			
Non-residential users are assessed connection fees based on the estimated average day of their peak month discharge according to the unit cost schedule below:			
Volume, per gallons per day	\$20.51	\$21.30	\$22.02
BOD (Biochemical oxygen demand), per pounds per day	\$838.61	\$871.06	\$938.00
SS (Suspended solids), per pounds per day	\$961.17	\$998.03	\$993.00

Wastewater Utility Capacity Charges Study

Prepared for
City of San Leandro, California
June 2019

MUNICIPAL FINANCIAL SERVICES

2960 Valley Basin Avenue, Henderson, Nevada 89052-3814

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List of Abbreviations

BOD	Biochemical Oxygen Demand
City	City of San Leandro
CCI	Construction Cost Index
CIP	Capital Improvement Program
EDU	Equivalent Dwelling Unit
ENR	Engineering News Record
FY	Fiscal year (July 1 to June 30)
FY19	July 1, 2018 to June 30, 2019
gpd	Gallons per Day
HCF	Hundred Cubic Feet (equal to ~ 748.1 gallons)
NPDES	National Pollutant Discharge Elimination System
O&M	Operation and maintenance
R&R	Renewal and Replacement
SSC	Sewer Service Charge
SS	Suspended Solids

Executive Summary

In April 2018, the City of San Leandro (City) contracted with Municipal Financial Services to evaluate wastewater capacity charges and recommend a revised schedule of wastewater capacity charges.¹

A capacity charge is a charge to pay for public agencies’ facilities in existence at the time the charge is imposed or to pay for new facilities that will be constructed in the future that are of benefit to the person or property being charged (new development or increases to existing service capacity). The charge ensures that the “growth pays for growth” by allocating the cost of new facilities and the cost of unused capacity in existing facilities to new development while allocating the cost of repairing and refurbishing facilities used by current customers to rates.

Capacity charges may only be used for funding capital improvements. The City’s main source of revenue, Sewer Service Charges, are from rate payers and may be used for capital or operating expenditures.

The City’s current and recommended wastewater unit costs of capacity and capacity charges are shown in the table below.² Unit costs of capacity are used to calculate charges for any new connection or increase in capacity required for a current connection.

Current charges were developed in 2010 and have been escalated over time using an index based on construction costs.

Table ES-1. Current and Recommended Wastewater Unit Costs of Capacity

Item	Current	Recommended				
	FY19	FY20	FY21	FY22	FY23	FY24
Unit Costs of Capacity						
Flow, \$/gallons per day	\$20.51	\$22.02	\$23.14	\$24.30	\$25.51	\$26.76
BOD, \$/pounds per day	\$838.61	\$938	\$986	\$1,035	\$1,087	\$1,140
SS, \$/pounds per day	\$961.17	\$993	\$1,043	\$1,096	\$1,150	\$1,207
Dollar Change						
Flow		\$1.51	\$1.12	\$1.16	\$1.21	\$1.25
BOD		\$99	\$48	\$49	\$52	\$53
SS		\$32	\$50	\$53	\$54	\$57
Percent Change						
Flow		7%	5%	5%	5%	5%
BOD		12%	5%	5%	5%	5%
SS		3%	5%	5%	5%	5%

¹ The term “connection fee”, as used by the City in the San Leandro Administrative Code, and “capacity charge”, as defined in the Government Code and used in this study, are synonymous.

² BOD and SS are conventional (as opposed to toxic) pollutants that are removed from wastewater during the treatment process. BOD is an acronym for biochemical oxygen demand. SS is an acronym for suspended solids. BOD is measured using a laboratory test in which standardized procedures are used to determine the oxygen requirements of wastewater. The BOD test measures the oxygen required for the biochemical degradation of organic material. The test results represent the average BOD strength of wastewater discharged during a given period. SS is measured using a laboratory test in which standardized procedures are used to measure solids that either float on the surface of, or are in suspension in water, sewage or other liquids, and which are largely removable by laboratory filtration procedures.

Wastewater capacity charges based on the City’s current and recommended unit costs of capacity are shown in the table below. Flow and BOD/SS strength from residential connections is considered uniform among all connections in two categories – Single Family and Multiple Family. Current Flow assignments for each category are changed to reflect reduction in indoor water use. Current BOD/SS strength assignments for each category are increased in inverse proportion to indoor water use so that there is no change in the mass of BOD/SS discharge to the sewer. Flow and BOD/SS strength from individual nonresidential connections vary among a wide range. Flows shown for nonresidential connections are provided only to facilitate comparison of capacity charges for different nonresidential loadings.

Table ES-2. Capacity Charges Based on Current and Recommended Unit Costs of Capacity								
	(gal./day)	(milligrams/liter)				Difference		
	Flow	BOD	SS	Current	FY20	Dollars	Percent	
Unit Costs of Capacity								
Flow, \$/gallons per day				\$20.51	\$22.02	\$1.51	7.4%	
BOD, \$/pounds per day				\$838.61	\$938.00	\$99.39	11.9%	
SS, \$/pounds per day				\$961.17	\$993.00	\$31.83	3.3%	
Residential Capacity Charges								
Single Family	<i>current ></i>	189	195	195	\$4,389	\$3,920	-\$469	-10.7%
	<i>FY20 ></i>	145	300	320				
Multiple Family	<i>current ></i>	158	193	193	\$3,664	\$3,270	-\$394	-10.8%
	<i>FY20 ></i>	121	300	320				
Nonresidential Capacity Charges								
High Strength	3,000	1,000	600	\$96,940	\$104,440	\$7,500	7.7%	
Medium Strength	3,000	500	600	\$86,450	\$92,700	\$6,250	7.2%	
Low Strength	145	300	320	\$3,650	\$3,920	\$270	7.4%	

Section 1

Introduction

A capacity charge is a charge to pay for public agencies' facilities in existence at the time the charge is imposed or to pay for new facilities that will be constructed in the future that are of benefit to the person or property being charged (new development or increases to existing service capacity). The charge ensures that the "growth pays for growth" by allocating the cost of new facilities and the cost of unused capacity in existing facilities to new development while allocating the cost of repairing and refurbishing facilities used by current customers to rates.

In developing capacity charges, we have endeavored to satisfy the rational nexus criteria generally applied to these types of charges. A rational nexus-based facility reserve charge must:

- Be rationally based on public policy that demonstrates a nexus between new development and the need to expand or build facilities to accommodate it.
- Not exceed the new development's proportional share of the cost of facilities needed to serve that development, after crediting it for other contributions that it has already made or will make toward that cost.
- Not be arbitrary or discriminatory in its application to individuals or customer classes.

Capacity charges are intended to recover a portion of the City's Capital Improvement Program (CIP) cost, and utility rate payers' prior investment in capital facilities that support land development through utility system expansion. The Wastewater capacity charges developed in this study meet the regulatory requirements found in Government Code Section 66000 *et sequentia* regarding the establishment of capacity charges.

1.1 Capacity Charge Regulatory Requirements

Section 66013 of the State of California Government Code defines a Capacity Charge as a charge to pay for public agencies' facilities in existence at the time the charge is imposed or to pay for new facilities that will be constructed in the future that are of benefit to the person or property being charged (new development or increases to existing service capacity). The City currently uses the term "Connection Fee" to mean *capacity charges collected at the time of connection*.

Section 66013 of the State of California Government Code defines a connection fee (as opposed to a capacity charge) as a fee for the physical facilities necessary to make a water connection or a sewer connection, including, but not limited to, meters, meter boxes, and pipelines from the structure or project to a water distribution line or sewer main, and that does not exceed the estimated reasonable cost of labor and materials for installation of those facilities.

1.2 Current Wastewater Capacity Charges

Current wastewater capacity charges – listed as “connection fees” in the San Leandro Administrative Code, Title 6, Chapter 4, § 6.4.100 – are shown in the table below.

Dwelling Units			
Single Family	\$4,389	each	
Multiple Family	\$3,664	each	
Accessory Dwelling Unit	\$3,664	each	
Converting and existing apartment building to condominium units	\$179	per unit	
Nonresidential Users			
Volume	\$20.51	per gallons per day	
BOD	\$838.61	per pounds per day	
SS	\$961.17	per pounds per day	

1.3 Capacity Charge Development Methodology

The revised capacity charges incorporate data including: 1) wastewater system design capacity; 2) valuation of existing assets; and 3) customer wastewater discharge characteristics.

Capacity charges are based on the premise that new development pay its proportional share of existing available capacity plus the costs for future system expansion. The capacity charges meet the rational nexus criteria generally applied to these types of charges.

The methodology used to develop the Capacity Charges consists of the following steps:

- Prepare an inventory of system assets and calculate the valuation for those assets.
- Determine the capacity of the current system.
- Estimate the amount of contributed capital. These contributions are subtracted from the value of the assets since the contribution is already included in the system inventory asset values.
- Calculate the unit cost of capital facilities.
- Prepare a schedule of capacity charges based upon the unit cost of capital facilities.

Section 2

Wastewater System Asset Valuation and Capacity

Capacity charges are defined as “a charge for public facilities in existence at the time a charge is imposed or charges for new public facilities to be acquired or constructed in the future that are of proportional benefit to the person or property being charged.” This section describes the development of valuations for existing facilities.

