

DRAFT REPORT



Tahoe-Truckee Sanitation Agency
Sewer Rate Study
March 2023



March 15, 2023

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Subject: Sewer Rate Study Draft Report

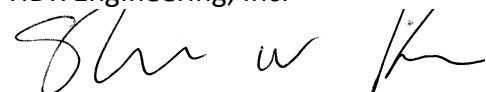
Dear Ms. Sublet:

HDR Engineering, Inc. (HDR) is pleased to present the draft report on the sewer rate study conducted for the Tahoe-Truckee Sanitary Agency (Agency). A key objective in developing the Agency's sewer rate study (Study) was to develop a financial plan and rates that generate adequate revenue to fund the Agency's operating and capital needs over a projected five-year period. Additionally, the Study focused on the proportional distribution of costs based on the wastewater system operation and customer characteristics. This report outlines the approach, methodology, findings, and conclusions of the comprehensive sewer rate study process.

The cost associated with providing wastewater services to the Agency's customers have been developed based on Agency specific information and is included within the development of the proposed sewer rates. This report was developed utilizing the Agency's accounting, current operating and capital budgets, billing records, and future projections. HDR has relied on this information to develop our analyses that form our findings, conclusions, and recommendations. The Study was developed utilizing generally-accepted and industry standard rate setting principles. The conclusions and recommendations contained within this report are intended to provide a financial plan that meets the operating and capital needs of the Agency. Finally, this report provides the basis for developing and implementing rates that are cost-based, defensible, and proportional to the Agency's customers.

We appreciate the assistance provided by Agency staff in the development of this study. More importantly, we appreciate working with Agency's staff, management, and Board of Directors on this project.

Sincerely yours,
HDR Engineering, Inc.

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

Shawn Koorn
Associate Vice President

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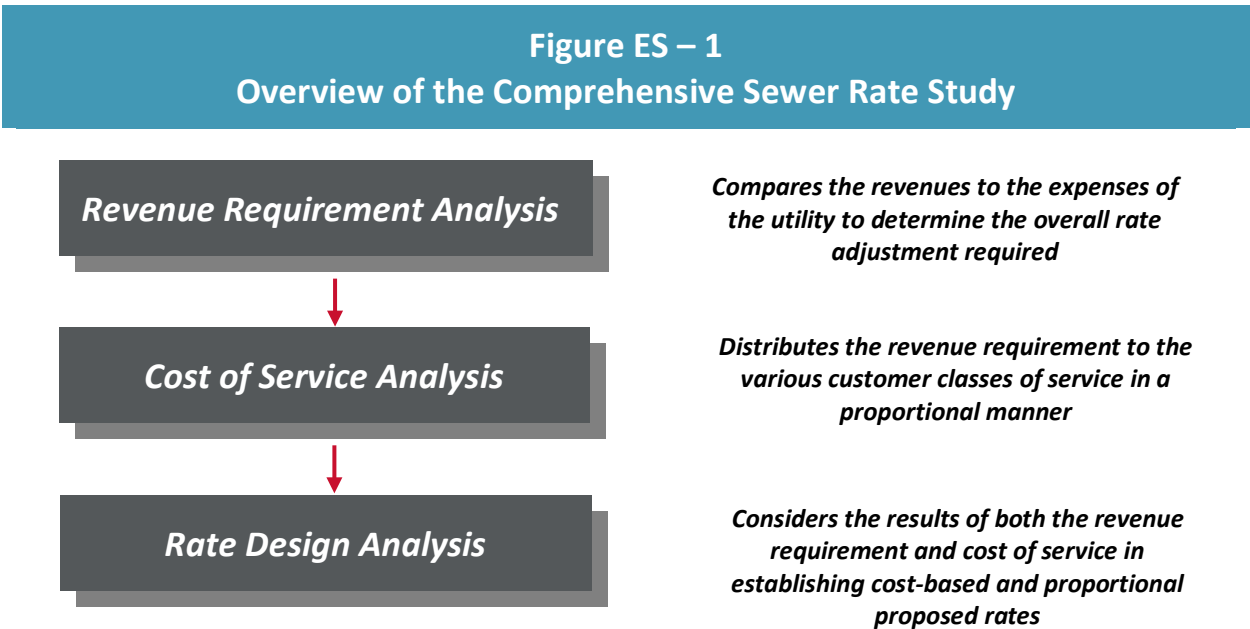
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Introduction

HDR Engineering, Inc. (HDR) was retained by the Tahoe-Truckee Sanitary Agency (Agency) to perform a wastewater rate study (Study). As part of the Study, HDR developed a wastewater rate model for the Agency based on the current data and information available. The technical analyses undertaken in the Study were developed to determine the overall adequacy of the existing wastewater rates. This process then provides a basis for necessary revenue adjustments and proportional cost distribution to maintain cost-based wastewater rates. This section of this report will provide a brief overview of the rate study components. The results and recommendations of the Study are contained in the subsequent sections of this report.

Overview of the Rate Study Process

A comprehensive sewer rate study utilizes three interrelated analyses to address the adequacy and proportionality of utility rates. These three analyses are a revenue requirement analysis, a cost of service analysis, and a rate design analysis. Figure ES – 1 below shows the rate study process and each of the three analytical steps involved.



Key Wastewater Rate Study Results

The wastewater rate study technical analysis was developed based on the operating and capital costs necessary to provide wastewater service to the Agency’s customers. The wastewater analysis resulted in the following findings, conclusions, and recommendations.

