

Final Report



City of Stockton
Municipal Utilities Department
**Comprehensive Wastewater
Rate Study**

March 2019





March 27, 2019

Ms. Deedee Antypas
Deputy Director of Wastewater Operations
City of Stockton Municipal Utilities Department
2,500 Navy Drive
Stockton, CA 95206

Subject: Wastewater Final Rate Study Report

Dear Ms. Antypas:

HDR Engineering, Inc. (HDR) is pleased to present to the City of Stockton Municipal Utilities Department (Department) the final report for the comprehensive wastewater cost of service study. The Department's comprehensive study was developed to provide cost-based rates that generate sufficient revenue to fund the operation and maintenance and capital needs of the wastewater utility. More specifically, the study was designed to develop cost-based and equitable rates for the Department's customers. This report outlines the overall approach used to achieve these objectives, along with our findings, conclusions, and recommendations.

The costs associated with providing wastewater services to the Department's customers has been developed based on Department specific information and is included within the development of the proposed rates. This study was developed utilizing industry recognized generally accepted rate setting principles and methodologies as outlined in the Water Environment Federation's Financing Charges for Wastewater Systems Manual of Practice No. 27. This report provides the basis for developing and implementing wastewater rates which are cost-based, equitable, and legally defensible for the Department's customers.

We appreciate the assistance provided by the Department's project team in the development of this study and this report. More importantly, HDR appreciates the opportunity to provide these technical and professional services to the City of Stockton Municipal Utilities Department.

Sincerely yours,
HDR Engineering, Inc.

A handwritten signature in black ink, appearing to read 'Shawn Koorn', with a stylized flourish at the end.

Shawn Koorn
Associate Vice President

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Table of Contents

Executive Summary	1
Introduction	1
Overview of the Rate Study Process	1
Key Wastewater Rate Study Results	2
Summary of the Wastewater Revenue Requirement Analysis	2
Summary of the Wastewater Cost of Service Analysis	6
Summary of the Wastewater Rate Designs.....	7
 1 Introduction and Overview	 10
1.1 Introduction.....	10
1.2 Goals and Objectives	10
1.3 Overview of the Rate Study Process.....	10
1.4 Organization of the Study	11
1.5 Summary	12
 2 Overview of Rate Setting Principles	 13
2.1 Introduction.....	13
2.2 Generally Accepted Rate Setting Principles	13
2.3 Determining the Revenue Requirement.....	13
2.4 Analyzing Cost of Service	14
2.5 Designing Utility Rates	15
2.6 Economic Theory and Rate Setting.....	15
2.7 Summary	16
 3 Wastewater Revenue Requirement	 17
3.1 Introduction.....	17
3.2 Determining the Revenue Requirement.....	17
3.2.1 Establishing a Time Frame and Approach.....	17
3.2.2 Projecting Rate and Other Miscellaneous Revenues	18
3.2.3 Projecting Operation and Maintenance Expenses	19
3.2.4 Projecting Capital Funding Needs.....	19
3.2.5 Projection of Debt Service.....	22
3.2.6 Reserve Funding	22
3.2.7 Summary of the Wastewater Revenue Requirement	22

3.3	Consultant’s Conclusions	24
3.4	Summary	25
4	Wastewater Cost of Service	26
4.1	Introduction.....	26
4.1.1	Objectives of a Cost of Service Study	26
4.2	Determining the Customer Classes of Service	26
4.3	General Cost of Service Procedures	27
4.3.1	Functionalization of Costs	27
4.3.2	Classification of Costs	27
4.3.3	Development of Allocation Factors	28
4.4	Summary of the Wastewater Cost of Service Analysis.....	29
4.5	Consultant’s Conclusions and Recommendations	37
4.6	Summary	37
5	Wastewater Rate Design	38
5.1	Introduction.....	38
5.2	Rate Design Criteria and Considerations	38
5.3	Development of Cost-Based Wastewater Rates	38
5.4	Current Industry Sewer Rate Structure Approach	39
5.5	Overview of the Current Wastewater Rate Structure	41
5.6	Overview of the Proposed Rate Adjustments.....	41
5.7	Overview of the Current Wastewater Rate Structure	44
5.8	Summary of the Wastewater Rates.....	44
5.9	Summary of the Wastewater Rate Design.....	46
	Technical Appendix – Wastewater	47

Introduction

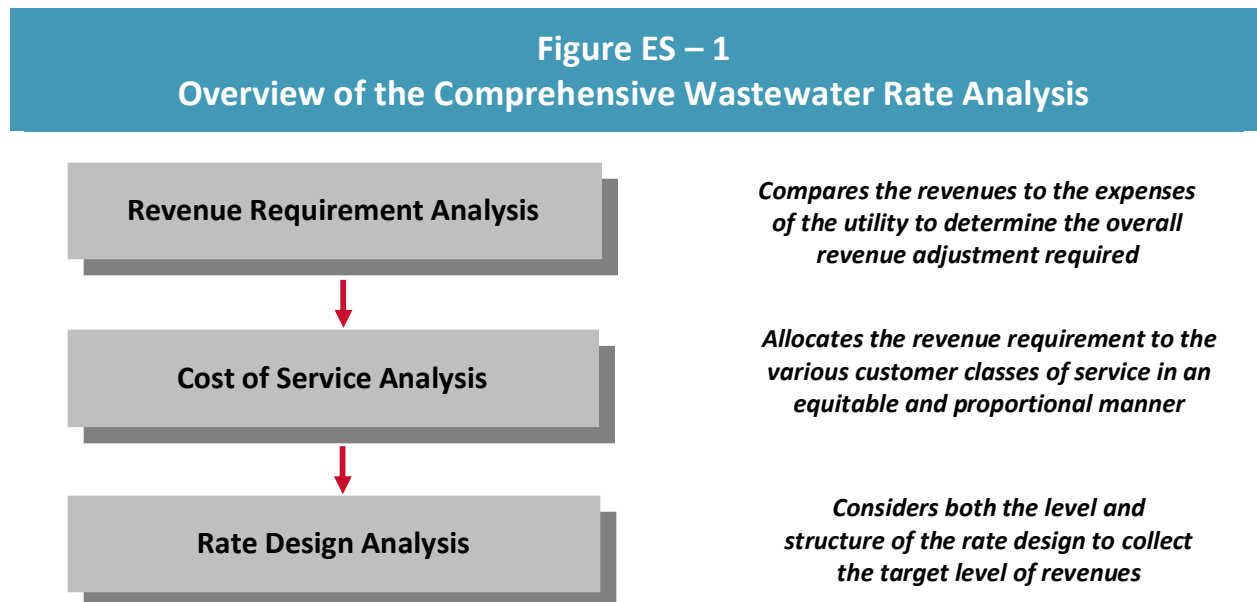
HDR Engineering, Inc. (HDR) was retained by the City of Stockton Municipal Utilities Department (Department) to conduct a comprehensive wastewater rate study (Study). The main objectives of the Study were:

- ♦ Develop a projection of wastewater revenues to support the Department's operating and capital costs
- ♦ Equitably and proportionately allocate the costs of providing wastewater service to those customers receiving service
- ♦ Propose cost-based and equitable rates for a multi-year time period that are in compliance with State law

The Department owns, operates, and maintains the wastewater system which provide services to customers within the City of Stockton and the surrounding area. The costs associated with providing wastewater service to the Department's customers have been developed based on the information by City staff and are included within the development of the proposed rates.

Overview of the Rate Study Process

A comprehensive rate study uses three interrelated analyses to address the adequacy and equity of each utility's rates. These three analyses are a revenue requirement analysis, a cost of service analysis, and a rate design analysis. These three analyses are illustrated below in Figure ES - 1.



The above framework was utilized in the development of this Study for reviewing and evaluating the Department's wastewater rates.

Key Wastewater Rate Study Results

The Study technical analysis was developed based on the operating and maintenance (O&M) and capital costs necessary to provide wastewater services to the Department's customers. The wastewater analysis resulted in the following findings, conclusions, and recommendations.

- A revenue requirement analysis was developed for the projected time period of FY 2019 through FY 2028 for the wastewater utility.
- The Department's FY 2019 wastewater utility adopted budget was used as the starting point of the analysis.
- Operation and maintenance (O&M) expenses are projected to increase at inflationary levels with no assumed changes to levels of service or anticipated extraordinary expenses.
- The drought of 2016, and State mandated water consumption reductions that followed, have impacted customer water consumption levels, which in turn has changed the discharge patterns of the Department's customers and, therefore, the volume related revenues and treatment expenses for the wastewater utility.
- A cost of service analysis was developed to review the equity of the existing rates and to proportionately allocate the revenue requirement among the various customer classes of service for the wastewater utility and customers within each class.
- The results of the cost of service analyses provided the unit costs (i.e., cost basis) which were used to establish the proposed wastewater rates.
- The Study has developed proposed rates for the FY 2020 – FY 2024 time period, by customer class of service.
- The proposed wastewater revenue adjustments average 6.0% annually from FY 2020 through FY 2024, effective July 1 of each year.

Summary of the Wastewater Revenue Requirement Analysis

The Department's wastewater utility revenue requirement analysis is the first analytical step in the comprehensive Study process. The revenue requirement analysis determines the adequacy of the current wastewater rates to fund current and future costs related to both O&M and capital needs. From this analysis, a determination can be made as to the overall level of wastewater rate adjustments needed to provide adequate and prudent funding for the wastewater utility.

For this Study, the revenue requirement was developed for the budgeted year FY 2019 and a projected time period (FY 2020 – FY 2028). As a practical matter, a multi-year time frame is recommended in an attempt to identify any major expenses that may be on the horizon. By anticipating future financial requirements, the Department may begin planning for these changes sooner, thereby minimizing short-term rate impacts and overall long-term rates. However, the focus of the Study was on the next five-year rate setting period of FY 2020 – FY 2024.

For the revenue requirement analysis, a “cash basis” approach was utilized. The “cash basis” approach is the most commonly used methodology by municipal utilities to set their revenue requirement. Under this approach the revenues of the utility must be sufficient to recover all cash needs, including O&M expenses, transfer payments, annual debt service payments, and capital projects funded through rates (rate funded capital). The primary financial inputs in the development of the revenue requirement were the Department’s FY 2019 budget documents, historical billed customer and consumption data, and the Department’s wastewater capital improvement plan. Budgeted O&M expenses were projected using inflationary factors for the Department’s various expenses to provide wastewater collection, conveyance, treatment, and disposal services over the projected time period. These inflationary factors were based on historical Department specific increases in costs and planned changes based on City of Stockton planning and financial projection studies and analyses.

The proper and adequate funding of capital projects is important to help minimize rate increases over time. General financial guidelines state that, at a minimum, a utility should fund an amount equal to, or greater than, the annual depreciation expense through rates. The annual depreciation expense reflects the current investment in plant facilities in service being depreciated or “losing” their useful life. This portion of plant investment needs to be replaced to maintain the existing level of infrastructure (and service levels). However, it must be kept in mind that, in theory, the annual depreciation expense reflects an investment in infrastructure that was placed in service an average of 15 years ago, assuming a 30-year useful, depreciable, life. Simply funding an amount equal to the annual depreciation expense will not be sufficient to fund the replacement of an existing or depreciated facility. Therefore, consideration should be given to funding within rates some amount greater than the annual depreciation expense for renewals and replacements.

As a part of this Study, the Department wanted to target a funding approach and make a concerted effort to increase the overall level of “pay-as-you-go” (rate) funding as part of the Department’s capital improvement plan to maintain the wastewater system (e.g., renewal and replacement needs). However, in addition to the annual renewal and replacement needs, the Department is also making very significant upgrades to the wastewater treatment facility. As a result, there are significant capital improvement needs over the next 5-year period. Provided below in Table ES - 2 is a summary of the amount of rate funded capital over the five-year rate setting period. A more detailed discussion of the capital funding plan is included in Section 3.5 of this report.

Table ES – 2
Summary of the Wastewater Annual Rate Funded Capital (\$000)

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Total Capital Improvement Projects	\$18,947	\$135,744	\$78,794	\$123,300	\$74,564	\$70,000
Less: Other Funding	8,947	125,244	67,794	111,800	62,564	57,000
Total Rate Funded Capital	\$10,000	\$10,500	\$11,000	\$11,500	\$12,000	\$13,000

As a point of reference, the Department’s annual depreciation expense is approximately \$7.6 million (FY 2017). This financial plan has placed the Department’s rate funding for capital improvements at \$10.0 million and increases over time to prudently fund capital renewal and replacement needs. In addition to the rate funded renewal and replacements, the Department has also anticipated the need for additional long-term borrowing for the wastewater treatment facility upgrades, as well as additional funding from reserves to fund the remaining capital improvement plan. In developing this financial plan, HDR and the Department have attempted to minimize rate impacts while funding the necessary capital improvement plan projects of the Department. HDR has worked with the Department’s financial staff and external financial advisors to develop the proposed financing plan. It is important to note that HDR is not acting in a municipal advisory role to the Department.

Given a projection of O&M and capital expenses, a summary of the wastewater revenue requirement analysis was developed. Provided below in Table ES - 3 is a summary of the revenue requirement analysis for the Department’s wastewater utility.

Table ES - 3
Summary of the Wastewater Revenue Requirement Analysis (\$000)

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Revenues						
Rate Revenues	\$65,180	\$65,832	\$66,490	\$67,155	\$67,827	\$68,505
Other Revenues	<u>1,868</u>	<u>1,899</u>	<u>1,943</u>	<u>1,988</u>	<u>2,007</u>	<u>2,026</u>
Total Revenues	\$67,048	\$67,731	\$68,433	\$69,143	\$69,834	\$70,531
Expenses						
O&M Expenses	\$50,042	\$53,430	\$54,321	\$56,601	\$58,904	\$61,180
Rate Funded Capital	10,000	10,500	11,000	11,500	12,000	13,000
Net Debt Service	3,745	6,875	6,880	9,125	16,740	16,721
To / (From) Reserves	<u>3,200</u>	<u>876</u>	<u>4,451</u>	<u>4,745</u>	<u>(7)</u>	<u>2,801</u>
Total Expenses	\$66,987	\$71,681	\$76,652	\$81,971	\$87,637	\$93,701
Bal./(Def.) of Funds	\$61	(\$3,950)	(\$8,218)	(\$12,828)	(\$17,803)	(\$23,170)
Bal. as a % of Rate Rev.	-0.1%	6.0%	12.4%	19.1%	26.2%	33.8%
Proposed Revenue Adjustment	0.0%	6.0%	6.0%	6.0%	6.0%	6.0%
Add'l Rev. from Adjustment	\$0	\$3,950	\$8,218	\$12,828	\$17,803	\$23,170
Total Bal./(Def.) of Funds	\$61	\$0	\$0	\$0	\$0	\$0

As can be seen, the revenue requirement has summed the O&M expense, rate funded capital, net debt service, and reserve funding. The total revenue requirement is then compared to the total sources of funds which include the rate revenues, at present rate levels, and other miscellaneous revenues. From this comparison, a balance or deficiency of funds in each year can be determined. This balance or deficiency of funds is then compared to the current level of rate revenues to determine the level of adjustment needed to meet the revenue requirement. It is important to note the “Bal. / (Def.) of Funds” row is cumulative. That is, any adjustments in the initial years will reduce the deficiency in the later years. Over this Study time period, the total deficiency of rate revenue is 33.8%.

Based on the revenue requirement analysis developed herein, HDR has concluded that the Department will need to adjust the level of wastewater revenues received over the next five fiscal years (FY 2020 – FY 2024). HDR has reached this conclusion for the following reasons:

- Adjustments are necessary to fund the Department’s capital needs, of which a large portion is driven by the planned issuance of long-term debt to fund the wastewater treatment facility upgrades.
- Adjustments are necessary to maintain prudent funding of annual renewal and replacement of the wastewater utility system.
- The proposed adjustments maintain the Department’s strong financial health (e.g., debt service coverage ratios) and provide long-term, sustainable funding levels for the Department.

In reaching this conclusion, HDR would recommend that the Department adopt the proposed revenue adjustments for FY 2020 through FY 2024 to provide sufficient funding for all the O&M and capital improvement needs over this Study time period. A detailed discussion of the development of the revenue requirement is provided in Section 3 of this report.

Summary of the Wastewater Cost of Service Analysis

A cost of service analysis determines the equitable and proportional allocation of the revenue requirement to the various customer classes of service. The objective of the cost of service analysis is different from determining the revenue requirement. Whereas the revenue requirement analysis determines the utility's overall revenue needs, the cost of service analysis determines the equitable manner in which to proportionately allocate costs of service and collect that revenue requirement for the proposed time period. In this case, the revenue requirement for FY 2020 was used for establishing the cost of service analysis.

In summary form, the cost of service analysis began by functionalizing the revenue requirement for the wastewater system. As explained in more detail in this report, the functionalized revenue requirement was then classified into their various cost components. The individual functional classification totals were then equitably and proportionately allocated to the various customer class of service based upon each customer class's use of or demand placed on the system. The allocated expenses for each customer class were then aggregated to determine each customer class's overall revenue responsibility. Table ES - 4 provides the summary of the cost of service analysis completed for the Department's wastewater utility customers.

Table ES - 4
Summary of the Wastewater Cost of Service Analysis (\$000)

Class of Service	Current Rate Revenues	Allocated Costs	\$ Difference	% Difference
Single Family & Condo	\$43,518	\$45,619	(\$2,101)	4.8%
Multi-Family	1,737	1,795	(58)	3.3%
Apartments	8,713	9,595	(882)	10.1%
Com / Inst				
Low Strength	\$191	\$198	(\$7)	3.7%
Medium Strength	3,773	3,900	(127)	3.4%
High Strength	1,275	1,320	(45)	3.5%
Schools / Churches	908	972	(63)	7.0%
Industrial	<u>5,716</u>	<u>6,383</u>	<u>(666)</u>	<u>11.7%</u>
Total	\$65,832	\$69,782	(\$3,950)	6.0%

The results of the cost of service analysis indicate cost differences between the customer classes of service. Given the requirement of California Constitution Article XIII D, Section 6 (commonly referred to as Proposition 218) the results of the wastewater cost of service analysis are used to establish the proposed rates. As noted in the cost of service chapter of this report, the implementation of cost of service adjustments will impact the overall customer bill and revenue generation for the wastewater utility. A detailed discussion of the development of the cost of service analysis is provided in Section 4 of this report.

Summary of the Wastewater Rate Designs

The final step of the comprehensive rate study process is the design of the wastewater rates to collect the desired levels of revenue, based on the results of the revenue requirement and cost of service analysis. The revenue requirement analysis provided a set of recommendations related to annual revenue adjustments, while incorporating the cost of service results and implementing interclass adjustments.

The Department currently has a rate structure for each of the customer classes of service. For residential customers, which includes single-family, condominiums, multi-family, and apartments, a monthly flat rate is charged on a per living unit basis. It is important to understand that each customer class has a separate rate given the different characteristics as outlined in the cost of service analysis. Within the commercial customer class there are three subclasses of customers, based on the type of commercial activity and the strength of the wastewater they discharge into the Department's system. These customers are charged a monthly fixed charge as well as a consumption charge based on the estimated discharge of wastewater in one hundred cubic feet (HCF) and the strength of the customer's discharges, which are classified as low, medium, or high. Schools and churches are charged a fixed charge based on their projected

average daily attendance. Finally, industrial customers are charged on a fixed and consumption based approach including a charge based on the actual strength of the wastewater discharged to the Department's system.

Given the result of the revenue requirement and cost of service analyses, proposed rates have been developed that reflect the proportional allocation of the costs of providing service. It is important to note that the structure of the proposed rates have not changed and it is not recommended to do so at this time. Therefore, only the level of rates has been adjusted in order to meet the revenue requirement of the Department's wastewater utility. Provided in Table ES – 5 is a summary of the current and proposed rates for the Residential customer class.

Table ES – 5 Summary of the Present and Proposed Residential Wastewater Rates (\$/Living Unit)						
	Present Rates	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
<i>Single Family & Condo</i>						
City Customer	\$42.06	\$44.10	\$46.75	\$49.56	\$52.53	\$55.68
Non-City Customer	38.36	40.22	42.63	45.19	47.90	50.77
<i>Multi-Family</i>						
City Customer	\$40.20	\$41.55	\$44.04	\$46.68	\$49.48	\$52.45
Non-City Customer	36.06	37.27	39.51	41.88	44.39	47.05
<i>Apartments</i>						
City Customer	\$34.22	\$37.68	\$39.94	\$42.34	\$44.88	\$47.57
Non-City Customer	30.04	33.08	35.06	37.16	39.39	41.75

Provided in Table ES - 6 is a summary of the current and proposed commercial rates. The rates for FY 2020 are based on the unit costs developed in the cost of service study. The rates thereafter and increased by the annual revenue requirement adjustment. The proposed Non-City customer rates are based on the agreements between the County and the Department and reflect the proportional use of the Department's wastewater system.

Table ES – 6
Summary of the Present and Proposed Commercial Wastewater Rates

	Present Rates	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Base Charge (\$/Account)						
City Customer	\$23.16	\$21.25	\$22.53	\$23.88	\$25.31	\$26.83
Non-City Customer	20.34	18.66	19.78	20.97	22.23	23.56
Consumption Charge (\$/HCF)						
Low Strength	\$1.64	\$1.75	\$1.86	\$1.97	\$2.09	\$2.22
Medium Strength	2.03	2.14	2.27	2.41	2.55	2.70
High Strength	3.41	3.59	3.81	4.04	4.28	4.54
Schools / Churches (\$ / ADA)	0.96	1.03	1.09	1.16	1.23	1.30

Similar to how the residential and commercial customer classes' rates were developed, the industrial rates were increased according to the results of the cost of service analysis. Table ES – 7 below shows a summary of the present and proposed Industrial rates.

Table ES – 7
Summary of the Present and Proposed Industrial Wastewater Rates

	Present Rates	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Admin / Stand-by Charge						
Base Charge	\$23.16	\$21.25	\$22.53	\$23.88	\$25.31	\$26.83
Flow - \$ / mg	613.86	685.00	726.10	769.67	815.85	864.80
BOD - \$ / 1,000 lbs	99.37	111.00	117.66	124.72	132.20	140.13
SS - \$ / 1,000 lbs	72.57	81.50	86.39	91.57	97.06	102.88
Consumption Charge						
Flow - \$ / mg	\$530.64	\$592.90	\$628.47	\$666.18	\$706.15	\$748.52
BOD - \$ / 1,000 lbs	36.97	41.30	43.78	46.41	49.19	52.14
SS - \$ / 1,000 lbs	59.16	66.10	70.07	74.27	78.73	83.45

The development of the rate designs is outlined in detail in Section 5 of this report.



1 Introduction and Overview

1.1 Introduction

HDR was retained by the City of Stockton Municipal Utilities Department (Department) to conduct a comprehensive wastewater cost of service study (Study). The objective of the Study was to review the Department's operating and capital costs in order to develop a financial plan for the wastewater utility on a standalone basis and cost-based rates that comply with State law. This study reviewed the adequacy of the existing rates and provides the framework and cost basis for the proposed rates.

The Department owns and operates the wastewater systems in Stockton, California and includes the collection, conveyance, treatment, and disposal, of wastewater generated by properties within the city and certain properties in unincorporated areas of the County. The costs associated with providing wastewater services to customers have been developed based on financial and operating data provided by the Department and included within the development of the Study.

1.2 Goals and Objectives

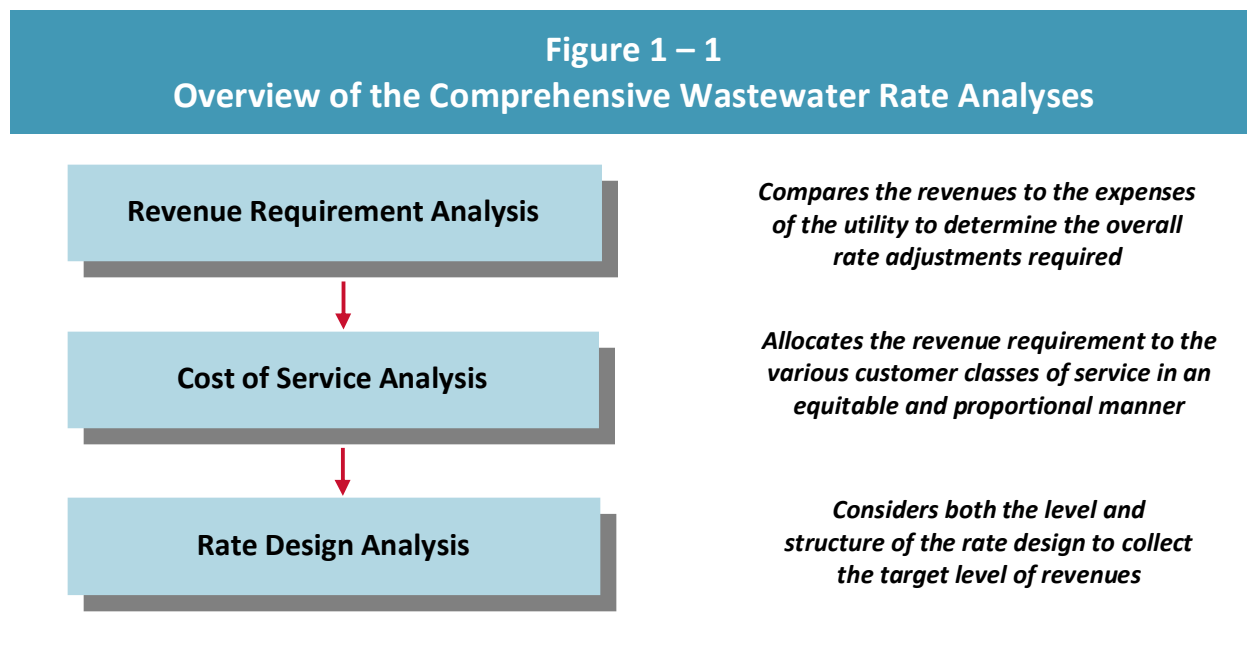
The Department had a number of key objectives in developing the wastewater Study. These key objectives provided a framework for policy decisions in the analyses that followed. The key objectives were:

- Develop the Study in a manner that is consistent with the principles and methodologies established by the Water Environment Federation (WEF), Manual of Practice No. 27, Financing and Charges for Sewer Systems (WEF MOP #27).
- In financial planning and establishing the Department's rates, review and utilize best industry practices, while recognizing and acknowledging the specific and unique characteristics of the Department's wastewater system.
- Review the Department's rates utilizing "generally accepted" rate making (cost of service) methodologies to determine the adequacy and equity of the utility rates.
- Meet the Department's financial planning criteria and goals, such as debt service coverage ratios, adequate funding of capital infrastructure replacement, and maintenance of adequate and prudent reserve levels.
- Develop a financial plan which adequately supports the wastewater utility's funding requirements, while attempting to minimize overall impacts to rates.
- Provide rates designed to meet the intent and legal requirements of California Constitution article XIII D, section 6 (commonly referred to as Proposition 218)

1.3 Overview of the Rate Study Process

User rates must be set at a level where a utility's O&M and capital expenses are met with the revenues received from customers. This is an important point, as failure to achieve this objective may lead to insufficient funds to maintain system integrity. To evaluate the adequacy of the existing wastewater rates, a comprehensive cost of service and rate study is often performed. A

comprehensive cost of service and rate study consists of three interrelated analyses. Figure 1 - 1 provides an overview of these analyses.



The above framework for reviewing and evaluating rates was utilized for the development of the Study. As noted, the wastewater utility was reviewed on a stand-alone basis – that is, no funding from other Department or City funds was assumed – to determine the level of adequate funding needs from the utility’s rate revenues.

1.4 Organization of the Study

This report is organized in a sequential manner that first provides an overview of utility rate setting principles, followed by sections that detail the specific steps used to review and develop the Department’s proposed wastewater rates. The following sections comprise the Department’s wastewater cost of service study report:

- ◆ **Section 2** – Overview of Rate Setting Principles
- ◆ **Section 3** – Wastewater Revenue Requirement Analysis
- ◆ **Section 4** – Wastewater Cost of Service Analysis
- ◆ **Section 5** – Wastewater Rate Design Analysis

Technical Appendices are attached at the end of this report, which detail the various technical analyses that were undertaken in the preparation of this Study.

1.5 Summary

This report will review the comprehensive wastewater cost of service study prepared for the Department. This report has been prepared utilizing generally accepted and industry standard rate setting techniques, while taking into consideration legal requirements for establishing rates pursuant to the California Constitution.



2 Overview of Rate Setting Principles

2.1 Introduction

This section of the report provides background information about the wastewater rate setting process, including descriptions of generally accepted principles, types of utilities, methods of determining a revenue requirement, cost of service, and rate design. This information is useful for gaining a better understanding of the details presented in Sections 3 through 5 of this report.

2.2 Generally Accepted Rate Setting Principles

As a practical matter, all utilities should consider setting their rates around some generally accepted or global principles and guidelines. Utility rates should be:

- Cost-based, equitable, and set at a level that meets the utility's full revenue requirement.
- Easy to understand and administer.
- Designed to conform with "generally accepted" rate setting techniques.
- Stable in their ability to provide adequate revenues for meeting the utility's financial, O&M, and regulatory requirements.
- Established at a level that is stable from year-to-year from a customer's perspective.

2.3 Determining the Revenue Requirement

Most public utilities use the "cash basis" approach for establishing their revenue requirement and setting rates. This approach conforms to most public utility budgetary requirements and the calculation is easy to understand. A public utility totals its cash expenditures for a period of time to determine its required revenues. The revenue requirement for a public utility is usually comprised of the following costs or expenses:

- ◆ **Total Operating Expenses:** This includes a utility's operation and maintenance (O&M) expenses, plus any applicable taxes or transfer payments. O&M expenses include the materials, electricity, labor, supplies, etc., needed to keep the utility functioning.
- ◆ **Total Capital Expenses:** Capital expenses are calculated by adding debt service payments (principal and interest) to capital replacements financed with rate revenues. In lieu of including capital replacements financed with rate revenues, a utility sometimes includes a depreciation expense to stabilize the annual revenue requirement.

Under the "cash basis" approach, the sum of the total O&M expenses plus the total capital expenses equals the utility's revenue requirement during any selected period of time (historical or projected).

Note that the two portions of the capital expense component (debt service and rate funded capital) are necessary under the cash basis approach because utilities generally cannot finance all of their capital facilities with long-term debt. At the same time, it is often difficult to pay for capital expenditures on a "pay-as-you-go" basis given that some major capital projects may have

significant rate impacts on a utility, even when financed with long-term debt. Many utilities have found that some combination of pay-as-you-go funding and long-term financing will often lead to minimization of rate increases over time.

Public utilities typically use the “cash basis”¹ approach to establish their revenue requirements. An exception can occur if a public utility provides service to a large wholesale or contract customer. In this situation, a public utility may use the “utility basis” approach (see Table 2 - 1) regarding earning a fair return on its investment.

Table 2 – 1 Cash versus Utility Basis Comparison			
Cash Basis		Utility Basis (Accrual)	
+	O&M Expenses	+	O&M Expenses
+	Taxes / Transfer Payments	+	Taxes/Transfer Payments
+	Capital Improv. Funded From Rates (≥ Depreciation Expense)	+	Depreciation Expense
+	Debt Service (Principal + Interest)	+	Return on Investment
=	<u>Total Revenue Requirement</u>	=	<u>Total Revenue Requirement</u>

2.4 Analyzing Cost of Service

After the total revenue requirement is determined, it is equitably and proportionately allocated to the users of the service. The allocation, usually analyzed through a cost of service analysis, reflects the cost relationships for providing wastewater services. A cost of service analysis requires three analytical steps:

1. Costs are **functionalized** or grouped into the various cost categories related to providing service. For the wastewater utility, this typically includes collection, pumping, and treatment. This step is largely accomplished by the utility’s accounting system.

¹ “Cash basis” as used in the context of rate setting is not the same as the terminology used for accounting purposes and the recognition of revenues and expenses. As used for rate setting, “cash basis” simply refers to the specific cost components to be included within the revenue requirement analysis.

2. The functionalized costs are then **classified** to specific cost components. Classification refers to the arrangement of the functionalized data into cost components. For example, wastewater costs are typically classified as volume², strength³, and customer-related.⁴
3. Once the costs are classified into the components, they are proportionally **allocated** to each customer class of service. The allocation is based on each customer class's relative contribution to the cost component (i.e., benefits received from and burdens placed on the system and its resources). For example, customer-related costs are allocated to each class of service based on the total number of customers in that class of service. Once costs are allocated, the revenues from each customer class of service required to achieve cost-based rates can be determined.

2.5 Designing Utility Rates

Rates that meet the utility's objectives are designed based on both the revenue requirement and the cost of service analyses. This approach results in rates that are strictly cost-based. In designing the final proposed rates, factors such as ability to pay, continuity of past rate philosophy, economic development, ease of administration, and customer understanding may be taken into consideration. However, the proposed rates must take into consideration each customer class's proportionate share of the costs allocated through the cost of service analysis to meet legal requirements.

2.6 Economic Theory and Rate Setting

One of the major justifications for a comprehensive rate study is founded in economic theory. Economic theory suggests that the price of a commodity must roughly equal its cost if equity among customers is to be maintained. This statement's implications on utility rate designs are significant. For example, a wastewater utility incurs additional costs to treat high strength wastewater. It follows that the customers who create and discharge high strength wastewater into the system create additional operating costs and should pay for the costs associated with treating higher strength waste and any other maintenance costs associated with their discharges. When costing and pricing techniques are refined, consumers have a more accurate understanding of what the service costs to collect and treat wastewater are. This price-equals-cost concept provides the basis for the subsequent analysis and comments.

"Economic theory suggests that the price of a commodity must roughly equal its cost if equity among customers is to be maintained."

² "Volume" refers to the amount of wastewater discharged.

³ "Strength" refers to the level of constituents (biological oxygen demand, or BOD, and total dissolved solids, or TSS) in wastewater discharged. BOD is the amount of oxygen required to break down the organic material present in the wastewater. High BOD indicates a high concentration of contaminants in the wastewater. Higher strength wastewater requires higher amounts of oxygen to treat it, and therefore is more costly to treat due to aeration needs. TSS is the measure of the suspended solids in wastewater. The more solid that is suspended in the water, the higher the TSS value. Higher suspended solids are also more costly to treat.

⁴ "Customer-related" refers to such costs as billing and collections.

2.7 Summary

This section of the report has provided a brief introduction to the general principles, techniques, and approach used to develop cost-based wastewater rates. These principles and techniques are the basis for the Department's comprehensive Study explained in this report.



3 Wastewater Revenue Requirement

3.1 Introduction

This section of the report details the development of the revenue requirement analysis for the Department's wastewater system. The revenue requirement analysis is the first analytical step in the comprehensive rate study process. From this analysis, a determination can be made as to the overall level of rate adjustments needed to provide adequate and prudent funding for both O&M and capital needs of the utility. The primary objective of the rate study was to develop cost-based and equitable rates that comply with the California Constitution, while attempting to minimize the impacts to the utility's customers.

3.2 Determining the Revenue Requirement

In developing the Department's wastewater revenue requirement for the Study period, the objective is that the utility must financially "stand on its own" and be properly funded. That is, no rate revenues are being transferred from other Department funds or the General Fund to support the wastewater utility. As a result, the revenue requirement analysis assumes the full and proper funding needed to operate and maintain the wastewater system on a financially sound and prudent basis for the long-term.

3.2.1 Establishing a Time Frame and Approach

To begin calculating the revenue requirement for the Department's wastewater utility, a time frame was established for the analysis (i.e., the Study period). The budget year (FY 2019) plus a 9-year review period (FY 2020 – FY 2028) was determined to be an appropriate amount of time for the revenue requirement analysis projected time period. The revenue requirement was based on the Department's adopted wastewater budget for FY 2019, which was then projected over a multi-year period based on historical escalation factors. Reviewing a multi-year time period is recommended since it attempts to identify any major expenses that may be on the horizon. By anticipating future financial requirements, the Department can begin planning for these changes sooner, thereby minimizing short-term rate impacts and overall long-term rates.

The second step in determining the revenue requirement was to decide on the basis for accumulating costs. As discussed in Section 2 of this report, the revenue requirement analysis was developed using the "cash basis" approach. The "cash basis" approach is the most commonly used methodology by municipal utilities to set their revenue requirement. This is also the methodology that the Department has historically used to establish its wastewater revenue requirement. Table 3 - 1 provides a summary of the "cash basis" approach and cost components used to develop the Department's wastewater revenue requirement.

Table 3 – 1
Overview of the Department’s “Cash Basis” Revenue Requirements

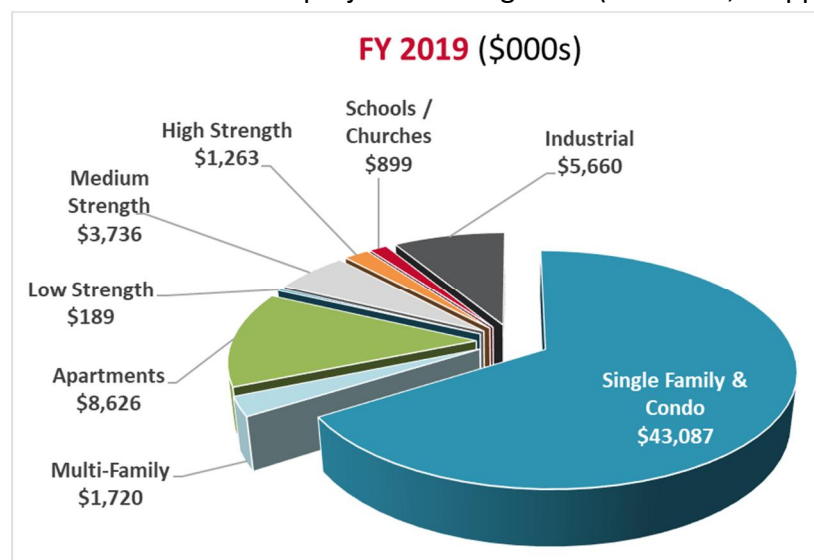
+	Wastewater Operation and Maintenance Expenses
+	Transfers
+	Rate Funded Capital
+	Debt Service (Principal + Interest) – Existing and Future
±	<u>Reserve Funding</u>
=	Total Wastewater Revenue Requirement
–	<u>Miscellaneous Revenues</u>
=	Net Revenue Requirement <i>(Balance Required from Rates)</i>

Given a time period around which to develop the revenue requirement and a method to accumulate the costs, the focus shifts to the development and projection of the revenues and expenses of the Department’s wastewater utility.

The primary financial inputs in the development of the revenue requirement were the Department’s adopted FY 2019 budget documents, recent 12-months of customer billing data, historical financial reports, and the Department’s Capital Improvement Plan (CIP). Presented below is a detailed discussion of the steps and key assumptions contained in the development of the projections of the Department’s wastewater revenue requirement analysis.