2.1 Asset Valuation

Wastewater system assets included in the capacity charge calculation are categorized as wastewater treatment plant and lift stations; collection system pipe; and the City’s share of EBDA (East Bay Dischargers Authority) facilities.³

The replacement value of the system excludes assets routinely purchased with operating revenues. These types of items include laboratory equipment, safety equipment, maintenance equipment, electronic equipment and vehicles.

The replacement value of the wastewater treatment plant and lift stations and the City’s share of EBDA facilities was estimated by escalating asset acquisition costs by the ratio of the value of the Engineering News Record 20-City Construction Cost Index (ENR 20-City CCI) currently compared to the time of acquisition of the asset. City staff provided an estimate of the replacement cost for collection system pipe.

³ East Bay Dischargers Authority (EBDA) was formed on February 15, 1974, by a "Joint Exercise of Powers Agreement" entered into by the [City of Hayward](#), [City of San Leandro](#), [Oro Loma Sanitary District](#), [Union Sanitary District](#), and [Castro Valley Sanitary District](#). EBDA operates under a Commission consisting of one representative appointed by each member agency.

Table 2-1 summarizes the wastewater system assets and their replacement value, by category, in 2018 dollars and shows the projection of replacement values for 2019 - 2023.

Table 2-1. Summary of Wastewater System Valuation						
Asset Class	2018	Projected				
		2019	2020	2021	2022	2023
Asset Valuation [1, 2]						
Treatment Plant / Lift Stations	\$114,063,000	\$118,626,000	\$123,371,000	\$128,306,000	\$133,438,000	\$138,776,000
Collection Pipe	\$178,464,000	\$185,603,000	\$193,027,000	\$200,748,000	\$208,778,000	\$217,129,000
EBDA Facilities	\$43,631,000	\$45,376,000	\$47,191,000	\$49,079,000	\$51,042,000	\$53,084,000
Total Fixed Asset Valuation	\$336,158,000	\$349,605,000	\$363,589,000	\$378,133,000	\$393,258,000	\$408,989,000
Adjustments						
1. Contributed Capital [3]						
<i>Less: Revenue from Capacity Charge</i>	(\$4,012,000)	(\$4,012,000)	(\$4,012,000)	(\$4,012,000)	(\$4,012,000)	(\$4,012,000)
2. Debt Principal Outstanding						
<i>Less: 2011 SRF Loan Agreement</i>	(\$37,617,000)	(\$35,829,000)	(\$33,995,000)	(\$32,116,000)	(\$30,191,000)	(\$28,222,000)
3. Sewer System Expansion CIP						
<i>Plus: Average Ending Balance</i>	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000	\$1,500,000
Total Adjustments	(\$40,129,000)	(\$38,341,000)	(\$36,507,000)	(\$34,628,000)	(\$32,703,000)	(\$30,734,000)
Net Valuation	\$296,029,000	\$311,264,000	\$327,082,000	\$343,505,000	\$360,555,000	\$378,255,000
Notes:						
1. Treatment plant, lift station and collection pipe asset data for 2018 is shown in Table A-1.						
Asset values for subsequent years are escalated as shown below:						
		<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
		4%	4%	4%	4%	4%
2. EBDA facilities values are from the EBDA Statement of Net Position as of June 30, 2018 for Noncurrent Assets.						
Noncurrent Assets Values						
Capital Assets	\$27,947,158					
Accumulated Depreciation	\$32,576,546					
Total EBDA Asset Value	\$60,523,704					
Escalation						
ENR 20 City CCI 1974	2020					
ENR 20 City CCI 2018	11062					
Escalation Factor	5.5					
Escalated EBDA Asset Value	\$331,437,191					
San Leandro Capacity Rights						
<u>EBDA Member Agency</u>	<u>mgd</u>	<u>% of mgd</u>				
San Leandro	22.3	13.2%				
Oro Loma/Castro Valley	69.2	40.9%				
Hayward	35.0	20.7%				
Union	42.9	25.3%				
Total	169.4	100.0%				
San Leandro Portion of EBDA Assets Values						
Escalated EBDA Asset Value	\$331,437,191					
San Leandro Percent	13.2%					
San Leandro Portion	\$43,630,752					

The value of the wastewater system is allocated among flow, BOD and SS constituents to facilitate the development of capacity charge unit costs. The unit costs can be used to develop capacity charges for any new connection. The cost to construct the wastewater collection components of the wastewater system are proportionate to flow. The cost to construct the wastewater treatment components of the wastewater system are proportionate to flow, BOD and TSS. The allocation of the wastewater system valuation is shown in Table 2-2.

Table 2-2. Allocation of Wastewater System Valuation

Item	2018	Projected				
		2019	2020	2021	2022	2023
Net Valuation	\$296,029,000	\$311,264,000	\$327,082,000	\$343,505,000	\$360,555,000	\$378,255,000
Asset Allocation						
Allocation Percent						
Flow	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
BOD	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%
SS	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%
Allocation \$						
Flow	\$222,021,750	\$233,448,000	\$245,311,500	\$257,628,750	\$270,416,250	\$283,691,250
BOD	\$37,003,625	\$38,908,000	\$40,885,250	\$42,938,125	\$45,069,375	\$47,281,875
SS	\$37,003,625	\$38,908,000	\$40,885,250	\$42,938,125	\$45,069,375	\$47,281,875

2.2 System Capacity

Values for the capacity of the wastewater system are based on design flow and loadings associated with the average day maximum month. Values for flow, BOD and SS are shown below in Table 3-1.

Table 2-3. Wastewater System Capacity

Item	2018	2019	2020	2021	2022	2023
Design Capacity [1]						
Flow, gpd	10,600,000	10,600,000	10,600,000	10,600,000	10,600,000	10,600,000
BOD, lbs/day	41,471	41,471	41,471	41,471	41,471	41,471
SS, lbs/day	39,186	39,186	39,186	39,186	39,186	39,186
Notes:						
1. The design capacities for flow, BOD and SS were obtained from Technical Memorandum No. 1 Flow and Loading Evaluation dated February 2009. Values are Average Day Maximum Month (ADMM) from Table 1.12, Influent Flow and Loading Projections WPCP Rehabilitation Project.						

2.3 Customer Wastewater Discharge Characteristics

Customer characteristics for Flow, BOD and SS were evaluated to ensure that those characteristics approximately represent the volume of wastewater and pounds of conventional pollutants (BOD and SS) entering the City's Wastewater Treatment Plant and represent the approximate amount of volume and pounds of BOD and SS generated by each customer or customer class connected to the City's wastewater system. Updates to discharge characteristics for the Residential classes are summarized below.

Residential. Flow for Residential Single Family accounts is decreased from 189 gpd to 145 gpd. Flow for Residential Multiple Family accounts is decreased from 158 gpd to 121 gpd. BOD and TSS concentrations are increased so that the pounds of BOD and TSS discharged by these accounts is increased.

Nonresidential. Nonresidential users are assessed capacity charges based on the estimated average day of their peak month discharge according to the current unit cost schedule.

Section 3

Wastewater Capacity Unit Costs and Capacity Charges

Capacity charges are developed based on unit costs for flow, BOD and SS. The unit costs for each component are the value of the system allocated to each component divided by the capacity in the system for each component.

3.1 Development of Unit Costs for Flow, BOD and SS

The unit costs for each capacity charge component are the value of the system allocated to each component divided by the capacity in the system for each component. Allocation of wastewater system valuation to each component and determination of the wastewater capacity were described in Section 2. The development of unit costs for flow, BOD and SS based on those values are shown in the table below.

Table 3-1. Development of Unit Costs for Flow, BOD and SS

Item	2018	Projected				
		2019	2020	2021	2022	2023
Net System Valuation						
Flow	\$222,021,750	\$233,448,000	\$245,311,500	\$257,628,750	\$270,416,250	\$283,691,250
BOD	37,003,625	38,908,000	40,885,250	42,938,125	45,069,375	47,281,875
TSS	37,003,625	38,908,000	40,885,250	42,938,125	45,069,375	47,281,875
Total	\$296,029,000	\$311,264,000	\$327,082,000	\$343,505,000	\$360,555,000	\$378,255,000
System Capacity						
Flow, gpd	10,600,000	10,600,000	10,600,000	10,600,000	10,600,000	10,600,000
BOD, lbs/day	41,471	41,471	41,471	41,471	41,471	41,471
SS, lbs/day	39,186	39,186	39,186	39,186	39,186	39,186
Unit Costs of Capacity						
Flow, \$/gallon	\$20.95	\$22.02	\$23.14	\$24.30	\$25.51	\$26.76
BOD, \$/pound (rounded to \$1)	\$892	\$938	\$986	\$1,035	\$1,087	\$1,140
SS, \$/pound (rounded to \$1)	\$944	\$993	\$1,043	\$1,096	\$1,150	\$1,207

Using the unit costs for flow, BOD and SS, the capacity charge for any new connection may be calculated.

3.2 Development of Residential Capacity Charges

The capacity charge for any new connection is the unit cost of capacity for each component times the amount of capacity of each component associated with the new connection. The calculation of capacity charges for each residential customer class is shown in the table below. The capacity charges for commercial are based on arbitrary flow values and are useful only for comparison between commercial Groups. They are not representative of flows for every individual new commercial connection. Flows for every individual new commercial connection are determined by the City at the time of application for a new connection.