- The Agency’s FY 2023 adopted budget was used as the starting point of the analysis

- Operation and maintenance expenses are projected to increase at inflationary levels with no assumed changes to levels of service or anticipated extraordinary expenses
- The Study assumed a customer growth rate of 0.5% per year
- A capital funding analysis was completed based on the capital plans as outlined in the recently completed master plans
- Rate revenue adjustments are necessary to fund the Agency's operating and capital costs over the next five-year period (FY 2024 – FY 2028).
 - A five-year rate schedule has been developed of 30.0% in FY 2024, 18.5% FY 2025, 13.5% in FY 2026, 8.5% in FY 2027, followed by 3.5% in FY 2028
- The proposed adjustments provide adequate revenues to build the Agency's target minimum reserve levels for operating liquidity and contingency reserves, capital replacement reserves, emergency reserves, and debt service reserves
- The proposed rate transition plan will help smooth the rate adjustments, minimizes future rate impacts, and provides funding for future capital projects
- Cost of service analysis was developed to review the proportionality of the existing rates
- The results of the cost of service analyses provided the unit costs (i.e., cost basis) which were used to establish the proposed wastewater rate per Equivalent Dwelling Unit (EDU)
- A projection of the rate per EDU has been developed for FY 2024 through FY 2028

In five years' time, the Agency should review the need for additional rate adjustments.

Summary of the Revenue Requirement Analysis

A revenue requirement analysis is the first analytical step in the development of the Study. This analysis determines the adequacy of the level of current wastewater rates for the Agency to fund annual operating and capital needs. From this analysis, a determination can be made as to the overall level of rate revenue adjustments needed to provide sufficient and prudent funding for both operating and capital needs.

For this Study, the revenue requirement was developed for a ten-year period (FY 2023 – FY 2033). A multi-year time frame is recommended to better anticipate future financial requirements and allow the Agency to begin planning for these changes sooner, thereby minimizing short-term rate impacts and overall long-term rate levels. For the rate setting period, the focus was on FY 2024 through FY 2028 for purposes of establishing rates through a Proposition 218 process. For the revenue requirement analysis, a "cash basis" approach was utilized. The cash basis approach is the most commonly used methodology by municipal utilities to set their revenue requirement. The cash basis approach includes an analysis of O&M expenses, transfer payments, debt service, and annual capital projects funded from rates. The primary financial inputs in the development of the revenue requirement analysis were the Agency's FY 2023 adopted budget, historical Member Agency Equivalent Dwelling Unit (EDU) data, and the wastewater system capital improvement plan taken from the recently completed master plans.

Once the operating and maintenance expenses have been projected over the time period - based on budgeted expenses and historical inflationary factors - the next step is to develop the capital funding plan. The proper and adequate funding of capital projects is important to help minimize rates over time. A general financial guideline states that, at a minimum, a utility should fund an amount equal to or greater than annual depreciation expense through rates. For the Agency's study, a capital improvement plan was developed based on the recently completed master plans to identify the projects necessary to maintain the wastewater system over the time period as well as projects necessary to meet new growth and subsequent expansion of the system. The Agency has two funds for capital improvements: Fund 2 is for growth related projects and are funded through connection fees and reserves and Fund 6 which is the renewal and replacement capital projects paid by rates and related reserves. Provided below in Table ES – 1 is a summary of the capital plan for Fund 2 and Table ES – 2 is a summary of Fund 6 for the capital improvement plan.

Table ES - 1
Summary of the Capital Improvement Plan (\$000s) – Fund 2

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Total Capital	\$689	\$804	\$4,144	\$3,454	\$1,246	\$5,712
Funding Sources						
Wastewater Capital Reserve Fund (Fund 2)	\$689	\$804	\$644	\$754	\$0	\$1,762
Emergency & Contingency Reserve Fund	0	0	0	0	0	0
Secured Debt (SRF)	0	0	0	0	0	0
Assumed Revenue Bond (Fund 2)	0	0	3,500	2,700	1,246	3,950
Total Funding Sources	\$689	\$804	\$4,144	\$3,454	\$1,246	\$5,712

Table ES - 2
Summary of the Capital Improvement Plan (\$000s) – Fund 6

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Total Capital	\$3,311	\$4,996	\$15,717	\$22,326	\$9,775	\$5,500
Funding Sources						
General Fund	\$0	\$0	\$3,624	\$0	\$0	\$0
Replace, Rehab, and Upgrade Fund (Fund 6)	3,311	3,346	1,520	0	0	0
Emergency & Contingency Reserve Fund	0	0	0	0	0	0
Secured Debt (SRF)	0	0	0	0	0	0
Assumed Revenue Bond (Fund 6)	0	0	5,763	17,626	4,305	0
Total Funding Sources	\$3,311	\$3,346	\$10,907	\$17,626	\$4,305	\$0
Rate Funded Capital	\$0	\$1,650	\$4,810	\$4,700	\$5,470	\$5,500

The capital funding plan for Fund 6 developed for the Agency's wastewater utility has placed the rate funded capital level at approximately \$1.7 million in FY 2024 and increasing over the rate-

setting period to \$5.5 million by FY 2028. Over the next 5-years, capital needs from Fund 6 are approximately \$58 million (46 different projects) which include several high priority projects. Of this \$58 million, major high priority projects include the Truckee River Crossings, Phosphorus Removal & Recarb Rehabilitation, Digestion Improvement, Primary and Secondary Treatment Rehab and Building Roof Replacements. Given that our next 5-years includes a large amount of funds, the Agency plans to obtain long-term debt financing to level out the impact to rate increases. It is important to note that this funding sources is derived from user rates and this source is only applicable to Fund 6 capital projects. This level of funding was calculated based on the long-term need to prudently fund replacement and repair of the existing wastewater system. As can be seen, the difference between annual capital replacement needs and rate funded capital, when necessary, is being funded through available reserves and long-term debt issuance. This mix of rate funding (e.g., renewal and replacement funding), reserves, and long-term debt has been developed to balance the impact to rates while meeting annual renewal and replacement needs and long-term debt requirements (e.g., debt service coverage ratio) over the long-term.