3.2.2 Projecting Rate and Other Miscellaneous Revenues

The first step in developing a projection of the wastewater rate revenues, at present rate levels, was to determine the projected billing units (fixed and, if applicable, variable charges) for each



customer group. The billing units for each customer group were based on the most recent 12-month period of July 2017 to June 2018 to determine the current customer discharge characteristics. These billing units were then multiplied by the applicable current wastewater rates. This method of independently calculating revenues links the projected revenues used within the analysis to the projected billing units. It also helps to confirm

that the billing units used within the Study are reasonable for purposes of projecting future revenues, allocating costs and, ultimately, establishing proposed rates. The rate revenues are also shown in Exhibit 3 under “Rate Revenues” for FY 2019.

The majority of the Department's rate revenues are derived from single family and condominium customers. The Department also serves a variety of multi-family, and non-residential customers. In total, and at currently adopted rate levels, the Department's wastewater system is projected to receive approximately \$65.2 million in rate revenue in FY 2019. Based on current City planning documents, the Study has assumed a conservative level of customer account growth of 1.0% / year. By FY 2024, the rate revenues - assuming no rate adjustments - are projected to be approximately \$68.5 million. The detailed calculation of the revenues at present rates is included in Exhibit 6 of the technical appendix.

In addition to rate revenues, the Department also receives other miscellaneous revenues. These are revenues related to fats, oils, and grease (FOG) inspections, wastewater (i.e., septic) haulers, interest income, late charges, etc. In total, the Department is projected to average approximately \$1.9 million annually in miscellaneous revenues. Miscellaneous revenues were estimated to increase slightly over the Study time period and reach \$2.0 million by FY 2024.

On a combined basis, taking into account the rate revenues and the miscellaneous revenues, the Department's wastewater utility has total projected revenues of approximately \$67.0 million in FY 2019, increasing to approximately \$70.5 million by FY 2024 as a result of estimated growth as noted above. The assumptions used for projecting growth and increases in miscellaneous revenues can be found in Exhibit 2 of the technical appendix. The projection of rate and miscellaneous revenues can be found in Exhibit 3 of the technical appendix.

3.2.3 Projecting Operation and Maintenance Expenses

Operation and maintenance (O&M) expenses are incurred by the Department to maintain the wastewater collection, conveyance, treatment, and disposal system at a consistent service level. The starting point of the projection of O&M expenses was the Department's adopted FY 2019 budget. Budgeted O&M expenses were projected over the rate Study time period based on historical inflationary factors. These factors took into consideration the Department's historical cost increases and projected increases. The factors ranged from 2.0% to 7.0% annually for the various types of expenses (e.g., labor, benefits, materials & supplies). Several specific costs were adjusted based on known increases and provided by the City's financial team. These were items related to PERS and other benefit related costs. In total, O&M expenses were projected to increase at an annual inflation rate of approximately 3.9% over the cost of service Study time period. As a note, this is consistent with annual changes in wastewater O&M costs over the past several years. The total operation and maintenance expenses budgeted for the wastewater utility are budgeted to be approximately \$50.0 million in FY 2019. Over the five-year rate setting period, the total O&M expenses are projected to increase to approximately \$61.2 million by FY 2024. A summary of the O&M expenses is shown as a line item in Table 3 – 3.

3.2.4 Projecting Capital Funding Needs

A key component in the development of the wastewater revenue requirement was to properly and adequately fund capital improvement needs in the near and long term. One of the major issues facing many utilities across the U.S. is the amount of deferred capital projects and the

funding pressure from regulatory-related improvements. The proper and adequate funding of capital projects is an important issue for all wastewater utilities and not just a local issue or concern of the Department. To accomplish this, the Department has an adopted Capital Improvement Plan (CIP) to address both the short and long-term needs of the wastewater utility. The Department's CIP will help guide and prioritize capital projects over time and capital investments to expand the capacity of facilities to accommodate future customers.

In general, there are three types of capital projects that the Department may need to fund. These include the following types:

- Renewal and replacement projects
- Growth/capacity expansion projects
- Regulatory-related projects

A renewal and replacement project is essentially a project to maintain the existing system that is in place today. Existing facilities become worn out, obsolete, etc. The Department should continuously be making investments to maintain the integrity of its facilities with renewal and replacement projects. Growth / capacity expansion projects are related to providing service to new customers. This may be through expansion of the existing system or construction of new facilities to provide service to customers within the Department's service area. Additionally, certain projects may be a function of a regulatory requirement in which the Federal or State government mandates the need for an improvement to the system to meet regulatory standards. Understanding these different types of capital projects is important because it may help to explain why costs are increasing and the cost drivers for any needed rate adjustment.

The way in which projects are funded may vary by the type of capital project. For example, renewal and replacement projects should be funded through annual rates on a "pay-as-you-go basis". In contrast to this, growth or capacity expansion projects may be funded through the collection of capacity charges (i.e., growth-related charges) in which new development pays a proportional and equitable share of the cost of improvements required as a result of their connection (impact) and that benefit development. Finally, regulatory projects may be funded by a variety of different means, which may include one or more sources such as rates, long-term debt, grants, etc.

While the above discussion appears to neatly divide capital projects into three clearly defined categories, the reality of working with specific capital projects may be more complex. For example, a pump may be replaced, but while being replaced, it is up-sized to accommodate the need for greater capacity. There are many projects that share these "joint" characteristics. At the same time, projects may not be "replacement" related, but rather "improvement" related. Provided below in Table 3 - 2 is a summary of the wastewater capital funding analysis.

Table 3 – 2
Summary of the Wastewater Capital Improvements (\$000)

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Total Sanitary System Repairs	\$900	\$579	\$3,389	\$2,469	\$5,977	\$14,718
Total Sanitary Pump Station Add's	0	0	99	2,661	0	6,446
RWCF Modification Project - Uninflated	2,514	39,600	45,000	55,156	47,631	8,100
RWCF Modification Project - Inflated	279	4,519	5,274	6,638	5,887	1,028
Total RWCF Upgrades	250	822	2,109	1,974	8,121	3,419
Total Oversize Collection Lines	4,183	244	250	271	278	7,141
Total Pump Station Rehabilitation	1,312	3,044	6,505	6,210	2,016	5,805
Total Sewer Deficiency Improv.	9,482	11,548	16,155	4,248	4,639	11,137
Total Street Improvements	27	13	14	14	14	15
Total Capital Asset Replacements	0	964	0	0	0	1,428
Future Unidentified Capital Improv.	0	0	0	0	0	0
Transfer to Long-Term Debt Proceeds	0	74,412	0	43,660	0	10,764
Total CIP	\$18,947	\$135,744	\$78,794	\$123,300	\$74,564	\$70,000
<i>Less: Other Funding Sources</i>						
Operating Fund - Sewer (431)	\$0	\$0	\$0	\$0	\$0	\$0
Connection Fee Fund - Sewer (434)	4,183	244	349	1,800	0	0
Capital Fund - Sewer	4,764	0	0	0	11,937	0
Grant	0	0	67,445	0	50,627	0
Assumed Revenue Bonds	0	125,000	0	110,000	0	57,000
Revenue Bonds	0	0	0	0	0	0
Total Other Funding Sources	\$8,947	\$125,244	\$67,794	\$111,800	\$62,564	\$57,000
Rate Funded Capital	\$10,000	\$10,500	\$11,000	\$11,500	\$12,000	\$13,000

A key component of this capital funding plan was incorporating the Department's planned long-term debt to fund the upgrades to the Regional Wastewater Control Facility (RWCF). The Department's analysis has assumed the issuance of approximately \$292 million in long-term debt to fund the RWCF and other system upgrades over the rate setting period. As can be seen in the above table, these projects are the majority of the capital plan.

While the total amount of a project may vary from year to year, the wastewater capital funding plan has attempted to provide a consistent funding source for the replacement of deteriorating system assets. In this case, the wastewater utility's rates will annually fund an amount of \$10.0 million in FY 2019. As a point of reference, the Department's annual depreciation expense was approximately \$7.6 million in FY 2017. A desirable funding target for rate funded CIP is an amount equal to or greater than annual depreciation expense in order to approximately keep up with the rate of deterioration of the system assets. This level of funding is slightly less than the minimum level of rate funded capital based on annual depreciation expenses in the first year. However, as part of the focus of developing the CIP, the Department is committed to making an effort to

increase this component and the rate funded capital is projected to increase annually to \$13.0 million by FY 2024.

It is important to understand that the depreciation expense is not the same as replacement cost. Thus, funding an amount which exceeds the depreciation expense is both prudent and appropriate. As noted, to help establish a prudent level of annual replacement funding through rates, HDR worked with Department staff to develop a funding plan for the CIP. In developing this financial plan, HDR and the Department have attempted to minimize rate impacts while funding the planned capital projects of the Department.

3.2.5 Projection of Debt Service

The Department currently has one outstanding long-term debt issue – the 2014 Revenue Bond issuance. In total, annual debt service payments will be approximately \$6.5 million in FY 2019 and this issuance will be retired in FY 2030. It should be noted, that a component of the 2014 Revenue Bond was used to expand the Department’s wastewater system for new customer growth. Given this, annual connection charge revenues are used to fund a portion of this annual debt service payment. The remaining annual debt service payment is funded through annual rate revenues.

As mentioned in the prior capital discussion, it is assumed that the Department will issue approximately \$292 million in debt for the RWCF upgrades and other system improvements over a five-year period. The estimated annual debt service payment is approximately \$15.6 million per year when all the issuances are completed. The total annual debt service is funded through, and supported by, annual rate revenues.

It is important to note that HDR is not advising the Department on the terms of any bond issuances but rather identifying the overall funding needs. The Department is working with an independent financial advisor, and City financial staff, to develop the overall financing plan to fund the capital improvement projects identified in this Study. Given this, HDR is not acting in a municipal advisor role to the Department for the issuance of any long-term borrowing.

3.2.6 Reserve Funding

The final component of the revenue requirement analysis is reserve funding. This can be described as additional transfers of revenue to reserve funds to maintain prudent ending fund balances or for future funding of specific or unanticipated projects. Additionally, any balance of funds after the expenses are paid is transferred to the operating fund to maintain minimum fund balances. As will be shown, the rates are at sufficient levels and funds are being transferred back to reserves to meet minimum target levels and to be available for future capital projects.

3.2.7 Summary of the Wastewater Revenue Requirement

Given the above projections of revenues and expenses, a summary of the wastewater revenue requirement analysis can be developed. In developing the revenue requirement analysis, consideration was given to the financial planning considerations of the Department. In particular, emphasis was placed on attempting to minimize rates, yet still have adequate funds to support

the operational activities and capital projects throughout the projected time period. Presented below in Table 3 - 3 is a summary of the Department's projected wastewater revenue requirement. Detailed exhibits of this analysis can be found in the Technical Appendix (Exhibits 1 – 6).

Table 3 - 3
Summary of the Wastewater Revenue Requirement Analysis (\$000)

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Revenues						
Rate Revenues	\$65,180	\$65,832	\$66,490	\$67,155	\$67,827	\$68,505
Other Revenues	<u>1,868</u>	<u>1,899</u>	<u>1,943</u>	<u>1,988</u>	<u>2,007</u>	<u>2,026</u>
Total Revenues	\$67,048	\$67,731	\$68,433	\$69,143	\$69,834	\$70,531
Expenses						
O&M Expenses	\$50,042	\$53,430	\$54,321	\$56,601	\$58,904	\$61,180
Rate Funded Capital	10,000	10,500	11,000	11,500	12,000	13,000
Net Annual Debt Service	3,745	6,875	6,880	9,125	16,740	16,721
Reserve Funding	<u>3,200</u>	<u>876</u>	<u>4,451</u>	<u>4,745</u>	<u>(7)</u>	<u>2,801</u>
Total Expenses	\$66,987	\$71,681	\$76,652	\$81,971	\$87,637	\$93,701
Bal. / (Def.) of Funds	\$61	(\$3,950)	(\$8,218)	(\$12,828)	(\$17,803)	(\$23,170)
Bal. as % of Rev. from Rates	-0.1%	6.0%	12.4%	19.1%	26.2%	33.8%
Proposed Revenue Adjustment	0.0%	6.0%	6.0%	6.0%	6.0%	6.0%
Add'l Revenue with Rate Adj.	\$0	\$3,950	\$8,218	\$12,828	\$17,803	\$23,170
Bal. / (Def.) After Rate Adj.	\$61	\$0	\$0	\$0	\$0	\$0

As can be seen, the revenue requirement has summed the O&M, annual rate funded capital, net annual debt service, and reserve funding components. The total revenue requirement is then compared to the total revenues which include both rate revenues – at current rate levels – and other revenues.

From this comparison, a balance or deficiency of funds in each year can be determined. This balance or deficiency of funds is then compared to the projected revenues from current rates to determine the level of rate adjustment needed to meet the revenue requirement. It is important to note the “Bal. / (Def.) of Funds” row is cumulative. That is, any adjustments in the initial years will reduce the deficiency in the later years. Over this Study time period, the total deficiency in revenues is 33.8%.

The revenue requirements developed in Table 3 - 3 have been developed to meet financial planning objectives of the Department. More specifically, the Department desires to adequately and prudently fund its wastewater operating and capital needs. In doing so, any needed revenue adjustments should avoid large adjustments in any single year. Table 3 - 3 has also included a set

of proposed revenue adjustments (blue highlighted band) which are sufficient to meet the total revenue requirements over the projected time period. The proposed revenue adjustments are a function of assumed inflation over this time period, coupled with the need to increase the capital improvement funding from rates (renewal and replacement funding), meet minimum reserve levels, fund annual debt service payments, and meet legally required debt service coverage ratios. Provided in Table 3-4 is a summary of the debt service coverage ratios before and after the proposed rate adjustments. As a note, the minimum target debt service coverage ratio is 1.25.

Table 3 - 4
Summary of the Annual Debt Service Coverage Ratios

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Debt Service Coverage – Before Rate Adjustment	2.89	1.67	1.65	1.49	0.69	0.60
Debt Service Coverage – After Rate Adjustment	2.89	2.08	2.51	2.82	1.65	1.85

As can be seen in Table 3-4, with the proposed revenue adjustments the Department exceeds the annual debt service coverage ratios. However, if wastewater revenue adjustments are not implemented, the Department will not have sufficient funding to prudently operate and maintain the wastewater system, or more importantly, meet annual debt service coverage requirements when additional long-term debt is issued. Over the five-year rate setting period, annual deficiencies range from \$4.0 million to \$23.2 million. It is important to note that the overall revenue adjustments may not reflect the final rate adjustments, or bill impacts, seen by the Department's customers as the cost of service analysis will proportionally allocate the revenue requirement among the various customer classes. The overall revenue adjustment reflects the needed revenues for the system as a whole. A more detailed revenue requirement is included in Exhibit 3 of the Technical Appendix.

3.3 Consultant's Conclusions

Based on the revenue requirement analysis developed herein, HDR has recommended that the Department adjust wastewater revenues over the next five year period (FY 2020 – FY 2024) by 6.0% annually. HDR has reached this conclusion for the following reasons:

- Revenue adjustments are necessary to fund the Department's CIP needs, of which a significant portion is driven by the funding of replacement capital projects as well as the substantial RWCF improvements project.
- Revenue adjustments are necessary to fund the Department's planned issuance of long-term debt. Absent the proposed revenue adjustments the Department will be unable to issue long-term debt to fund necessary CIP projects or pay annual debt service or comply with the obligations of its outstanding debt.

- The revenue adjustments are necessary in order to cover the annual inflationary costs related to O&M of the wastewater utility
- The proposed revenue adjustments maintain the Department's strong financial health and provide long-term sustainable funding levels for the Department.

In reaching this conclusion, HDR would recommend that the Department adopt the proposed revenue adjustments in order to provide sufficient funding for annual O&M and capital improvement program over the next five-year period

3.4 Summary

This section of the Study has provided a discussion of the Department's wastewater revenue requirement analysis. The revenue requirement analysis developed a revenue transition plan to support the Department's O&M and capital needs. The next section will discuss the cost of service analysis developed for the Department's wastewater utility.



4 Wastewater Cost of Service

4.1 Introduction

In the previous section, the revenue requirement analysis focused on the total sources and application of revenues required to adequately fund the Department's wastewater utility. This section will provide an overview of the cost of service analysis developed for the Department's wastewater utility.

The wastewater cost of service analysis is concerned with the proportional allocation of the total revenue requirement among the various customer classes of service (e.g., Single Family and Condominiums, Multi-Family, Apartments, Commercial / Institutional, and Industrial) to meet the requirements of Proposition 218. The previously developed revenue requirement was utilized in the development of the cost of service analysis.

4.1.1 Objectives of a Cost of Service Study

There are two primary objectives in conducting a wastewater cost of service study:

- Allocate the Department's revenue requirement among the customer classes of service; and
- Derive average unit costs for subsequent rate designs.

The primary objective of the cost of service analysis is the fair and equitable manner to proportionately collect the revenue requirement from the Department's various customer classes of service. The second rationale for conducting a cost of service analysis is to allow for the development of proposed rates that properly reflect the costs incurred by the Department and impacts customer place on the wastewater system. For example, a wastewater utility typically incurs costs related to flow (wastewater volumes), strength (constituents in the wastewater), and customer cost components (billings and collections). Each of these types of costs may be collected in a slightly different manner to allow for the development of rates that collect costs in the same manner as they are incurred.

4.2 Determining the Customer Classes of Service

The first step in a cost of service analysis is to determine the customer classes of service. Based on the current rates, the classes of service used within the cost of service analysis are:

- Single Family and Condominiums
- Multi-Family
- Apartments
- Commercial / Institutional – Low Strength
- Commercial / Institutional – Med Strength
- Commercial / Institutional – High Strength
- Industrial

In determining classes of service for cost of service purposes, the objective is to group customers together into similar or homogeneous groups based upon facility requirements and/or flow characteristics. HDR reviewed the current customer characteristics and facility requirements to determine the classes of service. In reviewing the customer classes of service it was noted that the current groupings reflect the various differences between customer types, and are consistent with typical industry practices. For example, the Department differentiates between the various residential customers (e.g., single-family, multi-family) and commercial customers (e.g., low strength, medium strength, high strength) which reflects the differences in customer characteristics, the impacts on the system, and system requirements.

4.3 General Cost of Service Procedures

In order to determine the cost to serve each customer class of service on the Department's wastewater system, a cost of service study is conducted. A cost of service study utilizes a three-step approach to review costs which is outlined in Chapters 6 and 7 of the Water Environment Federation Manual of Practice No. 27 (WEF MOP #27). These steps take the form of functionalization, allocation, and distribution. Provided below is a detailed discussion of the wastewater Study conducted for the Department, and the specific steps taken within the analysis.

4.3.1 Functionalization of Costs

The first analytical step in the cost of service process is called functionalization. Functionalization is the arrangement of expenses and asset (plant) data by major operating functions (e.g., collection, pumping, treatment). Within this Study, as the Department's records functionalized a majority of the costs, the expenses were mostly functionalized. For those that were not, HDR worked with Department staff to review and functionalize the costs.

4.3.2 Classification of Costs

The second analytical task performed in a wastewater cost of service study is the classification of the costs. Classification determines why the expenses were

Terminology of a Wastewater Cost of Service Analysis

Functionalization – The arrangement of the cost data by functional category (e.g., collection, pumping, treatment).

Classification – The assignment of functionalized costs to cost components (e.g., volume, strength, and customer related).

Allocation – Allocating the classified costs to each class of service based upon each class's proportional contribution to that specific cost component.

Volume Costs – Costs that are classified as volume related vary with the total flow of wastewater (e.g., power for pumping).

Strength Costs – Costs classified as strength related refer to the wastewater treatment function. Typically, strength-related costs are further defined as biochemical oxygen demand (BOD) and suspended solids (SS). Different types of customers may have high wastewater strength characteristics. High strength wastewater costs more to treat. Treatment facilities are designed and sized around meeting these treatment demands.

Customer Costs – Costs classified as customer related vary with the number of customers on the wastewater system, e.g., billing, collecting and accounting costs.

Direct Assignment – Costs that can be clearly identified as belonging to a specific customer group or group of customers.

incurred or what type of need is being met. The following cost allocators were used to develop the Study:

- **Volume Related Costs:** Volume related costs are those costs which tend to vary with the total quantity of wastewater collected and treated.
- **Strength-Related Costs:** Strength-related costs are those costs associated with the additional handling and the treatment of high “strength” wastewater. Strength is typically measured in biochemical oxygen demand⁵ (BOD) and total suspended solids⁶ (TSS). Increased levels of BOD or TSS generally equate to increased treatment costs for most wastewater systems.
- **Customer-Related Costs:** Customer-related costs vary with the addition or deletion of a customer or a cost which is a function of the number of customers served. Customer related costs typically include the costs of billing, collecting, and accounting.
- **Revenue-Related Costs:** Some costs associated with the utility may vary with the amount of revenue received by the utility. An example of a revenue related cost would be a utility tax which is based on gross utility revenue.

The basis, or methodology, for the allocation process is outlined in the WEF MOP #27. The methodology provided in the manual was then applied to the Department’s specific circumstances, customers, costs, and operations to develop the appropriate allocation approach.

4.3.3 Development of Allocation Factors

Once the classification process is complete, and the customer groups have been defined, the various classified costs were allocated to each customer class of service. The Department’s classified costs were proportionally allocated to the customer classes of service using the following allocation factors.

- **Volume-Allocation Factor:** Volume-related costs are generally distributed on the basis of contributions to wastewater flows. Wastewater flows are not typically metered and so often, a surrogate must be used in order to estimate a customer class’s contribution. For Residential customers (single-family and condominiums, multi-family, and apartments), the Department’s planning documents estimate water consumption to be approximately 112 gallons per person per day (GPD) and three people per household. This figure was taken from the 2008 wastewater master plan and because of the recent drought and conservation efforts, the flow estimate were then adjusted down to reflect the fact that the winter water usage is less than the average monthly water use and that a portion of the residential water usage during these months is not returned to the wastewater system. Billed wastewater flow – which is based on water usage - was used for commercial (low, medium, high, and schools/churches) and industrial customers. The commercial customers’ flows were also adjusted based on the fact that, although to a lesser level, the average monthly usage includes some outdoor watering. For schools and churches, which are billed on an average

⁵ BOD is the amount of dissolved oxygen that must be present in water in order for microorganisms to decompose the organic matter in the wastewater.

⁶ TSS is the entire amount of organic and inorganic particles dispersed in wastewater.

attendance rate, the volume assumptions were based on the equivalent volumes for churches and schools based on standard engineering design manuals. The calculation of the volume allocation factor is shown in Exhibit 7 of the technical appendix.

- **Strength-Allocation Factor:** Strength-related costs are allocated between BOD and TSS. These costs are allocated to each of the classes of service based upon the assumed domestic strength level of 275 milligrams per liter (mg/l) for BOD and TSS at 250 mg/l. Commercial low strength was set equal to domestic levels while the commercial medium and high strength customers were adjusted (increased) to reflect the higher strength wastewater discharged to the Department's wastewater system. The strength levels in total, for each customer class of service, were utilized to calculate the BOD and TSS pounds removed based on the actual pounds removed at the wastewater treatment plant over a 12-month period as provided in Department wastewater treatment plant reports. Exhibit 8 in the technical appendix provides the calculation of the strength-allocation factor.
- **Customer Allocation Factor:** Customer costs within the cost of service analysis are distributed to the various customer classes of service based upon their respective number of customer accounts. Two types of customer distribution factors were developed – actual and weighted. The actual customer distribution factor assumes that there is no disproportionate cost associated with serving a customer (e.g., postage for bills is the same regardless of the size or usage of the customer). In contrast, a weighted customer distribution factor assumes that there is some disproportionality associated with serving different types of customers and attempts to estimate the level of difference in serving the customers. It is important to note that this Study assumes no weighting for differences between customers. Exhibit 9 of the technical appendix provides the calculation of the customer allocation factor.
- **Revenue Related Allocation Factor:** The revenue related allocation factor was developed from the projected rate revenues for FY 2020 for each customer class of service as developed in Exhibit 3. A summary of the revenue allocation factor is provided in Exhibit 10 of the technical appendix.

The development of the allocation factors is based on generally accepted principles as outlined in the WEF MOP #27.

4.4 Summary of the Wastewater Cost of Service Analysis

In summary form, the cost of service analysis began by functionalizing the Department's facility asset records and O&M expenses. The functionalized facility and expense accounts were then classified into their various cost components. Provided below is a summary of the classification of the Department's FY 2020 test period revenue requirement using the methodology outlined in the WEF MOP #27 and the Department's specific facility requirements and operations. Provided in Exhibits 11 and 12 of the technical appendix is a detailed summary of the classification of the Department's infrastructure and revenue requirement. The classification of the individual line items of the revenue requirement are summed to develop the results in Table 4 – 1.

Table 4 – 1
Summary of the Classification of the FY 2020 Revenue Requirement (\$000's)

Total	Volume	BOD	TSS	Customer	Revenue Related	Direct Assignment
\$69,782	\$15,099	\$9,732	\$15,118	\$29,832	\$0	\$0

As shown in Table 4 - 1 the total revenue requirement for FY 2020 has been classified between the various cost components based on generally accepted methodologies. Next, the individual classification totals were then allocated proportionally to the various customer groups based on the appropriate allocation factors.

For example, volume-related costs were allocated based on each customer class' proportional share of total wastewater contributions. Provided in Table 4 - 2 is a summary of the volume allocation factor and allocation of the volume related costs.

Table 4 – 2
Summary of the Volume Allocation Factor and Allocated Volume Related Costs

	% of Total	Volume Costs	Annual flow (HCF)	# of Customers	Unit Cost (\$ / HCF)	Unit Cost (\$ / Cust)
Residential						
Single Family & Condo	63.7%	\$9,612,966		87,025		\$9.21
Multi-Family	2.3%	347,208		3,715		7.79
Apartments	<u>10.2%</u>	<u>1,546,024</u>		<u>22,744</u>		5.66
Total Residential	76.2%	\$11,506,198		113,484		
Com/ Inst						
Low Strength	0.5%	\$71,526	69,007		\$0.73	
Medium Strength	7.9%	1,189,734	1,147,842		0.73	
High Strength	2.1%	319,177	307,938		0.93	
Schools / Churches	<u>2.4%</u>	<u>358,530</u>	<u>345,906</u>		0.39	
Total Com / Inst	12.8%	\$1,938,967	1,870,693			
Industrial	<u>11.0%</u>	<u>\$1,655,624</u>	<u>1,597,326</u>		\$1.04	
Total	100.0%	\$15,100,789	3,468,019			

A similar approach is used to allocate the strength related costs, both BOD and TSS. Provided in Table 4 - 3 and 4 - 4 are the allocation factors and allocation of strength related costs.

Table 4 – 3
Summary of the BOD Allocation Factor and Allocated BOD Related Costs

	% of Total	BOD Costs	Annual flow (HCF)	# of Customers	Unit Cost (\$ / HCF)	Unit Cost (\$ / Cust)
Residential						
Single Family & Condo	55.5%	\$5,403,519		87,025		\$5.17
Multi-Family	2.0%	195,168		3,715		4.38
Apartments	8.9%	869,032		22,744		3.18
Total Residential	66.4%	\$6,467,719				
Com/ Inst						
Low Strength	0.4%	\$40,205	69,007		\$0.41	
Medium Strength	9.0%	875,466	1,147,842		0.53	
High Strength	3.5%	342,513	307,938		1.00	
Schools / Churches	2.4%	230,846	345,906		0.25	
Total Com / Inst	15.3%	\$1,489,030				
Industrial	18.3%	\$1,776,673	1,597,326		\$1.11	
Total	100.0%	\$9,733,423				

Table 4 – 4
Summary of the TSS Allocation Factor and Allocated TSS Related Costs

	% of Total	TSS Costs	Annual flow (HCF)	# of Customers	Unit Cost (\$ / HCF)	Unit Cost (\$ / Cust)
Residential						
Single Family & Condo	53.8%	\$8,137,725		87,025		\$7.79
Multi-Family	1.9%	293,924		3,715		6.59
Apartments	8.7%	1,308,765		22,744		4.80
Total Residential	64.4%	\$9,740,415				
Com/ Inst						
Low Strength	0.4%	\$60,549	69,007		\$0.61	
Medium Strength	9.6%	1,450,301	1,147,842		0.88	
High Strength	3.8%	567,409	307,938		1.66	
Schools / Churches	2.4%	358,141	345,906		0.39	
Total Com / Inst	16.1%	\$2,436,400				
Industrial	19.5%	2,943,245	1,597,326		\$1.84	
Total	100.0%	15,120,060				

Finally, customer related costs are allocated based on the customer allocation factor. Provide in Table 4-5 is summary of the customer allocated costs.

Table 4 – 5
Summary of the Customer Allocation Factor and Allocated Customer Related Costs

	Customer Related Costs	Customers	Total (\$ / Customer)
Residential			
Single Family & Condo	\$22,463,902	87,025	\$21.51
Multi-Family	958,890	3,715	21.51
Apartments	<u>5,870,802</u>	<u>22,744</u>	21.51
Total Residential	\$29,293,594	113,484	
Com/ Inst			
Low Strength	\$25,400	98	\$21.51
Medium Strength	384,765	1,491	21.51
High Strength	91,515	355	21.51
Schools / Churches	<u>24,246</u>	<u>94</u>	21.51
Total Com / Inst	\$525,926	2,037	
Industrial	<u>8,082</u>	<u>31</u>	21.51
Total	\$29,827,602	115,552	

The total costs classified to each cost component as outlined above were proportionally allocated between the customer classes using the previously mentioned allocation factors. Provided below in Table 4 - 6 is a summary of the total allocation of costs, by cost component, to the customer classes of service.

Table 4 – 6
Summary of the Classification of the FY 2020 by Customer Class (\$000's)

	<i>Residential</i>			<i>Commercial / Institutional</i>			Schools / Churches	Industrial	Total
	Single Family & Condos	Multi- Family	Apartments	Low Strength	Medium Strength	High Strength			
Volume	\$9,613	\$347	\$1,546	\$72	\$1,190	\$319	\$359	\$1,656	\$15,101
BOD	5,404	195	869	40	875	343	231	1,777	9,733
TSS	8,138	294	1,309	61	1,450	567	358	2,943	15,120
Customer	22,464	959	5,871	25	385	92	24	8	29,828
RR / DA	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Total	\$45,618	\$1,795	\$9,595	\$198	\$3,900	\$1,321	\$972	\$6,384	\$69,782

The allocated expenses for each customer class were then aggregated to determine each customer class's overall revenue responsibility. Using the rate revenues from Section 3.2.2 plus a year of assumed customer growth and the allocated costs from Table 4 -6, provided in Table 4 - 7 is a summary of the cost of service analysis.

Table 4 – 7
Summary of the Wastewater Cost of Service Analysis (\$000)

Class of Service	Present Rate Revenues	Allocated Costs	\$ Difference	% Difference
Single Family & Condo	\$43,518	\$45,618	(\$2,100)	4.8%
Multi-Family	1,737	1,795	(58)	3.3%
Apartments	8,713	9,595	(882)	10.1%
Commercial / Institutional				
Low Strength	\$191	\$198	(\$7)	3.7%
Medium Strength	3,773	3,900	(127)	3.4%
High Strength	1,275	1,321	(45)	3.5%
Schools / Churches	908	972	(64)	7.0%
Industrial	<u>5,716</u>	<u>6,384</u>	<u>(667)</u>	<u>11.7%</u>
Total	\$65,832	\$69,782	(\$3,950)	6.0%

The results of the cost of service analysis indicate cost differences between the customer classes of service. When reviewing the results of the cost of service analysis, it is important to understand that the results will not be “exact” each time the Department updates its cost of service analysis. This is due to changing customer wastewater characteristics, external impacts such as drought conditions, and other changes in how the Department incurs costs. However, to meet the intent of Proposition 218, HDR proposes that cost of service adjustments be made in accordance with the results of this Study.

The classified and allocated costs for each customer class of service are used to develop the proposed rates for the test period, in this case, FY 2020. The total costs are divided by the billing units (e.g., number of customers, water consumption), to develop average unit costs which become the rates. Provided in Table 4 – 8 is a summary of the unit costs, which are based on the proposed rate structure for each customer class of service. The proposed rate structure for the residential customers is a flat monthly rate per living unit. As a result, the total allocated costs for each residential customer class (single-family & condominiums, multi-family, and apartments) is divided by the number of living units. This results in the proposed rate for residential customers. For commercial/institutional customers, the customer related costs are divided by the number of accounts while the volume and strength costs are divided by the total billed water consumption. This results in a monthly fixed charge and a variable charge per hundred cubic feet (HCF) of water consumption, which is the basis for the billing of the rate structure. The

development of the cost of service and unit costs are provided in Exhibits 14 and 15 of the technical appendix.

Table 4 – 8
Summary of the Wastewater Unit Costs

	<i>Residential</i>				<i>Commercial / Institutional</i>			
	Single Family & Condos	Multi-Family	Apartments	Low Strength	Medium Strength	High Strength	Schools / Churches	Industrial
Variable (\$/HCF)	\$0.00	\$0.00	\$0.00	\$1.75	\$2.14	\$3.59	\$1.03	\$3.99
Fixed (\$/Dwelling Unit or \$/Account)	\$43.68	\$40.27	\$35.16	\$21.51	\$21.51	\$21.51	\$21.51	\$21.51

4.5 Consultant's Conclusions and Recommendations

While minor cost differences exist, the overall allocation of costs between customers generally appears to be reasonable and within a general acceptable range. However, as noted, HDR is recommending that the Department implement cost of service adjustments and realign the rate structures at this time. This realignment is a natural progression in designing rates as the results of the calculation may change between analyses based on consumption habits, the manner in which costs are incurred, system design or operation, etc. Given this, the proposed rates reflect the results of the current cost of service analysis.

One of the variables which are impacting the cost allocations is the trend of declining per capita water consumption for residential customers, along with the recent drought conditions in California. These conditions certainly have an impact upon consumptive use and cost allocations and may not reflect future winter water consumption patterns which are used to establish the basis for allocating costs for wastewater related services over the next five-year period. However, customer consumption patterns generally do not return to “typical” levels in the short-term. Given this the results of the cost of service will provide the Department with cost-based, proportional, and equitable rates that reflect current customer characteristics. It should also be noted that a cost of service reflects a single point in time. It is recommended that the Department closely follow the results of subsequent cost of service analyses in order to gauge the effects of these outside forces.

4.6 Summary

This section of the Study has provided a summary of the cost of service analysis developed for the Department. This analysis was prepared using generally accepted cost of service techniques and principles. The next section of the Study will review the present and proposed wastewater rates for the Department.



5 Wastewater Rate Design

5.1 Introduction

The final step of the Department's comprehensive wastewater rate Study is the design of rates to collect the desired levels of revenues, based on the results of the revenue requirement and cost of service analyses. In reviewing Department's rates, consideration is given to the level of the rates and the structure of the rates.

5.2 Rate Design Criteria and Considerations

Prudent rate administration dictates that several criteria must be considered when setting utility rates. Some of these rate design criteria are listed below:

- Rates which are easy to understand from the customer's perspective
- Rates which are easy for the utility to administer
- Consideration of the customer's ability to pay
- Continuity, over time, of the rate making philosophy
- Policy considerations (encourage efficient use, economic development, etc.)
- Provide revenue stability from month to month and year to year
- Promote efficient allocation of the resource
- Equitable and non-discriminatory (cost-based)
- Compliance with State law

It is important that the Department provide its customers with a proper price signal as to what their usage or volumetric contributions are costing. This goal may be approached through rate level and structure. When developing the proposed rate designs, all the above-listed criteria were taken into consideration. However, it should be noted that it is difficult, if not impossible, to design a rate that meets all the goals and objectives listed above. For example, it may be difficult to design a rate that takes into consideration customers' ability to pay, and one which is cost-based. In designing rates, there are always trade-offs between these various goals and objectives.

5.3 Development of Cost-Based Wastewater Rates

As mentioned, developing cost-based and equitable rates is of paramount importance in developing proposed water rates. While always a key consideration in developing rates, meeting the legal requirements, and documenting the steps taken to meet the requirements, has been in the forefront with the recent legal challenges in the State of California on utility rates. Given this, the development of the Department's proposed sewer rates have been developed to meet the legal requirements of California Constitution Article XIII D, Section 6 (Article XIII D). A key component of Article XIII D is the development of rates which reflect the cost of providing service and are proportionately allocated among the various customer classes of service and the customers within each class. HDR would point out that there is no single methodology for

equitably assigning costs to the various customer groups. The Water Environment Federation Manual of Practice #27 (WEF MOP #27) provides various methodologies which may be used to establish cost-based rates. Unfortunately, Article XIII D is not prescriptive and does not provide a specific methodology for establishing rates. Given that, HDR developed the Department's proposed sewer rates based on generally accepted rate setting methodologies to meet the requirements of Article XIII D.

HDR is of the opinion that the proposed rates meet the legal requirements of Article XIII D. HDR reaches this conclusion based upon the following:

- **The revenue derived from wastewater rates does not exceed the funds required to provide the property related service (i.e., wastewater service).** The proposed rates are designed to collect the overall revenue requirement of the Department's wastewater system.
- **The revenues derived from wastewater rates shall not be used for any purpose other than that for which the fee or charge is imposed.** The revenues derived from the Department's wastewater rates are used exclusively to operate and maintain and fund the capital improvements of the Department's wastewater system.
- **The amount of a fee or charge imposed upon a parcel or person as an incident of property ownership shall not exceed the proportional costs of the service attributable to the parcel.** This Study has focused almost exclusively on the issue of proportional assignment of costs to customer classes of service. The proposed rates have appropriately grouped customers into customer classes of service (residential, commercial/institutional, industrial) that reflect the varying consumption patterns and system requirements (i.e., the benefits they receive from and burdens they place on the system) of each customer class of service. The grouping of customers and rates into these classes of service creates the equity and fairness expected under Proposition 218 by having differing rates by customer classes of service which reflect both the level of revenue to be collected by the utility, and the manner in which these costs are incurred and equitably assigned to customer classes of service and customers within each class of service based upon their proportional impacts.

5.4 Current Industry Sewer Rate Structure Approach

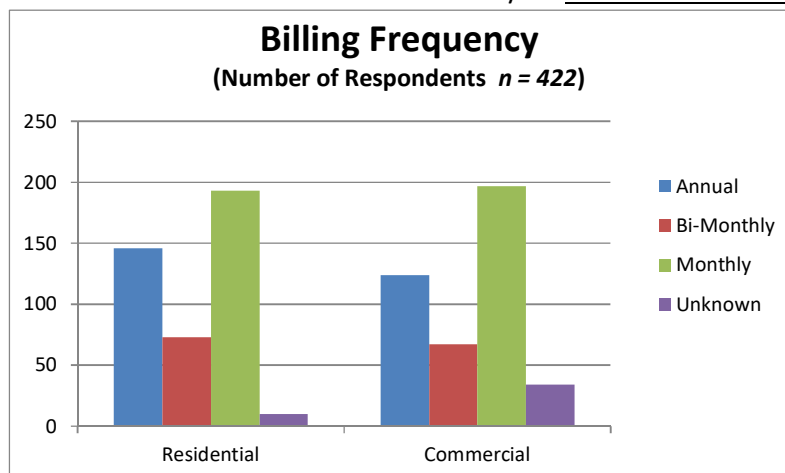
At the present time, there are no specific federal or state agencies or national association requirements/regulations on sewer rate structures. The vast majority of sewer utilities follow the guiding principles of establishing cost-based rates that meet the utility's O&M and capital infrastructure requirements. The Environmental Protection Agency (EPA) provides pricing guidelines for wastewater utilities, but the focus is primarily on assuring adequate funding to maintain facilities, and not on a specific rate structure.