Table 3-2. Residential Capacity Charges

Item	Current	Recommended				
	FY19	FY20	FY21	FY22	FY23	FY24
Unit Costs of Capacity						
Flow, \$/gallon	\$20.51	\$22.02	\$23.14	\$24.30	\$25.51	\$26.76
BOD, \$/pound	\$838.61	\$938	\$986	\$1,035	\$1,087	\$1,140
SS, \$/pound	\$961.17	\$993	\$1,043	\$1,096	\$1,150	\$1,207
Single Family [1]						
Loads						
Flow	189 gpd	145 gpd	145 gpd	145 gpd	145 gpd	145 gpd
BOD, mg/L	195 mg/l	300 mg/l	300 mg/l	300 mg/l	300 mg/l	300 mg/l
SS, mg/L	195 mg/l	320 mg/l	320 mg/l	320 mg/l	320 mg/l	320 mg/l
BOD, pounds/day	0.307 lbs	0.363 lbs	0.363 lbs	0.363 lbs	0.363 lbs	0.363 lbs
SS, pounds/day	0.307 lbs	0.387 lbs	0.387 lbs	0.387 lbs	0.387 lbs	0.387 lbs
Charges						
Flow	\$3,876.39	\$3,192.90	\$3,355.30	\$3,523.50	\$3,698.95	\$3,880.20
BOD	\$257.45	\$340.49	\$357.92	\$375.71	\$394.58	\$413.82
SS	\$295.08	\$384.29	\$403.64	\$424.15	\$445.05	\$467.11
Total	\$4,428.92	\$3,917.69	\$4,116.86	\$4,323.36	\$4,538.58	\$4,761.13
Total (rounded to \$10)	\$4,430	\$3,920	\$4,120	\$4,320	\$4,540	\$4,760
Adopted, FY19	\$4,389					
Multiple Family [1]						
Loads						
Flow	158 gpd	121 gpd	121 gpd	121 gpd	121 gpd	121 gpd
BOD, mg/L	193 mg/l	300 mg/l	300 mg/l	300 mg/l	300 mg/l	300 mg/l
SS, mg/L	193 mg/l	320 mg/l	320 mg/l	320 mg/l	320 mg/l	320 mg/l
BOD, pounds/day	0.254 lbs	0.303 lbs	0.303 lbs	0.303 lbs	0.303 lbs	0.303 lbs
SS, pounds/day	0.254 lbs	0.323 lbs	0.323 lbs	0.323 lbs	0.323 lbs	0.323 lbs
Charges						
Flow	\$3,240.58	\$2,664.42	\$2,799.94	\$2,940.30	\$3,086.71	\$3,237.96
BOD	\$213.01	\$284.21	\$298.76	\$313.61	\$329.36	\$345.42
SS	\$244.14	\$320.74	\$336.89	\$354.01	\$371.45	\$389.86
Total	\$3,697.72	\$3,269.37	\$3,435.59	\$3,607.91	\$3,787.52	\$3,973.24
Total (rounded to \$10)	\$3,700	\$3,270	\$3,440	\$3,610	\$3,790	\$3,970
Adopted, FY19	\$3,664					
Notes:						
1. Projected flow, BOD and SS values are the same as those used for these customer classes in the development of rates.						
Current single family and multiple family charges adopted by the City are slightly different those projected.						

3.3 Development of Nonresidential Capacity Charges

The capacity charge for any new connection is the unit cost of capacity for each component times the amount of capacity of each component associated with the new connection. Capacity requirements for nonresidential connections shown in the table below are not representative of flows for every new connection. Flows for new nonresidential connections are determined by the City at the time of application for a new connection.

Table 3-3. Nonresidential Capacity Charges

Item	Current	Recommended Unit Costs				
	FY19	FY20	FY21	FY22	FY23	FY24
Unit Costs of Capacity						
Flow, \$/gallon	\$20.51	\$22.02	\$23.14	\$24.30	\$25.51	\$26.76
BOD, \$/pound	\$838.61	\$938	\$986	\$1,035	\$1,087	\$1,140
SS, \$/pound	\$961.17	\$993	\$1,043	\$1,096	\$1,150	\$1,207
High Strength						
Loads						
Flow	3000 gpd	3000 gpd	3000 gpd	3000 gpd	3000 gpd	3000 gpd
BOD, mg/L	1000 mg/l	1000 mg/l	1000 mg/l	1000 mg/l	1000 mg/l	1000 mg/l
SS, mg/L	600 mg/l	600 mg/l	600 mg/l	600 mg/l	600 mg/l	600 mg/l
BOD, pounds/day	25.020 lbs	25.020 lbs	25.020 lbs	25.020 lbs	25.020 lbs	25.020 lbs
SS, pounds/day	15.012 lbs	15.012 lbs	15.012 lbs	15.012 lbs	15.012 lbs	15.012 lbs
Charges						
Flow	\$61,530.00	\$66,060.00	\$69,420.00	\$72,900.00	\$76,530.00	\$80,280.00
BOD	\$20,982.02	\$23,468.76	\$24,669.72	\$25,895.70	\$27,196.74	\$28,522.80
SS	\$14,429.08	\$14,906.92	\$15,657.52	\$16,453.15	\$17,263.80	\$18,119.48
Total	\$96,941.11	\$104,435.68	\$109,747.24	\$115,248.85	\$120,990.54	\$126,922.28
Total (rounded to \$10)	\$96,940	\$104,440	\$109,750	\$115,250	\$120,990	\$126,920
Medium Strength						
Loads						
Flow	3000 gpd	3000 gpd	3000 gpd	3000 gpd	3000 gpd	3000 gpd
BOD, mg/L	500 mg/l	500 mg/l	500 mg/l	500 mg/l	500 mg/l	500 mg/l
SS, mg/L	600 mg/l	600 mg/l	600 mg/l	600 mg/l	600 mg/l	600 mg/l
BOD, pounds/day	12.510 lbs	12.510 lbs	12.510 lbs	12.510 lbs	12.510 lbs	12.510 lbs
SS, pounds/day	15.012 lbs	15.012 lbs	15.012 lbs	15.012 lbs	15.012 lbs	15.012 lbs
Charges						
Flow	\$61,530.00	\$66,060.00	\$69,420.00	\$72,900.00	\$76,530.00	\$80,280.00
BOD	\$10,491.01	\$11,734.38	\$12,334.86	\$12,947.85	\$13,598.37	\$14,261.40
SS	\$14,429.08	\$14,906.92	\$15,657.52	\$16,453.15	\$17,263.80	\$18,119.48
Total	\$86,450.10	\$92,701.30	\$97,412.38	\$102,301.00	\$107,392.17	\$112,660.88
Total (rounded to \$10)	\$86,450	\$92,700	\$97,410	\$102,300	\$107,390	\$112,660
Low Strength						
Loads						
Flow	145 gpd	145 gpd	145 gpd	145 gpd	145 gpd	145 gpd
BOD, mg/L	300 mg/l	300 mg/l	300 mg/l	300 mg/l	300 mg/l	300 mg/l
SS, mg/L	320 mg/l	320 mg/l	320 mg/l	320 mg/l	320 mg/l	320 mg/l
BOD, pounds/day	0.363 lbs	0.363 lbs	0.363 lbs	0.363 lbs	0.363 lbs	0.363 lbs
SS, pounds/day	0.387 lbs	0.387 lbs	0.387 lbs	0.387 lbs	0.387 lbs	0.387 lbs
Charges						
Flow	\$2,973.95	\$3,192.90	\$3,355.30	\$3,523.50	\$3,698.95	\$3,880.20
BOD	\$304.42	\$340.49	\$357.92	\$375.71	\$394.58	\$413.82
SS	\$371.97	\$384.29	\$403.64	\$424.15	\$445.05	\$467.11
Total	\$3,650.34	\$3,917.69	\$4,116.86	\$4,323.36	\$4,538.58	\$4,761.13
Total (rounded to \$10)	\$3,650	\$3,920	\$4,120	\$4,320	\$4,540	\$4,760

3.4 Single Family Capacity Charge Survey

The City’s current and recommended capacity charges for new Single Family connections were compared to the capacity charges for other nearby agencies. Figure 3-1 shows the results of the survey.

