



City of Ukiah

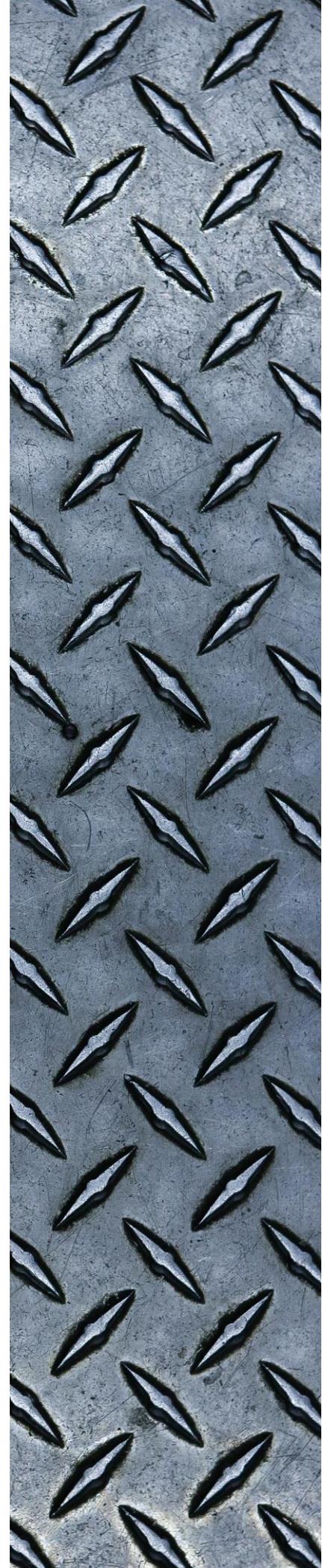
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Ukiah Valley Sanitation District

2020 Joint Sewer Rate Study

Final Report

April 24, 2020





April 24, 2020

Mr. David Redding  
District Manager  
Ukiah Valley Sanitation District  
151 Laws Ave  
Ukiah, CA 95482

Mr. Sage Sangiacomo  
City Manager  
City of Ukiah  
300 Seminary Ave.  
Ukiah, CA 95482

Re: Final 2020 Joint Sewer Rate Study

Dear Mr. Buffalo and Mr. Redding,

Hildebrand Consulting and the Reed Group are pleased to present this 2020 Joint Sewer Rate Study (Study) performed for the City of Ukiah (City) and Ukiah Valley Sanitation District (District). We appreciate the fine assistance provided by you and all of the members of the City and District staff who participated in the Study.

If you or others at the City or District have any questions, please do not hesitate to contact me at:

[mhildebrand@hildco.com](mailto:mhildebrand@hildco.com)  
(510) 316-0621

We appreciate the opportunity to be of service to the City and/or District and look forward to the possibility of doing so again in the near future.

Sincerely,

Mark Hildebrand  
Hildebrand Consulting, LLC

Robert Reed  
The Reed Group, Inc.

Enclosure

## Executive Summary

Hildebrand Consulting, LLC and The Reed Group, Inc. (collectively “Consultant”) were retained by the City of Ukiah (City) and the Ukiah Valley Sanitation District (District) to conduct a Joint Sewer Rate Study (Study).

### **STUDY**

The City and District recently entered into a new Operating Agreement<sup>1</sup> which specifies how sewer collection and treatment services will be provided within the respective service areas and how costs will be fairly shared and distributed. The purpose of this “joint” sewer rate study is to develop new (and separate) sewer rates schedules appropriate for both the City and the District, which will be based on a consistent methodology and approach and aligned with the new Operating Agreement.

### **SCOPE & METHODOLOGY**

The scope of this Study was to prepare multi-year financial plans, develop a consistent cost-of-service analyses, review the existing rate structures, and propose 5-year rate schedules for both the City and District. This Study applied methodologies that are aligned with industry standard practices for rate setting as promulgated by the Water Environment Federation (WEF) and all applicable law, including California Constitution Article XIII D, Section 6(b), commonly known as Proposition 218.

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<sup>1</sup> Operating Agreement for the Combined Sewer System Serving the Ukiah Valley Sanitation District and the City of Ukiah

## **OPERATING AGREEMENT BACKGROUND**

The 2018 Operating Agreement between the City and the District includes a number of conditions that guide the approach to this Study. For example, the Operating Agreement specifies that budgeted operating costs are to be allocated to each party based on their proportionate use of the WWTP. For the purpose of performing this allocation of costs between the District and City, this Study defines an Equivalent Sewer Service Strength Unit (ESSSU) as the average winter water usage of a residential dwelling unit at residential strength. This term is not to be confused with the term “ESSU” (equivalent sewer service unit), which was established by the Operating Agreement for the purpose of defining the number Capacity Project units used by each utility.

## **FINANCIAL PLANS**

Financial plans were developed for both utilities, which provide a finance strategy that will enable both utilities to meet revenue requirements and financial performance objectives throughout the planning period while striving to minimize rate increases. Sewer Utility Operating Budget and Funds

### **Revenue**

Rate revenue is the revenue generated from customers for sewer service. The City collects all rate revenue from both City and District customers. Rate revenue received from District customers is allocated to the District and rate revenue received from City customers is allocated to the City. Rate revenue for both utilities is collected through a fixed “Base” charge and a variable “Usage” charge, although the rate structures between the City and the District are slightly different. This Study’s financial plans propose annual rate revenue adjustments that will meet the City and District’s respective revenue requirements.

### **Operating and Maintenance Expenses**

The combined operating and maintenance expenses include all ongoing collection, treatment, disposal, and administrative expenses. The ratio of ESSSUs between the City and the District are used to establish each utility's proportionate use of both the collection system and the WWTP for the purpose of allocating most annual budgeted operating costs. Most expenses are split based on the current ESSSU allocation (50.163% District : 49.837% City), while billing expenses are split based on the proportion of accounts (43.662% District : 56.338% City), and debt expenses are split as dictated by the Operating Agreement in FY 2019/20 (48.0% District : 52.0%) and based on the findings of this Study thereafter.

### **Debt Service**

Section II.D.2. of the Operating Agreement describes the prescribed methodology for allocating the debt service costs associated with the 2006 Bond. As detailed in the full report, this Study calculated a debt service allocation of 53.997% for the District and 46.003% for the City.

The City and District currently share responsibility for repayment of a 2006 Revenue Bond. The allocation of the costs associated with the 2006 Bond is described in Section 2.4. A pivotal topic for these financial plans has been the refinancing of the 2006 Bond, which has significantly reduced debt service obligations for both utilities. The District's annual debt service has decrease by approximately \$530 thousand and the City's annual debt service would decrease by over \$340 thousand<sup>2</sup>.

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<sup>2</sup> The change in the debt service for both entities is affected by the change in the allocation methodology. In addition, the District plans to use cash reserves to pay down \$2.5 million in outstanding principal and the City will fund \$1.4 million of its Settlement Agreement costs with bond proceeds as well as defer some of the debt service that was previously due in FY 2019/20.

**Capital Improvement Program**

For purposes of this Study, all planned capital projects were identified as either a shared cost (subject to the allocation based on relative ESSUs) or a City-only expense.

**PROPOSED RATE REVENUE INCREASES**

Based upon the financial data, assumptions, and reserve targets, this Study proposes a 5-year schedule of rate adjustments as detailed in the two tables below for the District and for the City.

**Recommended District Sewer Rate  
Revenue Increases<sup>3</sup>**

Rate Adjustment Date	Proposed Rate Revenue Increase
July 1, 2020	0.0%
July 1, 2021	1.0%
July 1, 2022	1.0%
July 1, 2023	1.0%
July 1, 2024	1.0%

Rate Adjustment Date	Proposed Rate Revenue Increase
July 1, 2020	5.0%
July 1, 2021	2.0%
July 1, 2022	2.0%
July 1, 2023	1.0%
July 1, 2024	1.0%

**Recommended City Sewer Rate  
Revenue Increases**

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<sup>3</sup> Recommended rate revenue increases for the District are based on best available information at this time, however District staff acknowledges that there are two future unknowns that may materially change the District’s revenue requirements in the next 5 years: (1) potential shared costs for operating and maintaining the recycled water system and (2) the transfer of ownership of a series of District accounts to the City (“detachment”).

## **COST OF SERVICE**

A cost-of-service analysis evaluates the cost of providing sewer service and proportionately allocates those costs to customer classes and rate structure components to ensure the proposed rate structure is (1) aligned with the costs of providing sewer service (2) equitable among all ratepayers, and (3) complies with Proposition 218. This Study employed well-established industry practices as recognized by the WEF, AWWA, and other accepted industry standards. After analyzing sewer system use characteristics for all customers within both service areas, unit costs are applied to the equivalent sewer service flow units<sup>4</sup> (ESSFUs), annual sewer flows, BOD loadings and SS loadings associated with each customer class to arrive at the allocation of total costs to each customer class. The table below presents the allocation of costs to each user class.

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<sup>4</sup> A measure of sewer utility service based on the estimated volume of wastewater from an average residential dwelling

**Allocation of Costs to Users (District and City)**

No. of ESSFUs	Water Usage (hcf)	BOD Strength (mg/l)	SS Strength (mg/l)	Customer Class	Service Charge Costs			Allocation of Total Costs		
					Fixed Costs	Variable Costs (1)				
					Flow	BOD	SS			
<b>District</b>										
					<b>\$578.89/ ESSFU</b>	<b>\$1.19/ hcf</b>	<b>\$0.92/ lb</b>	<b>\$0.95/ lb</b>		
<i>Residential</i>										
2,291	185,741	175	175	Single Family	\$1,326,231	\$221,014	\$186,906	\$193,000	\$1,927,151	
1,290	68,511	175	175	Multi-Family	\$746,765	\$81,522	\$68,941	\$71,189	\$968,416	
620	49,141	175	175	Mobile Homes	\$358,910	\$58,473	\$49,450	\$51,062	\$517,895	
<i>Commercial</i>										
1,411	89,401	175	175	Low Strength	\$816,594	\$106,378	\$89,961	\$92,895	\$1,105,828	
433	28,149	200	200	Moderate Strength	\$250,748	\$33,494	\$32,372	\$33,427	\$350,041	
52	6,015	500	500	Medium Strength	\$30,032	\$7,157	\$17,294	\$17,857	\$72,340	
205	13,983	800	600	High Strength	\$118,724	\$16,638	\$64,322	\$49,815	\$249,499	
<b>6,302</b>	<b>440,941</b>	<b>Totals:</b>			<b>\$3,648,004</b>	<b>\$524,677</b>	<b>\$509,245</b>	<b>\$509,245</b>	<b>\$5,191,171</b>	
<b>City</b>										
					<b>\$592.25/ ESSFU</b>	<b>\$1.31/ hcf</b>	<b>\$1.02/ lb</b>	<b>\$1.05/ lb</b>		
<i>Residential</i>										
2,724	184,342	175	175	Single Family	\$1,613,285	\$241,641	\$204,433	\$212,066	\$2,271,425	
1,455	83,060	175	175	Multi-Family	\$861,722	\$108,877	\$92,112	\$95,552	\$1,158,263	
248	17,452	175	175	Mobile Homes	\$146,878	\$22,877	\$19,354	\$20,077	\$209,185	
<i>Commercial</i>										
1,464	99,345	175	175	Low Strength	\$866,982	\$130,224	\$110,172	\$114,286	\$1,221,663	
104	7,122	200	200	Moderate Strength	\$61,536	\$9,336	\$9,026	\$9,364	\$89,262	
51	3,464	500	500	Medium Strength	\$30,091	\$4,541	\$10,976	\$11,386	\$56,993	
217	14,800	800	600	High Strength	\$128,736	\$19,400	\$75,031	\$58,374	\$281,542	
<b>6,263</b>	<b>409,585</b>	<b>Totals:</b>			<b>\$3,709,229</b>	<b>\$536,895</b>	<b>\$521,104</b>	<b>\$521,104</b>	<b>\$5,288,332</b>	

**Footnotes:**

(1) Unit costs at the top of each column are multiplied by the wastewater flow, the BOD loading, or the SS loading for each customer class.

**RATE STRUCTURE RECOMMENDATIONS**

The City and District currently have very similar rate structures with only a few minor differences. With the concurrence of both District and City staff, this Study recommends that the rate *structures* be modified to be identical (although the rates themselves will be different to reflect the different financial needs and objectives of each respective agency). The changes are not expected to be material for either party and having identical rate structures will help the parties coordinate business and rate decisions in the future.

All customers pay a fixed monthly Service Charge and a Consumption Rate. Residential customers will pay a Service Charge for each dwelling unit while Commercial customers

will pay a Service Charge for each ESSFU. The Consumption Rate for all customers is determined by multiplying the account’s winter water usage by the respective Consumption Rate for the customer classification (which accounts for sewer strength).

The tables below presents the proposed Service Charges and Consumption Rates for the next 5 years.

**District 5-Year Sewer Rate Schedule**

	July 1, 2020	July 1, 2021	July 1, 2022	July 1, 2023	July 1, 2024
<b>Monthly Service Charge*:</b>	\$48.24	\$54.75	\$55.30	\$55.85	\$56.41
<b>Consumption Rate (per HCF):</b>					
Residential:	\$3.24	\$3.67	\$3.71	\$3.75	\$3.79
Commercial 1:	\$3.24	\$3.67	\$3.71	\$3.75	\$3.79
Commercial 2:	\$3.53	\$4.00	\$4.04	\$4.08	\$4.12
Commercial 3:	\$7.03	\$7.98	\$8.06	\$8.14	\$8.22
Commercial 4:	\$9.35	\$10.62	\$10.73	\$10.84	\$10.95

\* Service Charge is per dwelling unit for residential and per ESSFU for commercial accounts (with a minimum charge of 1 ESSFU).

**City 5-Year Sewer Rate Schedule**

	July 1, 2020	July 1, 2021	July 1, 2022	July 1, 2023	July 1, 2024
<b>Monthly Service Charge*:</b>	\$49.35	\$50.34	\$51.35	\$51.86	\$52.38
<b>Consumption Rate (per HCF):</b>					
Residential:	\$3.57	\$3.64	\$3.71	\$3.75	\$3.79
Commercial 1:	\$3.57	\$3.64	\$3.71	\$3.75	\$3.79
Commercial 2:	\$3.89	\$3.97	\$4.05	\$4.09	\$4.13
Commercial 3:	\$7.77	\$7.92	\$8.08	\$8.16	\$8.24
Commercial 4:	\$10.32	\$10.53	\$10.74	\$10.85	\$10.96

\* Service Charge is per dwelling unit for residential and per ESSFU for commercial accounts (with a minimum charge of 1 ESSFU).

**CONCLUSION**

This Study used methodologies that are aligned with industry standard practices for rate setting as promulgated by WEF, AWWA and all applicable laws, including

California's Proposition 218. The proposed annual adjustments to the rates proportionately assign costs to each customer class and customer based on service demands and will allow the City and District to continue to provide reliable and affordable sewer service to customers.

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**Schedule 1 – Detailed Allocation of Operational Expenses between District and City**

**Schedule 2 – City Cash Flow Pro Forma**

**Schedule 3 – District Cash Flow Pro Forma**

## List of Acronyms

AWWA	American Water Works Association
CIP	capital improvement program
DCR	debt service coverage ratio
ENR	<i>Engineering News Record</i> (periodical)
ESSFU	Equivalent sewer service flow unit, a measure of sewer utility service based on the estimated volume of wastewater from an average residential dwelling
ESSSU	Equivalent sewer service strength unit, a measure of sewer utility service based on the estimated volume and strength of wastewater from an average residential dwelling
ESSU	Capacity Project equivalent sewer service unit, as defined and applied by the Operating Agreement between the City and District in order to assign capacity to a connection or reserved for a connection
FY	fiscal year (which ends on June 30)
hcf	hundred cubic feet (i.e. 748 gallons)
MG	million gallons
WEF	Water Environment Federation
WWTP	Wastewater treatment plant

## **Section 1. INTRODUCTION**

Hildebrand Consulting, LLC and The Reed Group, Inc. (collectively “Consultant”) were retained by the City of Ukiah (City) and the Ukiah Valley Sanitation District (District) to conduct a Joint Sewer Rate Study (Study). This report describes in detail the assumptions, procedures, and results of the Study, including conclusions and recommendations.