The revenue requirement analysis for Agency's wastewater utility was developed to determine the necessary revenues to meet the costs of providing service to the customers based on the specific costs of the Agency's wastewater utility. Provided below, in Table ES – 3, is a summary of the wastewater revenue requirement analysis (i.e., financial plan). A more detailed analysis of the wastewater revenue requirements can be found in Section 3 of this report.

Table ES - 3 Summary of the Wastewater Revenue Requirement Analysis (\$000)						
	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Revenues						
Rate Revenues @ Current Rate	\$12,835	\$12,899	\$12,963	\$13,028	\$13,093	\$13,159
Other Revenues	<u>4,580</u>	<u>4,845</u>	<u>4,955</u>	<u>5,094</u>	<u>5,240</u>	<u>5,400</u>
Total Revenues	\$17,415	\$17,743	\$17,918	\$18,122	\$18,333	\$18,559
Expenses						
Total O&M Expenses	\$18,085	\$18,825	\$19,538	\$20,231	\$20,928	\$21,723
Rate Funded Capital	0	1,650	4,810	4,700	5,470	5,500
Net Debt Service	650	683	1,430	3,029	3,495	3,005
Reserve Funding	<u>(1,320)</u>	<u>457</u>	<u>(856)</u>	<u>(90)</u>	<u>185</u>	<u>1,009</u>
Total Expenses	\$17,415	\$21,615	\$24,923	\$27,871	\$30,078	\$31,237
Bal. / (Def.) of Funds	\$0	(\$3,870)	(\$7,007)	(\$9,751)	(\$11,746)	(\$12,678)
Balance a % of Rate Adj. Req'd	0.0%	30.0%	54.1%	74.8%	89.7%	96.3%
Proposed Rate Adjustment	0.0%	30.0%	18.5%	13.5%	8.5%	3.5%
Add'l Revenue with Rate Adj.	\$0	\$3,870	\$7,007	\$9,751	\$11,746	\$12,678
Bal. / (Def.) After Rate Adj.	\$0	\$0	\$0	\$0	\$0	\$0

As can be seen, the wastewater revenue requirement has summed O&M, rate funded capital, net debt service (less connection fee funding for related capital), and reserve funding. The total revenue requirement is then compared to the total revenues which are the rate revenues, at present rate levels, and other miscellaneous revenues. From this comparison a balance or deficiency of funds in each year can be determined. This balance or deficiency is then compared to the projection of rate revenues to determine the level of revenue adjustment needed to meet the costs of providing wastewater service. It is important to note the “Bal. / (Def.) of Funds” row in Table ES – 3, is cumulative. That is, any adjustments in the initial years will reduce the deficiency in the later years.

As shown in Table ES – 3, the wastewater rate revenues will need to be increased by 30.0% in FY 2024, 18.5% in FY 2025, 13.5% in FY 2026, 8.5% in FY 2027, and 3.5% in FY 2028 in order to meet the operating and capital needs of the Agency’s wastewater utility. It is proposed that the subsequent proposed rate adjustments will be effective each year on July 1, or the beginning of the fiscal year.

HDR has concluded that the Agency will need to adjust the level of rate revenues as noted above to maintain cost-based rates. HDR has reached this conclusion for the following reasons:

- Revenue adjustments are necessary to meet the operating and capital costs of providing wastewater service to the Agency’s customers
- The proposed rate adjustments maintain the Agency’s financial health and provide long-term sustainable funding levels
- The Agency should review the wastewater rates annually in order to assess sufficiency

Summary of Cost of Service Analysis

A cost of service analysis determines the proportional distribution of the Agency’s revenue requirement. The objective of the cost of service analysis is different from the revenue requirement analysis. The revenue requirement analysis determines the Agency’s overall financial needs, while the cost of service analysis determines the proportional collection of the revenue requirement from the Agency’s customers.

The Agency’s cost of service analysis is simplified given the use of an EDU basis. For the Agency’s cost of service analysis the first step was to functionalize the revenue requirement. The functionalized revenue requirement was then allocated to the various cost components. The total cost allocation was then divided by the number of equivalent units to determine the average unit cost, or cost-based rate for the Agency’s customers on an EDU basis. A summary of the cost of service analysis is provided in Table ES – 4.

Table ES – 4
Summary of the Cost of Service Analysis (\$000s)

	Present Rate Revenues	Distributed Costs	\$ Difference	% Difference
All Customers	\$12,899	\$16,768	(\$3,870)	30.0%

Based on the distributed costs, a per EDU charge can be developed which becomes the basis for the proposed wastewater rates.

Summary of the Rate Design

The final step of the Agency’s wastewater rate study process is the design of wastewater rates to collect the desired level of revenue, based on the results of the revenue requirement and cost of service analysis. As noted, the allocated costs were distributed on a per EDU basis.

The Agency’s current rate is based on the prior year’s EDU counts, as reported from June 2021 through May 2022. The Agencies rate schedule is based on a proportion of an EDU basis. The rate schedule has many different categories which are charged on a variety of metrics such as per service chair for barber shop, per site for campgrounds, and per seat for restaurants, for example. In order to develop the unit costs, as the rates are all derived from a proportion of an EDU, the costs are divided by the total number of system EDUs. As part of the Study, the determination of an EDU was reviewed with Agency staff and industry information.