There are several industry groups that have Best Management Practices (BMP) to encourage the adoption of volumetric-based sewer rates. These groups and other conservation experts believe that having volume-based sewer rates, where the billing is based upon water consumption, encourages water conservation. Whether the majority of consumers make the connection between the volumetric portion of their sewer bill and their water consumption is unclear. Simply

stated, most sewer utilities do not adopt volume-based sewer rates to encourage water conservation. Rather, most sewer utilities view volumetric-based billing as a method that may enhance customer equity based on the impacts that each customer class and customers within each class have on a wastewater system.

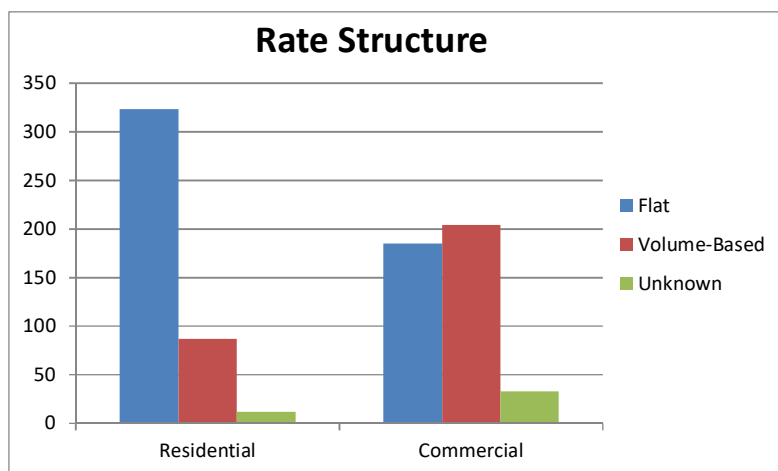
To gain a better perspective of wastewater rates is to review the wastewater rate structures in place throughout California. HDR reviewed the State Water Board 2012/13 Wastewater User Charge User Survey to provide a perspective on how utilities are billing for wastewater services.

For the 422 respondents, the data was sorted to determine billing frequency for residential and commercial customers. In viewing the billing frequency graph, it can be seen that the most common billing frequency is monthly. An annual billing frequency was also very common.



Bi-monthly billing is also used, but it is less common. The monthly basis for billing is likely used by utilities which are a combined water and wastewater utility. Billing for water on a monthly basis is a common water utility industry practice.

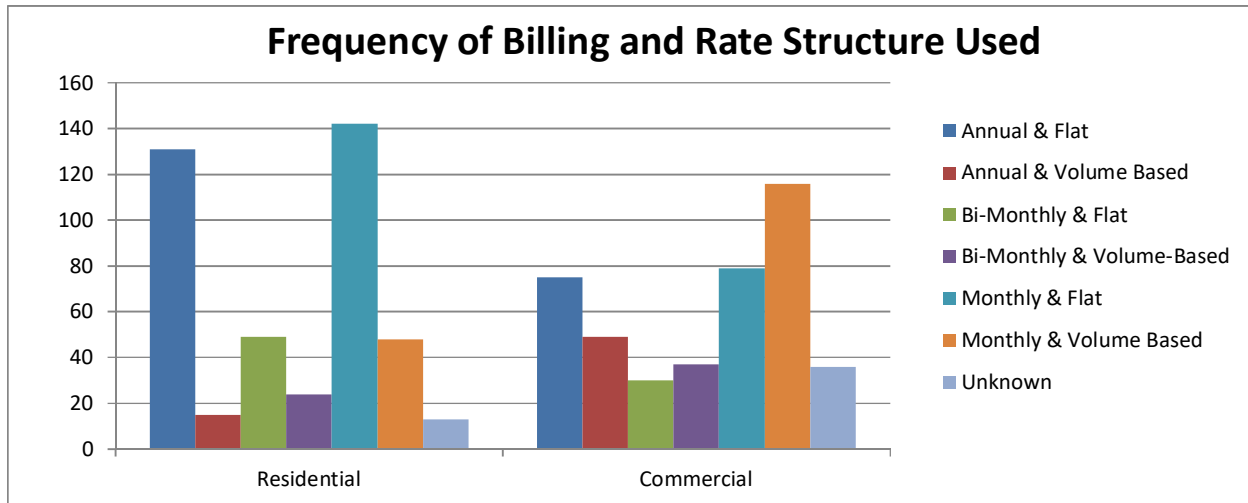
The next perspective reviewed was the rate structure used for each of the customer groups. As can be seen in the graphic, different rate structures are used. The survey did not provide detailed information on the rate structure other than a “flat” rate or “variable based upon water use.” In the graph, the “variable based upon water use” has been identified as “volume-based.” As can



be seen in the rate structure graph, the predominate rate structure for the residential customers is a flat rate. In contrast to this, a volume based rate is more commonly used for commercial customers, but a flat rate is also used frequently.

What is unclear from the graphs above is the most common approach when frequency of billing and rate structure are

viewed at the same time. Provided below is a graph which views these two perspectives taken together.



In summary, when viewing California utilities, the predominate approach for residential customers is to bill on a monthly basis using a flat rate structure. For commercial customers, billing on a monthly basis using volumetric rates is the predominate approach. This is the same method of billing used by the Department for its residential and commercial customers.

5.5 Overview of the Current Wastewater Rate Structure

The Department currently has a flat monthly fixed charge rate for the residential sewer customers. This applies to the single-family and condominium, multi-family, and apartment customers and varies for each customer type. As noted above, this is a generally accepted sewer rate structure and used across California as well as the U.S. The flat rate provides revenue stability for the Department as well as reflects the fact that the majority of the Department's costs for providing sewer service to these customers are fixed.

The sewer rate structure for the commercial and institutional customers includes a monthly fixed charge and a volume charge for all billed water consumption on a per hundred cubic foot (HCF) basis. Again, as noted in the prior section, this is a common approach to billing commercial and institutional customers.

For industrial customers, the rate structure includes a monthly fixed charge, a volume charge per HCF, and strength charges for both BOD and TSS per HCF for both standby and operating costs.

5.6 Overview of the Proposed Rate Adjustments

As outlined in the revenue requirement analysis, the overall revenue adjustment for the Department's wastewater utility is 6.0% annually for FY 2020 through FY 2024. This provides the overall revenue needs of the wastewater utility. Next, the cost of service analysis proportionately and equitably allocates the revenue requirement among the various customer classes of service. Given the results of these analyses, the overall rate adjustment for each customer class of service can be developed. Provided below in Table 5 – 1 is a summary of the overall FY 2020 revenue adjustments for each customer class of service based on the overall system revenue needs and

cost of service results. These will be the basis for developing the proposed rates, and subsequent revenues for each customer class of service.

Table 5 – 1
Summary of the Wastewater FY 2020 Revenue Adjustments by Class of Service

Total System	Single Family & Condos	<i>Residential</i>			<i>Commercial / Institutional</i>		Schools / Churches	Industrial
		Multi-Family	Apartments	Low Strength	Medium Strength	High Strength		
6.0%	4.8%	3.3%	10.1%	3.7%	3.4%	3.5%	7.0%	11.7%

5.7 Overview of the Current Wastewater Rate Structure

The Department currently has a rate structure for each of the customer classes of service. For Single Family and Condominiums, Multi-Family, and Apartments customers, they are charged a flat monthly charge. There is a City customer and non-City customer rate for the fixed charge and the non-City customers have a discount based on prior agreements as the non-City customers get a credit for the collection system that they do not benefit from. Although there is no water consumption related charge, the development of the volume allocation factor (described in Chapter 4) uses winter water use estimation and the total is tied to influent metered data in order to validate flow assumptions. A flat monthly charge is still the most prolific structure used for residential wastewater customers.

Commercial/Institutional has a similar structure to Residential customers for the fixed charge. All sub-classes – Low, Medium, High Strength, and Schools / Churches – pay the same flat fixed charge; however, there is still a discount for non-City customers for the collection system that do not benefit from. The Commercial/Institutional rate structure also includes a volume charge, by sub-class, for all billed water consumption.

The Industrial rate structure is more complex than Residential and Commercial/Institutional. Like the other customer classes, there is a flat charge for all customers. The Industrial class has two main components, the stand-by charges to represent the capacity requirements of the customer and the O&M charges based on the actual usage. Each major component is comprised of a flow charge on a per million gallon basis and strength charges for BOD and TSS charged on a per 1,000 pound basis.

5.8 Summary of the Wastewater Rates

Section 5.7 provided a summary of the Department's current wastewater rate structure. In discussion with Department staff, and reviewing industry standard approaches, no changes to the rate structures of any of the customer classes are being proposed at this time. Provided in the following is a summary of the rate structure for each customer class of service.

Given the result of the prior analyses, the revenue requirement and cost of service analyses, proposed rates can be developed that reflect the cost based allocation of the costs of providing service. Provided in Table 5 - 2 is a summary of the current and proposed Residential rates.

Table 5 – 2
Summary of the Present and Proposed Residential Wastewater Rates
(\$/Dwelling Unit)

	Present Rates	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Single Family & Condo						
City Customer	\$42.06	\$44.10	\$46.75	\$49.56	\$52.53	\$55.68
Non-City Customer	38.36	40.22	42.63	45.19	47.90	50.77
Multi-Family						
City Customer	\$40.20	\$41.55	\$44.04	\$46.68	\$49.48	\$52.45
Non-City Customer	36.06	37.27	39.51	41.88	44.39	47.05
Apartments						
City Customer	\$34.22	\$37.68	\$39.94	\$42.34	\$44.88	\$47.57
Non-City Customer	30.04	33.08	35.06	37.16	39.39	41.75

Provided in Table 5 - 3 is a summary of the current and proposed Commercial/Institutional rates. The rates for FY 2020 are based on the unit costs developed in the cost of service study. The rates thereafter and increased by the annual revenue adjustment. However, it should be noted that the unit costs provided in Table 4-4 are the average unit costs including both City and Non-City customers. Therefore, with the credit included for Non-City customers the rate is slightly lower than the average unit costs, and City customer rates are slightly higher.

Table 5 – 3
Summary of the Present and Proposed Commercial Wastewater Rates

	Present Rates	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Base Charge						
City Customer - \$/Account	\$23.16	\$21.25	\$22.53	\$23.88	\$25.31	\$26.83
Non-City Customer - \$/Account	20.34	18.66	19.78	20.97	22.23	23.56
Consumption Charge						
Low Strength - \$/HCF	\$1.64	\$1.75	\$1.86	\$1.97	\$2.09	\$2.22
Medium Strength - \$/HCF	2.03	2.14	2.27	2.41	2.55	2.70
High Strength - \$/HCF	3.41	3.59	3.81	4.04	4.28	4.54
Schools / Churches - \$ / ADA)	0.96	1.03	1.09	1.16	1.23	1.30

Similar to how the residential and commercial customer classes' rates were developed, the industrial rates were increased according the results of the cost of service analysis. Table 5 – 4 below shows a summary of the present and proposed Industrial rates. Again, these rates are

based on the average unit costs as provided in Table 4-4 and the agreements outlining the discounted rates for Non-City customers.

Table 5 – 4
Summary of the Present and Proposed Industrial Wastewater Rates

	Present Rates	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
<i>Admin / Stand-by Charge</i>						
Base Charge - \$/Account	\$23.16	\$21.25	\$22.53	\$23.88	\$25.31	\$26.83
Flow - \$ / mg	613.86	685.00	726.10	769.67	815.85	864.80
BOD - \$ / 1,000 lbs	99.37	111.00	117.66	124.72	132.20	140.13
SS - \$ / 1,000 lbs	72.57	81.50	86.39	91.57	97.06	102.88
<i>Consumption Charge</i>						
Flow - \$ / mg	\$530.64	\$592.90	\$628.47	\$666.18	\$706.15	\$748.52
BOD - \$ / 1,000 lbs	36.97	41.30	43.78	46.41	49.19	52.14
SS - \$ / 1,000 lbs	59.16	66.10	70.07	74.27	78.73	83.45

5.9 Summary of the Wastewater Rate Design

The Department's present wastewater rate structures are contemporary in design and reflect the rate structures used by other similar utilities in California, both locally and state wide. Based on the Department's system and customer characteristics, the proposed wastewater rates appropriately reflect the cost to provide service and are cost-based between the various customer classes. Full and complete technical appendices of the development of the comprehensive wastewater rate study and the proposed revenue adjustments can be found in appendices of this report.



Technical Appendix – Wastewater



City of Stockton
Wastewater Rate Study
Proforma Analysis

	<i>Actual</i>		<i>Projected Year End</i>		<i>Projected</i>									
	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Revenue														
Rate Revenue	\$64,449,084	\$66,982,487	\$64,703,032	\$65,780,157	\$65,180,155	\$65,831,956	\$66,490,276	\$67,155,179	\$67,826,731	\$68,504,998	\$69,190,048	\$69,881,948	\$70,580,768	\$71,286,575
Add'l Revenue After Rate Adj.	0	0	0	0	0	3,949,917	8,218,198	12,827,714	17,802,954	23,170,142	28,494,398	34,205,713	40,329,840	46,894,222
Other Revenues	1,635,112	2,942,337	1,871,754	2,385,406	1,867,676	1,898,696	1,943,122	1,987,925	2,007,042	2,026,114	2,046,265	2,066,988	2,087,542	2,107,649
Total Revenue	\$66,084,196	\$69,924,824	\$66,574,786	\$68,165,563	\$67,047,831	\$71,680,570	\$76,651,596	\$81,970,817	\$87,636,727	\$93,701,254	\$99,730,711	\$106,154,649	\$112,998,149	\$120,288,446
Expenses														
<i>O&M Expenses</i>														
Utility Billing	\$2,112,859	\$2,489,641	\$2,813,445	\$2,536,442	\$2,858,397	\$2,972,556	\$3,086,290	\$3,207,448	\$3,329,248	\$3,448,776	\$3,571,506	\$3,699,055	\$3,831,628	\$3,969,439
Administration	3,016,499	2,808,845	3,031,409	2,901,684	4,577,189	4,756,765	4,939,138	5,131,171	5,327,170	5,524,768	5,711,023	5,904,003	6,103,969	6,311,195
Engineering Services	875,606	1,369,739	1,661,867	1,259,454	930,063	974,689	1,017,841	1,064,858	1,111,041	1,154,345	1,197,692	1,242,862	1,289,940	1,339,011
Treatment Plant	18,801,288	18,467,310	17,157,984	19,086,478	16,440,412	18,367,481	17,802,106	18,526,205	19,262,928	20,000,992	20,704,193	21,433,903	22,191,190	22,977,166
Sanitary Sewers	7,425,148	9,235,678	8,030,979	7,113,673	10,163,490	10,634,997	11,105,917	11,610,400	12,119,181	12,619,782	13,121,908	13,645,910	14,192,798	14,763,631
Laboratory	497,957	684,984	787,757	784,624	1,207,303	1,262,496	1,317,503	1,376,468	1,435,828	1,494,061	1,554,202	1,616,985	1,682,535	1,750,980
Other Support Services	537,937	548,267	573,033	784,717	924,585	970,545	1,015,235	1,063,909	1,111,965	1,157,407	1,205,314	1,255,410	1,307,799	1,362,592
Regulatory Compliance	1,134,379	927,058	1,003,588	1,031,111	1,245,343	1,304,585	1,362,238	1,424,857	1,486,692	1,545,248	1,605,398	1,668,151	1,733,628	1,801,954
Treatment Plant Maintenance	5,423,864	5,429,115	7,985,099	6,179,369	5,997,617	6,250,946	6,500,899	6,768,936	7,036,335	7,295,001	7,552,287	7,819,562	8,097,248	8,385,783
Sanitary Pump Stations	5,971,990	5,896,067	5,755,367	3,580,036	4,161,891	4,330,527	4,500,341	4,680,184	4,862,530	5,044,188	5,221,827	5,406,159	5,597,452	5,795,988
Regulatory Compliance	87,553	114,821	416,975	156,069	116,494	120,988	125,610	130,449	135,439	140,556	145,873	151,406	157,163	163,155
Safety Services	451,359	434,328	295,874	403,363	792,813	829,909	867,793	907,979	949,247	991,102	1,034,888	1,080,715	1,128,682	1,178,892
SCADA Services	256,513	378,584	424,090	376,812	501,172	522,736	544,056	566,926	589,785	611,963	634,374	657,691	681,956	707,208
Outreach & Training Services	0	1,178	170,990	26,834	125,260	130,435	135,580	141,075	146,590	151,983	157,623	163,493	169,603	175,962
Total O & M Expenses	\$46,592,952	\$48,785,615	\$50,108,457	\$46,220,666	\$50,042,029	\$53,429,654	\$54,320,546	\$56,600,865	\$58,903,982	\$61,180,173	\$63,418,106	\$65,745,306	\$68,165,592	\$70,682,956
<i>Taxes</i>														
In Lieu of Tax & Debt Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Taxes & Transfers	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Taxes	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Operating Expenses	\$46,592,952	\$48,785,615	\$50,108,457	\$46,220,666	\$50,042,029	\$53,429,654	\$54,320,546	\$56,600,865	\$58,903,982	\$61,180,173	\$63,418,106	\$65,745,306	\$68,165,592	\$70,682,956
Funds Available for Debt Service	\$19,491,244	\$21,139,209	\$16,466,329	\$21,944,897	\$17,005,802	\$18,250,916	\$22,331,050	\$25,369,952	\$28,732,745	\$32,521,081	\$36,312,605	\$40,409,343	\$44,832,557	\$49,605,490
Plus Capacity Fees	960,517	2,263,463	1,613,535	1,790,540	1,759,077	1,776,668	1,794,434	1,812,379	1,830,503	1,848,808	1,867,296	1,885,969	1,904,828	1,923,877
Total Funds Available for Debt Service	\$20,451,761	\$23,402,672	\$18,079,864	\$23,735,437	\$18,764,879	\$20,027,584	\$24,125,485	\$27,182,331	\$30,563,248	\$34,369,889	\$38,179,900	\$42,295,312	\$46,737,385	\$51,529,367
Debt Service														
2014 Revenue Bond					\$6,494,700	\$6,487,125	\$6,492,375	\$6,487,625	\$6,487,500	\$6,486,375	\$6,698,250	\$6,692,375	\$6,693,250	\$6,695,000
BAN Interest (\$125.5 m @ 2.5%)					0	3,137,625	3,137,625	3,137,625	0	0	0	0	0	0
2022 Issuance (\$241.7 m @ 5.0%)					0	0	0	0	12,083,000	12,083,000	12,083,000	12,083,000	12,083,000	12,083,000
2024 Issuance (\$58.6 m @ 5.0%)					0	0	0	0	0	0	3,531,250	3,531,250	3,529,750	3,526,750
Assumed Revenue Bond					0	0	0	0	0	0	0	0	0	0
Total Debt Service	\$4,719,692	\$2,665,053	\$2,537,403	\$5,888,769	\$6,494,700	\$9,624,750	\$9,630,000	\$9,625,250	\$18,570,500	\$18,569,375	\$22,312,500	\$22,306,625	\$22,306,000	\$22,304,750
Total Expenses	\$51,312,644	\$51,450,668	\$52,645,860	\$52,109,435	\$56,536,729	\$63,054,404	\$63,950,546	\$66,226,115	\$77,474,482	\$79,749,548	\$85,730,606	\$88,051,931	\$90,471,592	\$92,987,706
Funds Available for Other Uses	\$14,771,552	\$18,474,156	\$13,928,926	\$16,056,128	\$10,511,102	\$8,626,166	\$12,701,050	\$15,744,702	\$10,162,245	\$13,951,706	\$14,000,105	\$18,102,718	\$22,526,557	\$27,300,740
DSC Ratio (No Connection Fees)	4.13	7.93	6.49	3.73	2.62	1.90	2.32	2.64	1.55	1.75	1.63	1.81	2.01	2.22
DSC Ratio (With Connection Fees)	4.33	8.78	7.13	4.03	2.89	2.08	2.51	2.82	1.65	1.85	1.71	1.90	2.10	2.31
DSC Ratio (With Conn Fee & Rate Stabilization)					4.74	3.33	3.77	4.09	2.31	2.52	2.28	2.47	2.67	2.89
Ending Reserve Fund Balances														
Operating Cash - 431					\$6,256,027	\$6,332,193	\$6,383,243	\$6,427,945	\$6,420,693	\$6,471,207	\$6,538,607	\$6,627,294	\$6,658,679	\$6,683,296
Capital Project Fund					58,435,876	59,235,876	63,635,876	68,335,876	56,398,448	59,148,448	20,820,568	12,680,655	17,394,961	29,594,961
Connection Fee Fund - 434					3,073,974	1,871,522	576,497	92,202	93,124	94,056	94,996	96,906	97,875	97,875
Rate Stabilization Fund					12,060,000	12,132,360	12,229,419	12,351,713	12,475,230	12,599,983	12,725,982	12,853,242	12,981,775	13,111,592
Total Ending Reserve Fund Balances					\$79,825,877	\$79,571,951	\$82,825,035	\$87,207,737	\$75,387,496	\$78,313,693	\$40,180,154	\$32,257,137	\$37,132,321	\$49,487,724

**City of Stockton
Wastewater Rate Study
Summary of the Revenue Requirement
Exhibit 1**

	<i>Budget</i>	<i>Projected</i>								
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Revenues										
Rate Revenues	\$65,180,155	\$65,831,956	\$66,490,276	\$67,155,179	\$67,826,731	\$68,504,998	\$69,190,048	\$69,881,948	\$70,580,768	\$71,286,575
Miscellaneous Revenues	1,867,676	1,898,696	1,943,122	1,987,925	2,007,042	2,026,114	2,046,265	2,066,988	2,087,542	2,107,649
Total Revenues	\$67,047,831	\$67,730,653	\$68,433,398	\$69,143,103	\$69,833,773	\$70,531,112	\$71,236,313	\$71,948,936	\$72,668,309	\$73,394,224
Expenses										
Utility Billing	\$2,858,397	\$2,972,556	\$3,086,290	\$3,207,448	\$3,329,248	\$3,448,776	\$3,571,506	\$3,699,055	\$3,831,628	\$3,969,439
Administration	4,577,189	4,756,765	4,939,138	5,131,171	5,327,170	5,524,768	5,711,023	5,904,003	6,103,969	6,311,195
Engineering Services	930,063	974,689	1,017,841	1,064,858	1,111,041	1,154,345	1,197,692	1,242,862	1,289,940	1,339,011
Treatment Operations	16,440,412	18,367,481	17,802,106	18,526,205	19,262,928	20,000,992	20,704,193	21,433,903	22,191,190	22,977,166
Sanitary Sewer Collections	10,163,490	10,634,997	11,105,917	11,610,400	12,119,181	12,619,782	13,121,908	13,645,910	14,192,798	14,763,631
Laboratory	1,207,303	1,262,496	1,317,503	1,376,468	1,435,828	1,494,061	1,554,202	1,616,985	1,682,535	1,750,980
Other Support Services	924,585	970,545	1,015,235	1,063,909	1,111,965	1,157,407	1,205,314	1,255,410	1,307,799	1,362,592
Environmental Control	1,245,343	1,304,585	1,362,238	1,424,857	1,486,692	1,545,248	1,605,398	1,668,151	1,733,628	1,801,954
In Lieu of Tax & Debt Services	0	0	0	0	0	0	0	0	0	0
Treatment Plant Maintenance	5,997,617	6,250,946	6,500,899	6,768,936	7,036,335	7,295,001	7,552,287	7,819,562	8,097,248	8,385,783
Sanitary Pump Stations	4,161,891	4,330,527	4,500,341	4,680,184	4,862,530	5,044,188	5,221,827	5,406,159	5,597,452	5,795,988
Regulatory Compliance	116,494	120,988	125,610	130,449	135,439	140,556	145,873	151,406	157,163	163,155
Safety Services	792,813	829,909	867,793	907,979	949,247	991,102	1,034,888	1,080,715	1,128,682	1,178,892
SCADA Services	501,172	522,736	544,056	566,926	589,785	611,963	634,374	657,691	681,956	707,208
Outreach & Training Services	2,438	2,541	2,649	2,761	2,879	3,002	3,130	3,264	3,404	3,551
Total O&M Expenses	\$50,042,029	\$53,429,654	\$54,320,546	\$56,600,865	\$58,903,982	\$61,180,173	\$63,418,106	\$65,745,306	\$68,165,592	\$70,682,956
Taxes & Transfers	0	0	0	0	0	0	0	0	0	0
Rate Funded Capital	10,000,000	10,500,000	11,000,000	11,500,000	12,000,000	13,000,000	14,000,000	15,000,000	16,000,000	17,000,000
Net Debt Service	3,744,700	6,874,750	6,880,000	9,125,250	16,739,997	16,720,567	20,445,204	20,420,656	20,401,172	20,380,873
To / (From) Reserves	3,200,000	876,166	4,451,050	4,744,702	(7,252)	2,800,514	1,867,400	4,988,687	8,431,385	12,224,617
Total Revenue Requirement	\$66,986,729	\$71,680,570	\$76,651,596	\$81,970,817	\$87,636,727	\$93,701,254	\$99,730,711	\$106,154,649	\$112,998,149	\$120,288,446
Bal /(Def) of Funds	\$61,102	(\$3,949,917)	(\$8,218,198)	(\$12,827,714)	(\$17,802,954)	(\$23,170,142)	(\$28,494,398)	(\$34,205,713)	(\$40,329,840)	(\$46,894,222)
Proposed Rate Adjustment	0.0%	6.0%	6.0%	6.0%	6.0%	6.0%	5.5%	5.5%	5.5%	5.5%
Add'l Revenue with Rate Adj	\$0	\$3,949,917	\$8,218,198	\$12,827,714	\$17,802,954	\$23,170,142	\$28,494,398	\$34,205,713	\$40,329,840	\$46,894,222
Bal / (Def) After Rate Adj	\$61,102	(\$0)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Average Residential Customer Bill										
Customer Bill on Proposed Adj.	\$42.06	\$44.58	\$47.26	\$50.09	\$53.10	\$56.29	\$59.38	\$62.65	\$66.09	\$69.73
Bill Difference - Monthly		2.52	2.68	2.84	3.01	3.19	3.10	3.27	3.45	3.64
Cumulative Bill Difference		2.52	5.20	8.03	11.04	14.23	17.32	20.59	24.03	27.67
Debt Service Coverage Ratio (all debt) - No Connection Fees										
Before Rate Adjustment	2.62	1.49	1.47	1.30	0.59	0.50	0.35	0.28	0.20	0.12
After Proposed Rate Adjustment	2.62	1.90	2.32	2.64	1.55	1.75	1.63	1.81	2.01	2.22
Debt Service Coverage Ratio (all debt) - Plus Connection Fees										
Before Rate Adjustment	2.89	1.67	1.65	1.49	0.69	0.60	0.43	0.36	0.29	0.21
After Proposed Rate Adjustment	2.89	2.08	2.51	2.82	1.65	1.85	1.71	1.90	2.10	2.31
Ending Fund Balance	\$79,825,877	\$79,571,951	\$82,825,035	\$87,207,737	\$75,387,496	\$78,313,693	\$40,180,154	\$32,257,137	\$37,132,321	\$49,487,724
Target Minimum - 6 mo. of O&M	\$25,021,014	\$26,714,827	\$27,160,273	\$28,300,432	\$29,451,991	\$30,590,087	\$31,709,053	\$32,872,653	\$34,082,796	\$35,341,478

City of Stockton
Wastewater Rate Study
Escalation Factors
Exhibit 2

Acct. #	Budget	Projected									Notes
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	
Revenues											
Customer Growth	Calculated	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	
Misc / Other Revenues	Budget	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	
Expenses											
Labor	Budget	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	
Benefits - Medical	Budget	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	
Benefits - Retirement	Budget	7.0%	4.9%	5.9%	4.3%	1.8%	2.0%	2.0%	2.0%	2.0%	
Benefits - Other	Budget	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	
Professional Services	Budget	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	
Materials & Supplies	Budget	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	
Equipment	Budget	4.0%	4.0%	4.0%	4.0%	4.0%	3.0%	3.0%	3.0%	3.0%	
Chemicals	Budget	4.0%	4.0%	4.0%	4.0%	4.0%	3.0%	3.0%	3.0%	3.0%	
Utilities	Budget	4.0%	4.0%	4.0%	4.0%	4.0%	3.5%	3.5%	3.5%	3.5%	
Insurance	Budget	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	
Miscellaneous	Budget	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	
Interest	0.5%	0.6%	0.8%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	
New Debt Service Assumptions											
Revenue Bond											
Term in Years	30	30	30	30	30	30	30	30	30	30	
Rate	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	
Low Interest Loan											
Term in Years	20	20	20	20	20	20	20	20	20	20	
Rate	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	

	<i>Budget</i>	<i>Projected</i>									
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Notes
Revenues											
<i>Rate Revenues</i>											
Residential											
Single Family & Condo	\$43,087,193	\$43,518,065	\$43,953,245	\$44,392,778	\$44,836,705	\$45,285,072	\$45,737,923	\$46,195,302	\$46,657,255	\$47,123,828	As Customer Growth
Multi-Family	1,719,971	1,737,171	1,754,543	1,772,088	1,789,809	1,807,707	1,825,784	1,844,042	1,862,482	1,881,107	As Customer Growth
Apartments	8,626,344	8,712,607	8,799,734	8,887,731	8,976,608	9,066,374	9,157,038	9,248,608	9,341,094	9,434,505	As Customer Growth
Com / Inst											
Low Strength	188,712	\$190,599	\$192,505	\$194,430	\$196,375	\$198,338	\$200,322	\$202,325	\$204,348	\$206,392	As Customer Growth
Medium Strength	3,736,061	3,773,422	3,811,156	3,849,268	3,887,760	3,926,638	3,965,904	4,005,564	4,045,619	4,086,075	As Customer Growth
High Strength	1,262,769	1,275,396	1,288,150	1,301,032	1,314,042	1,327,182	1,340,454	1,353,859	1,367,397	1,381,071	As Customer Growth
Schools / Churches	899,235	908,228	917,310	926,483	935,748	945,105	954,556	964,102	973,743	983,480	As Customer Growth
Industrial	5,659,869	5,716,468	5,773,633	5,831,369	5,889,683	5,948,580	6,008,065	6,068,146	6,128,828	6,190,116	As Customer Growth
Total Rate Revenues	\$65,180,155	\$65,831,956	\$66,490,276	\$67,155,179	\$67,826,731	\$68,504,998	\$69,190,048	\$69,881,948	\$70,580,768	\$71,286,575	
<i>Other Revenues</i>											
Fats, Oils, Grease Inspection	\$38,658	\$39,045	\$39,435	\$39,829	\$40,228	\$40,630	\$41,036	\$41,447	\$41,861	\$42,280	As Misc / Other Revenues
Interest Income	62,560	75,529	101,723	128,112	128,631	128,919	130,098	131,659	132,860	133,420	Calculated on Reserves
Service Penalties	1,322,267	1,335,490	1,348,845	1,362,333	1,375,956	1,389,716	1,403,613	1,417,649	1,431,826	1,446,144	As Misc / Other Revenues
Lien Admin Fees	7,146	7,217	7,290	7,363	7,436	7,511	7,586	7,661	7,738	7,815	As Misc / Other Revenues
Pre-Treatment Violations	6,000	6,060	6,121	6,182	6,244	6,306	6,369	6,433	6,497	6,562	As Misc / Other Revenues
Returned Check Fees	20,390	20,594	20,800	21,008	21,218	21,430	21,644	21,861	22,079	22,300	As Misc / Other Revenues
Other Revenue	54,631	55,177	55,729	56,286	56,849	57,418	57,992	58,572	59,158	59,749	As Misc / Other Revenues
Wastewater Hauler	356,024	359,584	363,180	366,812	370,480	374,185	377,927	381,706	385,523	389,378	As Misc / Other Revenues
Total Other Revenues	\$1,867,676	\$1,898,696	\$1,943,122	\$1,987,925	\$2,007,042	\$2,026,114	\$2,046,265	\$2,066,988	\$2,087,542	\$2,107,649	
Total Revenues	\$67,047,831	\$67,730,653	\$68,433,398	\$69,143,103	\$69,833,773	\$70,531,112	\$71,236,313	\$71,948,936	\$72,668,309	\$73,394,224	

		Budget	Projected									
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Notes
Expenses												
Utility Billing		431-1350-572										
Employee Services		431-1350-572-10										
	Salaries - Regular	\$519,926	\$545,922	\$573,218	\$601,879	\$631,973	\$663,572	\$696,750	\$731,588	\$768,167	\$806,576	As Labor
	Salaries-Part Time/Temp	58,542	61,469	64,543	67,770	71,158	74,716	78,452	82,374	86,493	90,818	As Labor
	Regular Overtime	1,884	1,978	2,077	2,181	2,290	2,405	2,525	2,651	2,784	2,923	As Labor
	Employee Separation Pay	3,196	3,355	3,523	3,699	3,884	4,078	4,282	4,497	4,721	4,957	As Labor
	Additional Pay	1,003	1,053	1,106	1,161	1,219	1,280	1,344	1,412	1,482	1,556	As Labor
	Retirement	141,172	151,104	158,446	167,772	174,936	178,094	181,656	185,289	188,995	192,775	As Benefits - Retirement
	Medicare	8,186	8,350	8,517	8,687	8,861	9,038	9,219	9,404	9,592	9,784	As Benefits - Medical
	Health/Dental/Vision	99,918	101,916	103,955	106,034	108,154	110,318	112,524	114,774	117,070	119,411	As Benefits - Medical
	L/T Disability Insurance	3,275	3,341	3,408	3,476	3,545	3,616	3,689	3,762	3,838	3,914	As Benefits - Medical
	Life Insurance	800	816	832	849	866	883	901	919	937	956	As Benefits - Medical
	Workers Compensation	12,803	13,085	13,373	13,667	13,968	14,275	14,589	14,910	15,238	15,573	As Benefits - Other
	Unemployment Insurance	77	78	80	82	84	86	88	89	91	93	As Benefits - Other
	Cell Phone Allowance	486	498	511	523	536	550	564	578	592	607	As Miscellaneous
	Retirement Pension Bond	20,169	21,588	22,637	23,969	24,993	25,444	25,953	26,472	27,001	27,541	As Benefits - Retirement
	Salaries - Regular (2)	1351 244,298	256,513	269,338	282,805	296,946	311,793	327,382	343,752	360,939	378,986	As Labor
	Salaries-Part Time/Temp (2)	1351 18,000	18,900	19,845	20,837	21,879	22,973	24,122	25,328	26,594	27,924	As Labor
	Employee Separation Pay (2)	1351 1,501	1,576	1,655	1,738	1,825	1,916	2,012	2,112	2,218	2,329	As Labor
	Retirement (2)	1351 66,205	70,863	74,306	78,680	82,039	83,520	85,191	86,895	88,633	90,405	As Benefits - Retirement
	Medicare (2)	1351 3,623	3,696	3,770	3,845	3,922	4,001	4,081	4,162	4,245	4,330	As Benefits - Medical
	Health/Dental/Vision (2)	1351 56,020	57,140	58,283	59,448	60,637	61,850	63,087	64,349	65,636	66,949	As Benefits - Medical
	L/T Disability Insurance (2)	1351 1,539	1,570	1,601	1,633	1,666	1,699	1,733	1,768	1,803	1,839	As Benefits - Medical
	Life Insurance (2)	1351 437	446	455	464	473	483	493	502	512	523	As Benefits - Medical
	Workers Compensation (2)	1351 5,570	5,693	5,818	5,946	6,077	6,210	6,347	6,487	6,629	6,775	As Benefits - Other
	Unemployment Insurance (2)	1351 22	22	23	23	24	24	25	25	26	26	As Benefits - Other
	Retirement Pension Bond (2)	1351 9,458	10,124	10,615	11,240	11,720	11,932	12,170	12,414	12,662	12,915	As Benefits - Retirement
	Total Employee Services	\$1,278,110	\$1,341,098	\$1,401,935	\$1,468,410	\$1,533,677	\$1,594,757	\$1,659,178	\$1,726,512	\$1,796,900	\$1,870,487	
Other Services		431-1350-572-20										
	Contractual Employees	\$44,383	\$45,715	\$47,086	\$48,499	\$49,954	\$51,452	\$52,996	\$54,586	\$56,223	\$57,910	As Professional Services
	Maint. & Repair Services	2,400	2,472	2,546	2,623	2,701	2,782	2,866	2,952	3,040	3,131	As Materials & Supplies
	Duplication/Copy Costs	12,600	12,978	13,367	13,768	14,181	14,607	15,045	15,496	15,961	16,440	As Materials & Supplies
	Insurance Premiums	26,356	27,147	27,961	28,800	29,664	30,554	31,471	32,415	33,387	34,389	As Insurance
	Automotive Equip Rental	10,594	11,018	11,459	11,917	12,394	12,889	13,276	13,674	14,085	14,507	As Equipment
	Computer/Tech/Oper Supprt	114,199	118,767	123,518	128,459	133,597	138,941	143,109	147,402	151,824	156,379	As Equipment
	Pool Vehicle Rental	2,217	2,306	2,398	2,494	2,594	2,697	2,778	2,862	2,947	3,036	As Equipment
	Telephone Rental	7,230	7,519	7,820	8,133	8,458	8,796	9,060	9,332	9,612	9,900	As Equipment
	Publicity & Advertising	600	618	637	656	675	696	716	738	760	783	As Materials & Supplies
	Printing & Mapping	85,261	87,818	90,453	93,167	95,962	98,840	101,806	104,860	108,006	111,246	As Materials & Supplies
	Postage/Mailing Services	342,959	353,248	363,845	374,760	386,003	397,583	409,511	421,796	434,450	447,483	As Materials & Supplies
	Processing Fees	33,081	33,908	34,756	35,625	36,515	37,428	38,364	39,323	40,306	41,314	As Miscellaneous
	Computer/Programming Svcs	20,400	21,012	21,642	22,292	22,960	23,649	24,359	25,089	25,842	26,617	As Professional Services
	Prof & Special Services	9,420	9,703	9,994	10,293	10,602	10,920	11,248	11,585	11,933	12,291	As Professional Services
	Other Services	126,034	129,184	132,414	135,724	139,118	142,595	146,160	149,814	153,560	157,399	As Miscellaneous
	Insurance Premiums (2)	1351 11,818	12,172	12,538	12,914	13,301	13,700	14,111	14,535	14,971	15,420	As Insurance
	Computer/Tech/Oper Supprt (2)	1351 24,876	25,871	26,906	27,982	29,101	30,265	31,173	32,109	33,072	34,064	As Equipment
	Telephone Rental (2)	1351 1,886	1,962	2,040	2,122	2,207	2,295	2,364	2,435	2,508	2,583	As Equipment
	Printing & Mapping (2)	1351 55,760	57,433	59,156	60,931	62,759	64,642	66,581	68,578	70,636	72,755	As Materials & Supplies
	Postage/Mailing Services (2)	1351 314,544	323,980	333,699	343,710	354,022	364,642	375,582	386,849	398,455	410,408	As Materials & Supplies
	Processing Fees (2)	1351 125,045	128,796	132,660	136,640	140,739	144,962	149,310	153,790	158,403	163,155	As Materials & Supplies
	Prof & Special Services (2)	1351 131,085	137,639	144,521	151,747	159,335	167,301	175,666	184,450	193,672	203,356	As Labor
	Total Other Services	\$1,502,748	\$1,551,267	\$1,601,417	\$1,653,255	\$1,706,842	\$1,762,239	\$1,817,552	\$1,874,670	\$1,933,653	\$1,994,567	