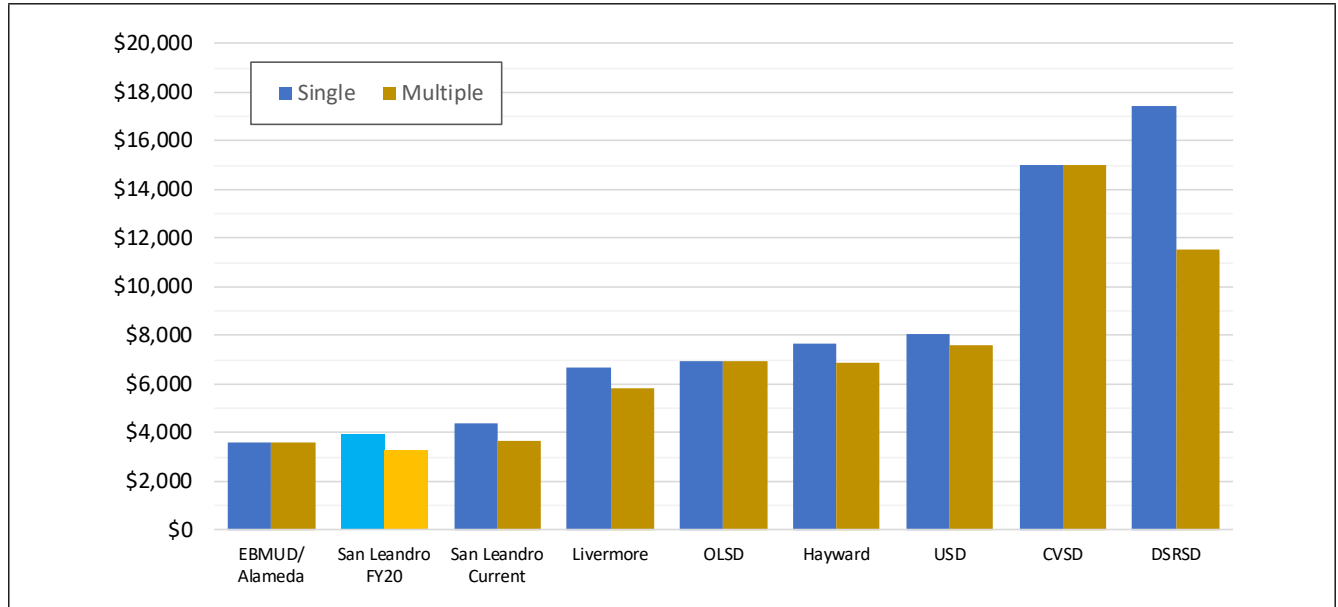


Figure 3-1. Single Family Capacity Charge Survey



Section 4

Limitations

This document was prepared solely for City of San Leandro in accordance with professional standards at the time the services were performed and in accordance with the contract between City of San Leandro and Municipal Financial Services dated April 30, 2018. This document is governed by the specific scope of work authorized by City of San Leandro; it is not intended to be relied upon by any other party. We have relied on information or instructions provided by City of San Leandro and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information.

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Appendix A: Asset Valuation Tables

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Table A-1
Fund 593 Wastewater System Assets

Asset Number and Description [1]	Date	Acquisition Cost	Asset Class	Year Acquired	Valuation Year = 2018		
					ENR CCI Index [2] in Year Acquired	Escalation Factor [2], Current 11062	Total Escalated Acquisition Cost
Treatment Plant and Lift Stations							
000761	01/01/1997	\$2,608	P-TOOL	1997	5825	1.9	\$4,953
000762	01/01/1996	\$4,040	P-TOOL	1996	5620	2.0	\$7,953
000763	01/01/1982	\$2,562	P-TOOL	1982	3825	2.9	\$7,411
000765	01/01/1997	\$2,511	P-TOOL	1997	5825	1.9	\$4,769
000766	01/01/1996	\$14,260	P-TOOL	1996	5620	2.0	\$28,069
000767	01/01/1999	\$50,000	P-TOOL	1999	6060	1.8	\$91,269
000776	01/01/1993	\$22,029	P-TOOL	1993	5210	2.1	\$46,772
000777	01/01/1992	\$100,016	P-TOOL	1992	4985	2.2	\$221,938
000778	01/01/1991	\$21,286	P-TOOL	1991	4835	2.3	\$48,700
000784	01/01/1986	\$26,251	P-TOOL	1986	4295	2.6	\$67,610
000847	01/01/1995	\$3,884	P-ENGI	1995	5471	2.0	\$7,853
000851	01/01/1996	\$2,641	P-ENGI	1996	5620	2.0	\$5,199
000854	01/01/1993	\$2,745	P-ENGI	1993	5210	2.1	\$5,828
000856	01/01/1994	\$3,276	P-ENGI	1994	5408	2.0	\$6,701
000857	01/01/1994	\$3,276	P-ENGI	1994	5408	2.0	\$6,701
000863	01/01/1996	\$2,924	P-ENGI	1996	5620	2.0	\$5,756
000869	01/01/1999	\$9,800	P-ENGI	1999	6060	1.8	\$17,889
000870	01/01/1993	\$5,755	P-ENGI	1993	5210	2.1	\$12,220
000883	01/01/1989	\$12,739	P-TOOL	1989	4615	2.4	\$30,534
000884	01/01/1983	\$140,946	P-TOOL	1983	4066	2.7	\$383,454
000890	01/01/1987	\$3,503	P-TOOL	1987	4406	2.5	\$8,794
000962	01/01/1939	\$24,114	P-bldg	1939	236	46.9	\$1,130,276
000963	01/01/1939	\$39,408	P-bldg	1939	236	46.9	\$1,847,139
000964	01/01/1948	\$42,592	P-bldg	1948	461	24.0	\$1,022,007
000965	01/01/1968	\$327,741	P-bldg	1968	1155	9.6	\$3,138,885
000966	01/01/1968	\$58,355	P-bldg	1968	1155	9.6	\$558,890
000967	01/01/1968	\$122,795	P-bldg	1968	1155	9.6	\$1,176,053
000968	01/01/1979	\$18,721	P-bldg	1979	3003	3.7	\$68,959
000969	01/01/1948	\$12,762	P-bldg	1948	461	24.0	\$306,219
000970	01/01/1939	\$31,710	P-bldg	1939	236	46.9	\$1,486,317
000971	01/01/1967	\$10,508	P-bldg	1967	1074	10.3	\$108,229
000972	01/01/1979	\$18,075	P-bldg	1979	3003	3.7	\$66,581
000973	01/01/1987	\$20,902	P-bldg	1987	4406	2.5	\$52,478
000974	01/01/1972	\$27,899	P-bldg	1972	1753	6.3	\$176,048
000975	01/01/1975	\$280,507	P-bldg	1975	2212	5.0	\$1,402,766
000976	01/01/1979	\$64,784	P-bldg	1979	3003	3.7	\$238,638
000977	01/01/1939	\$21,954	P-bldg	1939	236	46.9	\$1,029,032
000978	01/01/1948	\$40,593	P-bldg	1948	461	24.0	\$974,033
000979	01/01/1959	\$168,564	P-bldg	1959	797	13.9	\$2,339,553
000980	01/01/1974	\$198,966	P-bldg	1974	2020	5.5	\$1,089,568
000981	01/01/1958	\$37,619	P-bldg	1958	759	14.6	\$548,269
000982	01/01/1948	\$119,959	P-bldg	1948	461	24.0	\$2,878,462
000983	01/01/1991	\$73,121	P-bldg	1991	4835	2.3	\$167,291
000984	01/01/1967	\$81,702	P-bldg	1967	1074	10.3	\$841,503
000985	01/01/1959	\$69,432	P-bldg	1959	797	13.9	\$963,670
000986	01/01/1967	\$68,074	P-bldg	1967	1074	10.3	\$701,139
000987	01/01/1939	\$33,300	P-bldg	1939	236	46.9	\$1,560,843
000988	01/01/1992	\$10,439	P-bldg	1992	4985	2.2	\$23,165
000989	01/01/1993	\$154,037	P-bldg	1993	5210	2.1	\$327,051
000990	01/01/1991	\$143,790	P-bldg	1991	4835	2.3	\$328,973
000991	01/01/1991	\$40,153	P-bldg	1991	4835	2.3	\$91,865
000992	01/01/1948	\$247,321	P-bldg	1948	461	24.0	\$5,934,532
000993	01/01/1990	\$105,955	P-bldg	1990	4732	2.3	\$247,687
002159	01/01/1960	\$95,375	P-bldg	1960	824	13.4	\$1,280,370
002161	01/01/1963	\$147,024	P-bldg	1963	901	12.3	\$1,805,053
002163	01/01/1986	\$306,856	P-bldg	1986	4295	2.6	\$790,312
002164	01/01/1952	\$24,008	P-bldg	1952	569	19.4	\$466,735
002165	01/01/1962	\$32,592	P-bldg	1962	872	12.7	\$413,446
002166	01/01/1966	\$11,955	P-bldg	1966	1019	10.9	\$129,781
002167	01/01/1969	\$13,022	P-bldg	1969	1269	8.7	\$113,511
002168	01/01/1979	\$31,355	P-bldg	1979	3003	3.7	\$115,498
002172	01/01/1998	\$66,241	P-TOOL	1998	5920	1.9	\$123,776
002173	01/01/1993	\$22,029	P-TOOL	1993	5210	2.1	\$46,772
002174	01/01/1985	\$19,907	P-TOOL	1985	4195	2.6	\$52,494
002176	01/01/1968	\$44,842	P-TOOL	1968	1155	9.6	\$429,467
002178	01/01/1996	\$8,081	P-TOOL	1996	5620	2.0	\$15,906
002179	01/01/1988	\$29,781	P-TOOL	1988	4519	2.4	\$72,899
002181	01/01/1976	\$6,434	P-TOOL	1976	2401	4.6	\$29,643
002184	01/01/1995	\$6,442	P-TOOL	1995	5471	2.0	\$13,026