### **1.1 SEWER UTILITY BACKGROUNDS**

Within the Ukiah Valley there are three agencies that provide wastewater treatment services: (1) City of Ukiah, (2) Ukiah Valley Sanitation District, and (3) Calpella County Water District. The City owns the collection system within a portion of its jurisdictional boundaries and a wastewater treatment plant (WWTP). The District owns the collection system within its jurisdictional boundaries, a part of which is within the City’s boundaries, (known as the “overlap area”). The District and City have entered into various agreements and amendments for the sharing of costs associated with the operation, maintenance, and rehabilitation of the sewer collection system and the WWTP, as well as administrative costs such as utility billing. At present the District does not have operations staff of its own; it therefore contracts with the City of Ukiah for the provision of wastewater services. The City has its own staff, equipment and facilities for management and operations of wastewater services within the City’s jurisdiction.

Calpella County Water District owns and operates its collection system and treatment plant and is not included as part of this Study.

## 1.2 RATE STUDY BACKGROUND

The City and District recently entered into a new Operating Agreement<sup>5</sup> which specifies how sewer collection and treatment services will be provided within the respective service areas and how costs will be fairly shared and distributed. The purpose of this “joint” sewer rate study is to develop new (and separate) sewer rates schedules appropriate for both the City and the District, which will be based on a consistent methodology and approach and aligned with the new Operating Agreement. The Study has been performed with equal input from both the City and District, including direction from the City and District staff, financial advisors, and lawyers provided during joint meetings and group conference calls.

## 1.3 SCOPE & OBJECTIVES OF STUDY

The scope of this Study was to prepare multi-year financial plans, develop a consistent cost-of-service analyses, review the existing rate structures, and propose 5-year rate schedules for both the City and District. The primary objectives of this Study were to:

- i. Establish a transparent and repeatable methodology for allocating operating and capital costs between the City and the District
- ii. Develop multi-year financial management plans for both the City and District that integrate operational and capital project funding needs
- iii. Identify future annual rate adjustments to sewer rates to help ensure adequate revenues to meet the respective utilities’ ongoing service and financial obligations
- iv. Determine the cost of providing sewer service to customers using industry-accepted methodologies

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<sup>5</sup> Operating Agreement for the Combined Sewer System Serving the Ukiah Valley Sanitation District and the City of Ukiah.

- v. Recommend specific modifications to the existing rate structures in order to ensure that the proposed rates equitably recover the cost of providing service and comporting with industry standards and California’s legal requirements

## 1.4 STUDY METHODOLOGY

This Study applied methodologies that are aligned with industry standard practices for rate setting as promulgated by the Water Environment Federation (WEF) and all applicable law, including California Constitution Article XIII D, Section 6(b), commonly known as Proposition 218.

The Study began with reviewing billing data of all customers (both City and District) to identify the number of customers, water use, and estimated sewage volume and strength in both service areas (see Section 2). This data was used to calculate the respective number of “equivalent sewer service strength units” (ESSUs)<sup>6</sup> in both the City and District in order to allocate operating, debt and capital costs to each entity in accordance with the Operating Agreement (see Section 2).

The next step was to develop multi-year financial management plans (for both the City and the District) that determined the level of annual rate revenue required to cover estimated annual operating expenses, debt service (including coverage targets), and capital cost requirements while maintaining adequate reserves. The financial planning models were customized to reflect the financial dynamics of both utilities.

The respective revenue requirements calculated in the financial plans for fiscal year 2020/21 (FY 2020/21) were then used to perform detailed cost-of-service analyses. The cost-of-service analyses and rate structure designs were conducted based upon principles outlined by the WEF, legal requirements (Proposition 218 and relevant court

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<sup>6</sup> Not to be confused with “ESSU” as defined in the Operating Agreement, as explained in Section 2.1.1.

decisions) and other generally accepted industry practices to develop rates that reflect the cost of providing service.

Draft recommendations for the financial plans and updated rate structures were presented to the City Council and District Board on March 11. This final report contains minor modifications to the rates based on changes to some financial assumptions since that meeting. .

## **1.5 REPORT ORGANIZATION**

Section 2 addresses the relevant content of the Operating Agreement, including how operational expenses, debt service, and capital improvement costs are assigned to each the District and City, as well as how the Agreement's requirements have been interpreted by this Study. Section 3 presents the assumptions, methodology, and findings of the respective financial plans, including proposed debt strategies and rate revenue increases for both utilities. Section 4 describes the proportionate allocation of costs to specific customer classes (using an identical cost-of-service methodology for both utilities). Section 5 describes the proposed rate design structure and includes the proposed rate schedules for both utilities for a 5-year planning period. While the rate structures are identical for both utilities, there are differences in the actual rates due to differences in each utility's finances and customer profiles.

## Section 2. OPERATING AGREEMENT BACKGROUND

The 2018 Operating Agreement between the City and the District includes a number of conditions that guide the approach to this Study. The pertinent conditions are described below, including a description of how those conditions have been interpreted for the purposes of this Study.

### 2.1 EQUIVALENT SEWER SERVICE UNITS

The City operates the combined sewer system as one system with the combined treatment and collection costs apportioned between the City and the District. Section II.D.1.a.(1) of the Operating Agreement specifies that budgeted operating costs are to be allocated to each party based on their proportionate use of the WWTP, as measured by water consumption and relative strength of sewage discharged to the WWTP by the customers of each utility. For the purpose of performing this allocation of costs between the District and City, this Study defines an Equivalent Sewer Service Strength Unit (ESSSU) as the average winter water usage of a residential dwelling unit at residential strength. This term is not to be confused with the term “ESSU” (equivalent sewer service unit), which was established by the Operating Agreement for the purpose of defining the number Capacity Project units used by each utility. Section II.E.2 of the Operating Agreement specifies how ESSU values are calculated based on factors such as the number of bedrooms, which is not the case for the determination of ESSSUs for rate setting purposes.

This Study allocates one (1) ESSSU to each residential dwelling unit, including single family homes, multifamily dwellings, and mobile home dwellings. These data were extracted from the City’s sewer billing data for FY 2019/20. A summary of all residential dwelling units by utility can be found in **Table 1**.

ESSSU values are assigned to commercial (i.e. non-residential) accounts by comparing the winter water use and sewer strength of each commercial account to an average residential dwelling. The average quantity of water used by residential dwelling customers was calculated based on water usage records from the City's water utility, Millview County Water District, Willow County Water District, and Regina Water Company during the winter months of January, February, and March. The average monthly winter usage across all residential dwelling units in the winter of 2019 was determined to be 5.68 hundred cubic feet (hcf).

As detailed in Section 4, the commercial strength classifications include low, moderate, medium, and high and were assigned based on the existing commercial classifications of each commercial account. As required by the Operating Agreement, and consistent with common industry practice, each strength classification is assigned a numerical factor designed to fairly capture the relative strength of the discharge of each respective class. The calculations regarding the application of the strength factors are detailed in Section 4.

The ESSSU assignment for each commercial account is calculated by comparing the account's winter water usage to the average water usage by residential dwellings, and then multiplied by the numerical strength factor assigned to the commercial classification. For example, a commercial medium strength commercial account with month winter water usage of 11.36 hcf would be assigned 3.10 ESSSUs (11.36 hcf divided by 5.68 hcf x 1.552<sup>7</sup>).

See **Table 1** for a summary of all ESSSUs by customer class and by utility.

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<sup>7</sup> Medium Strength Commercial has a strength factor of 1.552, see Section 4.5.

Table 1. Summary of Accounts, Dwelling Units and ESSSUs by Utility

	Accounts	Dwelling Units	ESSSUs	
			Count	%
<b>District</b>				
Single Family	2,291	2,291	2,291	17.6%
Multi-Family	163	1,290	1,290	9.9%
Mobile Homes	11	620	620	4.8%
Low Strength	267	(na)	1,411	10.8%
Moderate Strength	18	(na)	452	3.5%
Medium Strength	5	(na)	81	0.6%
High Strength	21	(na)	388	3.0%
<b>District Totals:</b>	<b>2,776</b>	<b>4,201</b>	<b>6,532</b>	<b>50.163%</b>
<b>City</b>				
Single Family	2,724	2,724	2,724	20.9%
Multi-Family	247	1,455	1,455	11.2%
Mobile Homes	7	248	248	1.9%
Low Strength	545	1,464	1,464	11.2%
Moderate Strength	14	104	108	0.8%
Medium Strength	9	51	79	0.6%
High Strength	36	217	412	3.2%
<b>City Totals:</b>	<b>3,582</b>	<b>6,263</b>	<b>6,490</b>	<b>49.837%</b>

## 2.2 ALLOCATION OF OPERATING COSTS

The ratio of ESSSUs shown in Table 1 are used to establish each utility's proportionate use of both the collection system and the WWTP for the purpose of allocating annual budgeted operating costs. The exception to this rule are costs related to billing and collection of revenue (which are allocated based on the relative number of accounts in each utility) and costs that are specified to be borne entirely by one utility or the other<sup>8</sup>.

<sup>8</sup> The only costs that were borne entirely by one utility or the other were specific legal fees and costs associated with the Settlement Agreement. Numerous sources of non-rate revenue were allocated

As part of this Study, Consultant reviewed the detailed operating budgets with both City and District staff to ascertain the appropriate allocation methodology of each budgetary line-item. The allocation of annual operating costs are detailed in Schedule 1 (at the end of this report), which shows that most revenues and some expenses are designated as either for the District or for the City. Most expenses are split based on the current ESSSU allocation (50.163% District : 49.837% City, see Table 1), while billing expenses are split based on the proportion of accounts (43.662% District : 56.338% City), and debt expenses are split as dictated by the Operating Agreement in FY 2019/20 (48.0% District : 52.0%) and based on the findings of this Study thereafter (see Section 2.4).

### **2.3 ALLOCATION OF CAPITAL COSTS**

Section II.D.3.a. of the Operating Agreement states that capital improvement costs that benefit both the District and the City are subject to cost allocation using the allocation methodology (as described in the previous paragraph). The Operating Agreement describes a number of principals for identifying and negotiating capital improvement costs, which are beyond the scope of this report. It is anticipated that the allocation of capital costs will be a process that will be repeated annually between the City and the District. For purposes of this Study, all planned capital projects were identified as either a shared cost (subject to the allocation based on relative ESSSUs) or a City-only expenditure. No projects were identified as District-only. These projects have been summarized in Table 5.

### **2.4 ALLOCATION OF DEBT**

Section II.D.2. of the Operating Agreement describes the prescribed methodology for allocating the debt service costs associated with the existing 2006 Bond. In FY 2018/19

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directly to one utility of the other, such as miscellaneous fees, property tax revenue, and interest earnings.

and FY 2019/20 the debt service on the 2006 Bond was split 52.0% City, 48.0% District. Beginning in FY 2020/21 25.8414% of the existing debt (the “Capacity” portion) is to be allocated 65% to the District and 35% to the City. The remaining 74.1586% (the “Upgrade/Rehabilitation” portion) is to be allocated based on each utility’s proportionate share of winter water usage and relative strength of sewage discharge to the WWTP (i.e. based on the relative number of ESSUs). With the current ESSU ratio of 50.163% : 49.837% (see Table 1), the resultant debt service allocation is 53.997% for the District and 46.003% for the City.

The City and District have worked together to refinance the 2006 Bond to take advantage of attractive interest rates. Going forward, each entity will be responsible for its own debt service obligations. Debt service schedules for the new debt have been incorporated in the financial plans as provided by the District’s and City’s respective financial advisors. The City included a portion of its Settlement Agreement costs in the City’s portion of the refinanced bond.

## Section 3. FINANCIAL PLANS

This section presents the financial plans developed for both utilities, including a description of the source data and financial assumptions. This section concludes with 5-year plans for sewer rate adjustments. Schedules 1 through 3 (attached at the end of this report) include detailed data supporting the financial plans discussed herein.

This Study's 10-year financial plans were developed through interactive work sessions with City and District staff. As a result of this process, the Study has produced robust financial plans that will help enable both utilities to meet revenue requirements and financial performance objectives throughout the planning period while striving to minimize rate increases. Financial performance objectives include covering all anticipated operating, maintenance, debt service, and capital program costs; maintaining prudent financial reserves; and meeting debt service coverage ratio targets.

### 3.1 FINANCIAL DATA & ASSUMPTIONS

The City and District provided budgeted operating costs for the current fiscal year, a multi-year capital improvement program (CIP), and outstanding debt service obligations. City and District staff also assisted in confirming other assumptions and policies, such as operating and capital reserve targets, debt service coverage targets, escalation rates for operating costs, and refinanced debt (all of which are described in the following subsections).

### 3.2 SEWER UTILITY OPERATING BUDGET AND FUNDS

This Study considered the operating budgets for both the City and the District since all costs associated with sewer operations are subject to cost allocation. The allocation of each utility's operating budget is described below and detailed in **Schedule 1**.

### 3.2.1 DISTRICT OPERATING EXPENSES AND REVENUES

The District provided its *budgeted* expenditures for FY 2019/20, which were used as the starting point for forecasting District costs over the 10-year planning period. While some costs are split between the District and the City entirely based on the ESSSU allocation methodology, other costs are borne entirely by the District (largely legal fees), and yet other costs are partially directly borne by the District and the remaining balance is split with the City based on the ESSSU methodology.

The District provided its *actual* revenues for FY 2018/19, which were used as the starting point for forecasting District costs over the 10-year planning period. All revenues received directly by the District (as opposed to District rate revenue first collected by the City) are kept by the District (not shared). These revenues include property taxes, interest earnings, and other revenue.

### 3.2.2 CITY OPERATING EXPENSES AND REVENUES

The City's sewer utility is comprised of nine funds that are used to manage the sewer utility's use of funds in a transparent manner. The following describes the purpose of each fund and how this Study's financial plan model reflected the use of those funds.

**Fund 840** – The **City Sewer Operating Fund** is the primary operating fund of the City's sewer utility and tracks most operating and maintenance expenditures that are shared by the City and the District. Fund 840 also collects all revenue (including rate revenue) that is designated for the City.

**Fund 940** – The **District Sewer Operating Fund** is used to track rate revenue and operating costs that are designated for the District only.

**Fund 841** – The **Sewer Debt Service Fund** is used to track all existing debt (both City and District) and is used as a “clearing fund” to allocate those costs, as appropriate, to either Fund 840 or Fund 940.

**Fund 842** – The **City Sewer Rate Stabilization Fund** holds reserves, including reserves that are conditions for debt.

**Fund 942** – The **District Sewer Rate Stabilization Fund** holds reserves, including reserves that are conditions for debt.

**Fund 843** – The **City Connection Fee Fund** holds funds from connect fee revenues, reserves, which are restricted for the purpose of paying for growth-related sewer system capital projects.

**Fund 943** – The **District Connection Fee Fund** holds funds from connect fee revenues, reserves, which are restricted for the purpose of paying for growth-related sewer system capital projects.

**Fund 844** – The **City Capital Reserve** holds unrestricted funds for the use of paying for encumbered capital projects (see Section 3.2.4).

**Fund 944** – The **District Capital Reserve** holds unrestricted funds for the use of paying for encumbered capital projects.

While the financial plan models for this Study was developed with an understanding of these funds, the models did not attempt to replicate the internal movement of all moneys between funds.

### 3.2.3 BEGINNING FUND BALANCES

The FY 2019/20 beginning fund balances for the District and the City are summarized in **Table 2** and **Table 3** respectively. The District’s fund balances are not reported in the “940” fund series nomenclature because the District’s books simply recognizes the sum of all the District’s cash and equivalents (regardless of where the monies are held).