		Budget	Projected									
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Notes
Materials & Supplies	431-1350-572-30											
Materials And Supplies		\$10,838	\$11,164	\$11,498	\$11,843	\$12,199	\$12,565	\$12,942	\$13,330	\$13,730	\$14,142	As Materials & Supplies
Computer Software		8,100	8,424	8,761	9,111	9,476	9,855	10,151	10,455	10,769	11,092	As Equipment
Fuels-Gas/Oil/Propane		5,051	5,253	5,463	5,681	5,909	6,145	6,360	6,583	6,813	7,052	As Utilities
Materials And Supplies (2)	1351	40,037	41,239	42,476	43,750	45,062	46,414	47,807	49,241	50,718	52,240	As Materials & Supplies
Computer Software (2)	1351	1,512	1,572	1,635	1,701	1,769	1,840	1,895	1,952	2,010	2,070	As Equipment
Fuels-Gas/Oil/Propane (2)	1351	2,700	2,808	2,920	3,037	3,159	3,285	3,400	3,519	3,642	3,770	As Utilities
Total Materials & Supplies		\$68,239	\$70,459	\$72,754	\$75,124	\$77,573	\$80,103	\$82,554	\$85,079	\$87,682	\$90,365	
Other Expenses	431-1350-572-40											
Training		3,600	3,780	3,969	4,167	4,376	4,595	4,824	5,066	5,319	5,585	As Labor
Meetings & Travel		600	618	637	656	675	696	716	738	760	783	As Materials & Supplies
Memberships		690	711	732	754	777	800	824	849	874	900	As Materials & Supplies
Car Mileage Reimbursement		360	371	382	393	405	417	430	443	456	470	As Materials & Supplies
Training (2)	1351	4,050	4,253	4,465	4,688	4,923	5,169	5,427	5,699	5,984	6,283	As Labor
Total Other Expenses		\$9,300	\$9,732	\$10,185	\$10,659	\$11,156	\$11,676	\$12,222	\$12,794	\$13,393	\$14,021	
Total Utility Billing Expenses		\$2,858,397	\$2,972,556	\$3,086,290	\$3,207,448	\$3,329,248	\$3,448,776	\$3,571,506	\$3,699,055	\$3,831,628	\$3,969,439	
Administration	431-4311-572											
Employee Services	431-4311-572-10											
Salaries - Regular		\$648,792	\$681,232	\$715,293	\$751,058	\$788,611	\$828,042	\$869,444	\$912,916	\$958,562	\$1,006,490	As Labor
Salaries-Part Time/Temp		97,801	102,691	107,826	113,217	118,878	124,822	131,063	137,616	144,497	151,722	As Labor
Regular Overtime		6,300	6,615	6,946	7,293	7,658	8,041	8,443	8,865	9,308	9,773	As Labor
Employee Separation Pay		3,747	3,935	4,131	4,338	4,555	4,783	5,022	5,273	5,536	5,813	As Labor
Additional Pay		1,658	1,741	1,828	1,920	2,016	2,116	2,222	2,333	2,450	2,572	As Labor
Retirement		176,272	188,675	197,842	209,486	218,432	222,375	226,823	231,359	235,986	240,706	As Benefits - Retirement
Medicare		10,024	10,244	10,470	10,700	10,936	11,176	11,422	11,673	11,930	12,193	As Benefits - Other
Health/Dental/Vision		79,115	80,698	82,312	83,958	85,637	87,350	89,097	90,879	92,696	94,550	As Benefits - Medical
L/T Disability Insurance		4,087	4,169	4,253	4,338	4,424	4,513	4,603	4,695	4,789	4,885	As Benefits - Medical
Life Insurance		665	680	695	710	726	742	758	775	792	809	As Benefits - Other
Workers Compensation		20,821	21,279	21,747	22,226	22,714	23,214	23,725	24,247	24,780	25,325	As Benefits - Other
Unemployment Insurance		104	106	109	111	113	116	118	121	124	126	As Benefits - Other
Cell Phone Allowance		2,646	2,712	2,780	2,849	2,921	2,994	3,069	3,145	3,224	3,304	As Miscellaneous
Retirement Pension Bond		27,141	29,051	30,462	32,255	33,633	34,240	34,924	35,623	36,335	37,062	As Benefits - Retirement
Total Employee Services		\$1,079,175	\$1,133,828	\$1,186,693	\$1,244,459	\$1,301,253	\$1,354,522	\$1,410,732	\$1,469,520	\$1,531,009	\$1,595,332	

	<i>Budget</i>	<i>Projected</i>									<i>Notes</i>
		FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	
Other Services	431-4311-572-20										
Telephone	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	As Utilities
Computer/Tech/Operation Support	14,917	15,663	16,446	17,268	18,132	19,038	19,990	20,990	22,039	23,141	As Labor
Radio Equipment Rental	498	518	539	560	583	606	624	643	662	682	As Equipment
Other Rentals	1,488,987	1,548,546	1,610,488	1,674,908	1,741,904	1,811,580	1,865,928	1,921,906	1,979,563	2,038,950	As Equipment
Telephone Rental	524	540	556	573	590	607	626	644	664	684	As Materials & Supplies
Water	315	328	341	354	369	383	397	411	425	440	As Utilities
Telephone (2)	1,890	1,947	2,005	2,065	2,127	2,191	2,257	2,324	2,394	2,466	As Materials & Supplies
Storm Water	1,134	1,179	1,227	1,276	1,327	1,380	1,428	1,478	1,530	1,583	As Utilities
Maint. & Repair Services	11,340	11,680	12,031	12,392	12,763	13,146	13,541	13,947	14,365	14,796	As Materials & Supplies
Uniform/Laundry Services	630	649	668	688	709	730	752	775	798	822	As Materials & Supplies
Duplication/Copy Costs	315	324	334	344	355	365	376	387	399	411	As Materials & Supplies
Insurance Premiums	34,115	35,138	36,192	37,278	38,396	39,548	40,734	41,957	43,215	44,512	As Insurance
Automotive Equip Rental	4,085	4,248	4,418	4,595	4,779	4,970	5,119	5,273	5,431	5,594	As Equipment
Computer/Tech/Oper Supprt (2)	109,224	113,593	118,137	122,863	127,777	132,888	136,875	140,981	145,210	149,567	As Equipment
Radio Equipment Rental (2)	1,191	1,239	1,289	1,340	1,394	1,449	1,493	1,538	1,584	1,631	As Equipment
Telephone Rental (2)	6,271	6,522	6,783	7,054	7,336	7,630	7,859	8,094	8,337	8,587	As Equipment
Publicity & Advertising	3,150	3,245	3,342	3,442	3,545	3,652	3,761	3,874	3,990	4,110	As Materials & Supplies
Postage/Mailing Services	756	779	802	826	851	876	903	930	958	986	As Materials & Supplies
Processing Fees	315	324	334	344	355	365	376	387	399	411	As Materials & Supplies
Legal Services	6,300	6,615	6,946	7,293	7,658	8,041	8,443	8,865	9,308	9,773	As Labor
Training Services	6,300	6,615	6,946	7,293	7,658	8,041	8,443	8,865	9,308	9,773	As Labor
Prof & Special Services	63,000	66,150	69,458	72,930	76,577	80,406	84,426	88,647	93,080	97,734	As Labor
Other Services	85,050	89,303	93,768	98,456	103,379	108,548	113,975	119,674	125,658	131,940	As Labor
Total Other Services	\$1,840,307	\$1,915,145	\$1,993,048	\$2,074,143	\$2,158,561	\$2,246,441	\$2,318,324	\$2,392,589	\$2,469,317	\$2,548,594	
Materials & Supplies	431-4311-572-30										
Materials And Supplies	\$44,100	\$45,423	\$46,786	\$48,189	\$49,635	\$51,124	\$52,658	\$54,237	\$55,865	\$57,540	As Materials & Supplies
Computer Software	630	649	668	688	709	730	752	775	798	822	As Materials & Supplies
Subscription-Periodical	95	97	100	103	106	110	113	116	120	123	As Materials & Supplies
Fuels-Gas/Oil/Propane	719	748	778	809	842	875	906	938	970	1,004	As Utilities
Total Materials & Supplies	\$45,544	\$46,917	\$48,332	\$49,790	\$51,292	\$52,839	\$54,429	\$56,066	\$57,753	\$59,490	
Other Expenses	431-4311-572-40										
Training	\$17,325	\$18,191	\$19,101	\$20,056	\$21,059	\$22,112	\$23,217	\$24,378	\$25,597	\$26,877	As Labor
Meetings & Travel	1,575	1,622	1,671	1,721	1,773	1,826	1,881	1,937	1,995	2,055	As Materials & Supplies
Memberships	4,001	4,121	4,244	4,371	4,503	4,638	4,777	4,920	5,068	5,220	As Materials & Supplies
Indirect Cost Allocation	1,589,263	1,636,941	1,686,049	1,736,631	1,788,730	1,842,391	1,897,663	1,954,593	2,013,231	2,073,628	As Materials & Supplies
Total Other Expenses	\$1,612,164	\$1,660,875	\$1,711,065	\$1,762,779	\$1,816,063	\$1,870,967	\$1,927,538	\$1,985,828	\$2,045,891	\$2,107,779	
Total Administration	\$4,577,189	\$4,756,765	\$4,939,138	\$5,131,171	\$5,327,170	\$5,524,768	\$5,711,023	\$5,904,003	\$6,103,969	\$6,311,195	

		Budget	Projected									
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Notes
Engineering Services	431-4312-572											
Employee Services	431-4312-572-10											
Salaries - Regular		\$30,758	\$32,296	\$33,911	\$35,606	\$37,387	\$39,256	\$41,219	\$43,280	\$45,444	\$47,716	As Labor
Employee Separation Pay		189	198	208	219	230	241	253	266	279	293	As Labor
Retirement		8,335	8,921	9,355	9,906	10,329	10,515	10,725	10,940	11,159	11,382	As Benefits - Retirement
Medicare		449	458	467	476	486	496	506	516	526	537	As Benefits - Medical
Health/Dental/Vision		2,730	2,785	2,840	2,897	2,955	3,014	3,074	3,136	3,199	3,263	As Benefits - Medical
L/T Disability Insurance		194	198	203	207	212	216	221	226	231	236	As Benefits - Other
Life Insurance		25	26	26	27	27	28	28	29	30	30	As Benefits - Other
Workers Compensation		706	722	737	754	770	787	804	822	840	859	As Benefits - Other
Cell Phone Allowance		225	231	236	242	248	255	261	267	274	281	As Miscellaneous
Salaries - Regular (2)		392,907	412,553	433,180	454,839	477,581	501,460	526,533	552,860	580,503	609,528	As Labor
Salaries-Part Time/Temp		17,952	18,850	19,792	20,782	21,821	22,912	24,057	25,260	26,523	27,849	As Labor
Regular Overtime (2)		1,360	1,428	1,499	1,574	1,653	1,736	1,823	1,914	2,009	2,110	As Labor
Employee Separation Pay (2)		7,693	7,862	8,035	8,211	8,392	8,577	8,765	8,958	9,155	9,357	As Benefits - Other
Additional Pay (2)		1,807	1,847	1,887	1,929	1,971	2,015	2,059	2,104	2,151	2,198	As Benefits - Other
Retirement (2)		109,687	117,405	123,109	130,355	135,922	138,375	141,143	143,966	146,845	149,782	As Benefits - Retirement
Medicare (2)		5,871	5,988	6,108	6,230	6,355	6,482	6,612	6,744	6,879	7,016	As Benefits - Medical
Health/Dental/Vision (2)		47,755	48,710	49,684	50,678	51,691	52,725	53,780	54,855	55,952	57,071	As Benefits - Medical
L/T Disability Insurance (2)		2,475	2,525	2,575	2,627	2,679	2,733	2,787	2,843	2,900	2,958	As Benefits - Medical
Life Insurance (2)		337	343	350	357	364	372	379	387	394	402	As Benefits - Medical
Workers Compensation (2)		15,264	15,600	15,943	16,294	16,653	17,019	17,393	17,776	18,167	18,567	As Benefits - Other
Unemployment Insurance (2)		20	20	20	21	21	22	22	23	23	24	As Benefits - Other
Cell Phone Allowance (2)		536	549	563	577	591	606	621	637	652	669	As Miscellaneous
Retirement Pension Bond		44,483	47,613	49,926	52,865	55,122	56,117	57,240	58,384	59,552	60,743	As Benefits - Retirement
Total Employee Services		\$691,757	\$727,126	\$760,657	\$797,674	\$833,461	\$865,958	\$900,307	\$936,193	\$973,689	\$1,012,871	
Other Services	431-4312-572-20											
Telephone		\$1,700	\$1,768	\$1,839	\$1,912	\$1,989	\$2,068	\$2,141	\$2,216	\$2,293	\$2,373	As Utilities
Maintenance & Repair Services		5,100	5,355	5,623	5,904	6,199	6,509	6,834	7,176	7,535	7,912	As Labor
Duplication/Copy Costs		1,020	1,046	1,072	1,098	1,126	1,154	1,183	1,212	1,243	1,274	As Miscellaneous
Insurance Premiums		1,397	1,439	1,482	1,527	1,572	1,620	1,668	1,718	1,770	1,823	As Insurance
Automotive Equipment Rental		6,843	7,117	7,401	7,697	8,005	8,326	8,575	8,833	9,098	9,370	As Equipment
Computer/Tech/Operation Support		139,535	145,116	150,921	156,958	163,236	169,766	174,859	180,104	185,508	191,073	As Equipment
Telephone Rental		524	545	567	589	613	638	657	676	697	718	As Equipment
Publicity & Advertising		1,700	1,743	1,786	1,831	1,876	1,923	1,971	2,021	2,071	2,123	As Miscellaneous
Printing & Mapping		425	436	447	458	469	481	493	505	518	531	As Miscellaneous
Postage/Mailing Services		1,700	1,785	1,874	1,968	2,066	2,170	2,278	2,392	2,512	2,637	As Labor
Processing Fees		587	602	617	632	648	664	681	698	715	733	As Miscellaneous
Uniform/Laundry Services		510	525	541	557	574	591	609	627	646	665	As Materials & Supplies
Insurance Premiums (2)		18,688	19,249	19,826	20,421	21,034	21,665	22,314	22,984	23,673	24,384	As Insurance
Automotive Equipment Rental (2)		4,219	4,388	4,563	4,746	4,936	5,133	5,287	5,446	5,609	5,777	As Equipment
Radio Equipment Rental		1,271	1,322	1,375	1,430	1,487	1,546	1,593	1,641	1,690	1,740	As Equipment
Telephone Rental (2)		8,016	8,337	8,670	9,017	9,378	9,753	10,045	10,347	10,657	10,977	As Equipment
Other Services		1,020	1,046	1,072	1,098	1,126	1,154	1,183	1,212	1,243	1,274	As Miscellaneous
Total Other Services		\$194,255	\$201,816	\$209,675	\$217,843	\$226,334	\$235,160	\$242,371	\$249,808	\$257,476	\$265,384	

		Budget	Projected									
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Notes
Materials & Supplies	431-4312-572-30											
Materials & Supplies		\$10,200	\$10,506	\$10,821	\$11,146	\$11,480	\$11,825	\$12,179	\$12,545	\$12,921	\$13,309	As Materials & Supplies
Computer Software		21,250	22,100	22,984	23,903	24,859	25,854	26,629	27,428	28,251	29,099	As Equipment
Subscription - Periodical		43	44	46	47	48	50	51	53	54	56	As Materials & Supplies
Fuels - Gas/Oil/Propane		1,438	1,496	1,555	1,618	1,682	1,750	1,811	1,874	1,940	2,008	As Utilities
Fuels - Gas/Oil/Propane (2)		1,090	1,134	1,179	1,226	1,275	1,326	1,373	1,421	1,470	1,522	As Utilities
Library Materials		255	263	271	279	287	296	304	314	323	333	As Materials & Supplies
Total Materials & Supplies		\$34,276	\$35,542	\$36,856	\$38,218	\$39,632	\$41,100	\$42,348	\$43,634	\$44,960	\$46,326	
Other Expenses	431-4312-572-40											
Training		\$6,800	\$7,140	\$7,497	\$7,872	\$8,265	\$8,679	\$9,113	\$9,568	\$10,047	\$10,549	As Labor
Meeting & Travel		425	438	451	464	478	493	507	523	538	555	As Materials & Supplies
Memberships		2,550	2,627	2,705	2,786	2,870	2,956	3,045	3,136	3,230	3,327	As Materials & Supplies
Car Milage Reimbursement		0	0	0	0	0	0	0	0	0	0	As Miscellaneous
Indirect Cost Allocation		0	0	0	0	0	0	0	0	0	0	As Miscellaneous
Total Other Expenses		\$9,775	\$10,204	\$10,653	\$11,123	\$11,614	\$12,128	\$12,665	\$13,227	\$13,815	\$14,431	
Total Engineering Services		\$930,063	\$974,689	\$1,017,841	\$1,064,858	\$1,111,041	\$1,154,345	\$1,197,692	\$1,242,862	\$1,289,940	\$1,339,011	
Treatment Operations	431-4331-574											
Employee Services	431-4331-574-10											
Salaries - Regular		\$2,366,839	\$2,485,181	\$2,609,440	\$2,739,912	\$2,876,908	\$3,020,753	\$3,171,791	\$3,330,380	\$3,496,899	\$3,671,744	As Labor
Salaries Part Time - Temp		36,000	37,800	39,690	41,675	43,758	45,946	48,243	50,656	53,188	55,848	As Labor
Regular Overtime		425,000	446,250	468,563	491,991	516,590	542,420	569,541	598,018	627,919	659,314	As Labor
Stand By Time (Call Back)		20,040	21,042	22,094	23,199	24,359	25,577	26,856	28,198	29,608	31,089	As Labor
Holiday Pay		87,656	92,039	96,641	101,473	106,546	111,874	117,467	123,341	129,508	135,983	As Labor
Employee Separation Pay		14,465	15,188	15,948	16,745	17,582	18,461	19,384	20,354	21,371	22,440	As Labor
Additional Pay		14,221	14,932	15,679	16,463	17,286	18,150	19,058	20,010	21,011	22,061	As Labor
Retirement		641,258	686,377	719,725	762,088	794,631	808,975	825,155	841,658	858,491	875,661	As Benefits - Retirement
Deferred Compensation		105,657	113,091	118,586	125,566	130,928	133,291	135,957	138,676	141,449	144,278	As Benefits - Retirement
Medicare		40,567	41,378	42,206	43,050	43,911	44,789	45,685	46,599	47,531	48,481	As Benefits - Medical
Health/Dental/Vision		343,980	350,860	357,877	365,034	372,335	379,782	387,377	395,125	403,027	411,088	As Benefits - Medical
L/T Disability Insurance		14,882	15,209	15,544	15,886	16,235	16,593	16,958	17,331	17,712	18,102	As Benefits - Other
Life Insurance		3,094	3,162	3,232	3,303	3,375	3,450	3,526	3,603	3,682	3,763	As Benefits - Other
Workers Compensation		197,820	202,172	206,620	211,165	215,811	220,559	225,411	230,370	235,438	240,618	As Benefits - Other
Unemployment Insurance		479	490	500	511	523	534	546	558	570	583	As Benefits - Other
Cell Phone Allowance		3,000	3,075	3,152	3,231	3,311	3,394	3,479	3,566	3,655	3,747	As Miscellaneous
Total Employee Services		\$4,314,958	\$4,528,246	\$4,735,495	\$4,961,290	\$5,184,090	\$5,394,547	\$5,616,433	\$5,848,442	\$6,091,061	\$6,344,800	

		Budget	Projected									
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Notes
Other Services	431-4331-574-20											
Electricity		\$2,885,000	\$3,000,400	\$3,120,416	\$3,245,233	\$3,375,042	\$3,510,044	\$3,632,895	\$3,760,046	\$3,891,648	\$4,027,856	As Utilities
Gas		84,000	87,360	90,854	94,489	98,268	102,199	105,776	109,478	113,310	117,276	As Utilities
Water		154,000	160,160	166,566	173,229	180,158	187,365	193,922	200,710	207,734	215,005	As Utilities
Telephone		7,000	7,280	7,571	7,874	8,189	8,517	8,815	9,123	9,442	9,773	As Utilities
Stormwater		15,000	15,600	16,224	16,873	17,548	18,250	18,889	19,550	20,234	20,942	As Utilities
Maintenance & Repair Services		2,323,150	2,392,845	2,464,630	2,538,569	2,614,726	2,693,168	2,773,963	2,857,181	2,942,897	3,031,184	As Materials & Supplies
Uniform/Laundry Services		15,000	15,450	15,914	16,391	16,883	17,389	17,911	18,448	19,002	19,572	As Materials & Supplies
Duplication/Copy Costs		2,000	2,060	2,122	2,185	2,251	2,319	2,388	2,460	2,534	2,610	As Materials & Supplies
Insurance Premiums		128,592	132,450	136,423	140,516	144,731	149,073	153,546	158,152	162,896	167,783	As Insurance
Automotive Equipment Rental		111,308	115,760	120,391	125,206	130,215	135,423	139,486	143,670	147,981	152,420	As Equipment
Computer/Tech/Operation Support		115,457	118,921	122,488	126,163	129,948	133,846	137,862	141,998	146,257	150,645	As Materials & Supplies
Radio Equipment Rentals		10,822	11,147	11,481	11,825	12,180	12,546	12,922	13,310	13,709	14,120	As Materials & Supplies
Other Rentals		46,800	48,204	49,650	51,140	52,674	54,254	55,882	57,558	59,285	61,063	As Materials & Supplies
Pool Vehicle Rental		734	763	794	826	859	893	920	947	976	1,005	As Equipment
Telephone Rental		18,337	18,887	19,454	20,037	20,638	21,258	21,895	22,552	23,229	23,926	As Materials & Supplies
Publicity & Advertising		1,500	1,545	1,591	1,639	1,688	1,739	1,791	1,845	1,900	1,957	As Materials & Supplies
Postage/Mailing Services		500	515	530	546	563	580	597	615	633	652	As Materials & Supplies
Processing Fees		343,300	353,599	364,207	375,133	386,387	397,979	409,918	422,216	434,882	447,929	As Materials & Supplies
Testing & Analysis Services		500	525	551	579	608	638	670	704	739	776	As Labor
Training Services		5,000	5,250	5,513	5,788	6,078	6,381	6,700	7,036	7,387	7,757	As Labor
Professional & Special Services		932,500	979,125	1,028,081	1,079,485	1,133,460	1,190,133	1,249,639	1,312,121	1,377,727	1,446,614	As Labor
Other Services		64,650	67,883	71,277	74,840	78,582	82,512	86,637	90,969	95,517	100,293	As Labor
ERP Project		0	1,250,000	0	0	0	0	0	0	0	0	One Time
Total Other Services		\$7,265,150	\$8,785,728	\$7,816,729	\$8,108,567	\$8,411,675	\$8,726,503	\$9,033,023	\$9,350,688	\$9,679,920	\$10,021,157	
Materials & Supplies	431-4331-574-30											
Materials & Supplies		\$525,000	\$540,750	\$556,973	\$573,682	\$590,892	\$608,619	\$626,877	\$645,684	\$665,054	\$685,006	As Materials & Supplies
Computer Software		500	515	530	546	563	580	597	615	633	652	As Materials & Supplies
Subscription-Periodical		500	515	530	546	563	580	597	615	633	652	As Materials & Supplies
Fuels - Gas/Oil/Propane		13,104	13,497	13,902	14,319	14,749	15,191	15,647	16,116	16,600	17,098	As Materials & Supplies
Chemicals		3,835,000	3,988,400	4,147,936	4,313,853	4,486,408	4,665,864	4,805,840	4,950,015	5,098,515	5,251,471	As Chemicals
Library Materials		1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267	1,305	As Materials & Supplies
Total Materials & Supplies		\$4,375,104	\$4,544,707	\$4,720,932	\$4,904,040	\$5,094,299	\$5,291,992	\$5,450,752	\$5,614,275	\$5,782,703	\$5,956,184	
Other Expenses	431-4331-574-40											
Training		\$38,500	\$40,425	\$42,446	\$44,569	\$46,797	\$49,137	\$51,594	\$54,173	\$56,882	\$59,726	As Labor
Meetings & Travel		\$1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267	1,305	As Materials & Supplies
Memberships		207,700	213,931	220,349	226,959	233,768	240,781	248,005	255,445	263,108	271,001	As Materials & Supplies
Taxes		33,000	33,990	35,010	36,060	37,142	38,256	39,404	40,586	41,803	43,058	As Materials & Supplies
Retirement Expense		205,000	219,424	230,085	243,627	254,031	258,617	263,789	269,065	274,446	279,935	As Benefits - Retirement
Total Other Expenses		\$485,200	\$508,800	\$528,951	\$552,308	\$572,863	\$587,950	\$603,985	\$620,499	\$637,506	\$655,025	
Total Treatment Operations		\$16,440,412	\$18,367,481	\$17,802,106	\$18,526,205	\$19,262,928	\$20,000,992	\$20,704,193	\$21,433,903	\$22,191,190	\$22,977,166	

		Budget	Projected									
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Notes
Sanitary Sewer Collections		431-4332-571										
Employee Services		431-4332-571-10										
Salaries - Regular	\$2,487,525	\$2,611,901	\$2,742,496	\$2,879,621	\$3,023,602	\$3,174,782	\$3,333,521	\$3,500,197	\$3,675,207	\$3,858,968	As Labor	
Salaries Part Time - Temp	\$104,000	109,200	114,660	120,393	126,413	132,733	139,370	146,338	153,655	161,338	As Labor	
Regular Overtime	190,000	199,500	209,475	219,949	230,946	242,493	254,618	267,349	280,717	294,752	As Labor	
Stand By Time	40,000	42,000	44,100	46,305	48,620	51,051	53,604	56,284	59,098	62,053	As Labor	
Holiday Pay	10,000	10,500	11,025	11,576	12,155	12,763	13,401	14,071	14,775	15,513	As Labor	
Employee Separation Pay	15,261	16,024	16,825	17,667	18,550	19,477	20,451	21,474	22,547	23,675	As Labor	
Additional Pay	34,725	36,461	38,284	40,199	42,208	44,319	46,535	48,862	51,305	53,870	As Labor	
Retirement	680,090	727,941	763,309	808,237	842,751	857,963	875,123	892,625	910,478	928,687	As Benefits - Retirement	
Deferred Compensation	121,992	130,575	136,920	144,979	151,170	153,898	156,976	160,116	163,318	166,584	As Benefits - Retirement	
Medicare	40,510	41,320	42,147	42,990	43,849	44,726	45,621	46,533	47,464	48,413	As Benefits - Medical	
Health/Dental/Vision	438,438	447,207	456,151	465,274	474,579	484,071	493,752	503,627	513,700	523,974	As Benefits - Medical	
L/T Disability Insurance	15,308	15,645	15,989	16,341	16,700	17,068	17,443	17,827	18,219	18,620	As Benefits - Other	
Life Insurance	3,868	3,953	4,040	4,129	4,220	4,313	4,407	4,504	4,604	4,705	As Benefits - Other	
Workers Compensation	206,589	211,134	215,779	220,526	225,378	230,336	235,403	240,582	245,875	251,284	As Benefits - Other	
Unemployment Insurance	330	337	345	352	360	368	376	384	393	401	As Benefits - Other	
Cell Phone Allowance	6,705	6,873	7,044	7,221	7,401	7,586	7,776	7,970	8,169	8,374	As Miscellaneous	
Total Employee Services	\$4,395,341	\$4,610,571	\$4,818,589	\$5,045,757	\$5,268,902	\$5,477,949	\$5,698,378	\$5,928,745	\$6,169,524	\$6,421,212		
Other Services		431-4332-571-20										
Telephone	\$8,700	\$9,048	\$9,410	\$9,786	\$10,178	\$10,585	\$10,955	\$11,339	\$11,736	\$12,146	As Utilities	
Contractual Employees	8,500	8,925	9,371	9,840	10,332	10,848	11,391	11,960	12,558	13,186	As Labor	
Maintenance & Repair Services	2,624,500	2,755,725	2,893,511	3,038,187	3,190,096	3,349,601	3,517,081	3,692,935	3,877,582	4,071,461	As Labor	
Uniform/Laundry Services	16,000	16,800	17,640	18,522	19,448	20,421	21,442	22,514	23,639	24,821	As Labor	
Duplication/Copy Costs	2,500	2,563	2,627	2,692	2,760	2,829	2,899	2,972	3,046	3,122	As Miscellaneous	
Insurance Premiums	128,757	132,620	136,598	140,696	144,917	149,265	153,743	158,355	163,106	167,999	As Insurance	
Automotive Equipment Rental	548,600	570,544	593,366	617,100	641,784	667,456	687,479	708,104	729,347	751,227	As Equipment	
Computer/Tech/Operation Support	170,701	177,529	184,630	192,015	199,696	207,684	213,914	220,332	226,942	233,750	As Equipment	
Radio Equipment Rental	21,560	22,422	23,319	24,252	25,222	26,231	27,018	28,663	29,523	30,523	As Equipment	
Other Rentals	43,000	44,720	46,509	48,369	50,304	52,316	53,886	55,502	57,167	58,882	As Equipment	
Telephone Rental	9,954	10,352	10,766	11,197	11,645	12,111	12,474	12,848	13,234	13,631	As Equipment	
Publicity & Advertising	5,000	5,125	5,253	5,384	5,519	5,657	5,798	5,943	6,092	6,244	As Miscellaneous	
Postage/Mailing Services	1,000	1,050	1,103	1,158	1,216	1,276	1,340	1,407	1,477	1,551	As Labor	
Processing Fees	197,300	202,233	207,288	212,471	217,782	223,227	228,808	234,528	240,391	246,401	As Miscellaneous	
Testing & Analysis Services	2,000	2,100	2,205	2,315	2,431	2,553	2,680	2,814	2,955	3,103	As Labor	
Training Services	11,700	12,285	12,899	13,544	14,221	14,932	15,679	16,463	17,286	18,151	As Labor	
Professional & Special Services	22,500	23,625	24,806	26,047	27,349	28,716	30,152	31,660	33,243	34,905	As Labor	
Other Services	86,000	90,300	94,815	99,556	104,534	109,760	115,248	121,011	127,061	133,414	As Labor	
Total Other Services	\$3,908,272	\$4,087,965	\$4,276,117	\$4,473,132	\$4,679,433	\$4,895,467	\$5,111,988	\$5,338,515	\$5,575,525	\$5,823,518		
Materials & Supplies		431-4332-571-30										
Materials & Supplies	\$320,000	\$329,600	\$339,488	\$349,673	\$360,163	\$370,968	\$382,097	\$393,560	\$405,366	\$417,527	As Materials & Supplies	
Fuels - Gas/Oil/Propane	140,477	144,691	149,032	153,503	158,108	162,851	167,737	172,769	177,952	183,291	As Materials & Supplies	
Chemicals	725,000	754,000	784,160	815,526	848,147	882,073	908,536	935,792	963,865	992,781	As Chemicals	
Total Materials & Supplies	\$1,185,477	\$1,228,291	\$1,272,680	\$1,318,702	\$1,366,418	\$1,415,892	\$1,458,369	\$1,502,120	\$1,547,184	\$1,593,599		

		<i>Budget</i>	<i>Projected</i>									
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Notes
Other Expenses	<i>431-4332-571-40</i>											
Training		\$29,300	\$30,765	\$32,303	\$33,918	\$35,614	\$37,395	\$39,265	\$41,228	\$43,289	\$45,454	As Labor
Meeting & Travel		1,000	1,025	1,051	1,077	1,104	1,131	1,160	1,189	1,218	1,249	As Miscellaneous
Memberships		21,100	21,628	22,168	22,722	23,290	23,873	24,470	25,081	25,708	26,351	As Miscellaneous
Retirement Expense		225,000	240,831	252,532	267,396	278,815	283,847	289,524	295,315	301,221	307,246	As Benefits - Retirement
Vehicle Acquisition	<i>431-4332-571-60-94</i>	348,000	361,920	376,397	391,453	407,111	423,395	436,097	449,180	462,655	476,535	As Equipment
Equipment Acquisition	<i>431-4332-571-60-96</i>	50,000	52,000	54,080	56,243	58,493	60,833	62,658	64,537	66,473	68,468	As Equipment
Total Other Expenses		\$674,400	\$708,168	\$738,531	\$772,809	\$804,427	\$830,474	\$853,173	\$876,530	\$900,566	\$925,302	
Total Sanitary Sewer Collections		\$10,163,490	\$10,634,997	\$11,105,917	\$11,610,400	\$12,119,181	\$12,619,782	\$13,121,908	\$13,645,910	\$14,192,798	\$14,763,631	
Laboratory	<i>431-4334-571</i>											
Employee Services	<i>431-4334-571-10</i>											
Salaries - Regular		\$348,395	\$365,815	\$384,105	\$403,311	\$423,476	\$444,650	\$466,883	\$490,227	\$514,738	\$540,475	As Labor
Salaries Part Time - Temp		15,000	15,750	16,538	17,364	18,233	19,144	20,101	21,107	22,162	23,270	As Labor
Regular Overtime		3,000	3,150	3,308	3,473	3,647	3,829	4,020	4,221	4,432	4,654	As Labor
Holiday Pay		2,277	2,391	2,510	2,636	2,768	2,906	3,051	3,204	3,364	3,532	As Labor
Employee Separation Pay		2,173	2,282	2,396	2,516	2,641	2,773	2,912	3,058	3,211	3,371	As Labor
Additional Pay		764	802	842	884	929	975	1,024	1,075	1,129	1,185	As Labor
Retirement		94,754	101,421	106,349	112,608	117,417	119,536	121,927	124,366	126,853	129,390	As Benefits - Retirement
Deferred Compensation		16,360	17,511	18,362	19,443	20,273	20,639	21,052	21,473	21,902	22,340	As Benefits - Retirement
Medicare		5,158	5,261	5,366	5,474	5,583	5,695	5,809	5,925	6,043	6,164	As Benefits - Medical
Health/Dental/Vision		57,330	58,477	59,646	60,839	62,056	63,297	64,563	65,854	67,171	68,515	As Benefits - Medical
L/T Disability Insurance		2,195	2,243	2,293	2,343	2,395	2,447	2,501	2,556	2,612	2,670	As Benefits - Other
Life Insurance		510	521	533	544	556	569	581	594	607	620	As Benefits - Other
Workers Compensation		14,219	14,532	14,852	15,178	15,512	15,853	16,202	16,559	16,923	17,295	As Benefits - Other
Unemployment Insurance		19	19	20	20	21	21	22	22	23	23	As Benefits - Other
Cell Phone Allowance		675	692	709	727	745	764	783	802	822	843	As Miscellaneous
Retirement Pension Bond		13,736	14,702	15,417	16,324	17,021	17,329	17,675	18,029	18,389	18,757	As Benefits - Retirement
Total Employee Services		\$576,565	\$605,569	\$633,245	\$663,685	\$693,272	\$720,428	\$749,106	\$779,070	\$810,382	\$843,105	
Other Services	<i>431-4334-571-20</i>											
Telephone		\$750	\$780	\$811	\$844	\$877	\$912	\$944	\$977	\$1,012	\$1,047	As Utilities
Maintenance & Repair Services		50,475	52,999	55,649	58,431	61,353	64,420	67,641	71,023	74,575	78,303	As Labor
Uniform/Laundry Services		3,750	3,938	4,134	4,341	4,558	4,786	5,025	5,277	5,540	5,817	As Labor
Duplication/Copy Costs		375	386	398	410	422	435	448	461	475	489	As Materials & Supplies
Insurance Premiums		16,607	17,105	17,618	18,147	18,691	19,252	19,830	20,425	21,037	21,668	As Insurance
Automotive Equipment Rental		30,960	32,198	33,486	34,826	36,219	37,668	38,798	39,962	41,160	42,395	As Equipment
Computer/Tech/Operation Support		22,681	23,588	24,532	25,513	26,534	27,595	28,423	29,275	30,154	31,058	As Equipment
Radio Equipment Rental		748	778	809	841	875	910	937	965	994	1,024	As Equipment
Telephone Rental		2,750	2,860	2,974	3,093	3,217	3,346	3,446	3,550	3,656	3,766	As Equipment
Publicity & Advertising		375	384	394	404	414	424	435	446	457	468	As Miscellaneous
Postage/Mailing Services		188	193	198	202	208	213	218	223	229	235	As Miscellaneous
Processing Fees		7,125	7,303	7,486	7,673	7,865	8,061	8,263	8,469	8,681	8,898	As Miscellaneous
Testing & Analysis Services		225	236	248	260	273	287	302	317	332	349	As Labor
Training Services		563	591	621	652	684	719	754	792	832	873	As Labor
Professional & Special Services		37,500	39,375	41,344	43,411	45,581	47,861	50,254	52,766	55,405	58,175	As Labor
Other Services		488	512	538	565	593	623	654	687	721	757	As Labor
Laboratory Service		222,000	233,100	244,755	256,993	269,842	283,335	297,501	312,376	327,995	344,395	As Labor
Total Other Services		\$397,560	\$416,327	\$435,995	\$456,606	\$478,207	\$500,846	\$523,873	\$547,992	\$573,256	\$599,719	