Table A-1
Fund 593 Wastewater System Assets

						Valuation Year = 2018		
		Acquisition	Asset	Year	ENR CCI	Escalation	Total	
Asset Number and Description [1]		Cost	Class	Acquired	Index [2]	Factor [2],	Escalated	
Date					in Year	Current	Acquisition	
					Acquired	11062	Cost	
002187	CLARIFIER MECHANISM	01/01/1981	\$110,661	P-TOOL	1981	3535	3.1	\$346,283
002188	CLARIFIER MECHANISM	01/01/1981	\$201,650	P-TOOL	1981	3535	3.1	\$631,009
002189	CLARIFIER MECHANISM	01/01/1987	\$159,253	P-TOOL	1987	4406	2.5	\$399,824
002190	CLARIFIER MECHANISM	01/01/1993	\$115,696	P-TOOL	1993	5210	2.1	\$245,645
002191	AIR GAP TANK	01/01/1986	\$10,119	P-TOOL	1986	4295	2.6	\$26,062
002192	PRESSURIZATION TANK	01/01/1987	\$9,762	P-TOOL	1987	4406	2.5	\$24,510
002195	MOTOR CONTROL CENTER - N	01/01/1988	\$4,477	P-TOOL	1988	4519	2.4	\$10,958
002206	WASTE GAS BURNER	01/01/1987	\$123,184	P-TOOL	1987	4406	2.5	\$309,270
002207	RAS PUMP W/MOTOR	01/01/1990	\$13,160	P-TOOL	1990	4732	2.3	\$30,763
002208	RAS PUMP W/MOTOR	01/01/1990	\$13,160	P-TOOL	1990	4732	2.3	\$30,763
002209	WAS PUMP W/MOTOR	01/01/1990	\$15,216	P-TOOL	1990	4732	2.3	\$35,570
002210	WAS PUMP W/MOTOR	01/01/1990	\$15,216	P-TOOL	1990	4732	2.3	\$35,570
002213	PUMP W/MOTOR	01/01/1988	\$11,381	P-TOOL	1988	4519	2.4	\$27,860
002214	PUMP W/MOTOR	01/01/1988	\$11,381	P-TOOL	1988	4519	2.4	\$27,860
002215	PUMP W/MOTOR	01/01/1990	\$12,337	P-TOOL	1990	4732	2.3	\$28,841
002217	MIX PIT PIPING/VALVES	01/01/1990	\$26,073	P-TOOL	1990	4732	2.3	\$60,950
002224	ROTATING DRUM THICKENER	01/01/1993	\$51,107	P-TOOL	1993	5210	2.1	\$108,510
002226	RAS PUMP W/MOTOR	01/01/1990	\$13,160	P-TOOL	1990	4732	2.3	\$30,763
002227	RAS PUMP W/MOTOR	01/01/1990	\$13,160	P-TOOL	1990	4732	2.3	\$30,763
002228	WAS PUMP W/MOTOR	01/01/1990	\$12,337	P-TOOL	1990	4732	2.3	\$28,841
002229	WAS PUMP W/MOTOR	01/01/1990	\$12,337	P-TOOL	1990	4732	2.3	\$28,841
002230	PROCESS PIPING	01/01/1990	\$15,545	P-TOOL	1990	4732	2.3	\$36,339
002239	BLOWER	01/01/1993	\$26,435	P-TOOL	1993	5210	2.1	\$56,126
002240	BLOWER	01/01/1993	\$26,435	P-TOOL	1993	5210	2.1	\$56,126
002251	MOTOR CONTROL CENTER	01/01/1990	\$9,870	P-TOOL	1990	4732	2.3	\$23,073
002266	PUMP W/MOTOR	01/01/1993	\$6,873	P-TOOL	1993	5210	2.1	\$14,593
002267	PUMP W/MOTOR	01/01/1993	\$6,873	P-TOOL	1993	5210	2.1	\$14,593
002268	PUMP W/MOTOR	01/01/1993	\$6,873	P-TOOL	1993	5210	2.1	\$14,593
002269	PUMP W/MOTOR	01/01/1993	\$6,873	P-TOOL	1993	5210	2.1	\$14,593
002270	PUMP W/MOTOR	01/01/1990	\$12,337	P-TOOL	1990	4732	2.3	\$28,841
002271	PUMP W/MOTOR	01/01/1993	\$13,217	P-TOOL	1993	5210	2.1	\$28,063
002272	PUMP W/MOTOR	01/01/1993	\$13,217	P-TOOL	1993	5210	2.1	\$28,063
002273	PUMP W/MOTOR	01/01/1993	\$13,217	P-TOOL	1993	5210	2.1	\$28,063
002274	PUMP W/MOTOR	01/01/1993	\$13,217	P-TOOL	1993	5210	2.1	\$28,063
002275	PUMP W/MOTOR	01/01/1993	\$13,217	P-TOOL	1993	5210	2.1	\$28,063
002276	PROCESS PIPING	01/01/1993	\$256,858	P-TOOL	1993	5210	2.1	\$545,359
002277	PUMP W/MOTOR	01/01/1993	\$16,742	P-TOOL	1993	5210	2.1	\$35,547
002278	PUMP W/MOTOR	01/01/1993	\$16,742	P-TOOL	1993	5210	2.1	\$35,547
002279	PUMP W/MOTOR	01/01/1993	\$13,217	P-TOOL	1993	5210	2.1	\$28,063
002280	PUMP W/MOTOR	01/01/1993	\$13,217	P-TOOL	1993	5210	2.1	\$28,063
002282	PROCESS PIPING	01/01/1990	\$23,852	P-TOOL	1990	4732	2.3	\$55,759
002283	MOTOR CONTROL CENTER	01/01/1990	\$16,450	P-TOOL	1990	4732	2.3	\$38,454
002285	RECLAIMED WATER STORAGE	01/01/1993	\$53,751	P-TOOL	1993	5210	2.1	\$114,123
002286	PROCESS PIPING	01/01/1988	\$71,398	P-TOOL	1988	4519	2.4	\$174,773
002290	PROCESS PIPING	01/01/1990	\$9,047	P-TOOL	1990	4732	2.3	\$21,150
002291	PUMP W/MOTOR	01/01/1993	\$13,217	P-TOOL	1993	5210	2.1	\$28,063
002292	PUMP W/MOTOR	01/01/1993	\$13,217	P-TOOL	1993	5210	2.1	\$28,063
002293	PUMP W/MOTOR	01/01/1993	\$13,217	P-TOOL	1993	5210	2.1	\$28,063
002294	PROCESS PIPING	01/01/1993	\$31,369	P-TOOL	1993	5210	2.1	\$66,603
002400	ONE (1) WALLACE AND TIERNAN WALL MOUNTED	01/08/2001	\$7,747	P-ODEQ	2001	6342	1.7	\$13,512
002401	ONE (1) WALLACE AND TIERNAN WALL MOUNTED	01/08/2001	\$7,747	P-ODEQ	2001	6342	1.7	\$13,512
002402	ONE (1) WALLACE AND TIERNAN WALL MOUNTED	01/08/2001	\$7,747	P-ODEQ	2001	6342	1.7	\$13,512
002403	ONE (1) PUMP CLARIFIER #3	11/22/2002	\$6,259	P-UTIL	2002	6538	1.7	\$10,590
002431	GENERATOR, MOUNTED ON TRAILER - 25 KW	10/18/1999	\$17,623	P-ODEQ	1999	6060	1.8	\$32,169
002434	PUMP MOTOR FOR WPCP	10/16/2001	\$6,392	P-ODEQ	2001	6342	1.7	\$11,150
002483	BURNER, WASTE GAS BURNER	12/26/2000	\$7,145	P-ODEQ	2000	6221	1.8	\$12,706
002486	ONE (1) TOSHIBA MAGNETIC FLOWMETER	06/25/2002	\$3,678	P-ODEQ	2002	6538	1.7	\$6,222
002487	ONE (1) MAGNETIC FLOWMETER	11/08/2002	\$3,743	P-UTIL	2002	6538	1.7	\$6,332
002489	ONE (1) PUMP LOCATED @ WPCP	10/22/2002	\$3,333	P-UTIL	2002	6538	1.7	\$5,639
002490	ONE (1) PUMP LOCATED @ WPCP	10/22/2002	\$3,333	P-UTIL	2002	6538	1.7	\$5,639
002493	ONE (1) FLYGHT PUMP/MERCED LIFT STATION	10/02/2002	\$5,325	P-ODEQ	2002	6538	1.7	\$9,009
002539	FUEL TANK, PORTABLE ABOVE-GROUND TANK	12/10/1999	\$2,754	P-ODEQ	1999	6060	1.8	\$5,027
002609	ONE (1) VOGELSANG PD PUMP, V136-105Q W/1	06/25/2002	\$10,625	P-ODEQ	2002	6538	1.7	\$17,977
002611	ONE (1) DYNABLEND UNIT FOR AUTO PLY SYST	11/22/2002	\$9,807	P-UTIL	2002	6538	1.7	\$16,593
002616	LATHE, JET PRECISION - PLANT	06/29/2003	\$12,232	p-odeq	2003	6694	1.7	\$20,214
002617	MILL PACKAGE	06/29/2003	\$6,387	p-odeq	2003	6694	1.7	\$10,554
002618	MECHANICAL SEAL, FLOWSERVE	06/29/2003	\$4,385	P-UTIL	2003	6694	1.7	\$7,245
002620	VALVE~	08/25/2003	\$8,972	P-UTIL	2003	6694	1.7	\$14,826
002693	STORM DRAIN - WICKS PUMP ST. - LAND #194	06/27/2003	\$479,506	P-STOR	2003	6694	1.7	\$792,384
002703	RODDER~	03/18/2004	\$63,597	P-PWKS	2004	7115	1.6	\$98,874