**Table 2: District Beginning Cash Balance (FY 2019/20)**

Cash and investments	\$6,327,000
Restricted Cash	\$0
<b>Total:</b>	<b>\$6,327,000</b>

**Table 3: City Beginning Cash Balance (FY 2019/20)**

<b>FUND</b>	<b>BALANCE</b>
Fund 840	\$1,714,000
Fund 841	\$0
Fund 842	\$2,975,000
Fund 843	\$1,884,000
Fund 844	\$0
<b>TOTAL:</b>	<b>\$6,573,000</b>

### 3.2.4 RESERVE TARGETS

Reserves for utilities are cash balances that are maintained in order to (a) comply with contractual obligations (e.g. bond covenants), (b) protect the utility from unexpected financial events, and/or (c) accommodate operational and capital program cash flow needs. Often multiple reserves are maintained, each with a specific function. In addition to the direct benefits of financial stability, reserves can help utilities obtain higher credit rankings, which can then help qualify the utility for cheaper debt. Credit rating agencies evaluate utilities on their financial stability, which includes adherence to formally adopted reserve targets.

The City has adopted financial management policies which include guidance with respect to reserve levels. While the District has not formally adopted such policies, the City's policies will be followed for both entities for purposes of this Study.

The City's policies call for City enterprise funds (including the sewer utility) to maintain a minimum working capital balance of at least 25 percent of operating expenses. The primary purpose of this balance is to set aside funds to maintain cash balances sufficient to pay expenses as needed and to provide for unanticipated or emergency expenses that could not be reasonably foreseen during the preparation of the budget.

The City's financial policies also require that fund balances and retained earnings should be sufficient to meet debt service reserve requirements, reserves for encumbrances (see Fund 844 and Fund 944), funding requirements for projects approved in prior years that are carried forward (see Fund 844 and Fund 944), and established rate stabilization reserves (as required by bond covenant, see Fund 842 and Fund 942).

The above policies are generally consistent with Consultant's industry experience for similar systems. In order to further strengthen the current reserve policies, this Study recommends that (1) the minimum working capital balance be raised to 50 percent of operating expenses (which is common for smaller utilities) and (2) establish a Capital Reserve target equal to the average annual planned capital spending (\$670 thousand for the District and \$646 thousand for the City). The working capital reserve ensures continuity of service regardless of short-term changes in cash flow or sudden increases in operating costs. The Capital Reserve is designed to smooth the inherent variability of the capital spending program. In other words, this reserve would be drawn down during years of higher-than-average capital spending and conversely the reserve would be built up during years when capital spending is below average. Such an approach can help reduce the need for large rate adjustments and help ensure continuous funding for capital replacement and rehabilitation projects.

In addition to the above, the District has created a Rate Stabilization Reserve of approximately \$2 million (one year of debt service) as part of the recently refinanced bond (the City's refinancing terms did not include a Rate Stabilization Reserve).

Building on the City's existing reserve policies would establish reserves that are aligned with best practices as reported by reserve studies conducted by the American Water

Works Association (AWWA), and healthy reserve levels for public utilities per the evaluation criteria published by rating agencies (e.g. Fitch, Moody's, and Standard & Poor's).

### 3.2.5 CUSTOMER GROWTH

Future customer growth affects this Study in terms of (1) anticipated connection fee revenue, (2) increase in rate revenue, and (3) changes in the ratio of ESSUs between the City and the District. Based on recent connection fee revenue and known difference in growth potential, this Study assumes that the District's growth rate (assumed to be 0.55% per year) will out-pace the City's growth rate (assumed to be 0.08% per year). As a result, the District's ESSU ratio (currently at 50.16%) is forecasted to slowly increase over time at a rate of 14 basis points per year (while the City ratio decreases at the same pace).

### 3.2.6 RATE REVENUES

Rate revenue is the revenue generated from customers for sewer service. The City collects all rate revenue from both City and District customers. Rate revenue received from District customers is allocated to the District (in Fund 940) and rate revenue received from City customers is allocated to the City (in Fund 840). Rate revenue for both utilities is collected through a fixed "Base" charge and a variable "Consumption" charge, although the rate structures between the City and the District are slightly different (see Section 5.1).

This Study's financial plans propose annual rate revenue adjustments that will meet the City and District's respective revenue requirements. Budgeted and projected rate revenues are listed in **Schedule 2** (District)<sup>9</sup> and **Schedule 3** (City).

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<sup>9</sup> The rate revenues in Schedule 2 and Schedule 3 includes the proposed rate adjustment recommended by this Study, as described in Section 3.3.

### 3.2.7 CONNECTION FEE REVENUE

Both the City and the District charge a connection fee to new development as a condition for connecting to the sewer system. By law (see California Government Code 66013), connection fee revenue is required to be used “solely for the purposes for which the charges were collected” (i.e. growth-related capital projects). Both the City and the District have indicated that connection fee revenues (and existing reserves from those revenues) are eligible to pay for the Capacity portion of the 2006 Bond debt service (i.e. 25.8% of the debt service). Based on those instructions, this Study uses available connection fee revenues and reserves to pay for the Capacity portion of the existing debt.

### 3.2.8 NON-RATE REVENUES

In addition to rate revenue and connection fee revenue, both utilities receive other revenue, including miscellaneous fees, interest earnings on investments, and property tax revenue (District only). Estimates of future interest income were calculated annually based upon estimated average fund balances and historic effective return on cash and invested funds (1.66% for the District and 0.36% for the City). Projections of all other non-rate revenues were based on FY 2018/19 actual revenues for the District and based on FY 2019/20 budgeted revenue for the City.

All revenues for the District and City are depicted below in Figure 1 and Figure 2 respectively, and detailed in **Schedule 2** (District) and **Schedule 3** (City). Note that the connection fee revenue for the District in FY 2019/20 is unusually high due to a large development paying the fees in the current year.

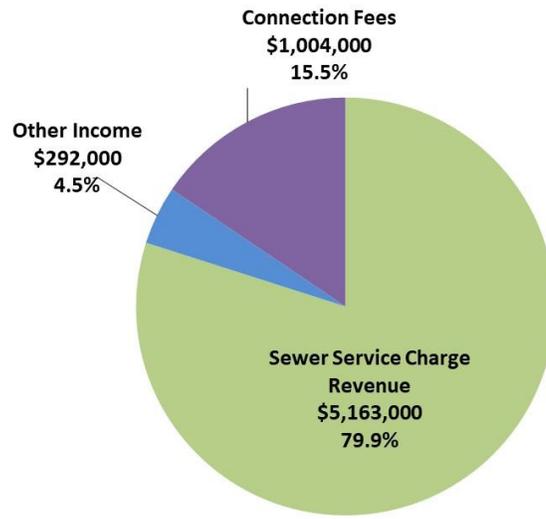


Figure 1: District Revenue Categories (FY 2019/20)

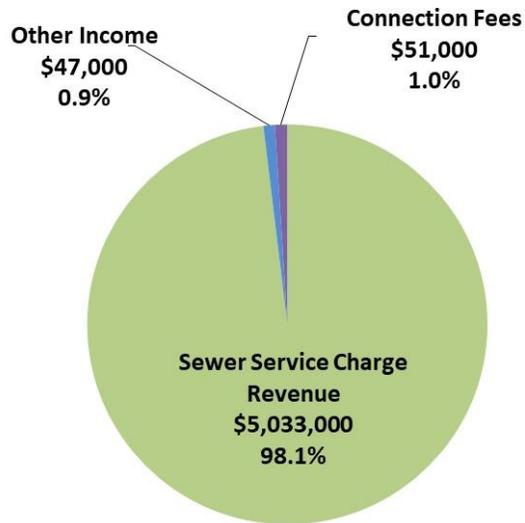


Figure 2: City Revenue Categories (FY 2019/20)

### **3.2.9 OPERATION AND MAINTENANCE EXPENSES**

The combined operating and maintenance expenses include all ongoing collection, treatment, disposal, and administrative expenses. The annual operating and maintenance costs for this Study are based on the City and District's FY 2019/20 budgets and are adjusted for future years based on inflation (see Section 3.2.10). Operating costs are allocated between the City and District as described in Section 2.2.

### **3.2.10 COST ESCALATION**

Annual cost escalation factors for the various types of expenses were developed based upon a review of historical inflation trends, published inflation forecasts, industry experience, and discussions with District and City staff. During the projection period, all operating expenses are projected to increase at 3.0% per year while capital costs are projected to increase at 3.5% per year.

### **3.2.11 DEBT SERVICE**

The City and District currently share responsibility for repayment of a 2006 Revenue Bond. The allocation of the costs associated with the 2006 Bond is described in Section 2.4. A pivotal topic for these financial plans has been the refinancing of the 2006 Bond, which has significantly reduced debt service obligations for both utilities. Based on projected debt service schedules provided by the City's and District's respective financial advisors, the District's annual debt service would decrease by approximately \$530 thousand<sup>10</sup> and the City's annual debt service would decrease by more than \$340 thousand.

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<sup>10</sup> The change in the debt service for both entities is affected by the change in the allocation methodology (see Section 2.4). In addition, the District plans to use cash reserves to pay down \$2.5 million in outstanding principal and the City will fund \$1.4 million of its Settlement Agreement costs with bond proceeds as well as defer some of the debt service that was previously due in FY 2019/20.

The financial plans for this Study have accounted for the refinancing of the 2006 Bond and debt repayment schedules provided by the City’s and District’s respective financial advisors. The terms include the debt service coverage ratio targets (1.30 for the City, 1.50 for the District) and the District’s principal payment of \$2.5 million from existing cash reserves. The debt repayment schedules are shown in **Table 4** (both City and District), based on the Closing Memos provided by the City and District’s financial advisors (with terms of 2.42% interest with a 15 year repayment term).

**Table 4: Debt Service Schedule for Refinanced Bond**

	District			City		
	Principal	Interest	Total	Principal	Interest	Total
FY 2020/21	\$1,380,000	\$608,550	\$1,988,550	\$1,390,000	\$608,722	\$1,998,722
FY 2021/22	\$1,430,000	\$563,074	\$1,993,074	\$1,436,000	\$562,965	\$1,998,965
FY 2022/23	\$1,466,000	\$528,250	\$1,994,250	\$1,471,000	\$528,008	\$1,999,008
FY 2023/24	\$1,504,000	\$492,543	\$1,996,543	\$1,507,000	\$492,192	\$1,999,192
FY 2024/25	\$1,541,000	\$455,928	\$1,996,928	\$1,543,000	\$455,505	\$1,998,505
FY 2025/26	\$1,580,000	\$418,406	\$1,998,406	\$1,581,000	\$417,934	\$1,998,934
FY 2026/27	\$1,621,000	\$379,904	\$2,000,904	\$1,620,000	\$379,444	\$1,999,444
FY 2027/28	\$1,658,000	\$340,458	\$1,998,458	\$1,659,000	\$339,998	\$1,998,998
FY 2028/29	\$1,698,000	\$300,104	\$1,998,104	\$1,700,000	\$299,608	\$1,999,608
FY 2029/30	\$1,740,000	\$258,746	\$1,998,746	\$1,741,000	\$258,226	\$1,999,226
FY 2030/31	\$1,787,000	\$216,360	\$2,003,360	\$1,783,000	\$215,840	\$1,998,840
FY 2031/32	\$1,832,000	\$172,836	\$2,004,836	\$1,827,000	\$172,425	\$1,999,425
FY 2032/33	\$1,875,000	\$128,236	\$2,003,236	\$1,871,000	\$127,945	\$1,998,945
FY 2033/34	\$1,921,000	\$82,583	\$2,003,583	\$1,917,000	\$82,389	\$1,999,389
FY 2034/35	\$1,972,000	\$35,792	\$2,007,792	\$1,964,000	\$35,719	\$1,999,719

The City is obligated to pay the District \$4 million as a result of the Settlement Agreement. The City has paid \$1 million with cash reserves, intends to fund another \$1.4 million with proceeds from the refinanced bond, and will fund the remaining \$1.6 million with an internal loan which will be repaid over a 10-year period at an interest rate of 2.0%. The City’s financial advisor advised Hildebrand Consulting that the internal loan repayment expense is subordinate to all external debt and therefore is not included in the debt service coverage ratio in this Study.

### 3.2.12 DEBT SERVICE COVERAGE

Debt service coverage is a measurement of the cash flow available to pay current debt obligations. The formula is net operating income (i.e., gross income minus operating expenses) divided by annual debt service. A debt service coverage ratio of 1.0 means that a utility has exactly enough money to pay its debt service after paying its operating expenses. The 2006 Bond included covenants that require the City and District to each maintain a minimum debt service coverage ratio of 1.25. Maintaining a higher debt service coverage ratio is recommended in order to access more favorable borrowing terms in the future. Based on recently published guidance from Fitch Ratings<sup>11</sup>, utility systems with *midrange* financial profiles should maintain a DCR greater than 1.50 times annual debt service.

Based on guidance provided by the City's and District's financial advisors, these financial plans target minimum debt service coverage ratios of 1.30 for the City and 1.50 for the District<sup>12</sup>.

### 3.2.13 CAPITAL IMPROVEMENT PROGRAM

As discussed in Section 2.3, the combined sewer system's capital spending is allocated to the City and the District based on terms of the Operating Agreement. Table 5 provides a summary of all capital projects planned through FY 2022/23. Capital spending for FY 2023/24 and beyond is assumed to be equal to the average spending from FY 2019/20 to FY 2022/23 (\$1.316 million).

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<sup>11</sup> As published on July 31, 2013.

<sup>12</sup> Hildebrand Consulting and The Reed Group are not financial advisors and are therefore not permitted to provide this type of financial guidance to our clients.