		Budget	Projected									
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Notes
Materials & Supplies	431-4334-571-30											
Materials & Supplies		\$124,875	\$128,621	\$132,480	\$136,454	\$140,548	\$144,764	\$149,107	\$153,580	\$158,188	\$162,934	As Materials & Supplies
Computer Software		3,225	3,354	3,488	3,628	3,773	3,924	4,041	4,163	4,288	4,416	As Equipment
Fuels - Gas/Oil/Propane		2,100	2,184	2,271	2,362	2,457	2,555	2,644	2,737	2,833	2,932	As Utilities
Chemicals		18,750	19,500	20,280	21,091	21,935	22,812	23,497	24,202	24,928	25,675	As Chemicals
Library Materials		375	386	398	410	422	435	448	461	475	489	As Materials & Supplies
Total Materials & Supplies		\$149,325	\$154,046	\$158,917	\$163,945	\$169,134	\$174,490	\$179,737	\$185,143	\$190,711	\$196,446	
Other Expenses												
Memberships	431-4334-571-40	\$1,853	\$1,899	\$1,947	\$1,995	\$2,045	\$2,096	\$2,149	\$2,203	\$2,258	\$2,314	As Miscellaneous
Meeting & Travel		2,250	2,318	2,387	2,459	2,532	2,608	2,687	2,767	2,850	2,936	As Materials & Supplies
Training		9,750	10,238	10,749	11,287	11,851	12,444	13,066	13,719	14,405	15,125	As Labor
Vehicle Accuisition	431-4334-571-60-94	70,000	72,100	74,263	76,491	78,786	81,149	83,584	86,091	88,674	91,334	As Materials & Supplies
Total Other Expenses		\$83,853	\$86,554	\$89,346	\$92,232	\$95,215	\$98,298	\$101,485	\$104,780	\$108,187	\$111,709	
Total Laboratory		\$1,207,303	\$1,262,496	\$1,317,503	\$1,376,468	\$1,435,828	\$1,494,061	\$1,554,202	\$1,616,985	\$1,682,535	\$1,750,980	
Other Support Services	431-4335-572											
Employee Services	431-4335-572-10											
Salaries - Regular		\$564,113	\$592,319	\$621,935	\$653,031	\$685,683	\$719,967	\$755,965	\$793,764	\$833,452	\$875,124	As Labor
Salaries Part Time - Temp		\$1,000	1,050	1,103	1,158	1,216	1,276	1,340	1,407	1,477	1,551	As Labor
Regular Overtime		\$2,233	2,345	2,462	2,585	2,714	2,850	2,992	3,142	3,299	3,464	As Labor
Employee Separation Pay		3,433	3,605	3,785	3,974	4,173	4,381	4,601	4,831	5,072	5,326	As Labor
Additional Pay		789	828	870	913	959	1,007	1,057	1,110	1,166	1,224	As Labor
Retirement		153,123	163,897	171,860	181,975	189,746	193,171	197,035	200,976	204,995	209,095	As Benefits - Retirement
Deferred Compensation		6,480	6,936	7,273	7,701	8,030	8,175	8,338	8,505	8,675	8,849	As Benefits - Retirement
Medicare		7,962	8,121	8,284	8,449	8,618	8,791	8,967	9,146	9,329	9,515	As Benefits - Medical
Health/Dental/Vision		70,980	72,400	73,848	75,325	76,831	78,368	79,935	81,534	83,164	84,828	As Benefits - Medical
L/T Disability Insurance		3,551	3,629	3,709	3,791	3,874	3,959	4,046	4,135	4,226	4,319	As Benefits - Other
Life Insurance		604	617	631	645	659	673	688	703	719	735	As Benefits - Other
Workers Compensation		15,574	15,917	16,267	16,625	16,990	17,364	17,746	18,137	18,536	18,943	As Benefits - Other
Unemployment Insurance		0	0	0	0	0	0	0	0	0	0	As Benefits - Other
Retiree Medical Trust		0	0	0	0	0	0	0	0	0	0	As Benefits - Other
Cell Phone Allowance		1,821	1,867	1,913	1,961	2,010	2,060	2,112	2,165	2,219	2,274	As Miscellaneous
Total Employee Services		\$831,663	\$873,529	\$913,938	\$958,133	\$1,001,503	\$1,042,043	\$1,084,823	\$1,129,554	\$1,176,329	\$1,225,248	
Other Services	431-4335-572-20											
Insurance Premiums		\$25,557	\$26,324	\$27,113	\$27,927	\$28,765	\$29,628	\$30,516	\$31,432	\$32,375	\$33,346	As Insurance
Prof & Special Services		64,935	68,182	71,591	75,170	78,929	82,875	87,019	91,370	95,939	100,735	As Labor
Total Other Services		\$90,492	\$94,505	\$98,704	\$103,097	\$107,694	\$112,503	\$117,536	\$122,802	\$128,313	\$134,082	
Materials & Supplies	431-4335-572-30											
Materials & Supplies		\$1,080	\$1,112	\$1,146	\$1,180	\$1,216	\$1,252	\$1,290	\$1,328	\$1,368	\$1,409	As Materials & Supplies
Total Materials & Supplies		\$1,080	\$1,112	\$1,146	\$1,180	\$1,216	\$1,252	\$1,290	\$1,328	\$1,368	\$1,409	
Other Expenses	431-4335-572-40											
Training		\$372	\$391	\$410	\$431	\$452	\$475	\$499	\$523	\$550	\$577	As Labor
Meetings & Travel		900	927	955	983	1,013	1,043	1,075	1,107	1,140	1,174	As Materials & Supplies
Memberships		78	80	83	85	88	90	93	96	99	102	As Materials & Supplies
Total Other Expenses		\$1,350	\$1,398	\$1,448	\$1,499	\$1,553	\$1,609	\$1,666	\$1,726	\$1,789	\$1,853	
Total Other Support Services		\$924,585	\$970,545	\$1,015,235	\$1,063,909	\$1,111,965	\$1,157,407	\$1,205,314	\$1,255,410	\$1,307,799	\$1,362,592	

		Budget	Projected									
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Notes
Environmental Control	431-4341-572											
Employee Services	431-4341-572-10											
Salaries - Regular		\$470,416	\$493,937	\$518,634	\$544,565	\$571,794	\$600,383	\$630,402	\$661,923	\$695,019	\$729,770	As Labor
Salaries - Part Time/Temp		20,680	21,714	22,800	23,940	25,137	26,394	27,713	29,099	30,554	32,081	As Labor
Regular Overtime		28,200	29,610	31,091	32,645	34,277	35,991	37,791	39,680	41,664	43,747	As Labor
Stand By Time		18,800	19,740	20,727	21,763	22,852	23,994	25,194	26,453	27,776	29,165	As Labor
Employee Separation Pay		2,891	3,036	3,187	3,347	3,514	3,690	3,874	4,068	4,271	4,485	As Labor
Additional Pay		14,024	14,725	15,461	16,235	17,046	17,899	18,794	19,733	20,720	21,756	As Labor
Retirement		134,456	143,916	150,909	159,791	166,615	169,622	173,015	176,475	180,004	183,604	As Benefits - Retirement
Deferred Compensation		22,067	23,620	24,767	26,225	27,345	27,838	28,395	28,963	29,542	30,133	As Benefits - Retirement
Medicare		7,723	7,877	8,035	8,196	8,360	8,527	8,697	8,871	9,049	9,230	As Benefits - Medical
Health/Dental/Vision		76,986	78,526	80,096	81,698	83,332	84,999	86,699	88,433	90,201	92,005	As Benefits - Medical
L/T Disability Insurance		2,964	3,029	3,096	3,164	3,234	3,305	3,377	3,452	3,528	3,605	As Benefits - Other
Life Insurance		599	612	626	639	653	668	683	698	713	729	As Benefits - Other
Workers Compensation		20,225	20,670	21,125	21,589	22,064	22,550	23,046	23,553	24,071	24,601	As Benefits - Other
Unemployment Insurance		68	69	71	73	74	76	77	79	81	83	As Benefits - Other
Cell Phone Allowance		846	867	889	911	934	957	981	1,006	1,031	1,057	As Miscellaneous
Retirement Pension Bond		19,209	20,561	21,560	22,828	23,803	24,233	24,718	25,212	25,716	26,231	As Benefits - Retirement
Total Employee Services		\$840,154	\$882,509	\$923,072	\$967,609	\$1,011,033	\$1,051,125	\$1,093,456	\$1,137,697	\$1,183,941	\$1,232,281	
Other Services	431-4341-572-20											
Telephone		\$4,700	\$4,888	\$5,084	\$5,287	\$5,498	\$5,718	\$5,918	\$6,126	\$6,340	\$6,562	As Utilities
Maintenance & Repair Services		14,100	14,523	14,959	15,407	15,870	16,346	16,836	17,341	17,861	18,397	As Materials & Supplies
Uniform/Laundry Services		2,256	2,324	2,393	2,465	2,539	2,615	2,694	2,775	2,858	2,944	As Materials & Supplies
Duplication/Copy Costs		4,700	4,841	4,986	5,136	5,290	5,449	5,612	5,780	5,954	6,132	As Materials & Supplies
Insurance Premiums		24,594	25,332	26,092	26,875	27,681	28,511	29,367	30,248	31,155	32,090	As Insurance
Automotive Equipment Rental		39,728	41,317	42,970	44,689	46,476	48,335	49,785	51,279	52,817	54,402	As Equipment
Computer/Tech/Operation Support		72,427	75,324	78,337	81,471	84,729	88,119	90,762	93,485	96,289	99,178	As Equipment
Radio Equipment Rental		2,331	2,424	2,521	2,622	2,727	2,836	2,921	3,009	3,099	3,192	As Equipment
Telephone Rental		3,447	3,585	3,728	3,877	4,033	4,194	4,320	4,449	4,583	4,720	As Equipment
Publicity & Advertising		1,410	1,452	1,496	1,541	1,587	1,635	1,684	1,734	1,786	1,840	As Materials & Supplies
Printing & Mapping		1,410	1,452	1,496	1,541	1,587	1,635	1,684	1,734	1,786	1,840	As Materials & Supplies
Postage/Mailing Services		1,880	1,936	1,994	2,054	2,116	2,179	2,245	2,312	2,382	2,453	As Materials & Supplies
Processing Fees		2,820	2,905	2,992	3,081	3,174	3,269	3,367	3,468	3,572	3,679	As Materials & Supplies
Testing & Analysis Services		940	987	1,036	1,088	1,143	1,200	1,260	1,323	1,389	1,458	As Labor
Training Services		2,820	2,961	3,109	3,265	3,428	3,599	3,779	3,968	4,166	4,375	As Labor
Professional & Special Services		70,500	74,025	77,726	81,613	85,693	89,978	94,477	99,201	104,161	109,369	As Labor
Other Services		2,820	2,961	3,109	3,265	3,428	3,599	3,779	3,968	4,166	4,375	As Labor
Laboratory Services		37,600	39,480	41,454	43,527	45,703	47,988	50,388	52,907	55,552	58,330	As Labor
Total Other Services		\$290,483	\$302,717	\$315,483	\$328,802	\$342,701	\$357,204	\$370,876	\$385,106	\$399,917	\$415,335	
Materials & Supplies	431-4341-572-30											
Materials & Supplies		\$47,940	\$49,378	\$50,860	\$52,385	\$53,957	\$55,576	\$57,243	\$58,960	\$60,729	\$62,551	As Materials & Supplies
Computer Software		20,680	21,300	21,939	22,598	23,276	23,974	24,693	25,434	26,197	26,983	As Materials & Supplies
Fuels - Gas/Oil/Propane		5,666	5,836	6,011	6,191	6,377	6,568	6,766	6,968	7,178	7,393	As Materials & Supplies
Library Materials		1,880	1,936	1,994	2,054	2,116	2,179	2,245	2,312	2,382	2,453	As Materials & Supplies
Total Materials & Supplies		\$76,166	\$78,451	\$80,805	\$83,229	\$85,726	\$88,297	\$90,946	\$93,675	\$96,485	\$99,379	
Other Expenses	431-4341-572-40											
Training		\$13,160	\$13,818	\$14,509	\$15,234	\$15,996	\$16,796	\$17,636	\$18,517	\$19,443	\$20,415	As Labor
Meetings & Travel		470	484	499	514	529	545	561	578	595	613	As Materials & Supplies
Memberships		1,410	1,452	1,496	1,541	1,587	1,635	1,684	1,734	1,786	1,840	As Materials & Supplies
Retirement Expense		23,500	25,153	26,376	27,928	29,121	29,646	30,239	30,844	31,461	32,090	As Benefits - Retirement
Total Other Expenses		\$38,540	\$40,908	\$42,879	\$45,217	\$47,233	\$48,622	\$50,120	\$51,674	\$53,286	\$54,959	
Total Environmental Control		\$1,245,343	\$1,304,585	\$1,362,238	\$1,424,857	\$1,486,692	\$1,545,248	\$1,605,398	\$1,668,151	\$1,733,628	\$1,801,954	

	<i>Budget</i>	<i>Projected</i>									<i>Notes</i>
		FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	
In Lieu of Tax & Debt Services	431-4361-572										
Other Services	431-4361-572-20										
Special Reports		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	As Miscellaneous
Total Other Services		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total In Lieu of Tax & Debt Services		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Treatment Plant Maintenance	431-4331-575										
Employee Services	431-4331-575-10										
Salaries - Regular	\$1,477,460	\$1,551,333	\$1,628,900	\$1,710,345	\$1,795,862	\$1,885,655	\$1,979,938	\$2,078,935	\$2,182,881	\$2,292,025	As Labor
Regular Overtime	\$42,100	44,205	46,415	48,736	51,173	53,731	56,418	59,239	62,201	65,311	As Labor
Stand By Time (Call Back)	21,000	22,050	23,153	24,310	25,526	26,802	28,142	29,549	31,027	32,578	As Labor
Holiday Pay	2,200	2,310	2,426	2,547	2,674	2,808	2,948	3,096	3,250	3,413	As Labor
Employee Separation Pay	9,081	9,281	9,485	9,694	9,907	10,125	10,348	10,575	10,808	11,046	As Benefits - Other
Additional Pay	10,372	10,579	10,791	11,007	11,227	11,452	11,681	11,914	12,152	12,396	As Benefits - Medical
Retirement	397,246	425,196	445,855	472,098	492,258	501,143	511,166	521,389	531,817	542,454	As Benefits - Retirement
Deferred Compensation	78,386	83,901	87,978	93,156	97,134	98,887	100,865	102,882	104,940	107,039	As Benefits - Retirement
Medicare	21,939	22,422	22,915	23,419	23,934	24,461	24,999	25,549	26,111	26,685	As Benefits - Other
Health/Dental/Vision	239,148	244,409	249,786	255,282	260,898	266,638	272,504	278,499	284,626	290,887	As Benefits - Other
L-T Disability Insurance	9,278	9,482	9,691	9,904	10,122	10,344	10,572	10,805	11,042	11,285	As Benefits - Other
Life Insurance	2,166	2,214	2,262	2,312	2,363	2,415	2,468	2,522	2,578	2,635	As Benefits - Other
Workers' Compensation	116,519	119,082	121,702	124,380	127,116	129,913	132,771	135,692	138,677	141,728	As Benefits - Other
Unemployment Insurance	63	64	66	67	69	70	72	73	75	77	As Benefits - Other
Cell Phone Allowance	2,760	2,829	2,900	2,972	3,047	3,123	3,201	3,281	3,363	3,447	As Miscellaneous
Total Employee Services	\$2,429,718	\$2,549,358	\$2,664,323	\$2,790,227	\$2,913,308	\$3,027,567	\$3,148,091	\$3,274,000	\$3,405,548	\$3,543,005	
Other Services	431-4331-575-20										
Telephone	\$11,000	\$11,330	\$11,670	\$12,020	\$12,381	\$12,752	\$13,135	\$13,529	\$13,934	\$14,353	As Materials & Supplies
Maint & Repair Services	750,000	772,500	795,675	819,545	844,132	869,456	895,539	922,405	950,078	978,580	As Materials & Supplies
Uniform/Laundry Services	18,000	18,540	19,096	19,669	20,259	20,867	21,493	22,138	22,802	23,486	As Materials & Supplies
Duplicating/Copy Costs	700	721	743	765	788	811	836	861	887	913	As Materials & Supplies
Insurance Premiums	69,937	72,035	74,196	76,422	78,715	81,076	83,508	86,014	88,594	91,252	As Insurance
Automotive Equip Rental	231,571	240,834	250,467	260,486	270,905	281,742	290,194	298,900	307,867	317,103	As Equipment
Computer/Tech/Oper Supprt	115,100	119,704	124,492	129,472	134,651	140,037	144,238	148,565	153,022	157,613	As Equipment
Radio Equipment Rental	14,643	15,229	15,838	16,471	17,130	17,815	18,350	18,900	19,467	20,051	As Equipment
Other Rentals	30,000	31,200	32,448	33,746	35,096	36,500	37,595	38,722	39,884	41,081	As Equipment
Telephone Rental	4,191	4,317	4,446	4,580	4,717	4,859	5,004	5,154	5,309	5,468	As Materials & Supplies
Publicity & Advertising	2,200	2,266	2,334	2,404	2,476	2,550	2,627	2,706	2,787	2,871	As Materials & Supplies
Postage/Mailing Services	1,800	1,854	1,910	1,967	2,026	2,087	2,149	2,214	2,280	2,349	As Materials & Supplies
Processing Fees	200	206	212	219	225	232	239	246	253	261	As Materials & Supplies
Legal Services	5,000	5,250	5,513	5,788	6,078	6,381	6,700	7,036	7,387	7,757	As Labor
Engineering Services	300,000	315,000	330,750	347,288	364,652	382,884	402,029	422,130	443,237	465,398	As Labor
Testing & Analysis Servc	800	840	882	926	972	1,021	1,072	1,126	1,182	1,241	As Labor
Training Services	4,000	4,200	4,410	4,631	4,862	5,105	5,360	5,628	5,910	6,205	As Labor
Prof & Special Services	20,000	21,000	22,050	23,153	24,310	25,526	26,802	28,142	29,549	31,027	As Labor
Other Services	79,000	82,950	87,098	91,452	96,025	100,826	105,868	111,161	116,719	122,555	As Labor
Total Other Services	\$1,658,142	\$1,719,975	\$1,784,229	\$1,851,002	\$1,920,399	\$1,992,527	\$2,062,738	\$2,135,576	\$2,211,148	\$2,289,562	

		Budget	Projected									
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Notes
Materials & Supplies	431-4331-575-30											
Materials & Supplies		\$977,000	\$1,006,310	\$1,036,499	\$1,067,594	\$1,099,622	\$1,132,611	\$1,166,589	\$1,201,587	\$1,237,634	\$1,274,763	As Materials & Supplies
Computer Software		1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267	1,305	As Materials & Supplies
Fuels-Gas/Oil/Propane		26,507	27,302	28,121	28,965	29,834	30,729	31,651	32,600	33,578	34,586	As Materials & Supplies
Total Materials & Supplies		\$1,004,507	\$1,034,642	\$1,065,681	\$1,097,652	\$1,130,581	\$1,164,499	\$1,199,434	\$1,235,417	\$1,272,479	\$1,310,654	
Other Expenses	431-4331-575-40											
Training		\$20,000	\$21,000	\$22,050	\$23,153	\$24,310	\$25,526	\$26,802	\$28,142	\$29,549	\$31,027	As Labor
Meetings & Travel		250	258	265	273	281	290	299	307	317	326	As Materials & Supplies
Retirement Expense		175,000	187,313	196,414	207,975	216,856	220,770	225,186	229,689	234,283	238,969	As Benefits - Retirement
Vehicle Acquisition	431-4331-606-60-94	75,000	78,000	81,120	84,365	87,739	91,249	93,986	96,806	99,710	102,702	As Equipment
Equipment Acquisition	431-4331-606-60-96	335,000	348,400	362,336	376,829	391,903	407,579	419,806	432,400	445,372	458,733	As Equipment
Capital Maintenance	431-4331-606-60-97	300,000	312,000	324,480	337,459	350,958	364,996	375,946	387,224	398,841	410,806	As Equipment
Total Other Expenses		\$905,250	\$946,970	\$986,665	\$1,030,054	\$1,072,047	\$1,110,409	\$1,142,024	\$1,174,569	\$1,208,072	\$1,242,563	
Total Treatment Plant Maintenance		\$5,997,617	\$6,250,946	\$6,500,899	\$6,768,936	\$7,036,335	\$7,295,001	\$7,552,287	\$7,819,562	\$8,097,248	\$8,385,783	
Sanitary Pump Stations	431-4333-575											
Employee Services	431-4333-575-10											
Salaries - Regular		\$812,733	\$853,370	\$896,038	\$940,840	\$987,882	\$1,037,276	\$1,089,140	\$1,143,597	\$1,200,777	\$1,260,816	As Labor
Regular Overtime		55,000	57,750	60,638	63,669	66,853	70,195	73,705	77,391	81,260	85,323	As Labor
Stand By Time (Call Back)		21,000	22,050	23,153	24,310	25,526	26,802	28,142	29,549	31,027	32,578	As Labor
Holiday Pay		1,000	1,050	1,103	1,158	1,216	1,276	1,340	1,407	1,477	1,551	As Labor
Employee Seperation Pay		4,995	5,105	5,217	5,332	5,449	5,569	5,692	5,817	5,945	6,076	As Benefits - Other
Additional Pay		8,146	8,309	8,475	8,645	8,817	8,994	9,174	9,357	9,544	9,735	As Benefits - Medical
Retirement		221,560	237,149	248,671	263,308	274,552	279,508	285,098	290,800	296,616	302,548	As Benefits - Retirement
Deferred Compensation		43,732	46,809	49,083	51,972	54,192	55,170	56,273	57,399	58,547	59,718	As Benefits - Retirement
Medicare		12,697	12,976	13,262	13,554	13,852	14,156	14,468	14,786	15,112	15,444	As Benefits - Other
Health/Dental/Vision		129,729	132,583	135,500	138,481	141,527	144,641	147,823	151,075	154,399	157,796	As Benefits - Other
L-T Disability Insurance		5,120	5,233	5,348	5,465	5,586	5,709	5,834	5,962	6,094	6,228	As Benefits - Other
Life Insurance		1,173	1,199	1,225	1,252	1,280	1,308	1,337	1,366	1,396	1,427	As Benefits - Other
Workers' Compensation		67,876	69,369	70,895	72,455	74,049	75,678	77,343	79,045	80,784	82,561	As Benefits - Other
Unemployment Insurance		75	77	78	80	82	84	85	87	89	91	As Benefits - Other
Cell Phone Allowance		1,404	1,435	1,466	1,499	1,532	1,565	1,600	1,635	1,671	1,708	As Benefits - Other
Total Employee Services		\$1,386,240	\$1,454,463	\$1,520,152	\$1,592,020	\$1,662,393	\$1,727,931	\$1,797,054	\$1,869,273	\$1,944,737	\$2,023,599	

		Budget	Projected									
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Notes
Other Services	431-4331-575-20											
Electricity		\$1,100,000	\$1,144,000	\$1,189,760	\$1,237,350	\$1,286,844	\$1,338,318	\$1,385,159	\$1,433,640	\$1,483,817	\$1,535,751	As Utilities
Gas		8,500	8,840	9,194	9,561	9,944	10,342	10,704	11,078	11,466	11,867	As Utilities
Water		51,000	53,040	55,162	57,368	59,663	62,049	64,221	66,469	68,795	71,203	As Utilities
Telephone		15,000	15,600	16,224	16,873	17,548	18,250	18,889	19,550	20,234	20,942	As Utilities
Storm Water		1,100	1,144	1,190	1,237	1,287	1,338	1,385	1,434	1,484	1,536	As Utilities
Maint. & Repair Services		431,500	444,445	457,778	471,512	485,657	500,227	515,234	530,691	546,611	563,010	As Materials & Supplies
Duplication/Copy Costs		500	515	530	546	563	580	597	615	633	652	As Materials & Supplies
Insurance Premiums		40,399	41,611	42,859	44,145	45,469	46,834	48,239	49,686	51,176	52,712	As Insurance
Automotive Equip Rental		133,102	138,426	143,963	149,722	155,711	161,939	166,797	171,801	176,955	182,264	As Equipment
Computer/Tech/Oper Supprt		65,382	67,997	70,717	73,546	76,488	79,547	81,934	84,392	86,923	89,531	As Equipment
Radio Equipment Rental		10,850	11,284	11,735	12,205	12,693	13,201	13,597	14,005	14,425	14,857	As Equipment
Other Services		1,500	1,575	1,654	1,736	1,823	1,914	2,010	2,111	2,216	2,327	As Labor
Pool Vehicle Rental		320	333	346	360	374	389	401	413	425	438	As Equipment
Telephone Rental		524	540	556	573	590	607	626	644	664	684	As Materials & Supplies
Printing & Mapping		250	258	265	273	281	290	299	307	317	326	As Materials & Supplies
Postage/Mailing Services		100	103	106	109	113	116	119	123	127	130	As Materials & Supplies
Processing Fees		1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267	1,305	As Materials & Supplies
Testing & Analysis Servcs		1,000	1,050	1,103	1,158	1,216	1,276	1,340	1,407	1,477	1,551	As Labor
Other Services		46,000	48,300	50,715	53,251	55,913	58,709	61,644	64,727	67,963	71,361	As Labor
Total Other Services		\$1,908,027	\$1,980,090	\$2,054,918	\$2,132,618	\$2,213,302	\$2,297,085	\$2,374,387	\$2,454,321	\$2,536,976	\$2,622,447	
Materials & Supplies	431-4333-575-30											
Materials & Supplies		\$644,500	\$663,835	\$683,750	\$704,263	\$725,390	\$747,152	\$769,567	\$792,654	\$816,433	\$840,926	As Materials & Supplies
Fuels-Gas/Oil/Propane		33,705	35,053	36,455	37,914	39,430	41,007	42,443	43,928	45,466	47,057	As Utilities
Total Materials & Supplies		\$678,205	\$698,888	\$720,205	\$742,176	\$764,821	\$788,159	\$812,009	\$836,582	\$861,899	\$887,983	
Other Expenses	431-4333-575-40											
Training		\$17,000	\$17,850	\$18,743	\$19,680	\$20,664	\$21,697	\$22,782	\$23,921	\$25,117	\$26,373	As Labor
Taxes		8,000	8,240	8,487	8,742	9,004	9,274	9,552	9,839	10,134	10,438	As Materials & Supplies
Vehicle Acquisition	431-4333-606-60-94	55,000	57,200	59,488	61,868	64,342	66,916	68,923	70,991	73,121	75,314	As Equipment
Equipment Acquisition	431-4333-606-60-96	108,000	112,320	116,813	121,485	126,345	131,399	135,340	139,401	143,583	147,890	As Equipment
Radio Equipment Rental (2)	431-4333-571-20	895	931	968	1,007	1,047	1,089	1,122	1,155	1,190	1,226	As Equipment
Telephone Rental (2)	431-4333-571-20	524	545	567	589	613	638	657	676	697	718	As Equipment
Total Other Expenses		\$189,419	\$197,086	\$205,065	\$213,370	\$222,015	\$231,012	\$238,376	\$245,983	\$253,841	\$261,959	
Total Sanitary Pump Stations		\$4,161,891	\$4,330,527	\$4,500,341	\$4,680,184	\$4,862,530	\$5,044,188	\$5,221,827	\$5,406,159	\$5,597,452	\$5,795,988	
Regulatory Compliance	431-4342-572											
Employee Services	431-4342-572-10											
Employee Separation Pay		\$398	\$407	\$416	\$425	\$434	\$444	\$454	\$463	\$474	\$484	As Benefits - Other
Retirement Pension Bond		2,514	2,691	2,822	2,988	3,115	3,172	3,235	3,300	3,366	3,433	As Benefits - Retirement
Total Employee Services		\$2,912	\$3,098	\$3,237	\$3,413	\$3,549	\$3,615	\$3,688	\$3,763	\$3,839	\$3,917	
Other Services	431-4342-572-20											
Maint. & Repair Services		\$800	\$824	\$849	\$874	\$900	\$927	\$955	\$984	\$1,013	\$1,044	As Materials & Supplies
Computer/Tech/Oper Supprt		1,122	1,167	1,214	1,263	1,313	1,366	1,407	1,449	1,492	1,537	As Equipment
Telephone Rental		419	432	445	458	472	486	501	516	531	547	As Materials & Supplies
Postage/Mailing Services		1,200	1,236	1,273	1,311	1,351	1,391	1,433	1,476	1,520	1,566	As Materials & Supplies
Processing Fees		60,000	61,800	63,654	65,564	67,531	69,556	71,643	73,792	76,006	78,286	As Materials & Supplies
Prof & Special Services		40,000	42,000	44,100	46,305	48,620	51,051	53,604	56,284	59,098	62,053	As Labor
Total Other Services		\$103,542	\$107,459	\$111,535	\$115,775	\$120,187	\$124,778	\$129,542	\$134,500	\$139,661	\$145,033	

		Budget	Projected									
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Notes
Maint. & Repair Services	431-4342-572-30											
Maint. & Repair Services (2)		\$4,000	\$4,120	\$4,244	\$4,371	\$4,502	\$4,637	\$4,776	\$4,919	\$5,067	\$5,219	As Materials & Supplies
Total Maint. & Repair Services		\$4,000	\$4,120	\$4,244	\$4,371	\$4,502	\$4,637	\$4,776	\$4,919	\$5,067	\$5,219	
Other Expenses	431-4342-572-40											
Training		\$4,480	\$4,704	\$4,939	\$5,186	\$5,445	\$5,718	\$6,004	\$6,304	\$6,619	\$6,950	As Labor
Meetings & Travel		1,200	1,236	1,273	1,311	1,351	1,391	1,433	1,476	1,520	1,566	As Materials & Supplies
Memberships		360	371	382	393	405	417	430	443	456	470	As Materials & Supplies
Total Other Expenses		\$6,040	\$6,311	\$6,594	\$6,891	\$7,201	\$7,526	\$7,866	\$8,222	\$8,595	\$8,985	
Total Regulatory Compliance		\$116,494	\$120,988	\$125,610	\$130,449	\$135,439	\$140,556	\$145,873	\$151,406	\$157,163	\$163,155	
Safety Services	431-4343-572											
Employee Services	431-4343-572-10											
Salaries - Regular		\$135,269	\$142,033	\$149,134	\$156,591	\$164,421	\$172,642	\$181,274	\$190,337	\$199,854	\$209,847	As Labor
Regular Overtime		750	788	827	868	912	957	1,005	1,055	1,108	1,163	As Labor
Employee Separation Pay		832	873	917	963	1,011	1,062	1,115	1,170	1,229	1,290	As Labor
Retirement		36,658	39,237	41,143	43,565	45,425	46,245	47,170	48,114	49,076	50,057	As Benefits - Retirement
Deferred Compensation		2,458	2,631	2,758	2,921	3,046	3,101	3,163	3,226	3,290	3,356	As Benefits - Retirement
Medicare		1,910	1,948	1,987	2,027	2,068	2,109	2,151	2,194	2,238	2,283	As Benefits - Medical
Health/Dental/Vision		20,475	20,885	21,302	21,728	22,163	22,606	23,058	23,519	23,990	24,470	As Benefits - Medical
L/T Disability Insurance		852	869	886	904	922	941	959	979	998	1,018	As Benefits - Medical
Life Insurance		181	185	189	193	197	202	206	210	215	220	As Benefits - Other
Workers Compensation		3,122	3,191	3,261	3,333	3,406	3,481	3,558	3,636	3,716	3,798	As Benefits - Other
Unemployment Insurance		1	1	1	1	1	1	1	1	1	1	As Benefits - Other
Cell Phone Allowance		900	923	946	969	993	1,018	1,044	1,070	1,097	1,124	As Miscellaneous
Retirement Pension Bond		5,237	5,606	5,878	6,224	6,490	6,607	6,739	6,874	7,011	7,152	As Benefits - Retirement
Total Employee Services		\$208,645	\$219,168	\$229,230	\$240,288	\$251,054	\$260,971	\$271,443	\$282,386	\$293,824	\$305,779	
Other Services	431-4343-572-20											
Maint. & Repair Services		\$1,875	\$1,931	\$1,989	\$2,049	\$2,110	\$2,174	\$2,239	\$2,306	\$2,375	\$2,446	As Materials & Supplies
Uniform/Laundry Services		750	773	796	820	844	869	896	922	950	979	As Materials & Supplies
Duplication/Copy Costs		2,250	2,318	2,387	2,459	2,532	2,608	2,687	2,767	2,850	2,936	As Materials & Supplies
Insurance Premiums		6,142	6,326	6,516	6,711	6,913	7,120	7,334	7,554	7,780	8,014	As Insurance
Computer/Tech/Oper Supprt		7,774	8,085	8,408	8,744	9,094	9,458	9,742	10,034	10,335	10,645	As Equipment
Radio Equipment Rental		1,418	1,475	1,534	1,595	1,659	1,726	1,777	1,831	1,886	1,942	As Equipment
Telephone Rental		1,572	1,635	1,700	1,768	1,839	1,913	1,970	2,029	2,090	2,153	As Equipment
Postage/Mailing Services		188	193	199	205	211	217	224	231	238	245	As Materials & Supplies
Training Services		138,750	145,688	152,972	160,620	168,651	177,084	185,938	195,235	204,997	215,247	As Labor
Prof & Special Services		90,000	94,500	99,225	104,186	109,396	114,865	120,609	126,639	132,971	139,620	As Labor
Other Services		216,375	227,194	238,553	250,481	263,005	276,155	289,963	304,461	319,684	335,669	As Labor
Total Other Services		\$467,093	\$490,116	\$514,279	\$539,639	\$566,255	\$594,190	\$623,377	\$654,009	\$686,156	\$719,894	
Materials & Supplies	431-4343-572-30											
Materials And Supplies		\$105,000	\$108,150	\$111,395	\$114,736	\$118,178	\$121,724	\$125,375	\$129,137	\$133,011	\$137,001	As Materials & Supplies
Computer Software		5,625	5,794	5,968	6,147	6,331	6,521	6,717	6,918	7,126	7,339	As Materials & Supplies
Subscription-Periodical		3,075	3,167	3,262	3,360	3,461	3,565	3,672	3,782	3,895	4,012	As Materials & Supplies
Library Materials		750	773	796	820	844	869	896	922	950	979	As Materials & Supplies
Total Materials & Supplies		\$114,450	\$117,884	\$121,420	\$125,063	\$128,814	\$132,679	\$136,659	\$140,759	\$144,982	\$149,331	

		Budget	Projected									
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Notes
Other Expenses	431-4343-572-40											
Training		\$1,875	\$1,969	\$2,067	\$2,171	\$2,279	\$2,393	\$2,513	\$2,638	\$2,770	\$2,909	As Labor
Memberships		750	773	796	820	844	869	896	922	950	979	As Materials & Supplies
Total Other Expenses		\$2,625	\$2,741	\$2,863	\$2,990	\$3,123	\$3,262	\$3,408	\$3,561	\$3,720	\$3,887	
Total Safety Services		\$792,813	\$829,909	\$867,793	\$907,979	\$949,247	\$991,102	\$1,034,888	\$1,080,715	\$1,128,682	\$1,178,892	
SCADA Services	431-4344-572											
Employee Services	431-4344-572-10											
Salaries - Regular		\$169,479	\$177,953	\$186,850	\$196,193	\$206,002	\$216,302	\$227,118	\$238,473	\$250,397	\$262,917	As Labor
Regular Overtime		1,100	1,155	1,213	1,273	1,337	1,404	1,474	1,548	1,625	1,706	As Labor
Holiday Pay		110	112	115	117	120	123	125	128	131	134	As Benefits - Other
Employee Separation Pay		1,042	1,065	1,088	1,112	1,136	1,161	1,187	1,213	1,240	1,267	As Benefits - Other
Retirement		45,929	49,160	51,549	54,583	56,914	57,941	59,100	60,282	61,488	62,717	As Benefits - Retirement
Deferred Compensation		1,801	1,927	2,021	2,140	2,231	2,272	2,317	2,363	2,411	2,459	As Benefits - Retirement
Medicare		2,427	2,475	2,525	2,575	2,627	2,679	2,733	2,787	2,843	2,900	As Benefits - Medical
Health/Dental/Vision		24,024	24,504	24,995	25,494	26,004	26,524	27,055	27,596	28,148	28,711	As Benefits - Medical
L/T Disability Insurance		1,068	1,089	1,111	1,133	1,156	1,179	1,202	1,226	1,251	1,276	As Benefits - Medical
Life Insurance		203	207	211	215	220	224	229	233	238	243	As Benefits - Medical
Workers Compensation		5,670	5,795	5,922	6,052	6,186	6,322	6,461	6,603	6,748	6,897	As Benefits - Other
Unemployment Insurance		1	1	1	1	1	1	1	1	1	1	As Benefits - Other
Cell Phone Allowance		660	677	693	711	729	747	765	785	804	824	As Miscellaneous
Retirement Pension Bond		6,562	7,024	7,365	7,799	8,132	8,278	8,444	8,613	8,785	8,961	As Benefits - Retirement
Total Employee Services		\$260,074	\$273,144	\$285,659	\$299,399	\$312,794	\$325,158	\$338,211	\$351,852	\$366,110	\$381,013	
Other Services	431-4344-572-20											
Telephone		\$18,150	\$18,695	\$19,255	\$19,833	\$20,428	\$21,041	\$21,672	\$22,322	\$22,992	\$23,682	As Materials & Supplies
Insurance Premiums		7,693	7,924	8,162	8,407	8,659	8,919	9,186	9,462	9,746	10,038	As Insurance
Computer/Tech/Oper Supprt		66,097	68,741	71,490	74,350	77,324	80,417	82,829	85,314	87,874	90,510	As Equipment
Telephone Rental		1,153	1,199	1,247	1,297	1,349	1,403	1,445	1,488	1,533	1,579	As Equipment
Publicity & Advertising		550	567	583	601	619	638	657	676	697	718	As Materials & Supplies
Prof & Special Services		30,250	31,763	33,351	35,018	36,769	38,608	40,538	42,565	44,693	46,928	As Labor
Total Other Services		\$123,893	\$128,887	\$134,089	\$139,506	\$145,148	\$151,024	\$156,327	\$161,828	\$167,534	\$173,454	
Materials & Supplies	431-4344-572-30											
Materials & Supplies		\$23,650	\$24,360	\$25,090	\$25,843	\$26,618	\$27,417	\$28,239	\$29,087	\$29,959	\$30,858	As Materials & Supplies
Computer Software		90,255	92,963	95,752	98,624	101,583	104,630	107,769	111,002	114,332	117,762	As Materials & Supplies
Total Materials & Supplies		\$113,905	\$117,322	\$120,842	\$124,467	\$128,201	\$132,047	\$136,009	\$140,089	\$144,291	\$148,620	
Other Expenses	431-4344-572-40											
Meetings & Travel		\$3,300	\$3,383	\$3,467	\$3,554	\$3,643	\$3,734	\$3,827	\$3,923	\$4,021	\$4,121	As Miscellaneous
Total Other Expenses		\$3,300	\$3,383	\$3,467	\$3,554	\$3,643	\$3,734	\$3,827	\$3,923	\$4,021	\$4,121	
Total SCADA Services		\$501,172	\$522,736	\$544,056	\$566,926	\$589,785	\$611,963	\$634,374	\$657,691	\$681,956	\$707,208	