Table A-1
Fund 593 Wastewater System Assets

						Valuation Year = 2018		
		Acquisition	Asset	Year	ENR CCI	Escalation	Total	
Asset Number and Description [1]		Cost	Class	Acquired	Index [2]	Factor [2],	Escalated	
Date					in Year	Current	Acquisition	
					Acquired	11062	Cost	
002763	NEPTUNE LIFT STATION REHABILITATION	06/29/2004	\$469,286	p-bldg	2004	7115	\$729,600	
002845	VORTEX PIT PUMP	01/07/2005	\$26,840	p-util	2005	7446	\$39,873	
002847	PUMP VORTEX PIT	01/24/2005	\$26,840	p-util	2005	7446	\$39,873	
002850	VALVE~	04/07/2005	\$8,817	P-UTIL	2005	7446	\$13,098	
002923	LIFT PUMP~	05/04/2006	\$37,715	P-UTIL	2006	7751	\$53,822	
002927	MECHANICAL SEAL	02/23/2006	\$8,189	p-tool	2006	7751	\$11,686	
002930	CHOPPER PUMP	07/01/2005	\$26,840	p-util	2005	7446	\$39,873	
002951	VAUGHAN CHOPPER PUMP	06/30/2006	\$18,372	p-util	2006	7751	\$26,219	
003099	WELDING FUME EXTRACTOR, PART NO. LIN	06/29/2007	\$6,275	P-ENGI	2007	7967	\$8,712	
003141	FORKLIFT (USED)	12/11/2007	\$15,153	P-PWKS	2007	7967	\$21,039	
003142	DIGESTER BOILER #4	02/19/2008	\$135,486	P-UTIL	2008	8310	\$180,352	
003197	AERATION TANK "B" UPGRADE	06/30/2008	\$962,703	P-UTIL	2008	8310	\$1,281,502	
003251	PIPE INSPECTION SYSTEM	03/16/2009	\$8,448	P-UTIL	2009	8570	\$10,905	
003261	3C LIFT GATE	10/31/2008	\$20,665	P-TOOL	2008	8310	\$27,508	
003290	STANDBY PUMP - WICKS/NEPTUNE LIFT STATION	06/29/2009	\$7,422	p-tool	2009	8570	\$9,580	
003291	STANDY PUMP - MERCED LIFT STATION	06/29/2009	\$7,422	p-tool	2009	8570	\$9,580	
003292	ABRASIVE BLASTING SYSTEM	06/29/2009	\$7,344	p-tool	2009	8570	\$9,479	
003294	TRAILER - ENCLOSED WITH TONGUE BOX	06/29/2009	\$6,174	p-pwks	2009	8570	\$7,969	
003296	ALIGNMENT SYSTEM - FIXTURLASER EXPRESS	06/29/2009	\$21,621	p-tool	2009	8570	\$27,907	
003311	PUMP - FLYGT 3102 - LS STANDBY	08/18/2009	\$6,135	P-HEQU	2009	8570	\$7,919	
003312	PUMP - FLYGT 3153 - LS STANDBY	08/18/2009	\$11,963	P-HEQU	2009	8570	\$15,441	
003313	SLUDGE TRUCK ROLL OFF CONTAINER	09/11/2009	\$6,409	P-ODEQ	2009	8570	\$8,273	
003351	HVAC SYSTEM - COLLECTIONS BUILDING	03/10/2010	\$15,188	P-UTIL	2010	8804	\$19,083	
003353	AIR COMPRESSOR	08/12/2009	\$11,798	P-UTIL	2009	8570	\$15,228	
003356	LAND - SEWER EASEMENTS (9)	06/17/2010	\$5,000	P-LAND	2010	8804	\$6,282	
003359	LAND - SEWER EASEMENTS (2)	06/29/2010	\$1,500	p-land	2010	8804	\$1,885	
003377	METAL CANOPY BUILDING	02/21/2011	\$24,376	P-BLDG	2011	9070	\$29,730	
003381	LAND - 2550 DAVIS STREET	10/06/2010	\$1,650,000	p-land	2010	8804	\$2,073,118	
003391	RECIRCULATING PUMP - DIGESTER #4	01/28/2011	\$6,875	P-UTIL	2011	9070	\$8,385	
003394	WPCP - ROTARY DRUM THICKNER SYSTEM	06/29/2011	\$1,672,481	p-util	2011	9070	\$2,039,806	
003425	CHLORINE CONTACT TANK MECHANICAL	07/29/2011	\$6,932	P-UTIL	2011	9070	\$8,454	
003474	SUBMERSIBLE PUMP - SAN RAFAEL LIFT STATION	05/02/2012	\$4,375	P-UTIL	2012	9338	\$5,182	
003475	SUBMERSIBLE PUMP - WASHINGTON LIFT STATION	05/02/2012	\$7,482	P-UTIL	2012	9338	\$8,863	
003547	REFRIGERATOR SAMPLER 120 VAC, 60 HZ (2)	06/21/2012	\$11,695	P-UTIL	2012	9338	\$13,853	
003623	SPIRAL SLUDGE HEAT EXCHANGER	06/18/2013	\$31,464	P-UTIL	2013	9543	\$36,470	
003648	BLUE DOLPHIN LIFT STATION	06/28/2013	\$226,561	P-BLDG	2013	9543	\$262,610	
003649	WICKS SANITARY LIFT STATION	06/28/2013	\$867,617	p-bldg	2013	9543	\$1,005,669	
003655	METERING PUMPS AND ACCESSORIES (3 SETS)	08/19/2013	\$24,032	P-UTIL	2013	9543	\$27,856	
003719	SPARE DEZURIK PEC AND APCO 250 VALVES	07/01/2013	\$5,443	P-UTIL	2013	9543	\$6,309	
003756	610 GAL VERTICAL TANKS FOR WPCP (2)	03/11/2014	\$22,646	P-TOOL	2014	9806	\$25,545	
003792	STERILIMATIC STEAM PRESSURE STERILIZER	06/30/2014	\$10,773	P-UTIL	2014	9806	\$12,152	
003793	KJELTEC 8200 AMMONIA DITILLATION UNIT	06/30/2014	\$11,514	P-UTIL	2014	9806	\$12,988	
003991	PREMIER TRAILER MOUNTED PORTABLE TRASH PUMP	10/07/2015	\$42,078	P-HEQU	2015	10036	\$46,381	
003992	2015 POLARIS GEM ELECTRIC VEHICLE - MODEL E	09/02/2015	\$15,158	P-PWKS	2015	10036	\$16,708	
003993	DIGESTER RECIRCULATION PUMP AND MOTOR	01/20/2016	\$88,985	P-UTIL	2016	10331	\$95,276	
003994	HIGH EFFICIENCY TURBO COMPRESSOR	08/05/2015	\$87,921	P-UTIL	2015	10036	\$96,912	
004253	HOTSYS PRESSURE WASHER MODEL #1455N	10/19/2016	\$8,552	P-HEQU	2016	10331	\$9,157	
004254	WATSON MARLOW 530 UN/REM PERISTALTIC TUBING PUM	05/10/2017	\$8,486	P-MAIN	2017	10676	\$8,793	
004255	PREMIER CORNELL PORTABLE TRASH PUMP	06/21/2017	\$34,279	P-HEQU	2017	10676	\$35,518	
004256	WATER POLLUTION CONTROL PLANT EXPANSION	07/01/2016	\$56,341,472	P-BLDG	2016	10331	\$60,324,725	
004257	CCTV SEWER TRUCK EQUIPMENT	07/01/2016	\$218,914	P-HEQU	2016	10331	\$234,391	
Total Treatment Plant and Lift Stations			\$69,708,226				\$114,062,679	
Collection System			<i>miles</i>		<i>Linear Feet</i>	<i>\$/LF</i>	<i>Replacement Cost</i>	
Collection system pipe			130		686,400	\$260	\$178,464,000	
Total Treatment Plant, Lift Stations and Collection Pipe							\$292,526,679	

Notes:

1. Asset data was provided by the City. The data excludes the following collection system pipe assets.

Collection system pipe values are based on replacement costs as shown in the body of the table.

002220	GROUP OF UNDERGROUND PIPING	01/01/1948	\$136,780
002221	GROUP OF UNDERGROUND PIPING	01/01/1968	\$517,091
002222	GROUP OF UNDERGROUND PIPING	01/01/1991	\$296,116
002764	ESTUDILLO SANITARY SEWER EXTENSION	06/29/2004	\$292,277
003196	PIPING MODERNIZATION	06/30/2008	\$431,444
003650	SEWER LINE REPLACEMENTS	06/28/2013	\$1,719,629
003804	PREDATOR CREEK SEWER REPLACEMENT	06/29/2014	\$701,060

2. Escalated costs are the acquisition costs escalated using the Construction Cost Index values for 20-cities published by the Engineering News Record.