Developing cost-based and proportional rates is of paramount importance in developing proposed wastewater rates. The development of the Agency’s proposed wastewater rates have been developed to meet the legal requirements of California Constitution article XIII C, section 1 (Article XIII C). Article XIII C defines a tax to mean a levy, charge, or exaction of any kind imposed by a local government, except for levies, charges, or exactions that fall under one of seven express exemptions. Of particular relevance is the second exemption – charges imposed for a specific government service or product provided directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of providing the service or product.

In addition, Article XIII C requires the local government imposing the fee or charge to prove, with evidence, that a levy, charge, or other exaction is not a tax, that the amount is no more than necessary to cover the reasonable costs of the governmental activity, and that the manner in which those costs are allocated to a payor bear a fair or reasonable relationship to the payor's burdens on, or benefits received from, the governmental activity. A fundamental part of this analysis, therefore, is to demonstrate that a fee or charge recovers sufficient revenue to provide the government service, is proportional to the burdens on the system placed by each payor, and generates revenue to be used for the purpose of providing such service.

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

- ✓ **The revenue derived from sewer rates does not exceed the funds required to provide the property related service (i.e., sewer service).** The proposed rates are designed to collect the overall revenue requirement of the Agency's sewer system.
- ✓ **The revenues derived from sewer rates shall not be used for any purpose other than that for which the fee or charge is imposed.** The revenues derived from the Agency's sewer rates are used exclusively to operate and maintain the Agency's sewer system.
- ✓ **The amount of a fee or charge imposed upon a parcel or person as an incident of property ownership shall not exceed the proportional costs of the service attributable to the parcel.** The cost of service analysis was specifically developed to focus on the issue of proportional assignment of costs. Since there is only one class of service, allocation of costs is simplified on an EDU basis. The proposed rates reflect the system requirements and costs to provide service on an EDU basis.

The Agency establishes its wastewater rates on a per EDU basis whereby total wastewater revenue requirements are divided by system EDUs to establish the rate. The Agency then passes its rates through to its customers via the proportional EDUs established in the rate schedule.

The Agency currently has two rate schedules, one for the taxable area and one for the non-taxable area. These areas represent where the Agency receives property tax revenue. In discussion with the Agency and Board, for a variety of reasons, including simplifying the rate approach, minimal non-taxable customers, and administrative ease, it was determined that a single rate structure would be proposed and there would not be a taxable and non-taxable rate schedule. Provided in Table ES – 5 is a summary of the proposed sewer rates.

Table ES - 5
Present and Proposed Sewer Rate Schedule

Sewer Service	TTSA Code	Units	Present Rates	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Beauty/Barber Shop	A	# of service chairs	\$138.36	\$179.96	\$213.42	\$242.36	\$263.16	\$272.20
Commercial Establishments (unless otherwise noted)	B	# of fixture units	39.24	51.04	60.53	68.73	74.63	77.20
Dump Station	D	# of stations	306.00	398.00	472.00	536.00	582.00	602.00
Restaurant or Bar	F	# of seats inside	30.00	39.02	46.27	52.55	57.06	59.02
	Z	# of seats outside	10.80	14.05	16.66	18.92	20.54	21.25
	Z	# of seats banquet	10.80	14.05	16.66	18.92	20.54	21.25
Grocery	G	# of fixture units	60.60	78.82	93.47	106.15	115.26	119.22
Industrial User	I	as calculated pursuant to Table A-2	306.00	398.00	472.00	536.00	582.00	602.00
Car Washes	J	# of bays, Automatic	459.00	597.00	708.00	804.00	873.00	903.00
		# of bays, Automatic - Recycled	367.20	477.60	566.40	643.20	698.40	722.40
		# of bays, Self-Serve	306.00	398.00	472.00	536.00	582.00	602.00
		# of bays, Self-Serve - Recycled	244.80	318.40	377.60	428.80	465.60	481.60
Campsite with Sewer Connection	K	# of sites	164.16	213.52	253.21	287.55	312.23	322.96
Laundromat	L	# of washing machines	163.32	212.42	251.92	286.08	310.63	321.30
Motel or Hotel Unit	M	# of units	153.00	199.00	236.00	268.00	291.00	301.00
Motel or Hotel Unit with Kitchen	N	# of units	201.96	262.68	311.52	353.76	384.12	397.32
Swimming Pool or Spa	P	# of P units, see table A-1	5.64	7.34	8.70	9.88	10.73	11.10
Campsite without Sewer Connection	Q	# of sites	138.84	180.58	214.16	243.20	264.07	273.14
Residential Unit	R	# of dwelling units	306.00	398.00	472.00	536.00	582.00	602.00
Other	S	As Determined by General Manager	5.64	7.34	8.70	9.88	10.73	11.10
Assembly Hall	T	# of seats	2.28	2.97	3.52	3.99	4.34	4.49
Public Schools	---	Per 1,000 gallons	0.00	3.67	4.35	4.94	5.36	5.55

Summary of the Sewer Rate Study

This completes the summary of the wastewater rate study update for the Agency. Annual rate revenue adjustments are recommended of 30.0% in FY 2024, 18.5% in FY 2025, 13.5% in FY 2026, 8.5% in FY 2027, and 3.5% in FY 2028. It is also recommended that the rate structure continue to reflect an annual charge per EDU with adjustments to the rate prorated for each rate category based on the existing proportion to one EDU. A full and complete discussion of the development of the wastewater rate study, the recommendations, and results can be found in following sections of this report.