	Budget	Projected									Notes
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	
Outreach & Training Services	431-4344-572										
Employee Services	431-4344-572-10										
Salaries - Regular	\$37,227	\$39,088	\$41,043	\$43,095	\$45,250	\$47,512	\$49,888	\$52,382	\$55,001	\$57,751	As Labor
Regular Overtime	488	512	537	564	593	622	653	686	720	756	As Labor
Employee Separation Pay	229	234	239	244	250	255	261	266	272	278	As Benefits - Other
Retirement	10,088	10,798	11,323	11,989	12,501	12,727	12,981	13,241	13,506	13,776	As Benefits - Retirement
Medicare	547	558	569	580	592	604	616	628	641	653	As Benefits - Medical
Health/Dental/Vision	4,095	4,177	4,260	4,346	4,433	4,521	4,612	4,704	4,798	4,894	As Benefits - Medical
L/T Disability Insurance	235	239	244	249	254	259	264	270	275	281	As Benefits - Medical
Life Insurance	38	38	39	40	41	41	42	43	44	45	As Benefits - Medical
Workers Compensation	860	878	898	917	938	958	979	1,001	1,023	1,045	As Benefits - Other
Unemployment Insurance	1	1	1	1	1	1	1	1	1	1	As Benefits - Other
Retirement Pension Bond	1,441	1,542	1,617	1,712	1,785	1,818	1,854	1,891	1,929	1,967	As Benefits - Retirement
Total Employee Services	\$55,247	\$58,066	\$60,770	\$63,738	\$66,636	\$69,318	\$72,151	\$75,113	\$78,210	\$81,448	
Other Services	431-4344-572-20										
Insurance Premiums	\$1,700	\$1,751	\$1,804	\$1,858	\$1,913	\$1,971	\$2,030	\$2,091	\$2,154	\$2,218	As Insurance
Printing & Mapping	750	769	788	808	828	849	870	892	914	937	As Miscellaneous
Duplication/Copy Costs	15,000	15,450	15,914	16,391	16,883	17,389	17,911	18,448	19,002	19,572	As Materials & Supplies
Publicity & Advertising	30,000	30,900	31,827	32,782	33,765	34,778	35,822	36,896	38,003	39,143	As Materials & Supplies
Postage/Mailing Services	1,500	1,545	1,591	1,639	1,688	1,739	1,791	1,845	1,900	1,957	As Materials & Supplies
Processing Fees	1,500	1,545	1,591	1,639	1,688	1,739	1,791	1,845	1,900	1,957	As Materials & Supplies
Training Services	1,500	1,575	1,654	1,736	1,823	1,914	2,010	2,111	2,216	2,327	As Labor
Prof & Special Services	10,000	10,500	11,025	11,576	12,155	12,763	13,401	14,071	14,775	15,513	As Labor
Total Other Services	\$61,950	\$64,035	\$66,193	\$68,429	\$70,744	\$73,142	\$75,625	\$78,198	\$80,863	\$83,624	
Materials & Supplies	431-4344-572-30										
Computer Software	\$3,750	\$3,863	\$3,978	\$4,098	\$4,221	\$4,347	\$4,478	\$4,612	\$4,750	\$4,893	As Materials & Supplies
Subscription-Periodical	1,875	1,931	1,989	2,049	2,110	2,174	2,239	2,306	2,375	2,446	As Materials & Supplies
Total Materials & Supplies	\$5,625	\$5,794	\$5,968	\$6,147	\$6,331	\$6,521	\$6,717	\$6,918	\$7,126	\$7,339	
Other Expenses	431-4344-572-40										
Meetings & Travel	\$375	\$386	\$398	\$410	\$422	\$435	\$448	\$461	\$475	\$489	As Materials & Supplies
Memberships	375	386	398	410	422	435	448	461	475	489	As Materials & Supplies
Car Mileage Reimbursement	188	194	199	205	212	218	224	231	238	245	As Materials & Supplies
Training	1,500	1,575	1,654	1,736	1,823	1,914	2,010	2,111	2,216	2,327	As Labor
Total Other Expenses	\$2,438	\$2,541	\$2,649	\$2,761	\$2,879	\$3,002	\$3,130	\$3,264	\$3,404	\$3,551	
Total Outreach & Training Services	\$125,260	\$130,435	\$135,580	\$141,075	\$146,590	\$151,983	\$157,623	\$163,493	\$169,603	\$175,962	
Total Operations & Maintenance	\$50,042,029	\$53,429,654	\$54,320,546	\$56,600,865	\$58,903,982	\$61,180,173	\$63,418,106	\$65,745,306	\$68,165,592	\$70,682,956	
Taxes & Transfers											
Taxes & Transfers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total Taxes & Transfers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Rate Funded Capital	\$10,000,000	\$10,500,000	\$11,000,000	\$11,500,000	\$12,000,000	\$13,000,000	\$14,000,000	\$15,000,000	\$16,000,000	\$17,000,000	FY 2017 Depr Exp = \$7,649,189

	<i>Budget</i>	<i>Projected</i>									
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Notes
Debt Service											
2014 Revenue Bond	\$6,494,700	\$6,487,125	\$6,492,375	\$6,487,625	\$6,487,500	\$6,486,375	\$6,698,250	\$6,692,375	\$6,693,250	\$6,695,000	Exhibit 5
BAN Interest (\$125.5 m @ 2.5%)	0	3,137,625	3,137,625	3,137,625	0	0	0	0	0	0	Exhibit 5
2022 Issuance (\$241.7 m @ 5.0%)	0	0	0	0	12,083,000	12,083,000	12,083,000	12,083,000	12,083,000	12,083,000	Exhibit 5
2024 Issuance (\$58.6 m @ 5.0%)	0	0	0	0	0	0	3,531,250	3,531,250	3,529,750	3,526,750	Exhibit 5
Assumed Revenue Bond	0	0	0	0	0	0	0	0	0	0	Calc'd @ 5% for 30 yrs
<i>Total Debt Service</i>	<i>\$6,494,700</i>	<i>\$9,624,750</i>	<i>\$9,630,000</i>	<i>\$9,625,250</i>	<i>\$18,570,500</i>	<i>\$18,569,375</i>	<i>\$22,312,500</i>	<i>\$22,306,625</i>	<i>\$22,306,000</i>	<i>\$22,304,750</i>	
<i>Less: Debt Service Funding</i>											
Connection Fees (434 Fund)	\$2,750,000	\$2,750,000	\$2,750,000	\$500,000	\$1,830,503	\$1,848,808	\$1,867,296	\$1,885,969	\$1,904,828	\$1,923,877	
Bond Defeasance (431 Fund)	0	0	0	0	0	0	0	0	0	0	
Bond Defeasance (434 Fund)	0	0	0	0	0	0	0	0	0	0	
<i>Total Less Debt Service Funding</i>	<i>\$2,750,000</i>	<i>\$2,750,000</i>	<i>\$2,750,000</i>	<i>\$500,000</i>	<i>\$1,830,503</i>	<i>\$1,848,808</i>	<i>\$1,867,296</i>	<i>\$1,885,969</i>	<i>\$1,904,828</i>	<i>\$1,923,877</i>	
Net Debt Service	\$3,744,700	\$6,874,750	\$6,880,000	\$9,125,250	\$16,739,997	\$16,720,567	\$20,445,204	\$20,420,656	\$20,401,172	\$20,380,873	
To / (From) Reserves											
Operating Fund - Sewer (431)	\$0	\$76,166	\$51,050	\$44,702	(\$7,252)	\$50,514	\$67,400	\$88,687	\$31,385	\$24,617	
Capital Fund - Sewer	3,200,000	800,000	4,400,000	4,700,000	0	2,750,000	1,800,000	4,900,000	8,400,000	12,200,000	
Rate Stabilization Fund - Sewer (438)	0	0	0	0	0	0	0	0	0	0	
<i>Total To / (From) Reserves</i>	<i>\$3,200,000</i>	<i>\$876,166</i>	<i>\$4,451,050</i>	<i>\$4,744,702</i>	<i>(\$7,252)</i>	<i>\$2,800,514</i>	<i>\$1,867,400</i>	<i>\$4,988,687</i>	<i>\$8,431,385</i>	<i>\$12,224,617</i>	
Total Revenue Requirement	\$66,986,729	\$71,680,570	\$76,651,596	\$81,970,817	\$87,636,727	\$93,701,254	\$99,730,711	\$106,154,649	\$112,998,149	\$120,288,446	
Bal / (Def) of Funds	\$61,102	(\$3,949,917)	(\$8,218,198)	(\$12,827,714)	(\$17,802,954)	(\$23,170,142)	(\$28,494,398)	(\$34,205,713)	(\$40,329,840)	(\$46,894,222)	
Bal as a % of Rate Adj	-0.1%	6.0%	12.4%	19.1%	26.2%	33.8%	41.2%	48.9%	57.1%	65.8%	
Proposed Rate Adjustment	0.0%	6.0%	6.0%	6.0%	6.0%	6.0%	5.5%	5.5%	5.5%	5.5%	
Add'l Revenue with Rate Adj	\$0	\$3,949,917	\$8,218,198	\$12,827,714	\$17,802,954	\$23,170,142	\$28,494,398	\$34,205,713	\$40,329,840	\$46,894,222	
Bal / (Def) After Rate Adj	\$61,102	(\$0)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total Balance as a % of Rates	-0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Additional Rate Adjustment Required	-0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Average Residential Customer Bill											
Customer Bill on Proposed Adj.	\$42.06	\$44.58	\$47.26	\$50.09	\$53.10	\$56.29	\$59.38	\$62.65	\$66.09	\$69.73	
Bill Difference - Monthly		2.52	2.68	2.84	3.01	3.19	3.10	3.27	3.45	3.64	
Cumulative Bill Difference		2.52	5.20	8.03	11.04	14.23	17.32	20.59	24.03	27.67	
Debt Service Coverage Ratio (all debt) - No Connection Fees											
Before Rate Adjustment	2.62	1.49	1.47	1.30	0.59	0.50	0.35	0.28	0.20	0.12	Target 1.00
After Proposed Rate Adjustment	2.62	1.90	2.32	2.64	1.55	1.75	1.63	1.81	2.01	2.22	Target 1.00
Debt Service Coverage Ratio (all debt) - Plus Connection Fees											
Before Rate Adjustment	2.89	1.67	1.65	1.49	0.69	0.60	0.43	0.36	0.29	0.21	Target 1.25
After Proposed Rate Adjustment	2.89	2.08	2.51	2.82	1.65	1.85	1.71	1.90	2.10	2.31	Target 1.25
Debt Service Coverage Ratio (all debt) - Plus Conn Fees & Rate Stabilization											
Before Rate Adjustment	4.74	2.92	2.91	2.76	1.35	1.27	1.00	0.93	0.86	0.79	Target 1.25
After Proposed Rate Adjustment	4.74	3.33	3.77	4.09	2.31	2.52	2.28	2.47	2.67	2.89	Target 1.25

	<i>Budget</i>	<i>Projected</i>									
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Notes
Cash Reserves											
Beginning Reserve Balances	\$86,475,885	\$79,825,877	\$153,983,668	\$89,792,151	\$137,834,490	\$75,387,496	\$89,077,507	\$40,180,154	\$32,257,137	\$37,132,321	
<i>Operating Fund - Sewer (431)</i>											
Beginning Balance	\$6,256,027	\$6,256,027	\$6,332,193	\$6,383,243	\$6,427,945	\$6,420,693	\$6,471,207	\$6,538,607	\$6,627,294	\$6,658,679	
Plus: Additions	0	76,166	51,050	44,702	0	50,514	67,400	88,687	31,385	24,617	
Repayment to 434	0	0	0	0	0	0	0	0	0	0	
Less: Bond Defeasance	0	0	0	0	0	0	0	0	0	0	
Less: Uses of Funds	0	0	0	0	(7,252)	0	0	0	0	0	
Ending Balance	\$6,256,027	\$6,332,193	\$6,383,243	\$6,427,945	\$6,420,693	\$6,471,207	\$6,538,607	\$6,627,294	\$6,658,679	\$6,683,296	
<i>Capital Fund - Sewer</i>											
Beginning Balance	\$60,000,000	\$58,435,876	\$59,235,876	\$63,635,876	\$68,335,876	\$56,398,448	\$59,148,448	\$20,820,568	\$12,680,655	\$17,394,961	
Plus: Additions	3,200,000	800,000	4,400,000	4,700,000	0	2,750,000	1,800,000	4,900,000	8,400,000	12,200,000	
Less: Uses of Funds	(4,764,124)	0	0	0	(11,937,428)	0	(40,127,880)	(13,039,913)	(3,685,694)	0	
Ending Balance	\$58,435,876	\$59,235,876	\$63,635,876	\$68,335,876	\$56,398,448	\$59,148,448	\$20,820,568	\$12,680,655	\$17,394,961	\$29,594,961	
Target Minimum - 6 mo. of O&M	\$25,021,014	\$26,714,827	\$27,160,273	\$28,300,432	\$29,451,991	\$30,590,087	\$31,709,053	\$32,872,653	\$34,082,796	\$35,341,478	50.0% O&M
Target Ending Bal. / (Def.)	\$39,670,888	\$38,853,242	\$42,858,846	\$46,463,389	\$33,367,150	\$35,029,568	(\$4,349,878)	(\$13,564,704)	(\$10,029,156)	\$936,779	
<i>Long-Term Debt Proceeds Fund</i>											
Beginning Balance	\$0	\$0	\$74,411,717	\$6,967,116	\$50,626,753	\$0	\$10,763,814	\$0	\$0	\$0	
Plus: Additions	0	74,411,717	0	43,659,637	0	10,763,814	0	0	0	0	
Less: Uses of Funds	0	0	(67,444,601)	0	(50,626,753)	0	(10,763,814)	0	0	0	
Ending Balance	\$0	\$74,411,717	\$6,967,116	\$50,626,753	\$0	\$10,763,814	\$0	\$0	\$0	\$0	
<i>Rate Stabilization Fund - Sewer (438)</i>											
Beginning Balance	\$12,000,000	\$12,060,000	\$12,132,360	\$12,229,419	\$12,351,713	\$12,475,230	\$12,599,983	\$12,725,982	\$12,853,242	\$12,981,775	
Plus: Additions	0	0	0	0	0	0	0	0	0	0	
Plus Interest Earned	60,000	72,360	97,059	122,294	123,517	124,752	126,000	127,260	128,532	129,818	
Less: Uses of Funds	0	0	0	0	0	0	0	0	0	0	
Ending Balance	\$12,060,000	\$12,132,360	\$12,229,419	\$12,351,713	\$12,475,230	\$12,599,983	\$12,725,982	\$12,853,242	\$12,981,775	\$13,111,592	
<i>Connection Fee Fund - Sewer (434)</i>											
Beginning Balance	\$8,219,858	\$3,073,974	\$1,871,522	\$576,497	\$92,202	\$93,124	\$94,056	\$94,996	\$95,946	\$96,906	
Capacity Fees	1,759,077	1,776,668	1,794,434	1,812,379	1,830,503	1,848,808	1,867,296	1,885,969	1,904,828	1,923,877	As Customer Growth
Plus Interest Earned	28,164	14,792	9,753	3,327	922	931	941	950	959	969	
Repayment from 431	0	0	0	0	0	0	0	0	0	0	
Bond Defeasance	0	0	0	0	0	0	0	0	0	0	
Less: Uses of Funds	(\$6,933,125)	(\$2,993,913)	(\$3,099,212)	(\$2,300,000)	(\$1,830,503)	(\$1,848,808)	(\$1,867,296)	(\$1,885,969)	(\$1,904,828)	(\$1,923,877)	
Ending Balance	\$3,073,974	\$1,871,522	\$576,497	\$92,202	\$93,124	\$94,056	\$94,996	\$95,946	\$96,906	\$97,875	
Total Ending Balance	\$79,825,877	\$153,983,668	\$89,792,151	\$137,834,490	\$75,387,496	\$89,077,507	\$40,180,154	\$32,257,137	\$37,132,321	\$49,487,724	

City of Stockton
Wastewater Rate Study
Capital Improvement Plan
Exhibit 4

Inflation = 2.7%

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Total	Notes
<i>Total Sanitary System Repairs</i>	\$900,240	\$578,828	\$3,388,629	\$2,468,730	\$5,977,071	\$14,717,663	\$19,779,887	\$15,777,594	\$11,523,706	\$4,124,318	\$79,236,666	
<i>Total Sanitary Pump Station Additions</i>	\$0	\$0	\$98,714	\$2,661,219	\$0	\$6,445,926	\$6,619,966	\$0	\$0	\$0	\$15,825,825	
<i>RWCF Modification Project - Uninflated</i>	\$2,513,623	\$39,600,000	\$45,000,000	\$55,155,600	\$47,630,777	\$8,100,000	\$0	\$0	\$0	\$0	\$198,000,000	Fund 437
<i>RWCF Modification Project - Inflated</i>	\$279,291	4,518,800	5,273,645	6,638,324	5,887,446	1,028,241	0	0	0	0	\$23,625,747	Fund 438
<i>Total RWCF Upgrades</i>	\$250,000	\$821,600	\$2,109,458	\$1,974,028	\$8,121,060	\$3,418,778	\$10,165,789	\$602,508	\$0	\$635,483	\$28,098,704	
<i>Total Oversize Collection Lines</i>	\$4,183,125	\$243,913	\$250,498	\$270,802	\$278,113	\$7,140,559	\$13,944,960	\$7,531,355	\$0	\$0	\$33,843,325	
<i>Total Pump Station Rehabilitation</i>	\$1,312,050	\$3,044,046	\$6,504,601	\$6,209,513	\$2,015,765	\$5,804,989	\$3,865,558	\$0	\$0	\$0	\$28,756,523	
<i>Total Sewer Deficiency Improvements</i>	\$9,481,920	\$11,547,954	\$16,154,556	\$4,248,066	\$4,639,486	\$11,137,066	\$9,033,609	\$2,606,520	\$8,145,901	\$1,383,955	\$78,379,034	
<i>Total Street Improvements</i>	\$27,000	\$13,351	\$13,711	\$14,082	\$14,462	\$14,852	\$15,253	\$15,665	\$16,088	\$16,523	\$160,988	
<i>Total Capital Asset Replacements</i>	\$0	\$963,703	\$0	\$0	\$0	\$1,428,112	\$1,466,671	\$1,506,271	\$0	\$0	\$4,401,054	
Future Unidentified Capital Improvements	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,839,721	\$10,839,721	
Transfer to Long-Term Debt Proceeds Fund	\$0	\$74,411,717	\$0	\$43,659,637	\$0	\$10,763,814	\$0	\$0	\$0	\$0	\$128,835,168	
Total Capital Improvement Projects	\$18,947,249	\$135,743,912	\$78,793,814	\$123,300,000	\$74,564,181	\$70,000,000	\$64,891,694	\$28,039,913	\$19,685,694	\$17,000,000	\$630,002,754	
<i>Less: Other Funding Sources</i>												
Operating Fund - Sewer (431)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	Input
Connection Fee Fund - Sewer (434)	4,183,125	243,913	349,212	1,800,000	0	0	0	0	0	0	6,576,250	Fund 434
Capital Fund - Sewer	4,764,124	0	0	0	11,937,428	0	40,127,880	13,039,913	3,685,694	0	73,555,039	Input
Long-Term Debt Proceeds Fund	0	0	67,444,601	0	50,626,753	0	10,763,814	0	0	0	128,835,168	Input
Assumed Revenue Bonds	0	125,000,000	0	110,000,000	0	57,000,000	0	0	0	0	292,000,000	Input
Revenue Bonds	0	0	0	0	0	0	0	0	0	0	0	Calculated
Total Other Funding Sources	\$8,947,249	\$125,243,913	\$67,793,813	\$111,800,000	\$62,564,181	\$57,000,000	\$50,891,694	\$13,039,913	\$3,685,694	\$0	\$500,966,457	
Rate Funded Capital	\$10,000,000	\$10,500,000	\$11,000,000	\$11,500,000	\$12,000,000	\$13,000,000	\$14,000,000	\$15,000,000	\$16,000,000	\$17,000,000	\$130,000,000	

City of Stockton
Wastewater Rate Study
Calculation of Annual Debt Service Payments
Exhibit 5

Year	2014 Revenue Bond	BAN Interest (\$125.5 m @ 2.5%)	2022 Issuance (\$241.7 m @ 5.0%)	2024 Issuance (\$58.6 m @ 5.0%)	Total Annual Debt Service (P&I)
FY 2019	\$6,494,700	\$0	\$0	\$0	\$6,494,700
FY 2020	6,487,125	3,137,625	0	0	9,624,750
FY 2021	6,492,375	3,137,625	0	0	9,630,000
FY 2022	6,487,625	3,137,625	0	0	9,625,250
FY 2023	6,487,500	0	12,083,000	0	18,570,500
FY 2024	6,486,375	0	12,083,000	0	18,569,375
FY 2025	6,698,250	0	12,083,000	3,531,250	22,312,500
FY 2026	6,692,375	0	12,083,000	3,531,250	22,306,625
FY 2027	6,693,250	0	12,083,000	3,529,750	22,306,000
FY 2028	6,695,000	0	12,083,000	3,526,750	22,304,750
FY 2029	6,696,875	0	12,083,000	3,527,250	22,307,125
FY 2030	6,693,250	0	12,083,000	3,531,000	22,307,250
FY 2031	0	0	18,358,000	3,952,750	22,310,750
FY 2032	0	0	18,359,250	3,956,500	22,315,750
FY 2033	0	0	18,359,750	3,952,000	22,311,750
FY 2034	0	0	18,358,750	3,954,500	22,313,250
FY 2035	0	0	18,360,500	3,953,500	22,314,000
FY 2036	0	0	18,359,000	3,954,000	22,313,000
FY 2037	0	0	18,358,500	3,955,750	22,314,250
FY 2038	0	0	18,358,000	3,953,500	22,311,500
FY 2039	0	0	18,361,500	3,952,250	22,313,750
FY 2040	0	0	18,357,750	3,951,750	22,309,500
FY 2041	0	0	18,361,000	3,951,750	22,312,750
FY 2042	0	0	18,359,750	3,952,000	22,311,750
FY 2043	0	0	18,358,000	3,952,250	22,310,250
FY 2044	0	0	18,359,500	3,952,250	22,311,750
FY 2045	0	0	18,357,750	3,956,750	22,314,500
FY 2046	0	0	18,356,500	3,955,250	22,311,750
FY 2047	0	0	18,359,250	3,952,750	22,312,000
FY 2048	0	0	18,359,250	3,954,000	22,313,250
FY 2049	0	0	18,360,000	3,953,500	22,313,500
FY 2050	0	0	18,359,750	3,956,000	22,315,750
FY 2051	0	0	18,356,750	3,956,000	22,312,750
FY 2052	0	0	18,359,250	3,953,250	22,312,500
FY 2053	0	0	0	3,952,500	3,952,500
FY 2054	0	0	0	3,953,250	3,953,250
	\$79,104,700	\$9,412,875	\$500,561,750	\$116,065,250	\$705,144,575

[1] Future Debt Service Assumptions Provided By the City's Financial Advisor

FY 2017 Rates		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
Residential														
Single Family & Condo														
Base Charge	\$ / Acct.													
City Customer	\$42.06	77,178	76,949	76,945	77,151	77,146	77,212	77,197	76,977	77,340	77,300	77,419	77,321	77,178
Non-City Customer	38.36	8,886	8,994	8,985	9,004	9,086	8,855	8,875	8,936	8,730	8,839	8,658	8,781	8,886
Total		86,064	85,943	85,930	86,155	86,233	86,067	86,072	85,913	86,070	86,139	86,077	86,102	86,064
Consumption Charge	\$ / HCF													
Monthly Consumption	\$0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	0	0	0	0	0	0	0	0
Total Revenue		\$3,586,960	\$3,581,484	\$3,580,964	\$3,590,350	\$3,593,333	\$3,587,206	\$3,587,334	\$3,580,445	\$3,587,813	\$3,590,307	\$3,588,375	\$3,588,956	\$43,043,525
Multi-Family														
Base Charge	\$ / Unit													
City Customer	\$40.20	2,585	2,582	2,585	2,582	2,587	2,597	2,576	2,582	2,578	2,587	2,585	2,599	2,585
Non-City Customer	36.06	1,116	1,103	1,102	1,112	1,102	1,097	1,094	1,073	1,060	1,071	1,111	1,070	1,093
Total		3,701	3,685	3,687	3,694	3,688	3,695	3,670	3,654	3,638	3,658	3,696	3,669	3,678
Consumption Charge	\$ / HCF													
Monthly Consumption	\$0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	0	0	0	0	0	0	0	0
Total Revenue		\$144,176	\$143,564	\$143,660	\$143,891	\$143,716	\$143,987	\$142,993	\$142,457	\$141,848	\$142,624	\$143,989	\$143,067	\$1,719,971
Apartments														
Base Charge	\$ / Unit													
City Customer	\$34.22	10,146	10,141	10,136	10,149	10,139	10,151	10,147	10,135	10,151	10,142	10,172	10,144	10,146
Non-City Customer	30.04	12,473	12,534	12,416	12,476	12,343	12,532	12,338	12,559	12,179	12,158	12,293	12,164	12,372
Total		22,619	22,675	22,552	22,625	22,482	22,683	22,485	22,695	22,331	22,301	22,464	22,308	22,518
Consumption Charge	\$ / HCF													
Monthly Consumption	\$0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	0	0	0	0	0	0	0	0
Total Revenue		\$721,892	\$723,546	\$719,825	\$722,069	\$717,754	\$723,840	\$717,851	\$724,109	\$713,243	\$712,313	\$717,351	\$712,551	\$8,626,344
Total Residential Revenue		\$4,453,028	\$4,448,593	\$4,444,450	\$4,456,311	\$4,454,802	\$4,455,032	\$4,448,177	\$4,447,011	\$4,442,904	\$4,445,244	\$4,449,715	\$4,444,573	\$53,389,840

FY 2017 Rates		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
Com / Inst														
Special District Billing														
Minimum Bill	\$38.36	100	100	100	100	100	100	100	100	100	100	100	100	100
Base	20.34	81	81	81	81	81	81	81	81	81	81	81	81	81
Food Handling (HCF)	3.41	820	820	820	820	820	820	820	820	820	820	820	820	9,840
Commercial (HCF)	2.03	811	811	811	811	811	811	811	811	811	811	811	811	9,732
Total Revenues		\$9,926	\$9,926	\$9,926	\$9,926	\$9,926	\$9,926	\$9,926	\$9,926	\$9,926	\$9,926	\$9,926	\$9,926	\$119,113
Low Strength														
Base Charge	\$ / Acct.													
City Customer	\$23.16	97	94	96	96	96	97	96	96	97	97	96	98	96
Non-City Customer	20.34	1	2	1	1	1	0	2	1	0	0	2	3	1
Total		98	96	97	97	97	97	98	97	97	97	97	101	97
Consumption Charge	\$ / HCF													
City Customer	\$1.64	3,639	3,552	3,569	3,575	3,575	3,575	3,575	3,575	3,575	3,575	3,628	3,744	43,156
Non-City Customer	1.64	4,588	4,607	4,699	4,621	4,605	4,613	4,675	4,606	4,613	4,613	4,566	4,619	55,426
Total		8,227	8,159	8,268	8,196	8,180	8,188	8,250	8,181	8,188	8,188	8,193	8,363	98,582
Total Revenue		\$15,762	\$15,598	\$15,805	\$15,689	\$15,661	\$15,675	\$15,785	\$15,662	\$15,675	\$15,675	\$15,689	\$16,037	\$188,712
Medium Strength														
Base Charge	\$ / Acct.													
City Customer	\$23.16	1,429	1,395	1,393	1,382	1,389	1,395	1,387	1,386	1,383	1,383	1,386	1,395	1,392
Non-City Customer	20.34	19	89	16	27	22	16	17	42	16	147	89	24	44
Total		1,448	1,484	1,408	1,409	1,411	1,410	1,404	1,428	1,399	1,530	1,475	1,419	1,436
Consumption Charge	\$ / HCF													
City Customer	\$2.03	45,851	42,698	42,352	42,290	42,356	42,350	42,304	42,353	42,315	42,392	42,570	42,791	512,623
Non-City Customer	2.03	58,699	59,279	57,787	57,721	58,072	57,753	57,737	58,070	57,529	58,042	67,304	57,889	705,881
Total		104,550	101,977	100,139	100,011	100,428	100,103	100,041	100,423	99,844	100,434	109,874	100,679	1,218,504
Total Revenue		\$245,712	\$241,129	\$235,856	\$235,584	\$236,496	\$235,830	\$235,560	\$236,821	\$235,041	\$238,894	\$256,960	\$237,172	\$2,871,054

<i>FY 2017 Rates</i>	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
High Strength													
Base Charge \$ / Acct.													
City Customer \$23.16	317	303	304	304	304	305	303	305	306	307	306	306	306
Non-City Customer 20.34	2	7	2	20	10	1	4	1	1	1	4	1	4
Total	319	310	306	324	314	306	307	306	307	308	310	307	310
Consumption Charge \$ / HCF													
City Customer \$3.41	11,499	10,325	10,325	10,325	10,325	10,325	10,325	10,323	10,325	10,347	10,308	10,308	125,057
Non-City Customer 3.41	16,425	17,007	16,670	18,432	17,355	17,151	17,151	17,148	17,156	17,156	18,403	17,203	207,257
Total	27,924	27,332	26,995	28,756	27,679	27,476	27,476	27,471	27,481	27,503	28,710	27,510	332,313
Total Revenue	\$102,605	\$100,354	\$99,138	\$105,502	\$101,621	\$100,781	\$100,782	\$100,759	\$100,823	\$100,911	\$105,073	\$100,926	\$1,219,274
Schools / Churches													
Base Charge \$ / Acct.													
City Customer \$23.16	93	93	93	93	93	93	93	93	93	93	93	93	93
Non-City Customer 20.34	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	93	93	93	93	93	93	93	93	93	93	93	93	93
Avg Daily Attendance \$ / ADA													
City Customer \$0.96	75,815	75,815	75,815	75,815	75,815	75,815	75,815	75,815	75,815	75,815	75,815	75,815	75,815
Non-City Customer 0.96	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	75,815	75,815	75,815	75,815	75,815	75,815	75,815	75,815	75,815	75,815	75,815	75,815	75,815
Total Revenue	\$74,936	\$74,936	\$74,936	\$74,936	\$74,936	\$74,936	\$74,936	\$74,936	\$74,936	\$74,936	\$74,936	\$74,936	\$899,235
Total Com / Ind Revenue	\$439,016	\$432,017	\$425,735	\$431,711	\$428,714	\$427,222	\$427,063	\$428,178	\$426,474	\$430,416	\$452,658	\$429,072	\$5,178,276

FY 2017 Rates		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
Industrial														
Admin / Stand-by Charges	<i>\$ / Acct.</i>													
Base Charge	\$23.16	31	31	31	31	31	31	31	31	31	31	31	31	31
Flow	<i>\$ / MG</i>													
Monthly Consumption	\$613.86	232.94	232.94	232.94	233.00	232.94	233.24	233.24	233.24	233.24	233.26	233.26	233.24	2,797.48
Total		232.94	232.94	232.94	233.00	232.94	233.24	233.24	233.24	233.24	233.26	233.26	233.24	2,797.48
BOD	<i>\$ / 1,000 lbs</i>													
Monthly Consumption	\$99.37	1,923.45	1,923.45	1,923.45	1,923.64	1,923.45	1,923.90	1,923.97	1,923.52	1,923.45	1,923.45	1,959.10	1,959.10	23,153.93
Total		1,923.45	1,923.45	1,923.45	1,923.64	1,923.45	1,923.90	1,923.97	1,923.52	1,923.45	1,923.45	1,959.10	1,959.10	23,153.93
SS	<i>\$ / 1,000 lbs</i>													
Monthly Consumption	\$72.57	868.26	868.26	868.26	868.26	870.84	869.64	875.15	868.26	868.26	868.26	862.56	862.56	10,418.57
Total		868.26	868.26	868.26	868.26	870.84	869.64	875.15	868.26	868.26	868.26	862.56	862.56	10,418.57
O & M Charges														
Consumption Charge	<i>\$ / MG</i>													
Monthly Consumption	\$530.64	117.41	141.80	129.67	59.88	53.02	52.50	56.52	47.58	54.79	57.22	56.63	59.95	886.97
Total		117.41	141.80	129.67	59.88	53.02	52.50	56.52	47.58	54.79	57.22	56.63	59.95	886.97
BOD	<i>\$ / 1,000 lbs</i>													
Monthly Consumption	\$36.97	704.41	1,084.36	1,021.79	421.51	426.68	498.09	576.89	475.72	483.68	491.10	629.12	632.30	7,445.65
Total		704.41	1,084.36	1,021.79	421.51	426.68	498.09	576.89	475.72	483.68	491.10	629.12	632.30	7,445.65
SS	<i>\$ / 1,000 lbs</i>													
Monthly Consumption	\$59.16	203.83	518.03	536.55	102.77	86.49	99.02	92.50	104.18	86.37	95.93	145.84	145.93	2,217.44
Total		203.83	518.03	536.55	102.77	86.49	99.02	92.50	104.18	86.37	95.93	145.84	145.93	2,217.44
Special Customer (flow only)														
Low	\$1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Medium	2.03	26.83	28.37	26.52	25.28	23.81	22.91	23.28	22.47	28.76	28.25	26.93	24.42	307.83
		26.83	28.37	26.52	25.28	23.81	22.91	23.28	22.47	28.76	28.25	26.93	24.42	307.83
Total Industrial Revenue		\$498,256	\$543,834	\$536,179	\$451,347	\$447,066	\$450,313	\$455,381	\$447,043	\$450,103	\$452,244	\$463,115	\$464,988	\$5,659,869

<i>FY 2017 Rates</i>	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
Summary													
Number of Customers													
Residential													
Single Family & Condo	86,164	86,043	86,030	86,255	86,333	86,167	86,172	86,013	86,170	86,239	86,177	86,202	86,164
Multi-Family	3,701	3,685	3,687	3,694	3,688	3,695	3,670	3,654	3,638	3,658	3,696	3,669	3,678
Apartments	22,619	22,675	22,552	22,625	22,482	22,683	22,485	22,695	22,331	22,301	22,464	22,308	22,518
Com / Inst													
Low Strength	98	96	97	97	97	97	98	97	97	97	97	101	97
Medium Strength	1,488	1,524	1,449	1,450	1,452	1,451	1,445	1,469	1,439	1,570	1,516	1,459	1,476
High Strength	360	350	347	364	354	347	347	347	348	349	351	348	351
Schools / Churches	93	93	93	93	93	93	93	93	93	93	93	93	93
Industrial	31	31	31	31	31	31	31	31	31	31	31	31	31
Total Number of Customers	114,554	114,497	114,286	114,608	114,531	114,563	114,339	114,398	114,147	114,338	114,426	114,211	114,408
Consumption (HCF)													
Residential													
Single Family & Condo	0	0	0	0	0	0	0	0	0	0	0	0	0
Multi-Family	0	0	0	0	0	0	0	0	0	0	0	0	0
Apartments	0	0	0	0	0	0	0	0	0	0	0	0	0
Com / Inst													
Low Strength	8,227	8,159	8,268	8,196	8,180	8,188	8,250	8,181	8,188	8,188	8,193	8,363	98,582
Medium Strength	141,230	140,715	136,405	134,619	133,071	131,542	131,975	131,274	139,105	139,012	146,688	134,138	1,639,774
High Strength	28,744	28,152	27,815	29,576	28,499	28,296	28,296	28,291	28,301	28,323	29,530	28,330	342,153
Schools / Churches	0	0	0	0	0	0	0	0	0	0	0	0	0
Industrial	192,834	227,500	208,810	113,850	102,714	100,816	106,684	93,650	111,698	114,265	111,711	112,794	1,597,326
Total Consumption	371,035	404,526	381,298	286,241	272,464	268,842	275,205	261,396	287,291	289,788	296,123	283,626	3,677,835
Revenues													
Residential													
Single Family & Condo	\$3,588,432	\$3,585,320	\$3,584,800	\$3,594,186	\$3,597,169	\$3,591,042	\$3,591,170	\$3,584,281	\$3,591,649	\$3,594,143	\$3,592,211	\$3,592,792	\$43,087,193
Multi-Family	144,176	143,564	143,660	143,891	143,716	143,987	142,993	142,457	141,848	142,624	143,989	143,067	1,719,971
Apartments	721,892	723,546	719,825	722,069	717,754	723,840	717,851	724,109	713,243	712,313	717,351	712,551	8,626,344
Com / Inst													
Low Strength	15,762	15,598	15,805	15,689	15,661	15,675	15,785	15,662	15,675	15,675	15,689	16,037	\$188,712
Medium Strength	320,992	320,588	310,295	306,657	303,579	300,471	301,205	300,268	315,558	318,027	332,511	305,911	3,736,061
High Strength	106,230	103,979	102,762	109,126	105,246	104,406	104,406	104,383	104,447	104,535	108,698	104,551	1,262,769
Schools / Churches	74,936	74,936	74,936	74,936	74,936	74,936	74,936	74,936	74,936	74,936	74,936	74,936	899,235
Industrial	498,256	543,834	536,179	451,347	447,066	450,313	455,381	447,043	450,103	452,244	463,115	464,988	5,659,869
Total Revenues	\$5,470,676	\$5,511,363	\$5,488,263	\$5,417,902	\$5,405,127	\$5,404,670	\$5,403,726	\$5,393,140	\$5,407,459	\$5,414,498	\$5,448,499	\$5,414,832	\$65,180,155
FY 2019 Budget													\$65,615,604
<i>Difference</i>													<i>(\$435,449)</i>
<i>Percent</i>													<i>-0.66%</i>
FY 2017 Actual													\$65,413,000
<i>Difference</i>													<i>(\$232,845)</i>
<i>Percent</i>													<i>-0.36%</i>

City of Stockton
Wastewater Rate Study
Development of Commodity Distribution Factor
Exhibit 7

	Annual flow in HCF	0.0% Inflow and Infiltration	Total Annual Flow at Plant (HCF) ^[1]	Avg. Daily Flow At Plant (MGD)	% of Total
Residential					
Single Family & Condo	9,274,477	0	9,274,477	19.01	63.7%
Multi-Family	334,983	0	334,983	0.69	2.3%
Apartments	1,491,586	0	1,491,586	3.06	10.2%
Com / Inst					
Low Strength	69,007	0	69,007	0.14	0.5%
Medium Strength	1,147,842	0	1,147,842	2.35	7.9%
High Strength	307,938	0	307,938	0.63	2.1%
Schools / Churches	345,906	0	345,906	0.71	2.4%
Industrial	1,597,326	0	1,597,326	3.27	11.0%
	-----		-----	-----	-----
Total	14,569,065		14,569,065	29.86	100.0%
		<i>Actual Flows ^[2]</i>	14,151,070	29.00	
Allocation Factor					(VOL)