**Table 5: Capital Improvement Schedule (FY 2019/20 through FY 2022/23)**

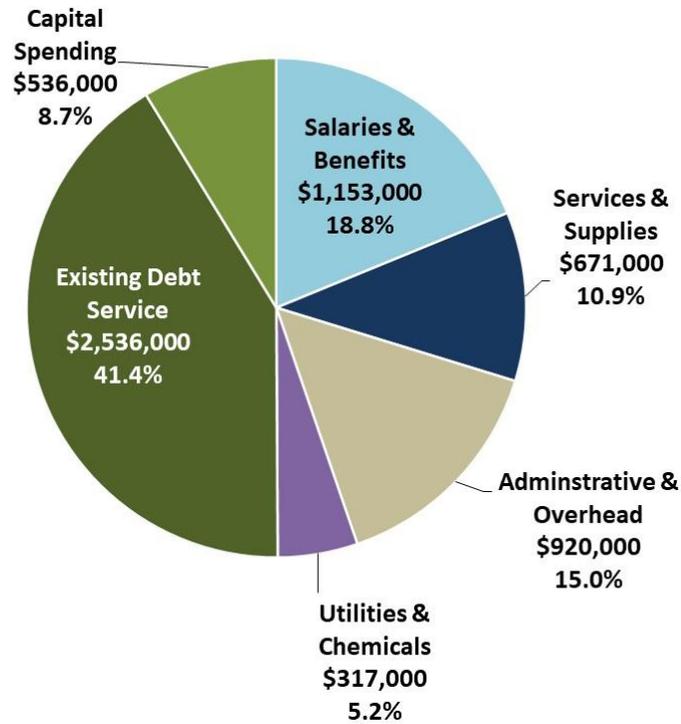
<b>Project Name</b>	<b>Split</b>	<b>FY 2019/20</b>	<b>FY 2020/21</b>	<b>FY 2021/22</b>	<b>FY 2022/23</b>
<b>FACILITIES/BUILDINGS/LAND</b>					
Upgrade HVAC Units on Buildings	Shared	\$ -	\$ -	\$ 150,000	\$ -
<b>INFORMATION TECHNOLOGY</b>					
Utility Billing CIS Replacement	Shared	\$ -	\$ -	\$ -	\$ -
<b>INFRASTRUCTURE</b>					
Chlorine Residual Valve/Alarm on Discharge	Shared	\$ 150,000	\$ -	\$ -	\$ -
Dora Street Utility Improvement Project- Water & Sewer	City only	\$ -	\$ 400,000	\$ -	\$ -
Downtown Streetscape Utility Replacement- Water & Sewer	City only	\$ 1,700,000	\$ -	\$ -	\$ -
Belt Filter Press Replacement	Shared	\$ 500,000	\$ -	\$ -	\$ -
Replace Heat Exchangers	Shared	\$ -	\$ -	\$ -	\$ -
Telemetry	Shared	\$ 30,000	\$ -	\$ -	\$ -
<b>STREETS &amp; RIGHTS-OF-WAY</b>					
Asphalt Zipper - Shared Cost	Shared	\$ -	\$ -	\$ -	\$ 40,000
Asphalt Roller - Shared Cost	Shared	\$ -	\$ -	\$ -	\$ 66,000
Asphalt Paver - Shared Cost	Shared	\$ -	\$ -	\$ -	\$ 70,000
Vactor Replacement - Shared Cost	Shared	\$ -	\$ 150,000	\$ -	\$ -
Water Tender - Shared Cost	Shared	\$ -	\$ 35,000	\$ -	\$ -
Ford/Orchard Lift Station Upgrade	Shared	\$ 100,000	\$ -	\$ -	\$ -
Replace Water/Sewer Operations Call Truck - Shared Cost	Shared	\$ -	\$ -	\$ -	\$ 30,000
Telescoping Lift	Shared	\$ 12,000	\$ -	\$ -	\$ -
Digester Rehabilitation and Methane Scrubber	Shared	\$ -	\$ -	\$ 1,500,000	\$ -
TFSC REXA Valves	Shared	\$ 30,000	\$ -	\$ -	\$ -
Field Analyzer Installation	Shared	\$ 25,000	\$ -	\$ -	\$ -
SCADA Upgrade at Waste Water Treatment Plant	Shared	\$ 200,000	\$ -	\$ -	\$ -
VFD Installation at Wastewater Treatment Plant	Shared	\$ -	\$ -	\$ 55,700	\$ -
Utility Task Vehicle	Shared	\$ 22,000	\$ -	\$ -	\$ -
<b>Total:</b>		<b>\$ 2,769,000</b>	<b>\$ 585,000</b>	<b>\$ 1,705,700</b>	<b>\$ 206,000</b>
<b>Total after escalation:</b>		<b>\$ 2,769,000</b>	<b>\$ 585,000</b>	<b>\$ 1,765,400</b>	<b>\$ 228,396</b>
<b>City Total:</b>		<b>\$ 2,224,898</b>	<b>\$ 490,838</b>	<b>\$ 866,843</b>	<b>\$ 112,146</b>
<b>District Total:</b>		<b>\$ 544,102</b>	<b>\$ 94,162</b>	<b>\$ 898,557</b>	<b>\$ 116,249</b>

**3.2.14 FUTURE BORROWING ASSUMPTIONS**

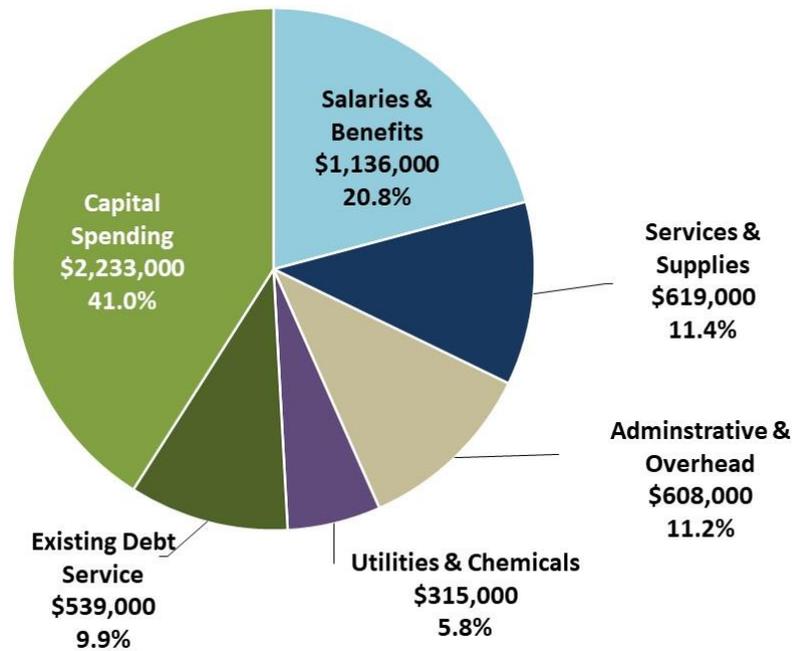
Aside from the City’s financing of the Settlement Agreement (see Section 3.2.11), this Study does not propose any new debt in order to finance the costs of future capital projects. Debt financing is not utilized because none of the capital projects during the planning period are expected to materially impact cash reserves and it is more cost effective to fund ongoing rehabilitation and replacement projects on a pay-as-you-go basis.

**3.2.15 EXPENDITURE SUMMARY**

The District’s FY 2019/20 budgeted operating, capital and debt expense categories are depicted in **Figure 3** and detailed in **Schedule 2**. The City’s FY 2019/20 budgeted operating, capital and debt expense categories are depicted in **Figure 4** and detailed in **Schedule 3**.



**Figure 3: District Budgeted Expense Categories (FY 2019/20)**



**Figure 4: City Budgeted Expense Categories (FY 2019/20)<sup>13</sup>**

### 3.3 PROPOSED RATE REVENUE INCREASES

All of the above information was entered into separate financial planning models (City and District) to produce 10-year financial plans that evaluated the sufficiency of current revenues to meet current and estimated future financial obligations and determined the level of rate revenue increases necessary in each year of the planning period.

Based upon the previously discussed financial data, assumptions, and reserve targets, this Study proposes a 5-year schedule of rate adjustments as detailed in **Table 6** for the District and **Table 7** for the City. As will be described in the sections that follow, rate structure changes are proposed for the new rates to be effective July 1, 2020.

<sup>13</sup> Debt service in FY 2019/20 is atypically low due to deferral of debt by the City

**Table 6: Recommended District Sewer Rate Revenue Increases<sup>14</sup>**

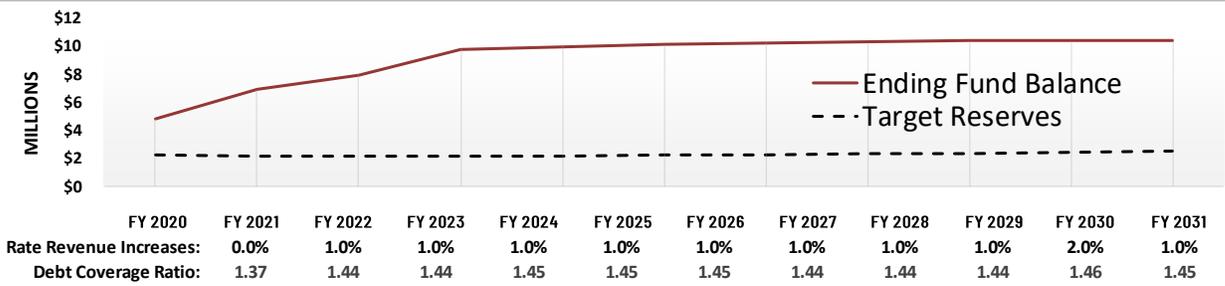
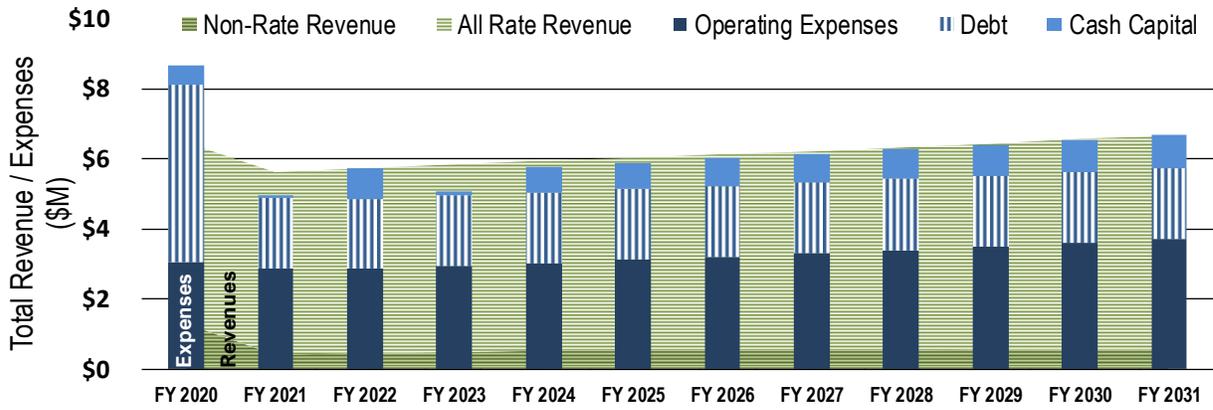
Rate Adjustment Date	Proposed Rate Revenue Increase
July 1, 2020	0.0%
July 1, 2021	1.0%
July 1, 2022	1.0%
July 1, 2023	1.0%
July 1, 2024	1.0%

**Table 7: Recommended City Sewer Rate Revenue Increases**

Rate Adjustment Date	Proposed Rate Revenue Increase
July 1, 2020	5.0%
July 1, 2021	2.0%
July 1, 2022	2.0%
July 1, 2023	1.0%
July 1, 2024	1.0%

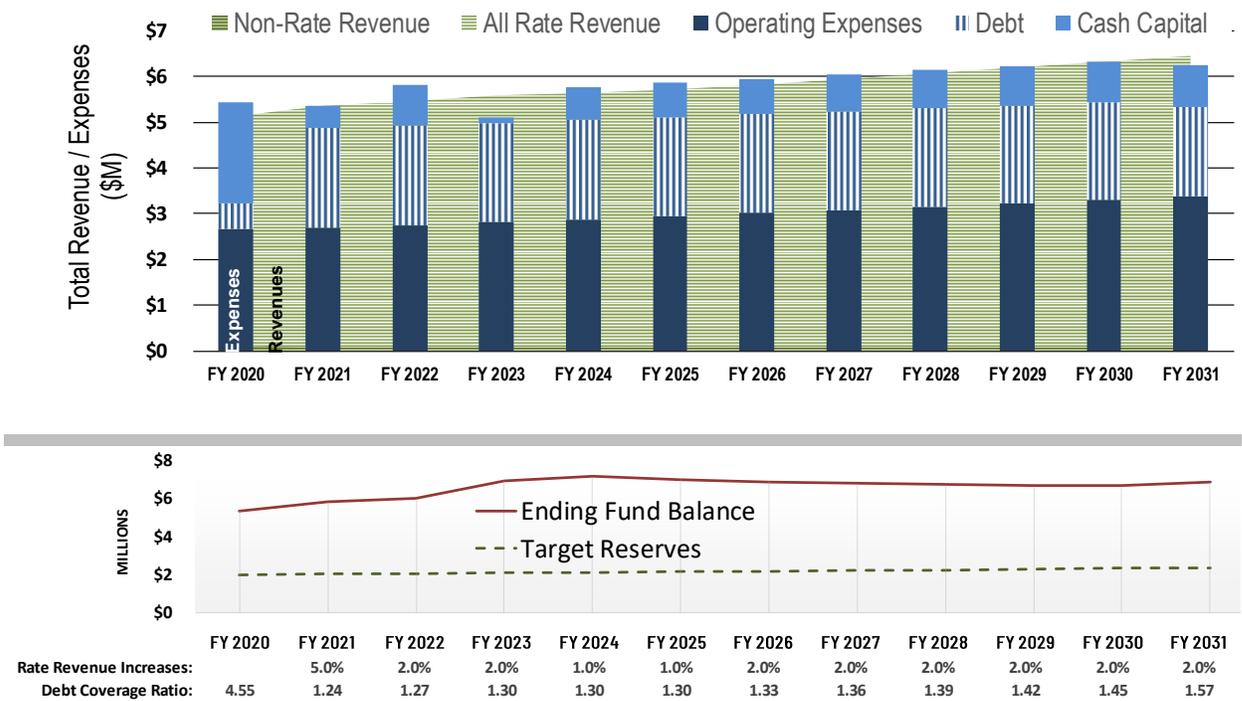
The cash flow numbers provided in **Schedule 2** for the District are summarized graphically in **Figure 5**. The cash flow numbers provided in **Schedule 3** for the City are summarized graphically in **Figure 6**.

<sup>14</sup> Recommended rate revenue increases for the District are based on best available information at this time, however District staff acknowledges that there are two future unknowns that may materially change the District’s revenue requirements in the next 5 years: (1) potential shared costs for operating and maintaining the recycled water system and (2) the transfer of ownership of a series of District accounts to the City (“detachment”).



	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031
Rate Revenue Increases:	0.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	2.0%	1.0%
Debt Coverage Ratio:	1.37	1.44	1.44	1.45	1.45	1.45	1.45	1.44	1.44	1.44	1.46	1.45

Figure 5: District Financial Forecast with Recommended Rate Increases



**Figure 6: City Financial Plan Estimates with Recommended Rate Increases**

As can be interpreted from Figure 6 and Figure 5, all proposed rate revenue increases are driven by the need to maintain the debt service coverage ratios at their respective targeted levels. Cash reserve levels for both the City and the District are expected to remain above their targeted levels for the duration of the planning period based on planned capital project spending. While rate revenues can't be decreased to lower the cash reserve levels (because of the debt service coverage ratio targets), both the City and the District should consider increasing the level of capital spending to rehabilitate existing infrastructure (i.e., use the surplus reserves to fund additional projects).

## Section 4. COST OF SERVICE

Once the respective rate revenue requirements for both utilities have been determined, the next step in the rate setting process is to evaluate the cost of providing service to individual customer classes. A cost-of-service analysis evaluates the cost of providing sewer service and proportionately allocates those costs to customer classes and rate structure components to ensure the proposed rate structure is aligned with the costs of providing sewer service. This is done in order to be equitable among all ratepayers and to comply with Proposition 218. This Study employed well-established industry practices as recognized by the WEF, AWWA, and other accepted industry standards. The cost-of-service analysis and rate structure proposed by this Study is designed to:

- ▶ Fairly and equitably recover costs through sewer rates
- ▶ Conform to accepted industry practice and legal requirements
- ▶ Provide financial stability and recovery of system fixed costs

The following section presents a detailed description of the cost-of-service and rate structure methodology and the corresponding results. The same cost allocation and rate design methodology has been applied to both the City and the District for consistency. The rate schedules for each utility are different, however, due to the differing revenue requirements and differences in each customer base.

### 4.1 CUSTOMER STATISTICS

To develop equitable sewer rates, the revenue requirement is allocated to various customer classifications according to the services provided and the demands placed on the sewer system. There are a total of 6,358 accounts between the City and the District (see Table 8). For purposes of allocating costs to various customer classes, this Study calculated metrics to measure the use of the sewer system by various customer classes. As explained in Section 2.1, the ESSUs are assigned to commercial accounts by comparing the winter water use and sewer strength of each commercial account to the

average residential winter water use and strength. In addition, this Study measured Equivalent Sewer Service Flow Units (“ESSFUs”), which is a measure of the average winter water use of residential dwelling units (without the strength factor). ESSFUs are assigned to commercial accounts by comparing the winter water use<sup>15</sup> of each commercial account to the average winter water usage of all residential dwellings. As with ESSUs (see Section 2.1), the average quantity of water used by residential dwelling customers was calculated based on water usage records from the City’s water utility, Millview County Water District, Willow County Water District, and Regina Water Company. As previously mentioned in Section 2.1, the average monthly winter usage across all residential dwelling units in the winter of 2019 was determined to be 5.68 hcf (or 141 gallons per day).

The sewer strength factors for this Study look at biochemical oxygen demand (BOD) and suspended solids (SS) as these factors play a key role in the cost of treatment plant operations and capital expenditures. Consistent with existing practice by the City and the District, this Study uses five strength classifications: residential, low strength commercial, moderate strength commercial, medium strength commercial, and high strength commercial. Residential customers are assigned standard residential strength factors of 175 mg/l for BOD and 175 mg/l for SS. The strength assumptions for low, moderate, medium, and high commercial strength categories are summarized in Table 8. The strength characteristics used by this Study are the same as current practice for both the City and the District and are consistent with guidelines published by the California State Water Resources Control Board<sup>16</sup>.