1 Introduction

HDR Engineering, Inc. (HDR) was retained by the Tahoe-Truckee Sanitation Agency (Agency) to perform a wastewater rate study. The development of the wastewater rate study (Study) determines the overall adequacy of the existing wastewater rates and provides the basis for determination of necessary rate revenue adjustments while maintaining cost-based and proportional rates. This report describes the methodology, findings, and conclusions of the wastewater rate study process.

1.1 Goals and Objectives

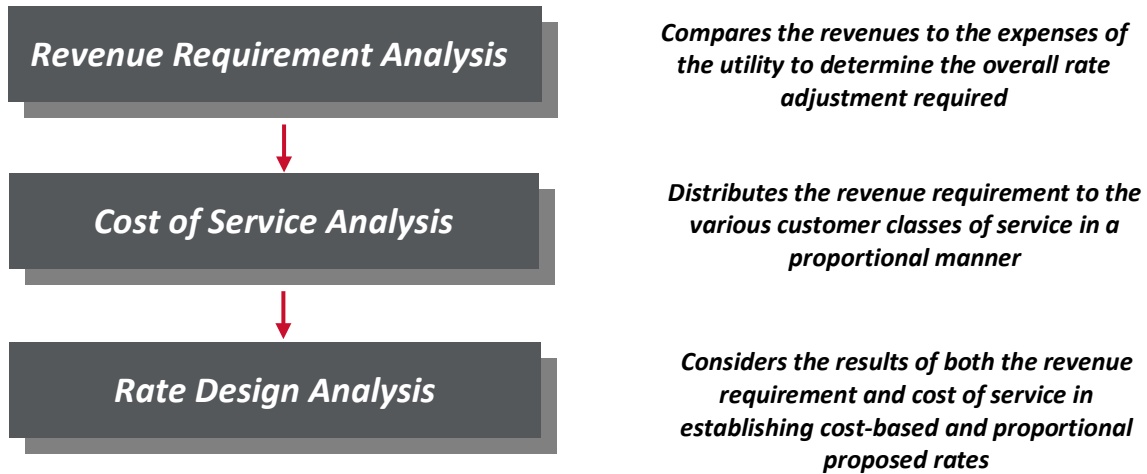
The Agency had a number of key objectives in developing the Study. These key objectives provided a framework for policy decisions in the analyses that follows. These key objectives were as follows:

- Develop the wastewater rate study in a manner that is consistent with the principles and methodologies established by the Water Environment Federation (WEF), Manual of Practice No. 27, Financing and Charges for Sewer Systems
- In financial planning and establishing the Agency's wastewater rates, review and utilize best industry practices, while recognizing and acknowledging the specific and unique characteristics of the Agency's wastewater system
- Review the Agency's wastewater rates utilizing generally accepted rate making methodologies to determine the adequacy and proportionality of the rates
- Meet the Agency's financial planning criteria and goals, such as debt service coverage ratios, sufficient funding of capital infrastructure replacement, and maintenance of adequate and prudent reserve levels
- Develop a financial plan which completely supports the wastewater utility's funding requirements, while attempting to minimize overall impacts to wastewater rates
- Provide rates designed to meet the legal requirements of Article XIII C (e.g., Proposition 218)

1.2 Overview of the Rate Study Process

A comprehensive wastewater rate study utilizes three interrelated analyses to address the adequacy and equity of utility rates. These three analyses are a revenue requirement analysis, a cost of service analysis, and a rate design analysis.

Figure 1 – 1
Overview of the Comprehensive Sewer Rate Study



The primary focus of the revenue requirement analysis is the comparison of the overall revenues and expenses of the utility. From this analysis, a determination can be made as to the overall level of revenue (rate) adjustment necessary. Next, a cost of service analysis is performed to proportionally distribute the revenue requirement to the customer classes of service, in the Agency's case on a per EDU basis. Finally, the last step of the rate study process is the rate design. For the Agency, the proposed wastewater rates are designed to collect the appropriate level of revenues and reflect the proportional cost per EDU. As a part of the Study, HDR developed each of these analyses to analyze the Agency's current wastewater rates. At the same time, HDR utilized generally accepted cost of service and rate setting techniques and industry best practices in the development of the Agency's wastewater rate study.

1.3 Report Organization

This report is organized as follows:

- Section 2 provides background about the utility rate setting process
- Section 3 reviews the revenue requirement analysis
- Section 4 reviews the cost of service analysis
- Section 5 reviews the rate design analysis

A technical appendix is attached at the end of the report which provides the analysis used in the preparation of this report.

2 Overview of Rate Setting Principles

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

2.1 Generally Accepted Rate Setting Principles

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

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

2.2 Determining the Revenue Requirement

Public and private utilities have very different administrative and financial characteristics, their methods differ for determining revenue requirement and setting rates. Most public utilities use the cash basis approach for establishing their revenue requirement and setting rates. This approach conforms to most public utility budgetary requirements and the calculation is easy to understand. A public utility:

- Totals its operating and capital expenses to determine the required revenues. These operating and capital costs may be offset by "other", or miscellaneous revenues, if they exist.
- Adds operating and maintenance (O&M) expenses to any applicable taxes or transfer payments to determine total operating expenses. Operating and maintenance expenses include the materials, electricity, labor, supplies, etc. needed to keep the utility functioning.
- Calculates capital costs by adding debt service funded through rates (principal and interest) to capital improvements funded through rates (rate funded capital improvements). When determining rate funded capital improvements, annual depreciation expense may be used as the minimum annual capital improvement amount to be collected through rates when the amounts from the capital improvement plan are lower due to timing. In theory, annual depreciation expense represents the amount that should be collected on average, over the long term, for annual asset replacement. When annual depreciation expense is used to determine rate funded capital it results in a more stable revenue requirement and thus, more stable rates.