Table A-2
Fund 593 Developer Contributions (Connection Fees)

Year	Amount
1995	\$29,980
1996	\$26,197
1997	\$13,439
1998	\$143,702
1999	\$269,896
2000	\$49,729
2001	\$191,203
2002	\$347,274
2003	\$198,756
2004	\$94,302
2005	\$48,237
2006	\$335,374
2007	\$54,857
2008	\$157,980
2009	\$204,238
2010	\$52,004
2011	\$34,304
2012	\$238,319
2013	\$234,389
2014	\$104,089
2015	\$590,778
2016	\$117,885
2017	\$370,885
2018	\$104,523
Total	\$4,012,339

Source: City of San Leandro Eden finance system, 593-3310



City of San Leandro

Meeting Date: July 15, 2019

Resolution - Council

File Number: 19-371

Agenda Section: PUBLIC HEARINGS

Agenda Number:

TO: City Council

FROM: Jeff Kay
City Manager

BY: Debbie Pollart
Public Works Director

FINANCE REVIEW: David Baum
Finance Director

TITLE: RESOLUTION of the City of San Leandro City Council to Accept the Report on Wastewater Utility Capacity Charges and Amend Title 6, Chapter 4, Section 6.4.110 of the San Leandro Administrative Code Relating to Fees and Charges for Services Provided by City Departments to Adjusts Fees in "Public Works Service Department -- Waste Water Discharge Fees" Section

The City Council of the City of San Leandro does **RESOLVE** as follows:

- The City Council accepts the results of the "Wastewater Utility Capacity Charges Study" relating to Connection Fees charged when adding new demand to the sewer system;
- That following notice and hearing as required by law, Title 6, Chapter 4, Section 6.4.100 of the San Leandro Administrative Code ("Fee Schedule") is hereby amended;
- That the adopted Fee Schedule, in the section entitled "PUBLIC WORKS SERVICES DEPARTMENT - Waste Water Discharge Fees, Section 2. Connection Fees" shall be attached to and made a part of this resolution; and
- That the provisions of the Fee Schedule shall take effect on January 1, 2020.

Exhibit A

The following chart shows the current capacity charge (called “connection fee” in the City’s list of fees) and the proposed capacity charge based on current valuations.

	FY 2018 - 2019 Fees	FY 2020 Fees (effective 7/1/2019)	Proposed Fees (effective 1/1/2020)
Dwelling units, per additional unit:			
• Single-Family Unit	\$4,389	\$4,558.85	\$3,920
• Multiple-Family Unit	\$3,664	\$3,805.80	\$3,270
• Accessory Dwelling Unit	\$3,664	\$3,805.80	\$3,270
Converting an existing apartment building to condominium units	\$179	\$179	\$179
Non-residential users			
Non-residential users are assessed connection fees based on the estimated average day of their peak month discharge according to the unit cost schedule below:			
Volume, per gallons per day	\$20.51	\$21.30	\$22.02
BOD (Biochemical oxygen demand), per pounds per day	\$838.61	\$871.06	\$938.00
SS (Suspended solids), per pounds per day	\$961.17	\$998.03	\$993.00



City of San Leandro

Meeting Date: July 15, 2019

Staff Report

File Number: 19-372

Agenda Section: PUBLIC HEARINGS

Agenda Number:

TO: City Council

FROM: Jeff Kay
City Manager

BY: Debbie Pollart
Public Works Director

FINANCE REVIEW: Not Applicable

TITLE: Staff Report for a City of San Leandro City Council Resolution to Amend Title 12, Chapter 5, Section 12.5.115 of the City of San Leandro Administrative Code to Clarify When and How Capacity Fees May Change

SUMMARY AND RECOMMENDATIONS

Staff recommends that the City Council approve a resolution to amend the City's Administrative Code to clarify when and how capacity fees may be changed.

BACKGROUND

The City of San Leandro Administrative Code currently specifies that the Sanitary Sewer Capacity Fee (which is also called a "Connection Fee") is modified annually on July 1 by an amount less than or equal to the Consumer Price Index (CPI). The proposed amendment would change four things:

1. It would allow the City Council the flexibility to change fees at a date other than July 1. This is necessary this year as a result of the timing of the completion of the "Wastewater Utility Capacity Charges Study."
2. Because capacity fees are based on the value of buildings and other facilities, the best practice is to increase the rates by the ENR-20 City Index as published by the Engineering News-Record. This index is specific to the cost of construction and is a better estimate of the value of constructed assets.
3. It would allow the City Council to change the rates by other amounts. This is necessary because the value of the assets may change as they are put into or removed from service. They may also need to change as the result of changes in expected discharges from residential customers.
4. Section 12.5.115 (c) currently says that all non-residential customers shall have their fees adjusted after one year in service. However, this is not always possible because appropriate meters may not be available and the first year of service may not be indicative

of ongoing sewer discharges. This amendment would change “shall” to “may” to provide the necessary flexibility for staff to forgo the capacity fee adjustment if impractical or impossible.

ATTACHMENT

- Exhibit A: Red-lined document showing the proposed changes to the San Leandro Administrative Code

PREPARED BY:

Justin Jenson, Plant Manager, Public Works Department and Hayes Morehouse, Administrative Analyst II, Public Works Department

Exhibit A

San Leandro Administrative Code

Title 12 Public Works

Chapter 5 Uniform Wastewater Discharge Regulations

Section 12.5.115 Capacity Fees

(a) Any person (whether a new or existing user) who installs new or additional fixtures, equipment, processes or devices, including provisions for future installation, which will add (either in fact or potential) wastewater load to the sanitary sewer system shall pay to the City a "Capacity Fee" as determined by the conditions and formula hereinafter enumerated. No plumbing permit shall be issued nor shall any connection be made to the sanitary sewer system until the applicable capacity fee has been paid.

(b) The capacity fee for residential dwelling units shall be the appropriate unit cost as listed in San Leandro Administrative Code §6.4.100.

The capacity fee for converting an existing apartment building to condominium units shall be as listed in San Leandro Administrative Code §6.4.100. Non-residential users shall be assessed capacity fees based on the estimated average day of their peak month discharge according to the unit cost schedule as listed in San Leandro Administrative Code §6.4.100, but in no case shall the fee for a new connection be less than the single-family Residential discharge equivalency.

(c) A capacity fee adjustment ~~shall~~ may be made at the end of one year of service for all non-residential users to reflect the actual wastewater discharge based on monitored wastewater discharged or metered water usage adjusted for volume not discharged to the sanitary sewer system. If the estimated wastewater discharge is low, an additional capacity fee shall be assessed. If the estimated wastewater discharge is high, the City shall issue a refund to the user.

(d) The City reserves the right to make an additional capacity fee assessment for an existing sewer connection if the peak month flow or strength of discharge is increased above that flow or strength upon which the original capacity fee was based.

(e) Capacity fee receipts shall be deposited into a separate reserve account to be used for future treatment facility expansion projects, or if no future expansion is required, these funds may be used to finance other treatment facility improvement projects or to retire the State Revolving Fund Loan.

(f) Each sewer permit issued as herein provided, and the right to a sewer connection pursuant to any such sewer permit so issued, shall run with the land, and shall not be

transferred to, or used for, any other property other than the property for which the sewer permit was originally issued.

(g) All sewer rates, charges, and fees as herein provided shall be non-refundable.

(h) The Sanitary Sewer Capacity Fee shall be modified each July 1st or on the date set by City Council by an amount less than or equal to the percentage change in the ~~Consumer Price Index (CPI) for the San Francisco Bay Area as published by United States Department of Labor Bureau of Labor Statistics~~ ENR 20 City Index as published by Engineering News-Record from the preceding one-year period. City Council may also change the fee to other amounts as appropriate.



City of San Leandro

Meeting Date: July 15, 2019

Resolution - Council

File Number: 19-373

Agenda Section: PUBLIC HEARINGS

Agenda Number:

TO: City Council

FROM: Jeff Kay
City Manager

BY: Debbie Pollart
Public Works Director

FINANCE REVIEW: Not Applicable

TITLE: RESOLUTION of the City of San Leandro City Council to Amend Title 12, Chapter 5, Section 12.5.115 of the City of San Leandro Administrative Code to Clarify When and How Capacity Fees May Change

WHEREAS, the City Council may need to change the date that Capacity Fees are adjusted; and

WHEREAS, the ENR-20 City Index published by Engineering News-Record is a more accurate representation of growth of facility value; and

WHEREAS, the City Council may need to adjust Capacity Fees by other than the Index amount; and

WHEREAS, City Staff may need to forgo adjusting fees after one year of service.

NOW, THEREFORE, the City Council of the City of San Leandro does **RESOLVE** as follows:

1. Title 12, Chapter 5, Section 12.5.115 of the City of San Leandro Administrative Code is hereby amended according to Exhibit A, attached hereto and made a part of this resolution; and
2. The City Council declares that the aforementioned amendment to Title 12, Chapter 5, Section 12.5.115 of the San Leandro Administrative Code shall take effect immediately.

Exhibit A

San Leandro Administrative Code

Title 12 Public Works

Chapter 5 Uniform Wastewater Discharge Regulations

Section 12.5.115 Capacity Fees

(a) Any person (whether a new or existing user) who installs new or additional fixtures, equipment, processes or devices, including provisions for future installation, which will add (either in fact or potential) wastewater load to the sanitary sewer system shall pay to the City a "Capacity Fee" as determined by the conditions and formula hereinafter enumerated. No plumbing permit shall be issued nor shall any connection be made to the sanitary sewer system until the applicable capacity fee has been paid.

(b) The capacity fee for residential dwelling units shall be the appropriate unit cost as listed in San Leandro Administrative Code §6.4.100.