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<sup>15</sup> As explained in Section 2.1, this Study defines winter water usage as the average monthly water usage from the previous January through March.

<sup>16</sup> California State Resources Control Board Revenue Program Guidelines (March 1998).

Table 8: Account Data and Estimated Sewer Flows and Loadings

Customer Class	No. of Accts. (1)	No. of ESSFUs (1)	No. of ESSSUs (1)	Annual Indoor Water Usage (2) hcf	Estimated Annual Wastewater Flow (3) MG	BOD Strength (3) mg/l	Annual BOD Loading (3) lbs	SS Strength (3) mg/l	Annual SS Loading (3) lbs
<b>Ukiah Valley Sewer District</b>									
<i>Residential</i>									
Single Family	2,291	2,291	2,291	185,741	138.93	175	202,775	175	202,775
Multi-Family	163	1,290	1,290	68,511	51.25	175	74,794	175	74,794
Mobile Homes	11	620	620	49,141	36.76	175	53,648	175	53,648
<i>Commercial</i>									
Low Strength	267	1,411	1,411	89,401	66.87	175	97,599	175	97,599
Moderate Strength	18	433	452	28,149	21.06	200	35,120	200	35,120
Medium Strength	5	52	81	6,015	4.50	500	18,762	500	18,762
High Strength	21	205	388	13,983	10.46	800	69,783	600	52,338
<b>District Totals:</b>	<b>2,776</b>	<b>6,302</b>	<b>6,532</b>	<b>440,941</b>	<b>329.82</b>		<b>552,482</b>		<b>535,036</b>
<b>City of Ukiah</b>									
<i>Residential</i>									
Single Family	2,724	2,724	2,724	184,342	137.89	175	201,248	175	201,248
Multi-Family	247	1,455	1,455	83,060	62.13	175	90,677	175	90,677
Mobile Homes	7	248	248	17,452	13.05	175	19,052	175	19,052
<i>Commercial</i>									
Low Strength	545	1,464	1,464	99,345	74.31	175	108,455	175	108,455
Moderate Strength	14	104	108	7,122	5.33	200	8,886	200	8,886
Medium Strength	9	51	79	3,464	2.59	500	10,805	500	10,805
High Strength	36	217	412	14,800	11.07	800	73,862	600	55,396
<b>City Totals:</b>	<b>3,582</b>	<b>6,263</b>	<b>6,490</b>	<b>409,585</b>	<b>306.37</b>		<b>512,985</b>		<b>494,520</b>

**Footnotes:**

- (1) From the utility billing system for FY 19-20.
- (2) Water usage data from average winter usage from 2019 (January through March)
- (3) Based on existing ordinance assumptions and SWRCB guidelines.

## 4.2 FIXED VS. VARIABLE COST COMPONENTS

Before costs are allocated to individual customer classes (as defined in 4.1), each utility cost is designated to be recovered either through fixed revenue or variable (i.e., usage-based) revenue. This step uses budget data from a “Test Year” (in this case FY 2020/21) and assigns each budgetary line item to either fixed revenue, variable revenue, or a combination of the two. These expense assignments are summarized in Table 9 (District) and Table 10 (City) in Rows 1 through 12. Some costs are designated to be

collected entirely through fixed revenue, such as administrative costs, legal costs, billing costs, and debt service, because these costs do not change regardless of operational activities. Other costs are designated to be collected entirely through variable revenue, such as utilities, chemical and operational supplies, because those costs can be correlated to wastewater flows. All other costs are allocated based on the “indirect allocation method” (based on the proportionate allocation of all costs that were previously allocated either to fixed or variable). In this case, the indirect allocation results in 62.0% allocation to fixed revenue and 38.0% to variable revenue for the District and 57.0% allocation to fixed revenue and 43.0% to variable revenue for the City.

Rows 13 and 14 are credits of not-rate revenue sources to offset revenue requirements. Connection fees are credits to the variable and fixed categories based on the indirect method, while Miscellaneous Non-Rate Revenue is credited entirely to offset expenses allocated to the fixed category. As a final step in Row 15, the indirect allocation basis is used to allocate the cost of building cash reserves during the Test Year.

The tables conclude with the revenue requirements from fixed and variable revenue components.

**Table 9: District Designation of Fixed vs. Variable Revenue (Test Year)**

	Test Year Budget	Revenue Recovery			
		Fixed %	Variable %	Fixed \$	Variable \$
1 Salaries and Benefits	\$1,175,987	62.0%	38.0%	\$729,674	\$446,313
2 Professional Services	\$458,806	62.0%	38.0%	\$284,679	\$174,127
3 Operating Supplies	\$148,978		100%		\$148,978
4 Utilities and Chemicals	\$326,903		100%		\$326,903
5 Administrative	\$242,217	100%		\$242,217	
6 Training	\$26,221	100%		\$26,221	
7 Billing	\$78,977	100%		\$78,977	
8 Legal Fees	\$156,734	100%		\$156,734	
9 Internal Allocation	\$212,252	100%		\$212,252	
10 Miscellaneous	\$61,614	100%		\$61,614	
11 Capital	\$92,802	62.0%	38.0%	\$57,581	\$35,220
12 Debt Service	\$1,988,550	100%		\$1,988,550	
13 Use of Connection Fees	-\$513,869	100%		-\$513,869	
14 Misc. Non-Rate Revenue	-\$334,844	100%		-\$334,844	
15 Change in Fund Balance	\$1,069,861	62.0%	38.0%	\$663,826	\$406,036
16	<b>\$5,191,188</b>	<b>Revenue Requirement:</b>		<b>\$3,653,612</b>	<b>\$1,537,576</b>
17				<b>70.4%</b>	<b>29.6%</b>
18		<b>Total Revenue Requirement:</b>		<b>\$5,191,188</b>	

<sup>1</sup> The Settlement Agreement revenue, being atypical for the District, has been excluded from this table due to its distortion effect on the rate structure.

Table 10: City Designation of Fixed vs. Variable Revenue (Test Year)

	Test Year Budget	Revenue Recovery			
		Fixed %	Variable %	Fixed \$	Variable \$
1 Salaries and Benefits	\$1,158,784	57.0%	43.0%	\$660,244	\$498,539
2 Professional Services	\$438,224	57.0%	43.0%	\$249,688	\$188,535
3 Operating Supplies	\$148,009		100%		\$148,009
4 Utilities and Chemicals	\$324,778		100%		\$324,778
5 Administrative	\$186,762	100%		\$186,762	
6 Training	\$25,794	100%		\$25,794	
7 Billing	\$99,623	100%		\$99,623	
8 Legal Fees	\$41,875	100%		\$41,875	
9 Internal Allocation	\$210,872	100%		\$210,872	
10 Miscellaneous	\$61,214	100%		\$61,214	
11 Capital	\$492,198	57.0%	43.0%	\$280,442	\$211,757
12 Debt Service	\$2,176,862	100%		\$2,176,862	
13 Use of Connection Fees	-\$516,498	100%		-\$516,498	
14 Misc. Non-Rate Revenue	-\$42,414	100%		-\$42,414	
15 Change in Fund Balance	\$482,249	57.0%	43.0%	\$274,773	\$207,476
16	<b>\$5,288,332</b>	<b>Revenue Requirement:</b>		<b>\$3,709,237</b>	<b>\$1,579,095</b>
17				<b>70.1%</b>	<b>29.9%</b>
18		<b>Total Revenue Requirement:</b>		<b>\$5,288,332</b>	

### 4.3 DETERMINATION OF UNIT COSTS

After allocating revenue requirements to be recovered through fixed vs. variable revenue, Table 11 shows how both the variable and fixed rate components are converted to unit costs. First the variable sewer rate revenue requirement is allocated evenly between the metrics of flow, biochemical oxygen demand (BOD), and suspended solids (SS). BOD and SS are measures of sewerage strength, which drives many of the variable cost of operation including chemicals, power, and labor. Based on existing practices at the City and District, common practice in the sewer utility rate setting community, and best practices promulgated by associations such as WEF, it is reasonable to allocate variable operating costs evenly between flow, BOD and SS.

Unit costs are then calculated by dividing the total cost for each component by the number of units identified in Table 8. For example, the District has approximately 552

thousand pounds of SS and an annual cost of \$507 thousand for solid removal, treatment and disposal, therefore the unit cost for SS is \$0.92 / lb. These unit costs become the basis for then assigning costs to customer classes.

**Table 11: Determination of Unit Costs (District and City)**

<b>Cost Category</b>	<b>Component Allocation Percentages (1)</b>	<b>Parameter Allocation Percentages (2)</b>	<b>Annual Cost Allocated to Each Parameter</b>	<b>Quantities for Each Parameter</b>	<b>Unit Cost for Each Parameter</b>
<b>District</b>					
<b>Fixed %</b>	70.4%		\$3,653,612	6,302 ESSFUs	\$579.78 per ESSFU
<b>Variable %</b>	29.6%		\$1,537,576		
Flow (MG)		34%	\$522,776	329.82 mg	\$1.19 per hcf
BOD (lbs)		33%	\$507,400	552,482 lbs	\$0.92 per lb
SS (lbs)		33%	\$507,400	535,036 lbs	\$0.95 per lb
			<b>Revenue Requirement: \$5,191,188</b>		
<b>City</b>					
<b>Fixed Operating Costs</b>	70.1%		\$3,709,237	6,263 ESSFUs	\$592.25 per ESSFU
<b>Variable Operating Costs</b>	29.9%		\$1,579,095		
Flow (MG)		34%	\$536,892	306.37 mg	\$1.31 per hcf
BOD (lbs)		33%	\$521,101	512,985 lbs	\$1.02 per lb
SS (lbs)		33%	\$521,101	494,520 lbs	\$1.05 per lb
			<b>Revenue Requirement: \$5,288,332</b>		

**Footnotes:**

- (1) Percentages taken from Tables 9 & 10
- (2) Allocations to parameters are consistent with prior rate studies and rate setting practices.

**4.4 ALLOCATION OF COSTS TO USERS (BY CUSTOMER CLASSES)**

Unit costs are applied to the ESSFUs, annual sewer flows, BOD loadings and SS loadings associated with each customer class to arrive at the allocation of total costs to each customer class. Table 12 presents the allocation of costs to each user class.

Table 12: Allocation of Costs to Users (District and City)

No. of ESSFUs	Water Usage (hcf)	BOD Strength (mg/l)	SS Strength (mg/l)	Customer Class	Service Charge Costs			Allocation of Total Costs		
					Fixed Costs	Variable Costs (1)				
					Flow	BOD	SS			
<b>District</b>										
					<b>\$579.78 / ESSFU</b>	<b>\$1.19 / hcf</b>	<b>\$0.92 / lb</b>	<b>\$0.95 / lb</b>		
<b>Residential</b>										
2,291	185,741	175	175	Single Family	\$1,328,270	\$220,213	\$186,229	\$192,301	\$1,927,013	
1,290	68,511	175	175	Multi-Family	\$747,913	\$81,226	\$68,691	\$70,931	\$968,761	
620	49,141	175	175	Mobile Homes	\$359,462	\$58,262	\$49,270	\$50,877	\$517,871	
<b>Commercial</b>										
1,411	89,401	175	175	Low Strength	\$817,850	\$105,993	\$89,635	\$92,558	\$1,106,036	
433	28,149	200	200	Moderate Strength	\$251,133	\$33,373	\$32,254	\$33,306	\$350,067	
52	6,015	500	500	Medium Strength	\$30,078	\$7,131	\$17,231	\$17,793	\$72,233	
205	13,983	800	600	High Strength	\$118,906	\$16,578	\$64,089	\$49,634	\$249,208	
<b>6,302</b>	<b>440,941</b>			<b>Totals:</b>	<b>\$3,653,612</b>	<b>\$522,776</b>	<b>\$507,400</b>	<b>\$507,400</b>	<b>\$5,191,188</b>	
<b>City</b>										
					<b>\$592.25 / ESSFU</b>	<b>\$1.31 / hcf</b>	<b>\$1.02 / lb</b>	<b>\$1.05 / lb</b>		
<b>Residential</b>										
2,724	184,342	175	175	Single Family	\$1,613,288	\$241,640	\$204,432	\$212,065	\$2,271,425	
1,455	83,060	175	175	Multi-Family	\$861,723	\$108,877	\$92,112	\$95,551	\$1,158,263	
248	17,452	175	175	Mobile Homes	\$146,878	\$22,876	\$19,354	\$20,077	\$209,185	
<b>Commercial</b>										
1,464	99,345	175	175	Low Strength	\$866,984	\$130,223	\$110,171	\$114,285	\$1,221,663	
104	7,122	200	200	Moderate Strength	\$61,536	\$9,336	\$9,026	\$9,364	\$89,262	
51	3,464	500	500	Medium Strength	\$30,091	\$4,541	\$10,976	\$11,386	\$56,993	
217	14,800	800	600	High Strength	\$128,737	\$19,400	\$75,030	\$58,374	\$281,541	
<b>6,263</b>	<b>409,585</b>			<b>Totals:</b>	<b>\$3,709,237</b>	<b>\$536,892</b>	<b>\$521,101</b>	<b>\$521,101</b>	<b>\$5,288,332</b>	

**Footnotes:**

(1) Unit costs at the top of each column are multiplied by the wastewater flow, the BOD loading, or the SS loading for each customer class from Table 8.

### 4.5 CALCULATION OF STRENGTH MULTIPLIERS

As introduced in Section 2.1, ESSFUs are calculated based on flow and strength characteristics. “Strength factors” are used to quantify the difference between a moderate, medium, or high strength commercial customer as compared to typical residential customers. The strength factor is made up of two elements: the fixed cost component and the variable cost component. The fixed component is based only on flow (not strength) therefore all customer types receive the same value of 70.4 for the District and 70.1% for the City (see Table 12). The remaining variable costs are scaled for each customer class in order to reflect their relative strength of the discharge. This scaling is calculated by dividing the sum of the classes’ BOD and SS strength by the sum

of residential BOD and SS strength. For this calculation we use the average value from both the City and the District (the average percent of variable costs between the City and the District is 29.7%). By way of example, the full ESSSU calculation for High Strength Commercial is shown in **Figure 7**.

$$High\ Strength\ Multiplier = 70.3\% + \left[ \frac{\left( 800 \frac{mg}{l} + 600 \frac{mg}{l} \right)}{\left( 175 \frac{mg}{l} + 175 \frac{mg}{l} \right)} \right] \times 29.7\% = 1.892$$

**Figure 7 – Example Calculation – High Strength Multiplier**

Again, ESSSU assignments for commercial accounts are calculated by comparing the account’s winter water usage to the average water usage for residential dwellings (5.68 hcf per month) and then multiplied by the numerical strength factor assigned to the commercial classification. As such, a commercial high strength commercial account with month winter water usage of 11.36 hcf would be assigned 3.78 ESSSUs (11.36 hcf divided by 5.68 hcf x 1.892).

The strength multipliers for the four commercial classes are summarized in **Table 13**.

**Table 13: Commercial Strength Factors**

<b>Classification</b>	<b>Strength Factor</b>
Low Strength	1.000
Moderate Strength	1.042
Medium Strength	1.552
High Strength	1.892

## Section 5. RATE DESIGN & SCHEDULES

The following describes recommended minor modifications the rate structures currently used by the City and the District and concludes with the proposed sewer rates schedules for both the City and the District for the next 5 years.

### 5.1 EXISTING RATE STRUCTURES

The City and District currently charge for sewer services with very similar rate structures. All customers pay a fixed “minimum charge” in addition to a consumption charge (based on winter water usage).

City Residential: All residential accounts with up to 4 dwelling units pay the minimum charge multiplied by the number of dwelling units. In addition, those accounts pay a (lower) consumption rate based on winter water usage (i.e. the water usage from the previous January). Mobile home and apartments with more than 4 dwelling units do not pay the minimum charge, however their consumption rate is equal to the (higher) Commercial 1 rate.