Notes

[1] - Provided by the City based on per capita flow factors pg. 2-8 of the 2008 Wastewater Master Plan

[2] - Provided by City

City of Stockton
Wastewater Rate Study
Development of the Strength Distribution Factor
Exhibit 8

	Annual Flow (HCF)	Biochemical Oxygen Demand ^[1]			Suspended Solids ^[1]		
		Avg. Factor (mg/l)	Calculated Pounds	% of Total	Avg. Factor (mg/l)	Calculated Pounds	% of Total
Residential							
Single Family & Condo	9,274,477	275	43,591	55.5%	250	39,628	53.8%
Multi-Family	334,983	275	1,574	2.0%	250	1,431	1.9%
Apartments	1,491,586	275	7,011	8.9%	250	6,373	8.7%
Com / Inst							
Low Strength	69,007	275	324	0.4%	250	295	0.4%
Medium Strength	1,147,842	360	7,063	9.0%	360	7,063	9.6%
High Strength	307,938	525	2,763	3.5%	525	2,763	3.8%
Schools / Churches	345,906	315	1,862	2.4%	295	1,744	2.4%
Industrial	1,597,326	525	14,333	18.3%	525	14,333	19.5%
Total	14,569,065		78,521	100.0%		73,630	100.0%
		315	79,000		296	73,300	
Allocation Factor				(BOD)			(SS)

Notes

[1] - Based on estimated values from City treatment data and industry standard strength levels

City of Stockton
 Wastewater Rate Study
 Development of the Customer Distribution Factor
 Exhibit 9

	<i>Actual Customer</i>		<i>Customer Service & Accounting</i>			
	Number of Accounts	% of Total	Number of Bills	Weighting Factor	Weighted Customer	% of Total
Residential						
Single Family & Condo	87,025	75.3%	87,025	1.0	87,025	75.3%
Multi-Family	3,715	3.2%	3,715	1.0	3,715	3.2%
Apartments	22,744	19.7%	22,744	1.0	22,744	19.7%
Com / Inst						
Low Strength	98	0.1%	98	1.0	98	0.1%
Medium Strength	1,491	1.3%	1,491	1.0	1,491	1.3%
High Strength	355	0.3%	355	1.0	355	0.3%
Schools / Churches	94	0.1%	94	1.0	94	0.1%
Industrial	31	0.0%	31	1.0	31	0.0%
Total	115,552	100.0%	115,552		115,552	100.0%
Allocation Factor		(AC)				(WCA)

Notes

City of Stockton
Wastewater Rate Study
Development of the Revenue Related Allocation Factor
Exhibit 10

	Revenue	
	FY 2020	% of Total
Residential		
Single Family & Condo	\$43,518,065	66.1%
Multi-Family	1,737,171	2.6%
Apartments	8,712,607	13.2%
Com / Inst		
Low Strength	\$190,599	0.3%
Medium Strength	3,773,422	5.7%
High Strength	1,275,396	1.9%
Schools / Churches	908,228	1.4%
Industrial	5,716,468	8.7%
Total	\$65,831,956	100.0%
Allocation Factor		(RR)

City of Stockton
Wastewater Rate Study
Functionalization and Classification
Exhibit 11.1

	Net Plant	Strength Related			Customer Related		Revenue Related (RR)	Direct Assign. (DA)	Basis of Classification
		Volume (VOL)	Bio-Oxygen Demand (BOD)	Suspended Solids (SS)	Actual Customer (AC)	Weighted Customer Accounting (WCA)			
Treatment									
Headworks	\$410,048	\$410,048	\$0	\$0	\$0	\$0	\$0	\$0	100.0% VOL
Bar Screen	25,283	25,283	0	0	0	0	0	0	100.0% VOL
Sedimentation Tanks	150,789	0	45,237	105,552	0	0	0	0	70.0% SS 30.0% BOD
Buildings	4,600,889	348,709	1,545,114	2,707,066	0	0	0	0	As All Other Treatment Plant
Trickling Filter	761,631	0	761,631	0	0	0	0	0	100.0% BOD
Fan Pit	15,756	7,878	3,939	3,939	0	0	0	0	50.0% VOL 25.0% BOD 25.0% SS
Sludge Lagoon	144,046	0	72,023	72,023	0	0	0	0	50.0% BOD 50.0% SS
Digester	1,786,821	0	536,046	1,250,775	0	0	0	0	30.0% BOD 70.0% SS
Pumping	221,111	221,111	0	0	0	0	0	0	100.0% VOL
Oxidation Pond	215,659	0	215,659	0	0	0	0	0	100.0% BOD
Tanks	5,922	2,961	1,480	1,480	0	0	0	0	50.0% VOL 25.0% BOD 25.0% SS
Vaporizer	6,363	3,182	1,591	1,591	0	0	0	0	50.0% VOL 25.0% BOD 25.0% SS
Tertiary	1,580,325	790,163	395,081	395,081	0	0	0	0	50.0% VOL 25.0% BOD 25.0% SS
Chlorine Contact Canal	188,359	94,179	47,090	47,090	0	0	0	0	50.0% VOL 25.0% BOD 25.0% SS
Sludge Processing Facility	15,294,173	0	4,588,252	10,705,921	0	0	0	0	30.0% BOD 70.0% SS
RWCF Expansion	66,082,015	5,008,459	22,192,288	38,881,268	0	0	0	0	As All Other Treatment Plant
DAF Thickeners	1,543,370	0	771,685	771,685	0	0	0	0	50.0% BOD 50.0% SS
Cogen	442,624	0	221,312	221,312	0	0	0	0	50.0% BOD 50.0% SS
Biotower	87,658	87,658	0	0	0	0	0	0	100.0% VOL
Peroxide Station	63,612	0	63,612	0	0	0	0	0	100.0% BOD
Dual Feed System	227,399	113,700	56,850	56,850	0	0	0	0	50.0% VOL 25.0% BOD 25.0% SS
Total Treatment	\$93,853,853	\$7,113,329	\$31,518,889	\$55,221,634	\$0	\$0	\$0	\$0	
	100.0%	7.6%	33.6%	58.8%	0.0%	0.0%	0.0%	0.0%	
Collection									
Land	\$1,106,917	\$0	\$0	\$0	\$1,106,917	\$0	\$0	\$0	100.0% AC
Pump Station	5,508,855	5,508,855	0	0	0	0	0	0	100.0% VOL
Sewer Lines	168,969,243	143,623,857	0	0	25,345,386	0	0	0	85.0% VOL 15.0% AC
Total Collection	\$175,585,015	\$149,132,712	\$0	\$0	\$26,452,303	\$0	\$0	\$0	
	100.0%	84.9%	0.0%	0.0%	15.1%	0.0%	0.0%	0.0%	
Total Plant Before General	\$269,438,868	\$156,246,041	\$31,518,889	\$55,221,634	\$26,452,303	\$0	\$0	\$0	
General Plant									
Equipment	\$8,075,786	\$0	\$0	\$0	\$8,075,786	\$0	\$0	\$0	100.0% AC
Buildings	1,151,322	0	0	0	1,151,322	0	0	0	100.0% AC
Paving	1,819,988	0	0	0	1,819,988	0	0	0	100.0% AC
Lighting	51,508	0	0	0	51,508	0	0	0	100.0% AC
Yard Improvements	128,835	0	0	0	128,835	0	0	0	100.0% AC
Piping	151,098	0	0	0	151,098	0	0	0	100.0% AC
Fencing	36,032	0	0	0	36,032	0	0	0	100.0% AC
Stockton Channel Water Quality	1,350,102	0	0	0	1,350,102	0	0	0	100.0% AC
Total General Plant	\$12,764,672	\$0	\$0	\$0	\$12,764,672	\$0	\$0	\$0	
Net Plant in Service	\$282,203,541	\$156,246,041	\$31,518,889	\$55,221,634	\$39,216,976	\$0	\$0	\$0	

Expenses FY 2020		Strength Related			Customer Related		Revenue Related (RR)	Direct Assign. (DA)	Basis of Classification	
		Volume (VOL)	Bio-Oxygen	Suspended	Actual Customer (AC)	Weighted Customer Accounting (WCA)				
			Demand (BOD)	Solids (SS)						
Utility Billing										
Employee Services										
Salaries - Regular	\$545,922	\$0	\$0	\$0	\$545,922	\$0	\$0	\$0	100.0%	AC
Salaries-Part Time/Temp	61,469	0	0	0	61,469	0	0	0	100.0%	AC
Regular Overtime	1,978	0	0	0	1,978	0	0	0	100.0%	AC
Employee Separation Pay	3,355	0	0	0	3,355	0	0	0	100.0%	AC
Additional Pay	1,053	0	0	0	1,053	0	0	0	100.0%	AC
Retirement	151,104	0	0	0	151,104	0	0	0	100.0%	AC
Medicare	8,350	0	0	0	8,350	0	0	0	100.0%	AC
Health/Dental/Vision	101,916	0	0	0	101,916	0	0	0	100.0%	AC
L/T Disability Insurance	3,341	0	0	0	3,341	0	0	0	100.0%	AC
Life Insurance	816	0	0	0	816	0	0	0	100.0%	AC
Workers Compensation	13,085	0	0	0	13,085	0	0	0	100.0%	AC
Unemployment Insurance	78	0	0	0	78	0	0	0	100.0%	AC
Cell Phone Allowance	498	0	0	0	498	0	0	0	100.0%	AC
Retirement Pension Bond	21,588	0	0	0	21,588	0	0	0	100.0%	AC
Salaries - Regular (2)	256,513	0	0	0	256,513	0	0	0	100.0%	AC
Salaries-Part Time/Temp (2)	18,900	0	0	0	18,900	0	0	0	100.0%	AC
Employee Separation Pay (2)	1,576	0	0	0	1,576	0	0	0	100.0%	AC
Retirement (2)	70,863	0	0	0	70,863	0	0	0	100.0%	AC
Medicare (2)	3,696	0	0	0	3,696	0	0	0	100.0%	AC
Health/Dental/Vision (2)	57,140	0	0	0	57,140	0	0	0	100.0%	AC
L/T Disability Insurance (2)	1,570	0	0	0	1,570	0	0	0	100.0%	AC
Life Insurance (2)	446	0	0	0	446	0	0	0	100.0%	AC
Workers Compensation (2)	5,693	0	0	0	5,693	0	0	0	100.0%	AC
Unemployment Insurance (2)	22	0	0	0	22	0	0	0	100.0%	AC
Retirement Pension Bond (2)	10,124	0	0	0	10,124	0	0	0	100.0%	AC
Total Employee Services	\$1,341,098	\$0	\$0	\$0	\$1,341,098	\$0	\$0	\$0		
Other Services										
Contractual Employees	\$45,715	\$0	\$0	\$0	\$45,715	\$0	\$0	\$0	100.0%	AC
Maint. & Repair Services	2,472	0	0	0	2,472	0	0	0	100.0%	AC
Duplication/Copy Costs	12,978	0	0	0	12,978	0	0	0	100.0%	AC
Insurance Premiums	27,147	0	0	0	27,147	0	0	0	100.0%	AC
Automotive Equip Rental	11,018	0	0	0	11,018	0	0	0	100.0%	AC
Computer/Tech/Oper Supprt	118,767	0	0	0	118,767	0	0	0	100.0%	AC
Pool Vehicle Rental	2,306	0	0	0	2,306	0	0	0	100.0%	AC
Telephone Rental	7,519	0	0	0	7,519	0	0	0	100.0%	AC
Publicity & Advertising	618	0	0	0	618	0	0	0	100.0%	AC
Printing & Mapping	87,818	0	0	0	87,818	0	0	0	100.0%	AC
Postage/Mailing Services	353,248	0	0	0	353,248	0	0	0	100.0%	AC
Processing Fees	33,908	0	0	0	33,908	0	0	0	100.0%	AC
Computer/Programming Svcs	21,012	0	0	0	21,012	0	0	0	100.0%	AC
Prof & Special Services	9,703	0	0	0	9,703	0	0	0	100.0%	AC
Other Services	129,184	0	0	0	129,184	0	0	0	100.0%	AC
Insurance Premiums (2)	12,172	0	0	0	12,172	0	0	0	100.0%	AC
Computer/Tech/Oper Supprt (2)	25,871	0	0	0	25,871	0	0	0	100.0%	AC
Telephone Rental (2)	1,962	0	0	0	1,962	0	0	0	100.0%	AC
Printing & Mapping (2)	57,433	0	0	0	57,433	0	0	0	100.0%	AC
Postage/Mailing Services (2)	323,980	0	0	0	323,980	0	0	0	100.0%	AC
Processing Fees (2)	128,796	0	0	0	128,796	0	0	0	100.0%	AC
Prof & Special Services (2)	137,639	0	0	0	137,639	0	0	0	100.0%	AC
Total Other Services	\$1,551,267	\$0	\$0	\$0	\$1,551,267	\$0	\$0	\$0		
Materials & Supplies										
Materials And Supplies	\$11,164	\$0	\$0	\$0	\$11,164	\$0	\$0	\$0	100.0%	AC
Computer Software	8,424	0	0	0	8,424	0	0	0	100.0%	AC
Fuels-Gas/Oil/Propane	5,253	0	0	0	5,253	0	0	0	100.0%	AC
Materials And Supplies (2)	41,239	0	0	0	41,239	0	0	0	100.0%	AC
Computer Software (2)	1,572	0	0	0	1,572	0	0	0	100.0%	AC
Fuels-Gas/Oil/Propane (2)	2,808	0	0	0	2,808	0	0	0	100.0%	AC
Total Materials & Supplies	\$70,459	\$0	\$0	\$0	\$70,459	\$0	\$0	\$0		
Other Expenses										
Training	\$3,780	\$0	\$0	\$0	\$3,780	\$0	\$0	\$0	100.0%	AC
Meetings & Travel	618	0	0	0	618	0	0	0	100.0%	AC
Memberships	711	0	0	0	711	0	0	0	100.0%	AC
Car Mileage Reimbursement	371	0	0	0	371	0	0	0	100.0%	AC
Training (2)	4,253	0	0	0	4,253	0	0	0	100.0%	AC
Total Other Expenses	\$9,732	\$0	\$0	\$0	\$9,732	\$0	\$0	\$0		
Total Utility Billing Expenses	\$2,972,556	\$0	\$0	\$0	\$2,972,556	\$0	\$0	\$0		

Expenses FY 2020	Strength Related			Customer Related		Revenue Related (RR)	Direct Assign. (DA)	Basis of Classification		
	Volume (VOL)	Bio-Oxygen	Suspended	Actual Customer (AC)	Weighted Customer Accounting (WCA)					
		Demand (BOD)	Solids (SS)							
Administration										
Employee Services										
Salaries - Regular	\$681,232	\$0	\$0	\$0	\$681,232	\$0	\$0	\$0	100.0%	AC
Salaries-Part Time/Temp	102,691	0	0	0	102,691	0	0	0	100.0%	AC
Regular Overtime	6,615	0	0	0	6,615	0	0	0	100.0%	AC
Employee Separation Pay	3,935	0	0	0	3,935	0	0	0	100.0%	AC
Additional Pay	1,741	0	0	0	1,741	0	0	0	100.0%	AC
Retirement	188,675	0	0	0	188,675	0	0	0	100.0%	AC
Medicare	10,244	0	0	0	10,244	0	0	0	100.0%	AC
Health/Dental/Vision	80,698	0	0	0	80,698	0	0	0	100.0%	AC
L/T Disability Insurance	4,169	0	0	0	4,169	0	0	0	100.0%	AC
Life Insurance	680	0	0	0	680	0	0	0	100.0%	AC
Workers Compensation	21,279	0	0	0	21,279	0	0	0	100.0%	AC
Unemployment Insurance	106	0	0	0	106	0	0	0	100.0%	AC
Cell Phone Allowance	2,712	0	0	0	2,712	0	0	0	100.0%	AC
Retirement Pension Bond	29,051	0	0	0	29,051	0	0	0	100.0%	AC
Total Employee Services	\$1,133,828	\$0	\$0	\$0	\$1,133,828	\$0	\$0	\$0		
Other Services										
Telephone	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	100.0%	AC
Computer/Tech/Operation Support	15,663	0	0	0	15,663	0	0	0	100.0%	AC
Radio Equipment Rental	518	0	0	0	518	0	0	0	100.0%	AC
Other Rentals	1,548,546	0	0	0	1,548,546	0	0	0	100.0%	AC
Telephone Rental	540	0	0	0	540	0	0	0	100.0%	AC
Water	328	0	0	0	328	0	0	0	100.0%	AC
Telephone (2)	1,947	0	0	0	1,947	0	0	0	100.0%	AC
Storm Water	1,179	0	0	0	1,179	0	0	0	100.0%	AC
Maint. & Repair Services	11,680	0	0	0	11,680	0	0	0	100.0%	AC
Uniform/Laundry Services	649	0	0	0	649	0	0	0	100.0%	AC
Duplication/Copy Costs	324	0	0	0	324	0	0	0	100.0%	AC
Insurance Premiums	35,138	0	0	0	35,138	0	0	0	100.0%	AC
Automotive Equip Rental	4,248	0	0	0	4,248	0	0	0	100.0%	AC
Computer/Tech/Oper Supprt (2)	113,593	0	0	0	113,593	0	0	0	100.0%	AC
Radio Equipment Rental (2)	1,239	0	0	0	1,239	0	0	0	100.0%	AC
Telephone Rental (2)	6,522	0	0	0	6,522	0	0	0	100.0%	AC
Publicity & Advertising	3,245	0	0	0	3,245	0	0	0	100.0%	AC
Postage/Mailing Services	779	0	0	0	779	0	0	0	100.0%	AC
Processing Fees	324	0	0	0	324	0	0	0	100.0%	AC
Legal Services	6,615	0	0	0	6,615	0	0	0	100.0%	AC
Training Services	6,615	0	0	0	6,615	0	0	0	100.0%	AC
Prof & Special Services	66,150	0	0	0	66,150	0	0	0	100.0%	AC
Other Services	89,303	0	0	0	89,303	0	0	0	100.0%	AC
Total Other Services	\$1,915,145	\$0	\$0	\$0	\$1,915,145	\$0	\$0	\$0		
Materials & Supplies										
Materials And Supplies	\$45,423	\$0	\$0	\$0	\$45,423	\$0	\$0	\$0	100.0%	AC
Computer Software	649	0	0	0	649	0	0	0	100.0%	AC
Subscription-Periodical	97	0	0	0	97	0	0	0	100.0%	AC
Fuels-Gas/Oil/Propane	748	0	0	0	748	0	0	0	100.0%	AC
Total Materials & Supplies	\$46,917	\$0	\$0	\$0	\$46,917	\$0	\$0	\$0		
Other Expenses										
Training	\$18,191	\$0	\$0	\$0	\$18,191	\$0	\$0	\$0	100.0%	AC
Meetings & Travel	1,622	0	0	0	1,622	0	0	0	100.0%	AC
Memberships	4,121	0	0	0	4,121	0	0	0	100.0%	AC
Indirect Cost Allocation	1,636,941	0	0	0	1,636,941	0	0	0	100.0%	AC
Total Other Expenses	\$1,660,875	\$0	\$0	\$0	\$1,660,875	\$0	\$0	\$0		
Total Administration	\$4,756,765	\$0	\$0	\$0	\$4,756,765	\$0	\$0	\$0		

Expenses FY 2020	Customer Related								Basis of Classification
	Volume (VOL)	Strength Related		Actual Customer (AC)	Weighted Customer Accounting (WCA)	Revenue Related (RR)	Direct Assign. (DA)		
		Bio-Oxygen Demand (BOD)	Suspended Solids (SS)						
Sanitary Sewer Collections									
Employee Services									
Salaries - Regular	\$2,611,901	\$2,218,412	\$0	\$0	\$393,489	\$0	\$0	\$0	As Collection Plant
Salaries Part Time - Temp	109,200	92,749	0	0	16,451	0	0	0	As Collection Plant
Regular Overtime	199,500	169,445	0	0	30,055	0	0	0	As Collection Plant
Stand By Time	42,000	35,673	0	0	6,327	0	0	0	As Collection Plant
Holiday Pay	10,500	8,918	0	0	1,582	0	0	0	As Collection Plant
Employee Separation Pay	16,024	13,610	0	0	2,414	0	0	0	As Collection Plant
Additional Pay	36,461	30,968	0	0	5,493	0	0	0	As Collection Plant
Retirement	727,941	618,275	0	0	109,666	0	0	0	As Collection Plant
Deferred Compensation	130,575	110,904	0	0	19,671	0	0	0	As Collection Plant
Medicare	41,320	35,095	0	0	6,225	0	0	0	As Collection Plant
Health/Dental/Vision	447,207	379,834	0	0	67,373	0	0	0	As Collection Plant
L/T Disability Insurance	15,645	13,288	0	0	2,357	0	0	0	As Collection Plant
Life Insurance	3,953	3,358	0	0	596	0	0	0	As Collection Plant
Workers Compensation	211,134	179,326	0	0	31,808	0	0	0	As Collection Plant
Unemployment Insurance	337	286	0	0	51	0	0	0	As Collection Plant
Cell Phone Allowance	6,873	5,837	0	0	1,035	0	0	0	As Collection Plant
Total Employee Services	\$4,610,571	\$3,915,978	\$0	\$0	\$694,594	\$0	\$0	\$0	
Other Services									
Telephone	\$9,048	\$7,685	\$0	\$0	\$1,363	\$0	\$0	\$0	As Collection Plant
Contractual Employees	8,925	7,580	0	0	1,345	0	0	0	As Collection Plant
Maintenance & Repair Services	2,755,725	2,340,568	0	0	415,157	0	0	0	As Collection Plant
Uniform/Laundry Services	16,800	14,269	0	0	2,531	0	0	0	As Collection Plant
Duplication/Copy Costs	2,563	2,176	0	0	386	0	0	0	As Collection Plant
Insurance Premiums	132,620	112,640	0	0	19,979	0	0	0	As Collection Plant
Automotive Equipment Rental	570,544	484,590	0	0	85,954	0	0	0	As Collection Plant
Computer/Tech/Operation Support	177,529	150,784	0	0	26,745	0	0	0	As Collection Plant
Radio Equipment Rental	22,422	19,044	0	0	3,378	0	0	0	As Collection Plant
Other Rentals	44,720	37,983	0	0	6,737	0	0	0	As Collection Plant
Telephone Rental	10,352	8,793	0	0	1,560	0	0	0	As Collection Plant
Publicity & Advertising	5,125	4,353	0	0	772	0	0	0	As Collection Plant
Postage/Mailing Services	1,050	892	0	0	158	0	0	0	As Collection Plant
Processing Fees	202,233	171,766	0	0	30,467	0	0	0	As Collection Plant
Testing & Analysis Services	2,100	1,784	0	0	316	0	0	0	As Collection Plant
Training Services	12,285	10,434	0	0	1,851	0	0	0	As Collection Plant
Professional & Special Services	23,625	20,066	0	0	3,559	0	0	0	As Collection Plant
Other Services	90,300	76,696	0	0	13,604	0	0	0	As Collection Plant
Total Other Services	\$4,087,965	\$3,472,104	\$0	\$0	\$615,862	\$0	\$0	\$0	
Materials & Supplies									
Materials & Supplies	\$329,600	\$279,945	\$0	\$0	\$49,655	\$0	\$0	\$0	As Collection Plant
Fuels - Gas/Oil/Propane	144,691	122,893	0	0	21,798	0	0	0	As Collection Plant
Chemicals	754,000	640,408	0	0	113,592	0	0	0	As Collection Plant
Total Materials & Supplies	\$1,228,291	\$1,043,246	\$0	\$0	\$185,045	\$0	\$0	\$0	
Other Expenses									
Training	\$30,765	\$26,130	\$0	\$0	\$4,635	\$0	\$0	\$0	As Collection Plant
Meeting & Travel	1,025	871	0	0	154	0	0	0	As Collection Plant
Memberships	21,628	18,369	0	0	3,258	0	0	0	As Collection Plant
Retirement Expense	240,831	204,549	0	0	36,282	0	0	0	As Collection Plant
Vehicle Acquisition	361,920	307,396	0	0	54,524	0	0	0	As Collection Plant
Equipment Acquisition	52,000	44,166	0	0	7,834	0	0	0	As Collection Plant
Total Other Expenses	\$708,168	\$601,481	\$0	\$0	\$106,687	\$0	\$0	\$0	
Total Sanitary Sewer Collections	\$10,634,997	\$9,032,809	\$0	\$0	\$1,602,188	\$0	\$0	\$0	

		Strength Related			Customer Related						
Expenses FY 2020	Volume (VOL)	Bio-Oxygen	Suspended	Actual Customer (AC)	Weighted	Revenue Related (RR)	Direct Assign. (DA)	Basis of Classification			
		Demand (BOD)	Solids (SS)		Customer Accounting (WCA)						
Laboratory											
Employee Services											
Salaries - Regular	\$365,815	\$0	\$182,907	\$182,907	\$0	\$0	\$0	\$0	50.0%	BOD	50.0% SS
Salaries Part Time - Temp	15,750	0	7,875	7,875	0	0	0	0	50.0%	BOD	50.0% SS
Regular Overtime	3,150	0	1,575	1,575	0	0	0	0	50.0%	BOD	50.0% SS
Holiday Pay	2,391	0	1,195	1,195	0	0	0	0	50.0%	BOD	50.0% SS
Employee Separation Pay	2,282	0	1,141	1,141	0	0	0	0	50.0%	BOD	50.0% SS
Additional Pay	802	0	401	401	0	0	0	0	50.0%	BOD	50.0% SS
Retirement	101,421	0	50,710	50,710	0	0	0	0	50.0%	BOD	50.0% SS
Deferred Compensation	17,511	0	8,756	8,756	0	0	0	0	50.0%	BOD	50.0% SS
Medicare	5,261	0	2,631	2,631	0	0	0	0	50.0%	BOD	50.0% SS
Health/Dental/Vision	58,477	0	29,238	29,238	0	0	0	0	50.0%	BOD	50.0% SS
L/T Disability Insurance	2,243	0	1,122	1,122	0	0	0	0	50.0%	BOD	50.0% SS
Life Insurance	521	0	261	261	0	0	0	0	50.0%	BOD	50.0% SS
Workers Compensation	14,532	0	7,266	7,266	0	0	0	0	50.0%	BOD	50.0% SS
Unemployment Insurance	19	0	10	10	0	0	0	0	50.0%	BOD	50.0% SS
Cell Phone Allowance	692	0	346	346	0	0	0	0	50.0%	BOD	50.0% SS
Retirement Pension Bond	14,702	0	7,351	7,351	0	0	0	0	50.0%	BOD	50.0% SS
Total Employee Services	\$605,569	\$0	\$302,785	\$302,785	\$0	\$0	\$0	\$0			
Other Services											
Telephone	\$780	\$0	\$390	\$390	\$0	\$0	\$0	\$0	50.0%	BOD	50.0% SS
Maintenance & Repair Services	52,999	0	26,499	26,499	0	0	0	0	50.0%	BOD	50.0% SS
Uniform/Laundry Services	3,938	0	1,969	1,969	0	0	0	0	50.0%	BOD	50.0% SS
Duplication/Copy Costs	386	0	193	193	0	0	0	0	50.0%	BOD	50.0% SS
Insurance Premiums	17,105	0	8,553	8,553	0	0	0	0	50.0%	BOD	50.0% SS
Automotive Equipment Rental	32,198	0	16,099	16,099	0	0	0	0	50.0%	BOD	50.0% SS
Computer/Tech/Operation Support	23,588	0	11,794	11,794	0	0	0	0	50.0%	BOD	50.0% SS
Radio Equipment Rental	778	0	389	389	0	0	0	0	50.0%	BOD	50.0% SS
Telephone Rental	2,860	0	1,430	1,430	0	0	0	0	50.0%	BOD	50.0% SS
Publicity & Advertising	384	0	192	192	0	0	0	0	50.0%	BOD	50.0% SS
Postage/Mailing Services	193	0	96	96	0	0	0	0	50.0%	BOD	50.0% SS
Processing Fees	7,303	0	3,652	3,652	0	0	0	0	50.0%	BOD	50.0% SS
Testing & Analysis Services	236	0	118	118	0	0	0	0	50.0%	BOD	50.0% SS
Training Services	591	0	296	296	0	0	0	0	50.0%	BOD	50.0% SS
Professional & Special Services	39,375	0	19,688	19,688	0	0	0	0	50.0%	BOD	50.0% SS
Other Services	512	0	256	256	0	0	0	0	50.0%	BOD	50.0% SS
Laboratory Service	233,100	0	116,550	116,550	0	0	0	0	50.0%	BOD	50.0% SS
Total Other Services	\$416,327	\$0	\$208,164	\$208,164	\$0	\$0	\$0	\$0			
Materials & Supplies											
Materials & Supplies	\$128,621	\$0	\$64,311	\$64,311	\$0	\$0	\$0	\$0	50.0%	BOD	50.0% SS
Computer Software	3,354	0	1,677	1,677	0	0	0	0	50.0%	BOD	50.0% SS
Fuels - Gas/Oil/Propane	2,184	0	1,092	1,092	0	0	0	0	50.0%	BOD	50.0% SS
Chemicals	19,500	0	9,750	9,750	0	0	0	0	50.0%	BOD	50.0% SS
Library Materials	386	0	193	193	0	0	0	0	50.0%	BOD	50.0% SS
Total Materials & Supplies	\$154,046	\$0	\$77,023	\$77,023	\$0	\$0	\$0	\$0			
Other Expenses											
Memberships	\$1,899	\$0	\$950	\$950	\$0	\$0	\$0	\$0	50.0%	BOD	50.0% SS
Meeting & Travel	2,318	0	1,159	1,159	0	0	0	0	50.0%	BOD	50.0% SS
Training	10,238	0	5,119	5,119	0	0	0	0	50.0%	BOD	50.0% SS
Vehicle Acquisition	72,100	0	36,050	36,050	0	0	0	0	50.0%	BOD	50.0% SS
Total Other Expenses	\$86,554	\$0	\$43,277	\$43,277	\$0	\$0	\$0	\$0			
Total Laboratory	\$1,262,496	\$0	\$631,248	\$631,248	\$0	\$0	\$0	\$0			

Expenses FY 2020	Customer Related								Basis of Classification	
	Volume (VOL)	Strength Related		Actual Customer (AC)	Weighted Customer Accounting (WCA)	Revenue Related (RR)	Direct Assign. (DA)			
		Bio-Oxygen Demand (BOD)	Suspended Solids (SS)							
Other Support Services										
Employee Services										
Salaries - Regular	\$592,319	\$0	\$0	\$0	\$592,319	\$0	\$0	\$0	100.0%	AC
Salaries Part Time - Temp	1,050	0	0	0	1,050	0	0	0	100.0%	AC
Regular Overtime	2,345	0	0	0	2,345	0	0	0	100.0%	AC
Employee Separation Pay	3,605	0	0	0	3,605	0	0	0	100.0%	AC
Additional Pay	828	0	0	0	828	0	0	0	100.0%	AC
Retirement	163,897	0	0	0	163,897	0	0	0	100.0%	AC
Deferred Compensation	6,936	0	0	0	6,936	0	0	0	100.0%	AC
Medicare	8,121	0	0	0	8,121	0	0	0	100.0%	AC
Health/Dental/Vision	72,400	0	0	0	72,400	0	0	0	100.0%	AC
L/T Disability Insurance	3,629	0	0	0	3,629	0	0	0	100.0%	AC
Life Insurance	617	0	0	0	617	0	0	0	100.0%	AC
Workers Compensation	15,917	0	0	0	15,917	0	0	0	100.0%	AC
Cell Phone Allowance	1,867	0	0	0	1,867	0	0	0	100.0%	AC
Total Employee Services	\$873,529	\$0	\$0	\$0	\$873,529	\$0	\$0	\$0		
Other Services										
Insurance Premiums	\$26,324	\$0	\$0	\$0	\$26,324	\$0	\$0	\$0	100.0%	AC
Prof & Special Services	68,182	0	0	0	68,182	0	0	0	100.0%	AC
Total Other Services	\$94,505	\$0	\$0	\$0	\$94,505	\$0	\$0	\$0		
Materials & Supplies										
Materials & Supplies	\$1,112	\$0	\$0	\$0	\$1,112	\$0	\$0	\$0	100.0%	AC
Total Materials & Supplies	\$1,112	\$0	\$0	\$0	\$1,112	\$0	\$0	\$0		
Other Expenses										
Training	\$391	\$0	\$0	\$0	\$391	\$0	\$0	\$0	100.0%	AC
Meetings & Travel	927	0	0	0	927	0	0	0	100.0%	AC
Memberships	80	0	0	0	80	0	0	0	100.0%	AC
Total Other Expenses	\$1,398	\$0	\$0	\$0	\$1,398	\$0	\$0	\$0		
Total Other Support Services	\$970,545	\$0	\$0	\$0	\$970,545	\$0	\$0	\$0		
Environmental Control										
Employee Services										
Salaries - Regular	\$493,937	\$37,436	\$165,879	\$290,622	\$0	\$0	\$0	\$0	As Treatment Plant	
Salaries - Part Time/Temp	21,714	1,646	7,292	12,776	0	0	0	0	As Treatment Plant	
Regular Overtime	29,610	2,244	9,944	17,422	0	0	0	0	As Treatment Plant	
Stand By Time	19,740	1,496	6,629	11,615	0	0	0	0	As Treatment Plant	
Employee Separation Pay	3,036	230	1,019	1,786	0	0	0	0	As Treatment Plant	
Additional Pay	14,725	1,116	4,945	8,664	0	0	0	0	As Treatment Plant	
Retirement	143,916	10,908	48,331	84,677	0	0	0	0	As Treatment Plant	
Deferred Compensation	23,620	1,790	7,932	13,897	0	0	0	0	As Treatment Plant	
Medicare	7,877	597	2,645	4,635	0	0	0	0	As Treatment Plant	
Health/Dental/Vision	78,526	5,952	26,371	46,203	0	0	0	0	As Treatment Plant	
L/T Disability Insurance	3,029	230	1,017	1,782	0	0	0	0	As Treatment Plant	
Life Insurance	612	46	206	360	0	0	0	0	As Treatment Plant	
Workers Compensation	20,670	1,567	6,942	12,162	0	0	0	0	As Treatment Plant	
Unemployment Insurance	69	5	23	41	0	0	0	0	As Treatment Plant	
Cell Phone Allowance	867	66	291	510	0	0	0	0	As Treatment Plant	
Retirement Pension Bond	20,561	1,558	6,905	12,097	0	0	0	0	As Treatment Plant	
Total Employee Services	\$882,509	\$66,887	\$296,373	\$519,250	\$0	\$0	\$0	\$0		

Expenses FY 2020	Strength Related				Customer Related		Revenue Related (RR)	Direct Assign. (DA)	Basis of Classification
	Volume (VOL)	Bio-Oxygen	Suspended	Actual Customer (AC)	Weighted Customer Accounting (WCA)				
		Demand (BOD)	Solids (SS)						
Other Services									
Telephone	\$4,888	\$370	\$1,642	\$2,876	\$0	\$0	\$0	\$0	As Treatment Plant
Maintenance & Repair Services	14,523	1,101	4,877	8,545	0	0	0	0	As Treatment Plant
Uniform/Laundry Services	2,324	176	780	1,367	0	0	0	0	As Treatment Plant
Duplication/Copy Costs	4,841	367	1,626	2,848	0	0	0	0	As Treatment Plant
Insurance Premiums	25,332	1,920	8,507	14,905	0	0	0	0	As Treatment Plant
Automotive Equipment Rental	41,317	3,131	13,876	24,310	0	0	0	0	As Treatment Plant
Computer/Tech/Operation Support	75,324	5,709	25,296	44,319	0	0	0	0	As Treatment Plant
Radio Equipment Rental	2,424	184	814	1,426	0	0	0	0	As Treatment Plant
Telephone Rental	3,585	272	1,204	2,109	0	0	0	0	As Treatment Plant
Publicity & Advertising	1,452	110	488	855	0	0	0	0	As Treatment Plant
Printing & Mapping	1,452	110	488	855	0	0	0	0	As Treatment Plant
Postage/Mailing Services	1,936	147	650	1,139	0	0	0	0	As Treatment Plant
Processing Fees	2,905	220	975	1,709	0	0	0	0	As Treatment Plant
Testing & Analysis Services	987	75	331	581	0	0	0	0	As Treatment Plant
Training Services	2,961	224	994	1,742	0	0	0	0	As Treatment Plant
Professional & Special Services	74,025	5,610	24,860	43,555	0	0	0	0	As Treatment Plant
Other Services	2,961	224	994	1,742	0	0	0	0	As Treatment Plant
Laboratory Services	39,480	2,992	13,259	23,229	0	0	0	0	As Treatment Plant
Total Other Services	\$302,717	\$22,943	\$101,661	\$178,113	\$0	\$0	\$0	\$0	
Materials & Supplies									
Materials & Supplies	\$49,378	\$3,742	\$16,583	\$29,053	\$0	\$0	\$0	\$0	As Treatment Plant
Computer Software	21,300	1,614	7,153	12,533	0	0	0	0	As Treatment Plant
Fuels - Gas/Oil/Propane	5,836	442	1,960	3,434	0	0	0	0	As Treatment Plant
Library Materials	1,936	147	650	1,139	0	0	0	0	As Treatment Plant
Total Materials & Supplies	\$78,451	\$5,946	\$26,346	\$46,159	\$0	\$0	\$0	\$0	
Other Expenses									
Training	\$13,818	\$1,047	\$4,640	\$8,130	\$0	\$0	\$0	\$0	As Treatment Plant
Meetings & Travel	484	37	163	285	0	0	0	0	As Treatment Plant
Memberships	1,452	110	488	855	0	0	0	0	As Treatment Plant
Retirement Expense	25,153	1,906	8,447	14,800	0	0	0	0	As Treatment Plant
Total Other Expenses	\$40,908	\$3,100	\$13,738	\$24,069	\$0	\$0	\$0	\$0	
Total Environmental Control	\$1,304,585	\$98,877	\$438,118	\$767,591	\$0	\$0	\$0	\$0	
In Lieu of Tax & Debt Services									
Other Services									
Special Reports	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	100.0% RR
Professional Fees	0	0	0	0	0	0	0	0	100.0% RR
Professional & Special Services	0	0	0	0	0	0	0	0	100.0% RR
Total Other Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total In Lieu of Tax & Debt Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Treatment Plant Maintenance									
Employee Services									
Salaries - Regular	\$1,551,333	\$117,578	\$520,983	\$912,772	\$0	\$0	\$0	\$0	As Treatment Plant
Regular Overtime	44,205	3,350	14,845	26,009	0	0	0	0	As Treatment Plant
Stand By Time (Call Back)	22,050	1,671	7,405	12,974	0	0	0	0	As Treatment Plant
Holiday Pay	2,310	175	776	1,359	0	0	0	0	As Treatment Plant
Employee Seperation Pay	9,281	703	3,117	5,461	0	0	0	0	As Treatment Plant
Additional Pay	10,579	802	3,553	6,225	0	0	0	0	As Treatment Plant
Retirement	425,196	32,226	142,793	250,176	0	0	0	0	As Treatment Plant
Deferred Compensation	83,901	6,359	28,177	49,366	0	0	0	0	As Treatment Plant
Medicare	22,422	1,699	7,530	13,192	0	0	0	0	As Treatment Plant
Healthy/Dental/Vision	244,409	18,524	82,080	143,805	0	0	0	0	As Treatment Plant
L-T Disability Insurance	9,482	719	3,184	5,579	0	0	0	0	As Treatment Plant
Life Insurance	2,214	168	743	1,302	0	0	0	0	As Treatment Plant
Workers' Compensation	119,082	9,025	39,991	70,066	0	0	0	0	As Treatment Plant
Unemployment Insurance	64	5	22	38	0	0	0	0	As Treatment Plant
Cell Phone Allowance	2,829	214	950	1,665	0	0	0	0	As Treatment Plant
Total Employee Services	\$2,549,358	\$193,220	\$856,150	\$1,499,989	\$0	\$0	\$0	\$0	