2.3 Analyzing Cost of Service

After the total revenue requirement is determined, it is distributed to the users of the service. The distribution - analyzed through a cost of service study - reflects the cost relationships for producing and delivering services (in this case, wastewater treatment). A cost of service study requires three steps:

1. Costs are **functionalized** or grouped into the various cost categories related to providing service (treatment, transmission, etc.). This step is largely accomplished by the utility's accounting system.
2. The functionalized costs are then **allocated** to specific cost components. Allocation refers to the arrangement of the functionalized data into cost components. For example, a wastewater utility's costs are typically allocated as volume-, strength-, or customer-related.
3. Once the costs are classified into components, they are **distributed** to the customer classes of service. Although the Agency only has one class of customers, the distribution is based on an EDUs relative contribution to the cost component.

2.4 Designing Rates

Rates that meet the utility's objectives are designed based on both the revenue requirement and the cost of service analysis. This approach results in rates that are cost-based and proportional and does not take into consideration other non-cost based goals and objectives (conservation, economic development, ability to pay, revenue stability, etc.). In designing the final proposed rates, factors such as ability to pay, continuity of past rate philosophy, economic development, ease of administration, and customer understanding may be taken into consideration. However, the proposed rates must take into consideration the proportional share of costs distributed through the cost of service analysis to meet the intent of Proposition 218.

2.5 Summary

This section of the report has provided a brief introduction to the general principles, techniques, and approach used to develop cost-based and proportional wastewater rates. These principles and techniques will become the basis for the Agency's wastewater rate study.

3 Development of the Revenue Requirement

This section describes the development of the revenue requirement analysis for the Agency. The revenue requirement analysis is the first analytical step in the comprehensive rate study process. From this analysis, a determination can be made as to the overall level of the wastewater rate adjustment needed to provide adequate and prudent funding for both operating and capital needs. One of the main objectives of a rate study is to develop proportional rates while attempting to minimize the long-term impacts to customers.

In developing the wastewater revenue requirement, it was assumed the Agency's wastewater system must financially "stand on its own" and be properly funded. As a result, the revenue requirement as developed herein assumes the full and proper funding needed to operate and maintain the Agency's wastewater system on a financially sound and prudent basis.

3.1 Determining the Time Period and Approach

The first step in calculating the revenue requirement was to establish a time frame for the revenue requirement analysis. For the Study, the revenue requirement was developed for the ten-year time period of FY 2023 – FY 2033. By anticipating future financial requirements, the Agency can begin planning for these changes sooner, thereby minimizing short-term rate impacts and overall long-term rates. The focus, for rate setting purposes, was the five-year period of FY 2024 through FY 2028.

The second step in determining the revenue requirement for the Agency was to decide on the basis of accumulating costs. For the Agency's revenue requirement, a cash basis approach was utilized. The cash basis approach is the most commonly used methodology by municipal utilities to set their revenue requirement. Section 2 of this report provided a simple overview of the cash basis methodology. The revenue requirement developed for the Agency was customized to follow the Agency's system of accounts (budget documents). However, in general, even with the Agency's specific information, the Agency's revenue requirement contains the basic cost components of a cash basis methodology. Table 3 - 1 provides a summary of the cash basis approach used to develop the Agency's revenue requirement.

Table 3 - 1
Overview of Cash Basis Revenue Requirement

+	Operation and maintenance exp.
+	Rate funded capital improvements ^[a]
+	Debt Service (P + I) funded from rates
<u>±</u>	<u>Minimum reserve funding</u>
–	<u>Other Revenues</u>
=	Total Revenue Requirement
	 Total capital improvement projects
–	Funding sources other than rates
	✓ Capital & Replacement Fund
	✓ Connection Fees
	<u>✓ Proceeds from Debt Issuance</u>
=	Rate Funded Capital Improvements^[a]

Given a time period around which to develop the revenue requirement and a method to accumulate the appropriate costs, the focus then shifts to the development and projection of the revenues and expenses for the Agency.

The primary financial inputs in this process were the Agency's historical billing records, adopted and projected operating budgets, and capital improvement plan. Presented below is a detailed discussion of the steps and key assumptions contained in the development of the projections of the Agency's revenues and expenses.

3.2 Projection of Revenues

The first step in developing the revenue requirement was to develop a projection of rate revenues received by the Agency. This includes both rate revenues (calculated at present rate levels) and miscellaneous revenues. In general, this process involved developing projected billing units (number of EDUs) and the applicable rate. The billing units for each customer group were then multiplied by the current rates (\$ / EDU/ year). This method of independently calculating revenues assures the projected revenues used within the analysis tie to the projected billing units. Other miscellaneous revenues were based on historical accounting records and recent revenue projections.

3.2.1 Projection of Rate Revenues

At present rates, the Agency is projected to receive approximately \$12.8 million in rate revenue in FY 2023 based on the current adopted rate and number of EDUs. Over the planning horizon of the Study, customer growth is expected to be 0.5% resulting in total rate revenues of approximately \$13.2 million by FY 2028, absent any rate revenue adjustments.