District Residential: All residential accounts pay the minimum charge multiplied by the number of dwelling units. In addition, a consumption rate is charged based on all winter water usage in excess of 3.4 hundred cubic feet (hcf)<sup>17</sup>. The District defines winter water usage as the average water usage from the previous January through March.

City and District Commercial: Commercial properties (i.e. non-residential accounts) are charged the same minimum charge as residential accounts \*or\* a consumption charge based on winter water usage and the applicable consumption rate, whichever is

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<sup>17</sup> 1 hcf is 748 gallons, therefore 3.4 hcf is 2,543 gallons per month (or 85 gallons per day)

greater. There are four commercial classifications, with the higher strength classifications paying a higher consumption rate.

## 5.2 RATE STRUCTURE RECOMMENDATIONS

As described above, the City and District currently have very similar rate structures with only a few minor differences. With the concurrence of both District and City staff, this Study recommends that the rate structures be modified to be identical (although the rates themselves will be different to reflect the different financial needs and objectives of each respective agency). The changes are not expected to be material for either party and having identical rate structures will help the parties coordinate business and rate decisions in the future.

All customers pay a fixed monthly Service Charge and a Consumption Rate. Residential customers will pay a Service Charge for each dwelling unit while Commercial customers will pay a Service Charge for each ESSFU<sup>18</sup> (with a minimum of one (1) ESSFU per commercial account). The Consumption Rate for all customers is determined by multiplying the account's winter water usage by the respective Consumption Rate for the customer classification (which accounts for sewer strength).

The recommendation to change commercial accounts from the current flow-based structure to a structure with both a fixed component and variable component is to reflect the fact that fixed costs are primarily driven by system capacity (size) which is best measured by flow (i.e. ESSFUs) while variable costs are primarily driven by treatment costs (such as chemicals and energy) which are driven by both flow and strength (i.e. ESSSUs).

To be clear, the City's mobile home and apartments will no longer be charged as commercial customers and District residential customers will no longer receive a water

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<sup>18</sup> ESSFU are calculated based on water usage from the previous winter.

use allowance. Winter water usage will follow the District’s convention of using the average of usage values from January, February and March each year.

Table 14 presents the proposed monthly Service Charges and Consumption Rates recommended for each customer class for both the City and the District for FY 2020/21.

**Table 14: Sewer Rate Determination (District and City for FY 2020/21)**

Customer Class	ESSFUs	Annual Indoor Water Use hcf	BOD Strength mg/l	SS Strength mg/l	Monthly Fixed Charges \$/dwelling unit	Usage Rates (1) \$/hcf	Total Fixed Charge Revenue	Total Usage Charge Revenue	Total Annual Rate Revenue
<b>District</b>									
<i>Residential</i>									
Single Family	2,291	185,741	175	175	\$48.31	\$3.22	\$1,328,270	\$598,743	\$1,927,013
Multi-Family	1,290	68,511	175	175	\$48.31	\$3.22	\$747,913	\$220,849	\$968,761
Mobile Homes	620	49,141	175	175	\$48.31	\$3.22	\$359,462	\$158,409	\$517,871
<i>Commercial</i>									
Low Strength	1,411	89,401	175	175	\$48.31	\$3.22	\$817,850	\$288,186	\$1,106,036
Moderate Strength	433	28,149	200	200	\$48.31	\$3.51	\$251,133	\$98,933	\$350,067
Medium Strength	52	6,015	500	500	\$48.31	\$7.01	\$30,078	\$42,155	\$72,233
High Strength	205	13,983	800	600	\$48.31	\$9.32	\$118,906	\$130,301	\$249,208
<b>Totals:</b>	<b>6,302</b>	<b>440,941</b>					<b>\$3,653,612</b>	<b>\$1,537,576</b>	<b>\$5,191,188</b>
<b>City</b>									
<i>Residential</i>									
Single Family	2,724	184,342	175	175	\$49.35	\$3.57	\$1,613,288	\$658,137	\$2,271,425
Multi-Family	1,455	83,060	175	175	\$49.35	\$3.57	\$861,723	\$296,540	\$1,158,263
Mobile Homes	248	17,452	175	175	\$49.35	\$3.57	\$146,878	\$62,307	\$209,185
<i>Commercial</i>									
Low Strength	1,464	99,345	175	175	\$49.35	\$3.57	\$866,984	\$354,680	\$1,221,663
Moderate Strength	104	7,122	200	200	\$49.35	\$3.89	\$61,536	\$27,726	\$89,262
Medium Strength	51	3,464	500	500	\$49.35	\$7.77	\$30,091	\$26,902	\$56,993
High Strength	217	14,800	800	600	\$49.35	\$10.32	\$128,737	\$152,804	\$281,541
<b>Totals:</b>	<b>6,263</b>	<b>409,585</b>					<b>\$3,709,237</b>	<b>\$1,579,095</b>	<b>\$5,288,332</b>

**Footnotes:**

(1) The usage rate applies to 2019 winter water usage (the average of January through March).

### 5.3 PROPOSED RATE SCHEDULES

The above rates are proposed to be implemented on July 1, 2020. Subsequently sewer rates would increase by the rate adjustments proposed in Table 6 (for the District) and

Table 7 (for the City). The proposed rate schedules for the next 5 years are summarized in Table 15 (District) and Table 16 (City).

**Table 15: District 5-Year Sewer Rate Schedule**

	<b>July 1, 2020</b>	<b>July 1, 2021</b>	<b>July 1, 2022</b>	<b>July 1, 2023</b>	<b>July 1, 2024</b>
<b>Monthly Service Charge*:</b>	\$48.31	\$48.79	\$49.28	\$49.77	\$50.27
<b>Consumption Rate (per HCF):</b>					
Residential:	\$3.22	\$3.26	\$3.29	\$3.32	\$3.35
Commercial 1:	\$3.22	\$3.26	\$3.29	\$3.32	\$3.35
Commercial 2:	\$3.51	\$3.55	\$3.59	\$3.63	\$3.67
Commercial 3:	\$7.01	\$7.08	\$7.15	\$7.22	\$7.29
Commercial 4:	\$9.32	\$9.41	\$9.50	\$9.60	\$9.70

\* Service Charge is per dwelling unit for residential and per ESSFU for commercial accounts (with a minimum charge of 1 ESSFU).

**Table 16: City 5-Year Sewer Rate Schedule**

	<b>July 1, 2020</b>	<b>July 1, 2021</b>	<b>July 1, 2022</b>	<b>July 1, 2023</b>	<b>July 1, 2024</b>
<b>Monthly Service Charge*:</b>	\$49.35	\$50.34	\$51.35	\$51.86	\$52.38
<b>Consumption Rate (per HCF):</b>					
Residential:	\$3.57	\$3.64	\$3.71	\$3.75	\$3.79
Commercial 1:	\$3.57	\$3.64	\$3.71	\$3.75	\$3.79
Commercial 2:	\$3.89	\$3.97	\$4.05	\$4.09	\$4.13
Commercial 3:	\$7.77	\$7.92	\$8.08	\$8.16	\$8.24
Commercial 4:	\$10.32	\$10.53	\$10.74	\$10.85	\$10.96

\* Service Charge is per dwelling unit for residential and per ESSFU for commercial accounts (with a minimum charge of 1 ESSFU).

## **Section 6. CONCLUSION**

This Study used methodologies that are aligned with industry standard practices for rate setting as promulgated by WEF, AWWA and all applicable laws, including California's Proposition 218. The proposed annual adjustments to the rates proportionately assign costs to each customer class and customer based on service demands and will allow the City and District to continue to provide reliable and affordable sewer service to customers.

The sewer rates will need to be adopted in accordance with Proposition 218, which will require a detailed notice describing the proposed rates to be mailed to each affected property owner or customer at least 45 days prior to conducting a public hearing to adopt the rates.

## **SCHEDULES**

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Schedule 1 – Detailed Allocation of Operational Expenses between District and City

Schedule 2 – District Cash Flow Pro Forma

Schedule 3 – City Cash Flow Pro Forma

		Amount eligible to be split	Percent Split		Dollar Split		Notes
			District	City	District	City	
<b>FY 2019/20</b>							
<b>District Operating Expense Budget Budget</b>							
<b>EXPENSES</b>							
1	<b>Wages &amp; Payroll (Personnel)</b>						
2	District Manager	\$49,500	90%	50.2%	49.8%	\$27,298	\$22,202
3	Administrative Assistant/Sec.	\$50,000	95%	50.2%	49.8%	\$26,327	\$23,673
4	Office Assistant	\$31,200	95%	50.2%	49.8%	\$16,428	\$14,772
5	Employer Contribution (SS, UE, WC)	\$8,500	95%	50.2%	49.8%	\$4,476	\$4,024
6	<b>Office Expense</b>						
7	Telephone & DSL	\$1,100	95%	50.2%	49.8%	\$579	\$521
8	Dues & Subscriptions	\$10,622	95%	50.2%	49.8%	\$5,593	\$5,029
9	Office Rent	\$5,100	95%	50.2%	49.8%	\$2,685	\$2,415
10	Office Utilities	\$1,500	95%	50.2%	49.8%	\$790	\$710
11	Postage	\$500	95%	50.2%	49.8%	\$263	\$237
12	Supplies	\$2,000	95%	50.2%	49.8%	\$1,053	\$947
13	Office Equipment	\$1,500	95%	50.2%	49.8%	\$790	\$710
14	Software/ Web	\$4,500	95%	50.2%	49.8%	\$2,369	\$2,131
15	<b>Auditing &amp; Fiscal Services</b>						
16	Audit Services-FS Preparation	\$22,000	100%	50.2%	49.8%	\$11,036	\$10,964
17	Accounting/bookkeeping Services	\$1,500	100%	50.2%	49.8%	\$752	\$748
18	Banking Services	\$360	100%	50.2%	49.8%	\$181	\$179
19	State Controllers Report	\$1,500	100%	50.2%	49.8%	\$752	\$748
20	Liability and Property Insurance	\$8,200	100%	50.2%	49.8%	\$4,113	\$4,087
21	Financial Review/Monthly Reports	\$55,000	100%	50.2%	49.8%	\$27,590	\$27,410
22	<b>Other Prof &amp; Special Services</b>						
23	Engineer Services	\$20,000	100%	50.2%	49.8%	\$10,033	\$9,967
24	Mapping Services (GIS)	\$1,000	0%	50.2%	49.8%	\$1,000	\$0
25	Computer Services/Hardware	\$2,500	100%	50.2%	49.8%	\$1,254	\$1,246
26	County Auditor (property tax admin)	\$2,500	0%	50.2%	49.8%	\$2,500	\$0
27	Financial Consulting Contract	\$15,000	72%	50.2%	49.8%	\$9,618	\$5,382
28	Publication & Legal Notices	\$105	100%	50.2%	49.8%	\$53	\$52
29	<b>Legal Fees</b>						
30	Bond Refinancing	\$60,000	0%	100%	0%	\$60,000	\$0
31	Dispute Resolution & Arbitration	\$200,000	0%	100%	0%	\$200,000	\$0
32	District Legal Support	\$60,000	50%	50.2%	49.8%	\$45,049	\$14,951
33	<b>Training/Transportation/Travel</b>						
34	Travel to Seminars (Board)	\$4,000	100%	50.2%	49.8%	\$2,007	\$1,993
35	Travel for District Manager	\$2,500	90%	50.2%	49.8%	\$1,379	\$1,121
36	Staff Training and Development	\$3,000	100%	50.2%	49.8%	\$1,505	\$1,495
37	Seminars/Conferences	\$3,500	100%	50.2%	49.8%	\$1,756	\$1,744
<b>District Revenue Budget FY 2018/19 Actuals</b>							
<b>REVENUE</b>							
38	PROPERTY TAX CURRENT SECURED	-\$54,400	0%	100%	0%	-\$54,400	\$0
39	PROPERTY TAX CURRENT UNSEC	-\$1,634	0%	100%	0%	-\$1,634	\$0
40	SUPPLEMENTAL ROLL TAX	-\$1,170	0%	100%	0%	-\$1,170	\$0
41	PROPERTY TAX PRIOR UNSECUR	-\$93	0%	100%	0%	-\$93	\$0
42	HOMEOWNERS PROP TAX RELIEF	-\$437	0%	100%	0%	-\$437	\$0
43	INTEREST	-\$65,170	0%	100%	0%	-\$65,170	\$0
44	SPECIAL TAX - FIRE ASSMT	-\$76,792	0%	100%	0%	-\$76,792	\$0
45	Other Income	-\$2,485	0%	100%	0%	-\$2,485	\$0
46	OTHER	-\$21,697	0%	100%	0%	-\$21,697	\$0
<b>Fund 840 (City Operating Fund) FY 2019/20 Budget</b>							
<b>REVENUE</b>							
47	42421 WASTE DISCHARGE PERMIT	-\$429	0%	0%	100%	\$0	-\$429
48	42422 GREASE TRAP PERMIT FEES CITY	-\$306	0%	0%	100%	\$0	-\$306
49	44170 PLAN CHECK FEES	-\$8,183	0%	0%	100%	\$0	-\$8,183
50	44621 SEWER 1 RESIDENCE (CITY)	-\$2,117,905	0%	0%	100%	\$0	-\$2,117,905
51	44622 SEWER 2 RESIDENCE (CITY)	-\$194,112	0%	0%	100%	\$0	-\$194,112
52	44623 SEWER 3 RESIDENCE (CITY)	-\$42,154	0%	0%	100%	\$0	-\$42,154
53	44624 SEWER 4 RESIDENCE (CITY)	-\$120,933	0%	0%	100%	\$0	-\$120,933
54	44625 SEWER RESIDENTIAL/UNIT (CITY)	-\$528,122	0%	0%	100%	\$0	-\$528,122
55	44626 SEWER COMMERCIAL (CITY)	-\$274,369	0%	0%	100%	\$0	-\$274,369
56	44627 SEWER COMM LOW PER UNIT CITY	-\$670,130	0%	0%	100%	\$0	-\$670,130
57	44628 SEWER COMM MODERATE/UNIT CIT	-\$88,668	0%	0%	100%	\$0	-\$88,668
58	44629 SEWER COMM MEDIUM/UNIT CITY	-\$61,435	0%	0%	100%	\$0	-\$61,435
59	44630 SEWER COMM HIGH/UNIT CITY	-\$285,593	0%	0%	100%	\$0	-\$285,593
60	44631 SEWER APARTMENTS CITY	-\$471,059	0%	0%	100%	\$0	-\$471,059
61	44632 SEW LAT INSPECTION FEE-CITY	-\$2,652	0%	0%	100%	\$0	-\$2,652
62	44633 SEWER MOBILE HOMES CITY	-\$178,095	0%	0%	100%	\$0	-\$178,095
63	44640 CONNECTION FEES	-\$500	0%	0%	100%	\$0	-\$500
64	44732 SEW LAT INSPECTION FEE-UVSD	-\$357	0%	0%	100%	\$0	-\$357
65	44830 REIMBURSABLE JOBS	\$0	0%	0%	100%	\$0	-\$1,075
66	46110 INTEREST ON INVESTMENTS	-\$6,884	0%	0%	100%	\$0	-\$6,884
67	44820 SALES OF PROPERTY	-\$3,621	0%	0%	100%	\$0	-\$3,621