The capacity fee for converting an existing apartment building to condominium units shall be as listed in San Leandro Administrative Code §6.4.100. Non-residential users shall be assessed capacity fees based on the estimated average day of their peak month discharge according to the unit cost schedule as listed in San Leandro Administrative Code §6.4.100, but in no case shall the fee for a new connection be less than the single-family Residential discharge equivalency.

(c) A capacity fee adjustment may be made at the end of one year of service for all non-residential users to reflect the actual wastewater discharge based on monitored wastewater discharged or metered water usage adjusted for volume not discharged to the sanitary sewer system. If the estimated wastewater discharge is low, an additional capacity fee shall be assessed. If the estimated wastewater discharge is high, the City shall issue a refund to the user.

(d) The City reserves the right to make an additional capacity fee assessment for an existing sewer connection if the peak month flow or strength of discharge is increased above that flow or strength upon which the original capacity fee was based.

(e) Capacity fee receipts shall be deposited into a separate reserve account to be used for future treatment facility expansion projects, or if no future expansion is required, these funds may be used to finance other treatment facility improvement projects or to retire the State Revolving Fund Loan.

(f) Each sewer permit issued as herein provided, and the right to a sewer connection pursuant to any such sewer permit so issued, shall run with the land, and shall not be

transferred to, or used for, any other property other than the property for which the sewer permit was originally issued.

(g) All sewer rates, charges, and fees as herein provided shall be non-refundable.

(h) The Sanitary Sewer Capacity Fee shall be modified each July 1st or on the date set by City Council by an amount less than or equal to the percentage change in the ENR 20 City Index as published by Engineering News-Record from the preceding one-year period. City Council may also change the fee to other amounts as appropriate.



City of San Leandro

Meeting Date: July 15, 2019

Staff Report

File Number: 19-374

Agenda Section: PUBLIC HEARINGS

Agenda Number:

TO: City Council

FROM: Jeff Kay
City Manager

BY: Debbie Pollart
Public Works Director

FINANCE REVIEW: Not Applicable

TITLE: Staff Report for Ordinance to Amend City of San Leandro Municipal Code Title 3, Chapter 14, Section 3-14-800 to Reflect Current Residential Wastewater Characteristics

SUMMARY AND RECOMMENDATIONS

San Leandro Municipal Code Title 3, Chapter 14, Article 8, Section 800(a) contains specific details of wastewater characteristics for residential customers and states that these characteristics are used to calculate sewer fees for all other customers. On May 6, 2019, the City Council accepted the results of the recently completed Wastewater Utility Financial Plan and Rates Study as prepared by Municipal Financial Services. This study investigated wastewater usage and characteristics of residential, commercial and industrial users and found that these characteristics have changed since the Municipal Code was last amended.

Staff recommends that the City Council pass the Ordinance to ensure the Municipal Code accurately reflects current sewer rates and policies.

BACKGROUND

Proposition 218, passed by the voters in 1996, requires that sewer charges be commensurate with the actual cost of providing the service. To ensure compliance with Proposition 218 as well as maintain a fair fee structure, City staff engaged Municipal Financial Services to investigate the wastewater characteristics and calculate appropriate fees. The study looked at three wastewater characteristics: the volume of water used, the biochemical oxygen demand (BOD), and the total suspended solids (TSS).

The used water usage data was from East Bay Municipal Utility District (EBMUD), actual data from large industrial users, and published industry standards to find the current average wastewater discharge from both single-family and multiple-family residences. The study found that wastewater volume for a single-family residence is 145 gallons per day and the volume for a

multiple-family residence is 121 gallons per day. In addition, it found that BOD for both single-family and multiple-family is 300 milligrams per liter (mg/l) and total suspended solids is 320 mg/l. These figures are the current best estimates for wastewater usage and were the basis for updating the sewer service charges.

In addition, the Municipal Code specifies milligrams per liter for chemical oxygen demand (COD) and oil and grease. These characteristics were not studied and were not used to calculate fees. Staff recommends these be removed from the Municipal Code because they may not be accurate and are superfluous.

Finally, the Code states that “the charges and fees established for industrial users shall be based upon the measured or estimated constituents and characteristics of that user which may include, but are not limited to, BOD, COD, TSS, oil and grease, chlorine demand and volume.” Since currently only BOD, TSS and volume are currently used, staff recommends removing references to COD, oil and grease and chlorine from this section of the Code. Because the Code says “not limited to,” these terms may be used without further action by the City Council.

Previous Actions

- May 6, 2019: City Council approved Resolution 19-225 accepting the Wastewater Utility Financial Plan and Rates Study

Attachments to Staff Report

- Red-lined version of proposed amendment to the City of San Leandro Municipal Code

Attachments to Related Legislative Files

- Attached to Ordinance 19-375

PREPARED BY: Justin Jenson, Plant Manager and Hayes Morehouse, Administrative Analyst, Public Works Department

Exhibit A
San Leandro Municipal Code

Title 3 Health and Safety
Chapter 14 Uniform Wastewater Discharge Regulations
Section 3-14-800 Wastewater Charges and Fees

(a) **Determination of User Charges and Fees.** When user classification charges are established, they shall be based upon a minimum basic charge for each premises, computed on the basis of wastewater from a basic domestic premises with the following characteristics:

Characteristic	Milligrams Per Liter
BOD Biochemical oxygen demand (BOD)	200 300 mg/l
COD	280 mg/l
Total suspended solids (TSS)	200 320 mg/l
Oil and grease	40 mg/l
Volume	123.5 <u>145</u> gal. per day per single-family dwelling unit.
Volume	101 <u>121</u> gal. per day per multiple-family dwelling unit.

The charges for all characteristics of users other than the basic domestic premises shall be based upon the relative difference between the average wastewater constituents and characteristics of that classification as related to those of a domestic premises. The charges and fees established for industrial users shall be based upon the measured or estimated constituents and characteristics of that user which may include, but are not limited to, BOD, ~~COD~~, TSS, ~~oil and grease~~, ~~chlorine demand~~ and volume.



City of San Leandro

Meeting Date: July 15, 2019

Ordinance

File Number: 19-375

Agenda Section: PUBLIC HEARINGS

Agenda Number:

TO: City Council

FROM: Jeff Kay
City Manager

BY: Debbie Pollart
Public Works Director

FINANCE REVIEW: Not Applicable

TITLE: ORDINANCE of the City of San Leandro to Amend Title 3, Chapter 3, Section 3-14-800 of the City of San Leandro Municipal Code Relating to Wastewater Charges and Fees

The City Council of the City of San Leandro recites the following:

WHEREAS, at the City Council Meeting on May 6, 2019, the City Council accepted a Wastewater Utility Financial Plan and Rates Study (“Study”); and

WHEREAS, this Study found that the characteristics of domestic wastewater have changed; and

WHEREAS, some measures of wastewater characteristics are no longer in use.

NOW, THEREFORE, the City Council of the City of San Leandro does **ORDAIN** as follows:

SECTION 1. PURPOSE. The purpose of this ordinance is to amend the San Leandro Municipal Code to reflect current and accurate measures of domestic wastewater characteristics and reflect characteristics currently in use.

SECTION 2. AMENDMENT OF CODE. Title 3, Chapter 3-14, Section 3-14-800 of the San Leandro Municipal Code is hereby amended as shown in Exhibit A, attached hereto and incorporated herein by reference.

SECTION 3. SEVERABILITY. If any section, subsection, subdivision, paragraph, sentence, clause or phrase of this Ordinance, or its application to any person or circumstance, is for any reason held to be invalid or unenforceable, such invalidity or unenforceability shall not affect the validity or enforceability of the remaining sections, subsections, subdivisions, paragraphs, sentences, clauses or phrases of this Ordinance, or its application to any other person or circumstance. The City Council of the City of San Leandro hereby declares that it would

have adopted each section, subsection, subdivision, paragraph, sentence, clause or phrase hereof, irrespective of the fact that any one or more other sections, subsections, subdivisions, paragraphs, sentences, clauses or phrases hereof is declared invalid or unenforceable.

SECTION 4. EFFECTIVE DATE AND PUBLICATION. This ordinance shall take effect thirty (30) days after adoption. The City Clerk is directed to publish the title once and post a complete copy thereof on the City Council Chamber bulletin board for five (5) days prior to adoption.

Exhibit A
San Leandro Municipal Code

Title 3 Health and Safety
Chapter 14 Uniform Wastewater Discharge Regulations
Section 3-14-800 Wastewater Charges and Fees

(a) **Determination of User Charges and Fees.** When user classification charges are established, they shall be based upon a minimum basic charge for each premises, computed on the basis of wastewater from a basic domestic premises with the following characteristics:

Characteristic	Milligrams Per Liter
Biochemical oxygen demand (BOD)	300 mg/l
Total suspended solids (TSS)	320 mg/l
Volume	145 gal. per day per single-family dwelling unit.
Volume	121 gal. per day per multiple-family dwelling unit.

The charges for all characteristics of users other than the basic domestic premises shall be based upon the relative difference between the average wastewater constituents and characteristics of that classification as related to those of a domestic premises. The charges and fees established for industrial users shall be based upon the measured or estimated constituents and characteristics of that user which may include, but are not limited to, BOD, TSS, and volume.