3.2.2 Projection of Other Revenues

In addition to rate revenues, the Agency also receives a variety of other revenues which include temporary discharge permits, ad valorem taxes, and other revenues. The utility is projected to receive approximately \$4.6 million in other revenues in FY 2023 of which approximately \$4.4 million is from property tax revenues. Other revenues increase to approximately \$5.4 million in FY 2028 primarily from the estimated growth in ad valorem tax revenues.

On a combined basis - the rate revenues along with other revenues - the Agency's total projected revenues are expected to be approximately \$17.4 million in FY 2023 and increase to \$18.6 million by FY 2028, prior to any rate revenue adjustments from estimated growth.

3.3 Projection of Operation and Maintenance Expenses

Operation and maintenance (O&M) expenses are incurred by the Agency to operate and maintain the existing wastewater conveyance and treatment facilities. In general, operation and maintenance expenses are grouped into a number of different functional categories. To begin the process of projecting O&M expenses over the projected rate setting time period, escalation factors were developed. The escalation factors were based on historical rates of cost increases as well as anticipated future impacts. Escalation factors developed for the Agency are shown below in Table 3 - 2.

Table 3 – 2
Summary of the Escalation Factors

	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Salaries	3.0%	3.0%	3.0%	3.0%	3.0%
Benefits	3.5%	3.5%	3.5%	3.5%	3.5%
Benefits - Medical	4.5%	4.5%	4.5%	4.5%	4.5%
Benefits - Retirement	4.0%	4.0%	4.0%	4.0%	4.0%
Materials & Supplies	3.0%	3.0%	3.0%	3.0%	3.0%
Equipment	4.0%	4.0%	4.0%	4.0%	4.0%
Miscellaneous	2.0%	2.0%	2.0%	2.0%	2.0%
Utilities	4.0%	4.0%	4.0%	4.0%	4.0%
Flat/No Change	0.0%	0.0%	0.0%	0.0%	0.0%
Insurance	3.5%	3.5%	3.5%	3.5%	3.5%
Chemicals	10.0%	4.0%	4.0%	4.0%	4.0%
General Expenses	3.5%	3.5%	3.5%	3.5%	3.5%

To project future O&M expenses, the first step was to determine the functional categories for purposes of projecting costs. Given the level of detail in the Agency's adopted FY 2023 budget, it

was the basis for the development of the revenue requirement analysis. HDR then escalated the O&M expenses based on the escalation factors in Table 3 – 2, above. Total operation and maintenance expenses for the Agency are budgeted to be approximately \$18.1 million in FY 2023, increasing to approximately \$21.7 million by FY 2028 as a result of cost inflation based on the above escalation factors over the projected rate setting time period.

3.4 Projection of Rate Funded Capital

The Agency has large capital improvement projects, as well as repair and replacement capital expenses, planned over the Study's time period. The Agency recently completed a Master Sewer Plan and SCADA/IT Master Plan. These planning efforts completed a comprehensive review of the Agency's wastewater infrastructure and identified necessary capital improvements. The capital improvement projects identified in the plans laid the groundwork for the capital funding plan as part of the Agency's Study. The capital improvement funding plan was developed to fund the capital improvements while attempting to also minimize long-term rate impacts. Consideration was given to the impact on rates from funding capital improvements on a pay-as-you-go basis, as well as debt financing the larger capital projects. The level of rate funded capital was based on a review of the Agency's long-term capital needs and prudent funding levels associated with annual asset replacement (i.e., annual depreciation expense). This strategy will aide in future capital replacements in a timely manner while minimizing the associated rate impacts to the Agency's customers.

For the period of FY 2023 through FY 2028, capital improvement funding totals approximately \$77.7 million. Funding for the Agency's capital projects is through rates, existing fund balance, and connection fees. As a point of reference, the replace, rehab, and upgrade projects are those related to Fund 6 and 10 and are funded through annual revenues (rates and other) as well as available reserves, while capital reserve funded (Fund 6) are funded through annual connection fee revenues and available connection fee revenue reserves. A detailed summary of the capital projects for Fund is 2 provided in Table 3 - 3 and for Fund 6 is shown in Table 3 - 4.

Table 3 – 3
Summary of the Capital Improvement Plan (\$000s) – Fund 2

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Total Capital	\$689	\$804	\$4,144	\$3,454	\$1,246	\$5,712
Funding Sources						
Wastewater Capital Reserve Fund (Fund 2)	\$689	\$804	\$644	\$754	\$0	\$1,762
Emergency & Contingency Reserve Fund	0	0	0	0	0	0
Secured Debt (SRF)	0	0	0	0	0	0
Assumed Revenue Bond (Fund 2)	0	0	3,500	2,700	1,246	3,950
Total Funding Sources	\$689	\$804	\$4,144	\$3,454	\$1,246	\$5,712

Table 3 – 4
Summary of the Capital Improvement Plan (\$000s) – Fund 6

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Total Capital	\$3,311	\$4,996	\$15,717	\$22,326	\$9,775	\$5,500
Funding Sources						
General Fund	\$0	\$0	\$3,624	\$0	\$0	\$0
Replace, Rehab, and Upgrade Fund (Fund 6)	3,311	3,346	1,520	0	0	0
Emergency & Contingency Reserve Fund	0	0	0	0	0	0
Secured Debt (SRF)	0	0	0	0	0	0
Assumed Revenue Bond (Fund 6)	<u>0</u>	<u>0</u>	<u>5,763</u>	<u>17,626</u>	<u>4,305</u>	<u>0</u>
Total Funding Sources	\$3,311	\$3,346	\$10,907	\$17,626	\$4,305	\$0
Rate Funded Capital	\$0	\$1,650	\$4,810	\$4,700	\$5,470	\$5,500