Expenses FY 2020	Strength Related				Customer Related		Revenue Related (RR)	Direct Assign. (DA)	Basis of Classification
	Volume (VOL)	Bio-Oxygen	Suspended	Actual Customer (AC)	Weighted Customer Accounting (WCA)				
		Demand (BOD)	Solids (SS)						
Other Services									
Telephone	\$11,330	\$859	\$3,805	\$6,666	\$0	\$0	\$0	\$0	As Treatment Plant
Maint & Repair Services	772,500	58,549	259,428	454,523	0	0	0	0	As Treatment Plant
Uniform/Laundry Services	18,540	1,405	6,226	10,909	0	0	0	0	As Treatment Plant
Duplicating/Copy Costs	721	55	242	424	0	0	0	0	As Treatment Plant
Insurance Premiums	72,035	5,460	24,192	42,384	0	0	0	0	As Treatment Plant
Automotive Equip Rental	240,834	18,253	80,879	141,702	0	0	0	0	As Treatment Plant
Computer/Tech/Oper Supprt	119,704	9,073	40,200	70,431	0	0	0	0	As Treatment Plant
Radio Equipment Rental	15,229	1,154	5,114	8,960	0	0	0	0	As Treatment Plant
Other Rentals	31,200	2,365	10,478	18,357	0	0	0	0	As Treatment Plant
Telephone Rental	4,317	327	1,450	2,540	0	0	0	0	As Treatment Plant
Publicity & Advertising	2,266	172	761	1,333	0	0	0	0	As Treatment Plant
Printing & Mapping	0	0	0	0	0	0	0	0	As Treatment Plant
Postage/Mailing Services	1,854	141	623	1,091	0	0	0	0	As Treatment Plant
Processing Fees	206	16	69	121	0	0	0	0	As Treatment Plant
Legal Services	5,250	398	1,763	3,089	0	0	0	0	As Treatment Plant
Engineering Services	315,000	23,874	105,786	185,339	0	0	0	0	As Treatment Plant
Testing & Analysis Servic	840	64	282	494	0	0	0	0	As Treatment Plant
Training Services	4,200	318	1,410	2,471	0	0	0	0	As Treatment Plant
Prof & Special Services	21,000	1,592	7,052	12,356	0	0	0	0	As Treatment Plant
Other Services	82,950	6,287	27,857	48,806	0	0	0	0	As Treatment Plant
Total Other Services	\$1,719,975	\$130,360	\$577,618	\$1,011,997	\$0	\$0	\$0	\$0	
Materials & Supplies									
Materials & Supplies	\$1,006,310	\$76,270	\$337,949	\$592,092	\$0	\$0	\$0	\$0	As Treatment Plant
Computer Software	1,030	78	346	606	0	0	0	0	As Treatment Plant
Fuels-Gas/Oil/Propane	27,302	2,069	9,169	16,064	0	0	0	0	As Treatment Plant
Total Materials & Supplies	\$1,034,642	\$78,417	\$347,463	\$608,762	\$0	\$0	\$0	\$0	
Other Expenses									
Training	\$21,000	\$1,592	\$7,052	\$12,356	\$0	\$0	\$0	\$0	As Treatment Plant
Meetings & Travel	258	20	86	152	0	0	0	0	As Treatment Plant
Retirement Expense	187,313	14,197	62,905	110,211	0	0	0	0	As Treatment Plant
Vehicle Acquisition	78,000	5,912	26,195	45,894	0	0	0	0	As Treatment Plant
Equipment Acquisition	348,400	26,406	117,003	204,991	0	0	0	0	As Treatment Plant
Capital Maintenance	312,000	23,647	104,779	183,574	0	0	0	0	As Treatment Plant
Total Other Expenses	\$946,970	\$71,772	\$318,021	\$557,178	\$0	\$0	\$0	\$0	
Total Treatment Plant Maintenance	\$6,250,946	\$473,769	\$2,099,252	\$3,677,925	\$0	\$0	\$0	\$0	
Sanitary Pump Stations									
Employee Services									
Salaries - Regular	\$853,370	\$853,370	\$0	\$0	\$0	\$0	\$0	\$0	As Pump Stations
Regular Overtime	57,750	57,750	0	0	0	0	0	0	As Pump Stations
Stand By Time (Call Back)	22,050	22,050	0	0	0	0	0	0	As Pump Stations
Holiday Pay	1,050	1,050	0	0	0	0	0	0	As Pump Stations
Employee Seperation Pay	5,105	5,105	0	0	0	0	0	0	As Pump Stations
Additional Pay	8,309	8,309	0	0	0	0	0	0	As Pump Stations
Retirement	237,149	237,149	0	0	0	0	0	0	As Pump Stations
Deferred Compensation	46,809	46,809	0	0	0	0	0	0	As Pump Stations
Medicare	12,976	12,976	0	0	0	0	0	0	As Pump Stations
Health/Dental/Vision	132,583	132,583	0	0	0	0	0	0	As Pump Stations
L-T Disability Insurance	5,233	5,233	0	0	0	0	0	0	As Pump Stations
Life Insurance	1,199	1,199	0	0	0	0	0	0	As Pump Stations
Workers' Compensation	69,369	69,369	0	0	0	0	0	0	As Pump Stations
Unemployment Insurance	77	77	0	0	0	0	0	0	As Pump Stations
Cell Phone Allowance	1,435	1,435	0	0	0	0	0	0	As Pump Stations
Total Employee Services	\$1,454,463	\$1,454,463	\$0	\$0	\$0	\$0	\$0	\$0	

Expenses FY 2020		Strength Related			Customer Related		Revenue Related (RR)	Direct Assign. (DA)	Basis of Classification	
		Volume (VOL)	Bio-Oxygen	Suspended	Actual Customer (AC)	Weighted Customer Accounting (WCA)				
			Demand (BOD)	Solids (SS)						
Other Services										
Maint. & Repair Services	\$1,931	\$0	\$0	\$0	\$1,931	\$0	\$0	\$0	100.0%	AC
Uniform/Laundry Services	773	0	0	0	773	0	0	0	100.0%	AC
Duplication/Copy Costs	2,318	0	0	0	2,318	0	0	0	100.0%	AC
Insurance Premiums	6,326	0	0	0	6,326	0	0	0	100.0%	AC
Computer/Tech/Oper Supprt	8,085	0	0	0	8,085	0	0	0	100.0%	AC
Radio Equipment Rental	1,475	0	0	0	1,475	0	0	0	100.0%	AC
Telephone Rental	1,635	0	0	0	1,635	0	0	0	100.0%	AC
Postage/Mailing Services	193	0	0	0	193	0	0	0	100.0%	AC
Training Services	145,688	0	0	0	145,688	0	0	0	100.0%	AC
Prof & Special Services	94,500	0	0	0	94,500	0	0	0	100.0%	AC
Other Services	227,194	0	0	0	227,194	0	0	0	100.0%	AC
Total Other Services	\$490,116	\$0	\$0	\$0	\$490,116	\$0	\$0	\$0		
Materials & Supplies										
Materials And Supplies	\$108,150	\$0	\$0	\$0	\$108,150	\$0	\$0	\$0	100.0%	AC
Computer Software	5,794	0	0	0	5,794	0	0	0	100.0%	AC
Subscription-Periodical	3,167	0	0	0	3,167	0	0	0	100.0%	AC
Library Materials	773	0	0	0	773	0	0	0	100.0%	AC
Total Materials & Supplies	\$117,884	\$0	\$0	\$0	\$117,884	\$0	\$0	\$0		
Other Expenses										
Training	\$1,969	\$0	\$0	\$0	\$1,969	\$0	\$0	\$0	100.0%	AC
Memberships	773	0	0	0	773	0	0	0	100.0%	AC
Total Other Expenses	\$2,741	\$0	\$0	\$0	\$2,741	\$0	\$0	\$0		
Total Safety Services	\$829,909	\$0	\$0	\$0	\$829,909	\$0	\$0	\$0		
SCADA Services										
Employee Services										
Salaries - Regular	\$177,953	\$98,526	\$19,875	\$34,822	\$24,730	\$0	\$0	\$0	As Net Plant in Service	
Regular Overtime	1,155	639	129	226	161	0	0	0	As Net Plant in Service	
Holiday Pay	112	62	13	22	16	0	0	0	As Net Plant in Service	
Employee Separation Pay	1,065	589	119	208	148	0	0	0	As Net Plant in Service	
Retirement	49,160	27,218	5,491	9,620	6,832	0	0	0	As Net Plant in Service	
Deferred Compensation	1,927	1,067	215	377	268	0	0	0	As Net Plant in Service	
Medicare	2,475	1,370	276	484	344	0	0	0	As Net Plant in Service	
Health/Dental/Vision	24,504	13,567	2,737	4,795	3,405	0	0	0	As Net Plant in Service	
L/T Disability Insurance	1,089	603	122	213	151	0	0	0	As Net Plant in Service	
Life Insurance	207	115	23	41	29	0	0	0	As Net Plant in Service	
Workers Compensation	5,795	3,208	647	1,134	805	0	0	0	As Net Plant in Service	
Unemployment Insurance	1	1	0	0	0	0	0	0	As Net Plant in Service	
Cell Phone Allowance	677	375	76	132	94	0	0	0	As Net Plant in Service	
Retirement Pension Bond	7,024	3,889	784	1,374	976	0	0	0	As Net Plant in Service	
Total Employee Services	\$273,144	\$151,230	\$30,507	\$53,449	\$37,958	\$0	\$0	\$0		
Other Services										
Telephone	\$18,695	\$10,350	\$2,088	\$3,658	\$2,598	\$0	\$0	\$0	As Net Plant in Service	
Insurance Premiums	7,924	4,387	885	1,551	1,101	0	0	0	As Net Plant in Service	
Computer/Tech/Oper Supprt	68,741	38,059	7,678	13,451	9,553	0	0	0	As Net Plant in Service	
Telephone Rental	1,199	664	134	235	167	0	0	0	As Net Plant in Service	
Publicity & Advertising	567	314	63	111	79	0	0	0	As Net Plant in Service	
Prof & Special Services	31,763	17,586	3,548	6,215	4,414	0	0	0	As Net Plant in Service	
Total Other Services	\$128,887	\$71,360	\$14,395	\$25,221	\$17,911	\$0	\$0	\$0		
Materials & Supplies										
Materials & Supplies	\$24,360	\$13,487	\$2,721	\$4,767	\$3,385	\$0	\$0	\$0	As Net Plant in Service	
Computer Software	92,963	51,470	10,383	18,191	12,919	0	0	0	As Net Plant in Service	
Total Materials & Supplies	\$117,322	\$64,957	\$13,104	\$22,958	\$16,304	\$0	\$0	\$0		
Other Expenses										
Meetings & Travel	\$3,383	\$1,873	\$378	\$662	\$470	\$0	\$0	\$0	As Net Plant in Service	
Total Other Expenses	\$3,383	\$1,873	\$378	\$662	\$470	\$0	\$0	\$0		
Total SCADA Services	\$522,736	\$289,420	\$58,384	\$102,289	\$72,643	\$0	\$0	\$0		

Expenses FY 2020	Customer Related								Basis of Classification
	Volume (VOL)	Strength Related		Actual Customer (AC)	Weighted Customer Accounting (WCA)	Revenue Related (RR)	Direct Assign. (DA)		
		Bio-Oxygen Demand (BOD)	Suspended Solids (SS)						
Outreach & Training Services									
Employee Services									
Salaries - Regular	\$39,088	\$21,642	\$4,366	\$7,649	\$5,432	\$0	\$0	\$0	As Net Plant in Service
Regular Overtime	512	283	57	100	71	0	0	0	As Net Plant in Service
Employee Separation Pay	234	129	26	46	32	0	0	0	As Net Plant in Service
Retirement	10,798	5,978	1,206	2,113	1,501	0	0	0	As Net Plant in Service
Medicare	558	309	62	109	77	0	0	0	As Net Plant in Service
Health/Dental/Vision	4,177	2,313	467	817	580	0	0	0	As Net Plant in Service
L/T Disability Insurance	239	133	27	47	33	0	0	0	As Net Plant in Service
Life Insurance	38	21	4	7	5	0	0	0	As Net Plant in Service
Workers Compensation	878	486	98	172	122	0	0	0	As Net Plant in Service
Unemployment Insurance	1	0	0	0	0	0	0	0	As Net Plant in Service
Retirement Pension Bond	1,542	854	172	302	214	0	0	0	As Net Plant in Service
Total Employee Services	\$58,066	\$32,149	\$6,485	\$11,362	\$8,069	\$0	\$0	\$0	
Other Services									
Insurance Premiums	\$1,751	\$969	\$196	\$343	\$243	\$0	\$0	\$0	As Net Plant in Service
Printing & Mapping	769	426	86	150	107	0	0	0	As Net Plant in Service
Duplication/Copy Costs	15,450	8,554	1,726	3,023	2,147	0	0	0	As Net Plant in Service
Publicity & Advertising	30,900	17,108	3,451	6,047	4,294	0	0	0	As Net Plant in Service
Postage/Mailing Services	1,545	855	173	302	215	0	0	0	As Net Plant in Service
Processing Fees	1,545	855	173	302	215	0	0	0	As Net Plant in Service
Training Services	1,575	872	176	308	219	0	0	0	As Net Plant in Service
Prof & Special Services	10,500	5,813	1,173	2,055	1,459	0	0	0	As Net Plant in Service
Total Other Services	\$64,035	\$35,454	\$7,152	\$12,530	\$8,899	\$0	\$0	\$0	
Materials & Supplies									
Computer Software	\$3,863	\$2,139	\$431	\$756	\$537	\$0	\$0	\$0	As Net Plant in Service
Subscription-Periodical	1,931	1,069	216	378	268	0	0	0	As Net Plant in Service
Total Materials & Supplies	\$5,794	\$3,208	\$647	\$1,134	\$805	\$0	\$0	\$0	
Other Expenses									
Meetings & Travel	\$386	\$214	\$43	\$76	\$54	\$0	\$0	\$0	As Net Plant in Service
Memberships	386	214	43	76	54	0	0	0	As Net Plant in Service
Car Mileage Reimbursement	194	107	22	38	27	0	0	0	As Net Plant in Service
Training	1,575	872	176	308	219	0	0	0	As Net Plant in Service
Total Other Expenses	\$2,541	\$1,407	\$284	\$497	\$353	\$0	\$0	\$0	
Total Outreach & Training Services	\$130,435	\$72,217	\$14,568	\$25,524	\$18,126	\$0	\$0	\$0	
Total Operations & Maintenance	\$53,429,654	\$15,454,419	\$10,078,202	\$15,682,800	\$12,214,233	\$0	\$0	\$0	
Taxes & Transfers									
Taxes & Transfers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	100.0% RR
Total Taxes & Transfers	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Rate Funded Capital	\$10,500,000	\$0	\$0	\$0	\$10,500,000	\$0	\$0	\$0	100.0% AC
Debt Service									
2014 Revenue Bond	\$6,487,125	\$0	\$0	\$0	\$6,487,125	\$0	\$0	\$0	100.0% AC
BAN Interest (\$125.5 m @ 2.5%)	3,137,625	0	0	0	3,137,625	0	0	0	100.0% AC
2022 Issuance (\$241.7 m @ 5.0%)	0	0	0	0	0	0	0	0	100.0% AC
Assumed Revenue Bond	0	0	0	0	0	0	0	0	100.0% AC
Total Debt Service	\$9,624,750	\$0	\$0	\$0	\$9,624,750	\$0	\$0	\$0	
Less: Debt Service Funding									
Connection Fees (434 Fund)	\$2,750,000	\$0	\$0	\$0	\$2,750,000	\$0	\$0	\$0	As Debt
Bond Defeasance (431 Fund)	0	0	0	0	0	0	0	0	As Debt
Bond Defeasance (434 Fund)	0	0	0	0	0	0	0	0	As Debt
Total Less Debt Service Funding	\$2,750,000	\$0	\$0	\$0	\$2,750,000	\$0	\$0	\$0	
Net Debt Service	\$6,874,750	\$0	\$0	\$0	\$6,874,750	\$0	\$0	\$0	

	Expenses FY 2020	Strength Related			Customer Related		Revenue Related (RR)	Direct Assign. (DA)	Basis of Classification
		Volume (VOL)	Bio-Oxygen Demand (BOD)	Suspended Solids (SS)	Actual Customer (AC)	Weighted Customer Accounting (WCA)			
To / (From) Reserves									
Operating Fund - Sewer (431)	\$76,166	\$0	\$0	\$0	\$76,166	\$0	\$0	\$0	100.0% AC
Capital Fund - Sewer	800,000	0	0	0	800,000	0	0	0	100.0% AC
Rate Stabilization Fund - Sewer (438)	0	0	0	0	0	0	0	0	100.0% AC
Total To / (From) Reserves	\$876,166	\$0	\$0	\$0	\$876,166	\$0	\$0	\$0	
Total Revenue Requirement	\$71,680,570	\$15,454,419	\$10,078,202	\$15,682,800	\$30,465,150	\$0	\$0	\$0	
Less: Other Revenues									
Fats, Oils, Grease Inspection	\$39,045	\$2,959	\$13,112	\$22,973	\$0	\$0	\$0	\$0	As Treatment Plant
Interest Income	75,529	16,284	10,619	16,525	32,101	0	0	0	As Net Revenue Requirement
Service Penalties	1,335,490	287,933	187,768	292,188	567,600	0	0	0	As Net Revenue Requirement
Lien Admin Fees	7,217	1,556	1,015	1,579	3,068	0	0	0	As Net Revenue Requirement
Pre-Treatment Violations	6,060	1,307	852	1,326	2,576	0	0	0	As Net Revenue Requirement
Returned Check Fees	20,594	4,440	2,895	4,506	8,753	0	0	0	As Net Revenue Requirement
Other Revenue	55,177	11,896	7,758	12,072	23,451	0	0	0	As Net Revenue Requirement
Wastewater Hauler	359,584	27,253	120,759	211,572	0	0	0	0	As Treatment Plant
Total Other Revenues	\$1,898,696	\$353,629	\$344,779	\$562,741	\$637,548	\$0	\$0	\$0	
Net Revenue Requirement	\$69,781,874	\$15,100,789	\$9,733,423	\$15,120,060	\$29,827,602	\$0	\$0	\$0	

City of Stockton
Wastewater Rate Study
Allocation of Revenue Requirement
Exhibit 13

	Net Revenue Requirement	Residential			Com / Inst				Industrial	Basis of Allocation
		Single Family & Condo	Multi-Family	Apartments	Low Strength	Medium Strength	High Strength	Schools / Churches		
Volume	\$15,100,789	\$9,612,966	\$347,208	\$1,546,024	\$71,526	\$1,189,734	\$319,177	\$358,530	\$1,655,624	(VOL)
Strength										
Bio-Oxygen Demand	\$9,733,423	\$5,403,519	\$195,168	\$869,032	\$40,205	\$875,466	\$342,513	\$230,846	\$1,776,673	(BOD)
Suspended Solids	15,120,060	8,137,725	293,924	1,308,765	60,549	1,450,301	567,409	358,141	2,943,245	(SS)
Total Strength	\$24,853,483	\$13,541,244	\$489,093	\$2,177,797	\$100,755	\$2,325,766	\$909,922	\$588,987	\$4,719,918	
Customer										
Actual Customer	\$29,827,602	\$22,463,902	\$958,890	\$5,870,802	\$25,400	\$384,765	\$91,515	\$24,246	\$8,082	(AC)
Weighted for Cust. Acctg.	0	0	0	0	0	0	0	0	0	(WCA)
Total Customer Related	\$29,827,602	\$22,463,902	\$958,890	\$5,870,802	\$25,400	\$384,765	\$91,515	\$24,246	\$8,082	
Revenue Related	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(RR)
Direct Assign.	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(DA)
Net Revenue Requirement	\$69,781,874	\$45,618,112	\$1,795,191	\$9,594,623	\$197,680	\$3,900,265	\$1,320,614	\$971,764	\$6,383,624	

City of Stockton
Wastewater Rate Study
Summary of Cost of Service Analysis
Exhibit 14

	FY 2020 Expenses	<i>Residential</i>			<i>Com / Inst</i>			Schools / Churches	Industrial
		Single Family & Condo	Multi-Family	Apartments	Low Strength	Medium Strength	High Strength		
Revenues at Present Rates	\$65,831,956	\$43,518,065	\$1,737,171	\$8,712,607	\$190,599	\$3,773,422	\$1,275,396	\$908,228	\$5,716,468
Allocated Revenue Requirement	\$69,781,874	\$45,618,112	\$1,795,191	\$9,594,623	\$197,680	\$3,900,265	\$1,320,614	\$971,764	\$6,383,624
<i>Bal / (Def) of Funds</i>	<i>(\$3,949,917)</i>	<i>(\$2,100,048)</i>	<i>(\$58,020)</i>	<i>(\$882,015)</i>	<i>(\$7,081)</i>	<i>(\$126,843)</i>	<i>(\$45,218)</i>	<i>(\$63,536)</i>	<i>(\$667,156)</i>
Required % Change in Rates	6.0%	4.8%	3.3%	10.1%	3.7%	3.4%	3.5%	7.0%	11.7%

City of Stockton
Wastewater Rate Study
Average Unit Costs
Exhibit 15

	Total	Residential			Com / Inst				Industrial
		Single Family & Condo	Multi-Family	Apartments	Low Strength	Medium Strength	High Strength	Schools / Churches	
Volume - \$ / HCF	\$1.00	\$1.04	\$1.04	\$1.04	\$0.73	\$0.73	\$0.93	\$0.39	\$1.04
BOD - \$ / HCF	0.64	0.58	0.58	0.58	0.41	0.53	1.00	0.25	1.11
TSS - \$ / HCF	1.00	0.88	0.88	0.88	0.61	0.88	1.66	0.39	1.84
Total - \$ / HCF	\$2.64	\$2.50	\$2.50	\$2.50	\$1.75	\$2.14	\$3.59	\$1.03	\$3.99
Customer - \$ / Cust	\$21.51				\$21.51	\$21.51	\$21.51	\$21.51	\$21.51
Total - \$ / Cust	\$50.32	\$43.68	\$40.27	\$35.16					
Total - \$ / HCF	\$4.61	\$4.92	\$5.36	\$6.43	\$2.01	\$2.38	\$3.86	\$2.81	\$4.00
Current Average Revenues	\$4.35	\$4.69	\$5.19	\$5.84	\$1.93	\$2.30	\$3.73	\$2.63	\$3.58
Customer Data									
Volume	15,124,787	9,274,477	334,983	1,491,586	98,582	1,639,774	342,153	345,906	1,597,326
Customer	115,552	87,025	3,715	22,744	98	1,491	355	94	31
ADA								76,573	

City of Stockton
Wastewater Rate Study
Residential

	<i>Present</i>	<i>Proposed</i>				
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
System Revenue Adjustment		6.0%	6.0%	6.0%	6.0%	6.0%
Base Charge						
Single Family & Condo						
City Customer	\$42.06	\$44.10	\$46.75	\$49.56	\$52.53	\$55.68
Non-City Customer	38.36	40.22	42.63	45.19	47.90	50.77
Multi-Family						
City Customer	\$40.20	\$41.55	\$44.04	\$46.68	\$49.48	\$52.45
Non-City Customer	36.06	37.27	39.51	41.88	44.39	47.05
Apartments						
City Customer	\$34.22	\$37.68	\$39.94	\$42.34	\$44.88	\$47.57
Non-City Customer	30.04	33.08	35.06	37.16	39.39	41.75

City of Stockton
Wastewater Rate Study
Single Family & Condo - Year 1 Rates

	Consumption (HCF)	Present Rates	Proposed Rates	Difference	
				\$	%
City Customer					
	0	\$42.06	\$44.10	\$2.04	4.9%
	2	\$42.06	\$44.10	\$2.04	4.9%
	4	\$42.06	\$44.10	\$2.04	4.9%
	6	\$42.06	\$44.10	\$2.04	4.9%
	8	\$42.06	\$44.10	\$2.04	4.9%
	10	\$42.06	\$44.10	\$2.04	4.9%
	12	\$42.06	\$44.10	\$2.04	4.9%
	14	\$42.06	\$44.10	\$2.04	4.9%
	16	\$42.06	\$44.10	\$2.04	4.9%
Non-City Customer					
	0	\$38.36	\$40.22	\$1.86	4.8%
	2	\$38.36	\$40.22	\$1.86	4.8%
	4	\$38.36	\$40.22	\$1.86	4.8%
	6	\$38.36	\$40.22	\$1.86	4.8%
	8	\$38.36	\$40.22	\$1.86	4.8%
	10	\$38.36	\$40.22	\$1.86	4.8%
	12	\$38.36	\$40.22	\$1.86	4.8%
	14	\$38.36	\$40.22	\$1.86	4.8%
	16	\$38.36	\$40.22	\$1.86	4.8%

Present Rates		Year 1 Rates	
<u>Base Charge</u>	Rates	<u>Base Charge</u>	Rates
City Customer	\$42.06	City Customer	\$44.10
Non-City Customer	38.36	Non-City Customer	40.22

City of Stockton
Wastewater Rate Study
Multi-Family - Year 1 Rates

Consumption (HCF)	Present Rates	Proposed Rates	Difference	
			\$	%
City Customer				
0	\$40.20	\$41.55	\$1.35	3.4%
5	\$40.20	\$41.55	1.35	3.4%
10	\$40.20	\$41.55	1.35	3.4%
15	\$40.20	\$41.55	1.35	3.4%
20	\$40.20	\$41.55	1.35	3.4%
25	\$40.20	\$41.55	1.35	3.4%
30	\$40.20	\$41.55	1.35	3.4%
35	\$40.20	\$41.55	1.35	3.4%
40	\$40.20	\$41.55	1.35	3.4%
Non-City Customer				
0	\$36.06	\$37.27	\$1.21	3.4%
5	\$36.06	\$37.27	1.21	3.4%
10	\$36.06	\$37.27	1.21	3.4%
15	\$36.06	\$37.27	1.21	3.4%
20	\$36.06	\$37.27	1.21	3.4%
25	\$36.06	\$37.27	1.21	3.4%
30	\$36.06	\$37.27	1.21	3.4%
35	\$36.06	\$37.27	1.21	3.4%
40	\$36.06	\$37.27	1.21	3.4%

Present Rates		Year 1 Rates	
<u>Base Charge</u>	<u>Rates</u>	<u>Base Charge</u>	<u>Rates</u>
City Customer	\$40.20	City Customer	\$41.55
Non-City Customer	36.06	Non-City Customer	37.27

**City of Stockton
Wastewater Rate Study
Apartments - Year 1 Rates**

	Consumption (CCF)	Present Rates	Proposed Rates	Difference	
				\$	%
City Customer					
	0	\$34.22	\$37.68	\$3.46	10.1%
	5	\$34.22	\$37.68	3.46	10.1%
	10	\$34.22	\$37.68	3.46	10.1%
	15	\$34.22	\$37.68	3.46	10.1%
	20	\$34.22	\$37.68	3.46	10.1%
	25	\$34.22	\$37.68	3.46	10.1%
	30	\$34.22	\$37.68	3.46	10.1%
	35	\$34.22	\$37.68	3.46	10.1%
	40	\$34.22	\$37.68	3.46	10.1%
Non-City Customer					
	0	\$30.04	\$33.08	3.04	10.1%
	5	\$30.04	\$33.08	3.04	10.1%
	10	\$30.04	\$33.08	3.04	10.1%
	15	\$30.04	\$33.08	3.04	10.1%
	20	\$30.04	\$33.08	3.04	10.1%
	25	\$30.04	\$33.08	3.04	10.1%
	30	\$30.04	\$33.08	3.04	10.1%
	35	\$30.04	\$33.08	3.04	10.1%
	40	\$30.04	\$33.08	3.04	10.1%

Present Rates		Year 1 Rates	
<u>Base Charge</u>	<u>Rates</u>	<u>Base Charge</u>	<u>Rates</u>
City Customer	\$34.22	City Customer	\$37.68
Non-City Customer	30.04	Non-City Customer	33.08

City of Stockton
Wastewater Rate Study
Com / Inst

	<i>Present</i>	<i>Proposed</i>				
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
System Revenue Adjustment		6.0%	6.0%	6.0%	6.0%	6.0%
Base Charge						
City Customer	\$23.16	\$21.25	\$22.53	\$23.88	\$25.31	\$26.83
Non-City Customer	20.34	18.66	19.78	20.97	22.23	23.56
Consumption Charge						
Com / Inst - Low Strength	\$1.64	\$1.75	\$1.86	\$1.97	\$2.09	\$2.22
Com / Inst - Medium Strength	2.03	2.14	2.27	2.41	2.55	2.70
Com / Inst - High Strength	3.41	3.59	3.81	4.04	4.28	4.54
Schools / Churches (\$ / ADA)	0.96	1.03	1.09	1.16	1.23	1.30

City of Stockton
Wastewater Rate Study
Com / Inst - Low Strength - Year 1 Rates

Consumption (HCF)	Present Rates	Proposed Rates	Difference	
			\$	%
City Customer				
0	\$23.16	\$21.25	(\$1.91)	-8.2%
10	\$39.56	\$38.75	(0.81)	-2.0%
20	\$55.96	\$56.25	0.29	0.5%
30	\$72.36	\$73.75	1.39	1.9%
40	\$88.76	\$91.25	2.49	2.8%
50	\$105.16	\$108.75	3.59	3.4%
60	\$121.56	\$126.25	4.69	3.9%
70	\$137.96	\$143.75	5.79	4.2%
80	\$154.36	\$161.25	6.89	4.5%
Non-City Customer				
0	\$20.34	\$18.66	(\$1.68)	-8.3%
10	\$36.74	\$36.16	(0.58)	-1.6%
20	\$53.14	\$53.66	0.52	1.0%
30	\$69.54	\$71.16	1.62	2.3%
40	\$85.94	\$88.66	2.72	3.2%
50	\$102.34	\$106.16	3.82	3.7%
60	\$118.74	\$123.66	4.92	4.1%
70	\$135.14	\$141.16	6.02	4.5%
80	\$151.54	\$158.66	7.12	4.7%

Present Rates		Proposed Rates	
Base Charge	\$ / Acct.	Base Charge	Monthly
City Customer	\$23.16	City Customer	\$21.25
Non-City Customer	20.34	Non-City Customer	18.66
Consumption	\$ / HCF	Consumption	\$ / HCF
Consumption	\$1.64	Consumption	\$1.75

City of Stockton
Wastewater Rate Study
Com / Inst - Medium Strength - Year 1 Rates

Consumption (HCF)	Present Rates	Proposed Rates	Difference	
			\$	%
City Customer				
0	\$23.16	\$21.25	(\$1.91)	-8.2%
10	\$43.46	\$42.65	(0.81)	-1.9%
20	\$63.76	\$64.05	0.29	0.5%
30	\$84.06	\$85.45	1.39	1.7%
40	\$104.36	\$106.85	2.49	2.4%
50	\$124.66	\$128.25	3.59	2.9%
60	\$144.96	\$149.65	4.69	3.2%
70	\$165.26	\$171.05	5.79	3.5%
80	\$185.56	\$192.45	6.89	3.7%
Non-City Customer				
0	\$20.34	\$18.66	(\$1.68)	-8.3%
10	\$40.64	\$40.06	(0.58)	-1.4%
20	\$60.94	\$61.46	0.52	0.9%
30	\$81.24	\$82.86	1.62	2.0%
40	\$101.54	\$104.26	2.72	2.7%
50	\$121.84	\$125.66	3.82	3.1%
60	\$142.14	\$147.06	4.92	3.5%
70	\$162.44	\$168.46	6.02	3.7%
80	\$182.74	\$189.86	7.12	3.9%

Present Rates		Proposed Rates	
Base Charge	\$ / Acct.	Base Charge	Monthly
City Customer	\$23.16	City Customer	\$21.25
Non-City Customer	20.34	Non-City Customer	18.66
Consumption	\$ / HCF	Consumption	\$ / HCF
Consumption	\$2.03	Consumption	\$2.14

City of Stockton
Wastewater Rate Study
Com / Inst - High Strength - Year 1 Rates

Consumption (HCF)	Present Rates	Proposed Rates	Difference	
			\$	%
City Customer				
0	\$23.16	\$21.25	(\$1.91)	-8.2%
15	\$74.31	\$75.10	0.79	1.1%
30	\$125.46	\$128.95	3.49	2.8%
45	\$176.61	\$182.80	6.19	3.5%
60	\$227.76	\$236.65	8.89	3.9%
75	\$278.91	\$290.50	11.59	4.2%
90	\$330.06	\$344.35	14.29	4.3%
105	\$381.21	\$398.20	16.99	4.5%
120	\$432.36	\$452.05	19.69	4.6%
Non-City Customer				
0	\$20.34	\$18.66	(\$1.68)	-8.3%
15	\$71.49	\$72.51	1.02	1.4%
30	\$122.64	\$126.36	3.72	3.0%
45	\$173.79	\$180.21	6.42	3.7%
60	\$224.94	\$234.06	9.12	4.1%
75	\$276.09	\$287.91	11.82	4.3%
90	\$327.24	\$341.76	14.52	4.4%
105	\$378.39	\$395.61	17.22	4.6%
120	\$429.54	\$449.46	19.92	4.6%

Present Rates		Proposed Rates	
Base Charge	\$ / Acct.	Base Charge	Monthly
City Customer	\$23.16	City Customer	\$21.25
Non-City Customer	20.34	Non-City Customer	18.66
Consumption	\$ / HCF	Consumption	\$ / HCF
Consumption	\$3.41	Consumption	\$3.59

**City of Stockton
Wastewater Rate Study
Schools / Churches - Year 1 Rates**

# of ADA's	Present Rates	Proposed Rates	Difference	
			\$	%
City Customer				
0	\$23.16	\$21.25	(\$1.91)	-8.2%
100	119.16	124.25	5.09	4.3%
200	215.16	227.25	12.09	5.6%
300	311.16	330.25	19.09	6.1%
400	407.16	433.25	26.09	6.4%
500	503.16	536.25	33.09	6.6%
600	599.16	639.25	40.09	6.7%
700	695.16	742.25	47.09	6.8%
800	791.16	845.25	54.09	6.8%
Non-City Customer				
0	\$20.34	\$19.13	(\$1.21)	-5.9%
100	116.34	122.13	5.79	5.0%
200	212.34	225.13	12.79	6.0%
300	308.34	328.13	19.79	6.4%
400	404.34	431.13	26.79	6.6%
500	500.34	534.13	33.79	6.8%
600	596.34	637.13	40.79	6.8%
700	692.34	740.13	47.79	6.9%
800	788.34	843.13	54.79	7.0%

<i>Present Rates</i>		<i>Proposed Rates</i>	
<u>Base Charge</u>	\$ / Acct.	<u>Base Charge</u>	Monthly
City Customer	\$23.16	City Customer	\$21.25
Non-City Customer	20.34	Non-City Customer	19.13
	\$ / ADA		\$ / ADA
<u>Avg Daily Attendance</u>	\$0.96	<u>Avg Daily Attendance</u>	\$1.03

City of Stockton
Wastewater Rate Study
Industrial

	<i>Present</i>	<i>Proposed</i>				
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
System Revenue Adjustment		6.0%	6.0%	6.0%	6.0%	6.0%
Admin / Stand-by Charges						
Base Charge	\$23.16	\$21.25	\$22.53	\$23.88	\$25.31	\$26.83
Flow	613.86	685.00	726.10	769.67	815.85	864.80
BOD	99.37	111.00	117.66	124.72	132.20	140.13
SS	72.57	81.50	86.39	91.57	97.06	102.88
O & M Charges						
Flow	\$530.64	\$592.90	\$628.47	\$666.18	\$706.15	\$748.52
BOD	36.97	41.30	43.78	46.41	49.19	52.14
SS	59.16	66.10	70.07	74.27	78.73	83.45

**City of Stockton
Wastewater Rate Study
Industrial - Year 1 Rates**

Flow (MG)	BOD (1,000 lbs.)	SS (1,000 lbs.)	Present Rates	Proposed Rates	Difference	
					\$	%
0	0	0	\$23.16	\$21.25	(\$1.91)	-8.2%
1	5	2	2,112.82	2,355.85	243.03	11.5%
2	10	4	4,202.48	4,690.45	487.97	11.6%
3	15	6	6,292.14	7,025.05	732.91	11.6%
4	20	8	8,381.80	9,359.65	977.85	11.7%
5	25	10	10,471.46	11,694.25	1,222.79	11.7%
6	30	12	12,561.12	14,028.85	1,467.73	11.7%
7	35	14	14,650.78	16,363.45	1,712.67	11.7%
8	40	16	16,740.44	18,698.05	1,957.61	11.7%
9	45	18	18,830.10	21,032.65	2,202.55	11.7%
10	50	20	20,919.76	23,367.25	2,447.49	11.7%
11	55	22	23,009.42	25,701.85	2,692.43	11.7%
12	60	24	25,099.08	28,036.45	2,937.37	11.7%
13	65	26	27,188.74	30,371.05	3,182.31	11.7%
14	70	28	29,278.40	32,705.65	3,427.25	11.7%
15	75	30	31,368.06	35,040.25	3,672.19	11.7%
16	80	32	33,457.72	37,374.85	3,917.13	11.7%
17	85	34	35,547.38	39,709.45	4,162.07	11.7%
18	90	36	37,637.04	42,044.05	4,407.01	11.7%

<i>Present Rates</i>		<i>Proposed Rates</i>	
<u>Base Charge</u>	\$ / Unit	<u>Base Charge</u>	Monthly
Base Charge	\$23.16	Base Charge	\$21.25
Flow	613.86	Flow	685.00
BOD	99.37	BOD	111.00
SS	72.57	SS	81.50
<u>O & M Charges</u>	\$ / Unit	<u>O & M Charges</u>	\$ / Unit
Flow	\$530.64	Flow	\$592.90
BOD	36.97	BOD	41.30
SS	59.16	SS	66.10