EXPENSES							
68	54103 LAB SUPPLIES	\$20,000	100%	50.2%	49.8%	\$10,033	\$9,967
69	56125 LAB EQUIP-REPAIR & MAINT.	\$10,000	100%	50.2%	49.8%	\$5,016	\$4,984
70	51110 REGULAR SALARIES & WAGES	\$1,266,534	100%	50.2%	49.8%	\$635,331	\$631,203
71	51120 NON-REGULAR SALARIES & WAGES	\$7,000	100%	50.2%	49.8%	\$3,511	\$3,489
72	51210 RETIREMENT (PERS)	\$156,008	100%	50.2%	49.8%	\$78,258	\$77,750
73	51220 INSURANCE	\$255,474	100%	50.2%	49.8%	\$128,153	\$127,321
74	51230 WORKERS COMP	\$93,228	100%	50.2%	49.8%	\$46,766	\$46,462
75	51240 MEDICARE	\$20,742	100%	50.2%	49.8%	\$10,405	\$10,337
76	51130 OVERTIME SALARIES & WAGES	\$53,000	100%	50.2%	49.8%	\$26,586	\$26,414
77	51250 UNEMPLOYMENT	\$14,365	100%	50.2%	49.8%	\$7,206	\$7,159
78	51290 CELL PHONE STIPEND	\$4,737	100%	50.2%	49.8%	\$2,376	\$2,361
79	51140 STAND-BY SALARIES & WAGES	\$35,000	100%	50.2%	49.8%	\$17,557	\$17,443
80	51211 PERS UNFUNDED LIABILITY	\$248,440	100%	50.2%	49.8%	\$124,625	\$123,815
81	61300 BILLING & COLLECTION ALLOCATIO	\$171,680	100%	43.7%	56.3%	\$74,959	\$96,721
82	61600 GARAGE ALLOCATION	\$72,904	100%	50.2%	49.8%	\$36,571	\$36,333
83	61420 BUILDING MAINTENANCE ALLOCATIO	\$5,232	100%	50.2%	49.8%	\$2,625	\$2,607
84	61422 IT ALLOCATION	\$95,841	100%	50.2%	49.8%	\$48,077	\$47,764
85	61500 INSURANCE ALLOCATION	\$157,031	100%	50.2%	49.8%	\$78,771	\$78,260
86	61200 PURCHASING ALLOCATION	\$46,426	100%	50.2%	49.8%	\$23,289	\$23,137
87	61430 CORP YARD ALLOCATION	\$16,763	100%	50.2%	49.8%	\$8,409	\$8,354
88	61700 DISPATCH	\$16,603	100%	50.2%	49.8%	\$8,329	\$8,274
89	62100 ADMIN & OVERHEAD ALLOCATION	\$249,789	100%	50.2%	49.8%	\$125,302	\$124,487
90	54100 SUPPLIES	\$142,000	100%	50.2%	49.8%	\$71,231	\$70,769
91	54101 POSTAGE	\$700	100%	50.2%	49.8%	\$351	\$349
92	55100 TELEPHONE	\$4,800	100%	50.2%	49.8%	\$2,408	\$2,392
93	55210 UTILITIES	\$312,200	100%	50.2%	49.8%	\$156,609	\$155,591
94	56300 BUILDING MAINT. & REPAIR	\$18,000	100%	50.2%	49.8%	\$9,029	\$8,971
95	57100 LEARNING AND DEVELOPMENT	\$37,500	100%	50.2%	49.8%	\$18,811	\$18,689
96	52100 CONTRACTUAL SERVICES	\$405,298	100%	50.2%	49.8%	\$203,309	\$201,988
97	52150 LEGAL SERVICES/EXPENSES	\$20,000	100%	50.2%	49.8%	\$10,033	\$9,967
98	56120 EQUIPMENT MAINTENANCE & REPAIR	\$287,000	100%	50.2%	49.8%	\$143,968	\$143,032
99	57300 MEMBERSHIPS & SUBSCRIPTIONS	\$7,800	100%	50.2%	49.8%	\$3,913	\$3,887
100	54320 SOFTWARE	\$42,000	100%	50.2%	49.8%	\$21,068	\$20,932
101	52113 PLANNING STUDIES	\$125,000	100%	50.2%	49.8%	\$62,704	\$62,296
102	52180 SECURITY SERVICES	\$1,500	100%	50.2%	49.8%	\$752	\$748
103	54330 COMPUTER AND TECHNOLOGY	\$27,000	100%	50.2%	49.8%	\$13,544	\$13,456
104	56210 FUEL & FLUIDS	\$47,500	100%	50.2%	49.8%	\$23,827	\$23,673
105	59100 PROPERTY TAXES PAID	\$10,750	100%	50.2%	49.8%	\$5,393	\$5,357
106	59101 FEES	\$33,300	100%	50.2%	49.8%	\$16,704	\$16,596
107	59400 OTHER EXPENSES	\$10,000	100%	50.2%	49.8%	\$5,016	\$4,984
108	54102 SMALL TOOLS	\$27,000	100%	50.2%	49.8%	\$13,544	\$13,456
109	56130 EXTERNAL SERVICES	\$40,000	100%	50.2%	49.8%	\$20,065	\$19,935
110	56410 EQUIPMENT RENTAL - PRIVATE	\$2,000	100%	50.2%	49.8%	\$1,003	\$997
111	58510 REIMBURSABLE JOBS	\$5,000	100%	50.2%	49.8%	\$2,508	\$2,492
112	52114 COMPLIANCE STUDIES	\$25,000	100%	50.2%	49.8%	\$12,541	\$12,459
113	54700 FINES & PENALTIES	\$50,000	100%	50.2%	49.8%	\$25,082	\$24,919
114	55200 PG&E	\$33,000	100%	50.2%	49.8%	\$16,554	\$16,446
115	56504 FACILITY MAINTENANCE & REPAIR	\$20,000	100%	50.2%	49.8%	\$10,033	\$9,967
116	58201 WATER PURCHASES	\$1,000	100%	50.2%	49.8%	\$502	\$498
117	58202 TREATMENT PLANT CHEMICALS	\$240,000	100%	50.2%	49.8%	\$120,391	\$119,609
<b>Fund 841 (City Debt Fund) FY 2019/20 Budget</b>							
REVENUE							
118	46110 INTEREST ON INVESTMENTS	-\$21,297	100%	52.0%	48.0%	-\$11,074	-\$10,223
EXPENSES							
119	52500 TRUSTEE FEES	\$8,000	100%	50.2%	49.8%	\$4,013	\$3,987
<b>Fund 842 (City Rate Stabilization) FY 2019/20 Budget</b>							
REVENUE							
120	46110 INTEREST ON INVESTMENTS	-\$7,720	100%	0%	100%	\$0	-\$7,720
<b>Fund 843 (City Connection Fee) FY 2019/20 Budget</b>							
REVENUE							
121	46110 INTEREST ON INVESTMENTS	-\$5,894	100%	0%	100%	\$0	-\$5,894
122	44770 SALE OF RECYCLED WATER	\$0	100%	0%	100%	\$0	\$700
<b>Fund 844 (City Capital Fund) FY 2019/20 Budget</b>							
REVENUE							
123	46110 INTEREST ON INVESTMENTS	-\$10	100%	0%	100%	\$0	-\$10
EXPENSES							
124	53000 LAWSUIT SETTLEMENT	\$1,000,000	100%	0%	100%	\$0	\$1,000,000
125	52150 LEGAL SERVICES - CITY ONLY	\$0	100%	0%	100%	\$0	\$15,737

Shared based on # of accounts

Projected annual expense = \$25K

<b>Fund 940 (District Operating Fund)</b>		<b>FY 2018/19 Actuals</b>					
<b>REVENUE</b>							
126	42421 WASTE DISCHARGE PERMIT	\$0	0%	100%	0%	\$0	\$0
127	42423 GREASE TRAP PERMIT FEES (UVSD)	-\$100	0%	100%	0%	-\$100	\$0
128	44721 SEWER 1 RESIDENCE (UVSD)	-\$1,456,628	0%	100%	0%	-\$1,456,628	\$0
129	44722 SEWER 2 RESIDENCE (UVSD)	-\$79,946	0%	100%	0%	-\$79,946	\$0
130	44723 SEWER 3 RESIDENCE (UVSD)	-\$17,539	0%	100%	0%	-\$17,539	\$0
131	44724 SEWER 4 RESIDENCE (UVSD)	-\$69,850	0%	100%	0%	-\$69,850	\$0
132	44725 SEWER RESIDENTIAL/UNIT (UVSD)	-\$1,026,504	0%	100%	0%	-\$1,026,504	\$0
133	44726 SEWER COMMERCIAL (UVSD)	-\$85,050	0%	100%	0%	-\$85,050	\$0
134	44727 SEWER COMM LOW/UNIT (UVSD)	-\$789,429	0%	100%	0%	-\$789,429	\$0
135	44728 SEWER COMM MODERAT/UNIT UVSD	-\$240,662	0%	100%	0%	-\$240,662	\$0
136	44729 SEWER COMM MEDIUM/UNIT UVSD	-\$76,227	0%	100%	0%	-\$76,227	\$0
137	44730 SEWER COMM HIGH/UNIT UVSD	-\$252,579	0%	100%	0%	-\$252,579	\$0
138	44731 SEWER APARTMENTS (UVSD)	-\$676,634	0%	100%	0%	-\$676,634	\$0
139	44732 SEW LAT INSPECTION FEE-UVSD	\$0	0%	100%	0%	\$0	\$0
140	44733 SEWER MOBILE HOMES UVSD	-\$391,655	0%	100%	0%	-\$391,655	\$0
141	44735 SEWER COMM LEACHATE UVSD	-\$3,111	0%	100%	0%	-\$3,111	\$0
142	46110 INTEREST ON INVESTMENTS	-\$17,893	0%	100%	0%	-\$17,893	\$0
143	48110 MISCELLANEOUS RECEIPTS	\$0	0%	100%	0%	\$0	\$0
144	48130 COLLECTION OF BAD DEBTS	\$0	0%	100%	0%	\$0	\$0
145	48150 CASH OVER/SHORT	\$8,590	0%	100%	0%	\$8,590	\$0
146	46116 MISCELLANEOUS INCOME	\$0	0%	100%	0%	\$0	\$0
147	52101 UVSD - PREP OF SCO REPORT	\$0	0%	100%	0%	\$0	\$0
148	52102 UVSD - CONSULTANT SERVICES	\$0	0%	100%	0%	\$0	\$0
149	52105 UVSD - SHARE CAP PROJECTS 844	\$0	0%	100%	0%	\$0	\$0
<b>EXPENSES</b>							
150	52100 CONTRACTUAL SERVICES	\$30,690	0%	100%	0%	\$30,690	\$0 Used previous year actuals
<b>Fund 842 (District Rate Stabilization)</b>		<b>FY 2019/20 Budget</b>					
<b>REVENUE</b>							
151	46110 INTEREST ON INVESTMENTS	-\$1	0%	100%	0%	-\$1	\$0
<b>Fund 843 (District Connection Fee)</b>		<b>FY 2019/20 Budget</b>					
<b>REVENUE</b>							
152	44640 CONNECTION FEES	-\$1,003,701	0%	100%	0%	-\$1,003,701	\$0 Used TYD actuals
153	46110 INTEREST ON INVESTMENTS	-\$10,665	0%	100%	0%	-\$10,665	\$0
<b>EXPENSES</b>							
154	61300 BILLING & COLLECTION ALLOCATIO	\$3,332	0%	100%	0%	\$3,332	\$0
155	62100 ADMIN & OVERHEAD ALLOCATION	\$1,313	0%	100%	0%	\$1,313	\$0
<b>Fund 844 (District Capital Fund)</b>		<b>FY 2019/20 Budget</b>					
<b>REVENUE</b>							
156	46110 INTEREST ON INVESTMENTS	\$24	0%	100%	0%	\$24	\$0
157	44835 REIMBURSEMENTS/RETAINAGE	-\$34,068	0%	100%	0%	-\$34,068	\$0
<b>EXPENSES</b>							
158	61300 BILLING & COLLECTION ALLOCATIO	\$607	0%	100%	0%	\$607	\$0

**SCHEDULE 2 – District Cash Flow Proforma**

	Budget FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	Forecast FY 2024	Forecast FY 2025	Forecast FY 2026	Forecast FY 2027	Forecast FY 2028	Forecast FY 2029	Forecast FY 2030	Forecast FY 2031
1 Sewer Rate Revenue Increase:	0.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	2.0%	1.0%
<b>Revenue</b>												
2 Sewer Service Charge Revenue	\$5,162,702	\$5,191,171	\$5,191,171	\$5,271,708	\$5,353,496	\$5,436,552	\$5,520,896	\$5,606,550	\$5,693,532	\$5,781,863	\$5,871,565	\$6,021,374
3 Change due to growth	\$0	\$0	\$28,626	\$29,070	\$29,521	\$29,979	\$30,444	\$30,917	\$31,396	\$31,883	\$32,378	\$33,204
4 Increase due to rate adjustments	\$0	\$0	\$51,912	\$52,717	\$53,535	\$54,366	\$55,209	\$56,065	\$56,935	\$57,819	\$117,431	\$60,214
<b>Non-Rate Revenues</b>												
5 Other Income	\$49,661	\$24,907	\$25,156	\$25,408	\$25,662	\$25,919	\$26,178	\$26,440	\$26,704	\$26,971	\$27,241	\$27,513
6 Other Operating Revenue	\$3,211	\$3,243	\$3,275	\$3,308	\$3,341	\$3,374	\$3,408	\$3,442	\$3,477	\$3,511	\$3,546	\$3,582
7 Interest Earnings	\$104,778	\$79,730	\$114,090	\$131,802	\$161,765	\$164,721	\$167,226	\$169,220	\$170,643	\$171,532	\$171,806	\$172,374
8 Property Tax	\$56,564	\$59,001	\$61,543	\$64,195	\$66,961	\$69,846	\$72,855	\$75,994	\$79,269	\$82,684	\$86,247	\$89,963
9 Special Tax	\$77,962	\$77,962	\$77,962	\$77,962	\$77,962	\$77,962	\$77,962	\$77,962	\$77,962	\$77,962	\$77,962	\$77,962
10 Connection Fees	\$1,003,701	\$186,896	\$186,896	\$186,896	\$186,896	\$186,896	\$186,896	\$186,896	\$186,896	\$186,896	\$186,896	\$186,896
11 Settlement Agreement Rev	\$1,000,000	\$1,090,000	\$1,060,000	\$1,030,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
12 Total Revenue	\$7,458,578	\$6,712,910	\$6,800,631	\$6,873,066	\$5,959,138	\$6,049,614	\$6,141,075	\$6,233,485	\$6,326,813	\$6,421,122	\$6,575,073	\$6,673,082
<b>O&amp;M Costs</b>												
13 Salaries and Benefits	\$1,152,893	\$1,175,987	\$1,202,794	\$1,230,203	\$1,258,227	\$1,286,880	\$1,316,175	\$1,346,127	\$1,376,750	\$1,408,059	\$1,440,070	\$1,472,796
14 Professional Services	\$526,057	\$458,806	\$473,865	\$489,415	\$505,472	\$522,051	\$539,170	\$556,846	\$575,097	\$593,942	\$613,400	\$633,490
15 Operating Supplies	\$144,634	\$148,978	\$153,868	\$158,917	\$164,130	\$169,514	\$175,072	\$180,812	\$186,738	\$192,857	\$199,175	\$205,699
16 Utilities and Chemicals	\$317,371	\$326,903	\$337,633	\$348,712	\$360,152	\$371,965	\$384,162	\$396,757	\$409,761	\$423,188	\$437,052	\$451,366
17 Administrative	\$235,156	\$242,217	\$250,167	\$258,376	\$266,853	\$275,606	\$284,643	\$293,975	\$303,610	\$313,559	\$323,831	\$334,438
18 Training	\$25,456	\$26,221	\$27,081	\$27,970	\$28,888	\$29,835	\$30,813	\$31,824	\$32,867	\$33,944	\$35,056	\$36,204
19 Billing	\$78,882	\$78,977	\$81,569	\$84,246	\$87,010	\$89,864	\$92,810	\$95,853	\$98,995	\$102,239	\$105,588	\$109,046
20 Legal Fees	\$315,081	\$156,734	\$61,878	\$63,909	\$66,006	\$68,171	\$70,406	\$72,714	\$75,097	\$77,558	\$80,099	\$82,723
21 Internal Allocation	\$206,063	\$212,252	\$219,218	\$226,412	\$233,840	\$241,510	\$249,429	\$257,607	\$266,050	\$274,768	\$283,769	\$293,064
22 Miscellaneous	\$59,818	\$61,614	\$63,636	\$65,725	\$67,881	\$70,107	\$72,406	\$74,780	\$77,231	\$79,762	\$82,375	\$85,073
23 Total Operating Expenses	\$3,061,410	\$2,888,688	\$2,871,711	\$2,953,885	\$3,038,458	\$3,125,501	\$3,215,088	\$3,307,293	\$3,402,196	\$3,499,875	\$3,600,414	\$3,703,898
<b>Capital Costs</b>												
24 Total Capital Spending	\$536,226	\$92,802	\$885,577	\$110,696	\$732,151	\$757,776	\$784,298	\$811,749	\$840,160	\$869,566	\$900,001	\$931,501
25 Bond Proceeds (net of issuance costs)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
26 Cash Funded Capital Projects	\$536,226	\$92,802	\$885,577	\$110,696	\$732,151	\$757,776	\$784,298	\$811,749	\$840,160	\$869,566	\$900,001	\$931,501
27 Refinanced Debt	\$2,536,235	\$1,988,550	\$1,993,074	\$1,994,250	\$1,996,543	\$1,999,928	\$1,998,406	\$2,000,904	\$1,998,104	\$1,998,104	\$1,998,746	\$2,003,360
28 Reconciliation of Debt	\$0	(\$18)	\$4,619	\$9,255	\$13,891	\$18,527	\$23,163	\$27,798	\$32,432	\$37,066	\$41,699	\$46,332
29 One-time Principal Contribution	\$2,500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
28 Total Capital Expenses	\$5,572,461	\$2,081,334	\$2,883,270	\$2,114,201	\$2,742,585	\$2,773,231	\$2,805,867	\$2,840,450	\$2,871,050	\$2,904,736	\$2,940,446	\$2,981,193
30 Total Revenue Requirement	\$8,633,871	\$4,970,022	\$5,754,980	\$5,068,086	\$5,781,043	\$5,898,733	\$6,020,955	\$6,147,744	\$6,273,246	\$6,404,611	\$6,540,860	\$6,685,090
<b>Beginning Year Balance (all funds*)</b>												
31	6,326,633	4,803,038	6,872,899	7,939,879	9,744,860	9,922,955	10,073,836	10,193,956	10,279,698	10,333,265	10,349,776	10,383,989
* includes restricted connection fee funds												
32 Use of Connection Fees for Existing Debt	\$655,399	\$513,869	\$208,225	\$186,896	\$186,896	\$186,896	\$186,896	\$186,896	\$186,896	\$186,896	\$186,896	\$186,896
33 Surplus/(Shortfall)	(\$1,523,595)	\$2,069,861	\$1,066,980	\$1,804,981	\$178,095	\$150,882	\$120,120	\$85,742	\$53,568	\$16,511	\$34,212	(\$12,008)
34 End of Year Balance	4,803,038	6,872,899	7,939,879	9,744,860	9,922,955	10,073,836	10,193,956	10,279,698	10,333,265	10,349,776	10,383,989	10,371,981
35 Minimum Reserve Target	\$2,191,064	\$2,104,702	\$2,096,214	\$2,137,301	\$2,179,587	\$2,223,109	\$2,267,902	\$2,314,005	\$2,361,456	\$2,410,296	\$2,460,565	\$2,512,307
36 Available Cash	\$2,611,974	\$4,768,197	\$5,843,665	\$7,607,559	\$7,743,367	\$7,850,727	\$7,926,053	\$7,965,693	\$7,971,809	\$7,939,480	\$7,923,423	\$7,859,673
37 Restricted Fund Balance (Connection Fees)	\$348,302	\$21,329	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Debt Coverage Calculations</b>												
Total Revenue Available for Debt Service												
38 ...with Connection Fees	\$3,397,168	\$2,734,222	\$2,868,921	\$2,889,181	\$2,920,680	\$2,924,113	\$2,925,987	\$2,926,192	\$2,924,618	\$2,921,247	\$2,974,659	\$2,969,185
39 ...without Connection Fees	\$2,393,467	\$2,547,326	\$2,682,025	\$2,702,285	\$2,733,784	\$2,737,217	\$2,739,091	\$2,739,296	\$2,737,722	\$2,734,351	\$2,787,763	\$2,782,289
40 Total Yearly Parity Debt Payment	\$2,536,235	\$1,988,533	\$1,997,692	\$2,003,505	\$2,010,434	\$2,015,455	\$2,021,568	\$2,028,701	\$2,030,890	\$2,035,170	\$2,040,446	\$2,049,692
41 Debt Coverage Ratio (with Connection Fees)	1.34	1.37	1.44	1.44	1.45	1.45	1.45	1.44	1.44	1.44	1.46	1.45
42 Debt Coverage Ratio (without Connection Fees)	0.94	1.28	1.34	1.35	1.36	1.36	1.35	1.35	1.35	1.34	1.37	1.36

**SCHEDULE 3 – City Cash Flow Proforma**

	Budget FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	Forecast FY 2024	Forecast FY 2025	Forecast FY 2026	Forecast FY 2027	Forecast FY 2028	Forecast FY 2029	Forecast FY 2030	Forecast FY 2031
<b>1 Sewer Rate Revenue Increase:</b>		<b>5.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>1.0%</b>	<b>1.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>	<b>2.0%</b>
<b>Revenue</b>												
<b>2 Sewer Service Charge Revenue</b>	\$5,032,575	\$5,288,332	\$5,288,332	\$5,398,230	\$5,510,412	\$5,569,821	\$5,629,871	\$5,746,867	\$5,866,294	\$5,988,203	\$6,112,645	\$6,239,674
3 Change due to growth	\$0	\$0	\$4,132	\$4,217	\$4,305	\$4,351	\$4,398	\$4,490	\$4,583	\$4,678	\$4,776	\$4,875
4 Increase due to rate adjustments	\$0	\$0	\$105,767	\$107,965	\$55,104	\$55,698	\$112,597	\$114,937	\$117,326	\$119,764	\$122,253	\$124,793
<b>5 Non-Rate Revenues</b>												
6 Other Income	\$3,621	\$3,657	\$3,694	\$3,731	\$3,768	\$3,806	\$3,844	\$3,882	\$3,921	\$3,960	\$4,000	\$4,040
7 Other Operating Revenue	\$19,187	\$19,379	\$19,572	\$19,768	\$19,966	\$20,166	\$20,367	\$20,571	\$20,777	\$20,984	\$21,194	\$21,406
8 Interest Earnings	\$23,847	\$19,378	\$21,128	\$21,670	\$25,202	\$25,963	\$25,411	\$24,957	\$24,600	\$24,343	\$24,183	\$24,123
9 Connection Fees	\$50,500	\$30,500	\$30,500	\$30,500	\$30,500	\$30,500	\$30,500	\$30,500	\$30,500	\$30,500	\$30,500	\$30,500
<b>10 Total Revenue</b>	<b>\$5,129,729</b>	<b>\$5,361,246</b>	<b>\$5,473,124</b>	<b>\$5,586,081</b>	<b>\$5,649,257</b>	<b>\$5,710,306</b>	<b>\$5,826,989</b>	<b>\$5,946,204</b>	<b>\$6,068,000</b>	<b>\$6,192,433</b>	<b>\$6,319,551</b>	<b>\$6,449,411</b>
<b>O&amp;M Costs</b>												
11 Salaries and Benefits	\$1,136,098	\$1,158,784	\$1,178,699	\$1,198,947	\$1,219,534	\$1,240,465	\$1,261,746	\$1,283,382	\$1,305,380	\$1,327,744	\$1,350,482	\$1,373,598
12 Professional Services	\$475,536	\$438,224	\$450,125	\$462,346	\$474,896	\$487,782	\$501,015	\$514,602	\$528,554	\$542,880	\$557,591	\$572,695
13 Operating Supplies	\$143,703	\$148,009	\$152,029	\$156,157	\$160,396	\$164,748	\$169,217	\$173,806	\$178,519	\$183,357	\$188,326	\$193,427
14 Utilities and Chemicals	\$315,329	\$324,778	\$333,599	\$342,656	\$351,957	\$361,508	\$371,314	\$381,384	\$391,725	\$402,342	\$413,244	\$424,438
15 Administrative	\$181,328	\$186,762	\$191,834	\$197,042	\$202,391	\$207,883	\$213,522	\$219,313	\$225,259	\$231,364	\$237,633	\$244,070
16 Training	\$25,044	\$25,794	\$26,495	\$27,214	\$27,953	\$28,711	\$29,490	\$30,290	\$31,111	\$31,955	\$32,820	\$33,710
17 Billing	\$96,737	\$99,623	\$102,328	\$105,107	\$107,960	\$110,889	\$113,897	\$116,986	\$120,158	\$123,415	\$126,759	\$130,193
18 Minor Capital	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
19 Legal Fees	\$40,657	\$41,875	\$43,013	\$44,181	\$45,380	\$46,611	\$47,876	\$49,174	\$50,507	\$51,876	\$53,282	\$54,725
20 Internal Allocation	\$204,737	\$210,872	\$216,599	\$222,480	\$228,519	\$234,720	\$241,087	\$247,626	\$254,339	\$261,233	\$268,312	\$275,580
21 Miscellaneous	\$59,432	\$61,214	\$62,876	\$64,583	\$66,336	\$68,136	\$69,985	\$71,883	\$73,831	\$75,833	\$77,887	\$79,997
<b>22 Total Operating Expenses</b>	<b>\$2,678,600</b>	<b>\$2,695,935</b>	<b>\$2,757,597</b>	<b>\$2,820,714</b>	<b>\$2,885,321</b>	<b>\$2,951,454</b>	<b>\$3,019,150</b>	<b>\$3,088,447</b>	<b>\$3,159,383</b>	<b>\$3,231,999</b>	<b>\$3,306,335</b>	<b>\$3,382,433</b>
<b>Capital Costs</b>												
<b>23 Total Capital Spending</b>	<b>\$2,232,758</b>	<b>\$492,198</b>	<b>\$879,822</b>	<b>\$109,976</b>	<b>\$727,393</b>	<b>\$752,852</b>	<b>\$779,201</b>	<b>\$806,474</b>	<b>\$834,700</b>	<b>\$863,915</b>	<b>\$894,152</b>	<b>\$925,447</b>
24 Settlement Agreement Payment (Cash)	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
25 Cash Funded Capital Projects	\$2,232,753	\$492,198	\$879,822	\$109,976	\$727,393	\$752,852	\$779,201	\$806,474	\$834,700	\$863,915	\$894,152	\$925,447
26 Refinanced Debt	\$538,613	\$1,998,722	\$1,998,965	\$1,999,008	\$1,999,192	\$1,998,505	\$1,998,934	\$1,999,444	\$1,998,998	\$1,999,608	\$1,999,226	\$1,998,840
27 Reconciliation of Debt	\$0	\$18	(\$4,619)	(\$9,255)	(\$13,891)	(\$18,527)	(\$23,163)	(\$27,798)	(\$32,432)	(\$37,066)	(\$41,699)	(\$46,332)
28 Internal Loan Repayments	\$0	\$178,122	\$178,122	\$178,122	\$178,122	\$178,122	\$178,122	\$178,122	\$178,122	\$178,122	\$178,122	\$178,122
<b>29 Total Settlement &amp; Capital Expenses</b>	<b>\$3,771,366</b>	<b>\$2,669,061</b>	<b>\$3,052,290</b>	<b>\$2,277,851</b>	<b>\$2,890,816</b>	<b>\$2,910,951</b>	<b>\$2,933,095</b>	<b>\$2,956,242</b>	<b>\$2,979,388</b>	<b>\$3,004,579</b>	<b>\$3,029,801</b>	<b>\$2,877,955</b>
<b>30 Total Revenue Requirement</b>	<b>\$6,449,967</b>	<b>\$5,364,995</b>	<b>\$5,809,887</b>	<b>\$5,098,565</b>	<b>\$5,776,137</b>	<b>\$5,862,405</b>	<b>\$5,952,245</b>	<b>\$6,044,689</b>	<b>\$6,138,772</b>	<b>\$6,236,578</b>	<b>\$6,336,136</b>	<b>\$6,260,388</b>
<b>31 Beginning Year Balance (all funds*)</b>	<b>6,572,638</b>	<b>5,341,086</b>	<b>5,823,335</b>	<b>5,972,632</b>	<b>6,946,219</b>	<b>7,156,037</b>	<b>7,003,937</b>	<b>6,878,681</b>	<b>6,780,197</b>	<b>6,709,425</b>	<b>6,665,280</b>	<b>6,648,694</b>
<small>* includes restricted connection fee funds</small>												
31 Use of Connection Fees for Existing Debt	\$139,185	\$516,498	\$516,560	\$516,572	\$367,197	\$30,500	\$30,500	\$30,500	\$30,500	\$30,500	\$30,500	\$30,500
<b>32 Surplus/(Shortfall)</b>	<b>(\$1,231,552)</b>	<b>\$482,249</b>	<b>\$149,298</b>	<b>\$973,587</b>	<b>\$209,818</b>	<b>(\$152,100)</b>	<b>(\$125,256)</b>	<b>(\$98,485)</b>	<b>(\$70,771)</b>	<b>(\$44,145)</b>	<b>(\$16,586)</b>	<b>\$189,022</b>
<b>33 End of Year Balance</b>	<b>5,341,086</b>	<b>5,823,335</b>	<b>5,972,632</b>	<b>6,946,219</b>	<b>7,156,037</b>	<b>7,003,937</b>	<b>6,878,681</b>	<b>6,780,197</b>	<b>6,709,425</b>	<b>6,665,280</b>	<b>6,648,694</b>	<b>6,837,717</b>
34 Minimum Reserve Target	\$1,995,367	\$2,004,034	\$2,034,865	\$2,066,424	\$2,098,727	\$2,131,794	\$2,165,642	\$2,200,290	\$2,235,758	\$2,272,066	\$2,309,234	\$2,347,283
35 Available Cash	3,345,719	\$3,819,301	\$3,937,767	\$4,879,796	\$5,057,310	\$4,872,144	\$4,713,040	\$4,579,906	\$4,473,667	\$4,393,214	\$4,339,460	\$4,490,433
36 Restricted Fund Balance (Connection Fees)	1,794,827	1,308,829	822,768	336,697	-	-	-	-	-	-	-	-
<b>Debt Coverage Calculations</b>												
37 ...with Connection Fees	\$2,451,129	\$2,487,189	\$2,537,405	\$2,587,244	\$2,585,814	\$2,580,729	\$2,629,717	\$2,679,635	\$2,730,495	\$2,782,311	\$2,835,093	\$3,066,977
38 ...without Connection Fees	\$2,400,629	\$2,456,689	\$2,506,905	\$2,556,744	\$2,555,314	\$2,550,229	\$2,599,217	\$2,649,135	\$2,699,995	\$2,751,811	\$2,804,593	\$3,036,477
<b>39 Total Yearly Parity Debt Payment</b>	<b>\$538,613</b>	<b>\$1,998,740</b>	<b>\$1,994,346</b>	<b>\$1,989,752</b>	<b>\$1,985,300</b>	<b>\$1,979,977</b>	<b>\$1,975,771</b>	<b>\$1,971,646</b>	<b>\$1,966,566</b>	<b>\$1,962,542</b>	<b>\$1,957,527</b>	<b>\$1,952,508</b>
<b>40 Debt Coverage Ratio (with Connection Fees)</b>	<b>4.55</b>	<b>1.24</b>	<b>1.27</b>	<b>1.30</b>	<b>1.30</b>	<b>1.30</b>	<b>1.33</b>	<b>1.36</b>	<b>1.39</b>	<b>1.42</b>	<b>1.45</b>	<b>1.57</b>
<b>41 Debt Coverage Ratio (without Connection Fees)</b>	<b>4.46</b>	<b>1.23</b>	<b>1.26</b>	<b>1.28</b>	<b>1.29</b>	<b>1.29</b>	<b>1.32</b>	<b>1.34</b>	<b>1.37</b>	<b>1.40</b>	<b>1.43</b>	<b>1.56</b>