The ongoing replacement of assets is often included in determining the capital requirements of a utility. A standard benchmark for asset replacement is annual depreciation expense. Annual depreciation expense reflects the current investment in facilities being depreciated or “losing” its useful life. Therefore, this portion of facility investment needs to be replaced to maintain the existing level of infrastructure. It should be noted that in theory, annual depreciation expense reflects the value of the infrastructure investment on average, 15 years ago, assuming a 30-year useful life. It should be noted, that funding an amount equal to annual depreciation expense will likely be insufficient to replace the existing or depreciated facility simply due to price inflation. Therefore, whenever possible, the Agency should be funding capital projects from rates in an amount greater than annual depreciation expense. For reference, the FY 2021 annual depreciation expense was approximately \$3.2 million. As can be seen in Table 3 – 4, above, the Agency is at approximately \$1.7 million in FY 2024 and increases over the review period through FY 2028 reaching \$5.5 million. Over time, the Agency will need to continue to monitor the level of rate funded capital such that rates are set at a sufficient level to fund annual renewal and replacement needs (Fund 6 and Fund 10).

3.5 Projection of Debt Service

At the present time, the Agency has one outstanding debt obligation, the 2020 WWTP Revenue Bond with a total annual debt service of approximately \$2.4 million in FY 2023. This debt service increases over the review period and reaches almost \$3.0 million in FY 2027 which is the final payment and then the debt is retired. It is assumed that the Agency will need to issue additional long-term debt to fund capital improvement projects as noted in Tables 3 – 3 and 3 – 4. New issuances are projected to have an additional annual debt service of \$712,000 in FY 2025 and increase to \$3.0 million by FY 2028. In total, taking into account the existing and projected long-term debt issuances, the Agency’s annual debt service is approximately \$2.4 million in FY 2023 and increases to a high of \$5.7 million in FY 2027 before the existing debt is retired and in FY 2028 the debt service is \$3.0 million.

Generally, revenue bonds contain rate covenants requiring rates to be set at a level sufficient to meet a specified minimum debt service coverage (DSC) ratio. This is a financial measure of the utility's ability to repay the debt. In general, the DSC ratio is set at a level such that revenues less operating expenses will be between 1.00 and 1.25 times greater than the maximum annual debt service on the outstanding debt. Given a minimum DSC ratio, it is often prudent to plan or set rates at a level which exceeds this minimum. This allows for reduced revenues or increased costs in any given year and still be able to meet the legally required minimum DSC ratio. This should also strengthen the Agency's ability to issue long-term debt in the future, if necessary, since bond rating agencies would review the Agency's past financial strength and ability to repay the bonds.

The Agency's debt service coverage ratio projected for FY 2024 on its existing debt is less than 1.00. Rate increases are necessary in order to attain adequate debt service coverage for the Agency and based on the projected rate adjustments the DSC ratio is estimated to be above minimum target levels for the five-year rate setting period. It should be noted that HDR is not providing municipal advice as it relates to bonds, terms, or structures of debt issuance. Rather, the Study is simply identifying funding needs and estimating the annual debt service payments for rate setting purposes.

3.6 Summary of the Revenue Requirement

Given the above projections of revenues and expenses, a summary of the revenue requirement for the Agency can be developed. In developing the final revenue requirement, consideration was given to the financial planning considerations of the Agency. In particular, emphasis was placed on attempting to minimize rates, yet still have adequate funds to support the operational activities and capital projects throughout the projected time period. The results presented in Table 3 - 5 allow the Agency to maximize annual capital improvements and minimize long-term rate impacts while funding a prudent level of capital through rates. Detailed analysis can be found in the Technical Appendices.

Table 3 - 5
Summary of the Revenue Requirement Analysis (\$000s)

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Revenues						
Rate Revenues	\$12,835	\$12,899	\$12,963	\$13,028	\$13,093	\$13,159
Other Revenues	<u>4,580</u>	<u>4,847</u>	<u>4,953</u>	<u>5,092</u>	<u>5,239</u>	<u>5,400</u>
Total Revenues	\$17,415	\$17,746	\$17,916	\$18,120	\$18,332	\$18,559
Expenses						
Total O&M Expenses	\$18,085	\$18,825	\$19,538	\$20,231	\$20,928	\$21,723
Rate Funded Capital	0	1,650	4,810	4,700	5,470	5,500
Net Debt Service	650	683	1,430	3,029	3,495	3,005
Reserve Funding	<u>(1,320)</u>	<u>457</u>	<u>(856)</u>	<u>(90)</u>	<u>185</u>	<u>1,009</u>
Total Expenses	\$17,415	\$21,615	\$24,923	\$27,871	\$30,078	\$31,237
Bal. / (Def.) of Funds	\$0	(\$3,870)	(\$7,007)	(\$9,751)	(\$11,746)	(\$12,678)
Balance as % of Rate Adj. Req'd	0.0%	30.0%	54.1%	74.8%	89.7%	96.3%
Proposed Rate Adjustment	0.0%	30.0%	18.5%	13.5%	8.5%	3.5%
Add'l Revenue with Rate Adj.	\$0	\$3,870	\$7,007	\$9,751	\$11,746	\$12,678
Bal. / (Def.) After Rate Adj.	\$0	\$0	\$0	\$0	\$0	\$0

It is important to note the annual deficiencies in Table 3 – 5, above, under “Bal. / (Def.) of Funds” and “Balance as % Rate Adj. Req’d” are cumulative. That is, any adjustment in the initial years will reduce the needed deficiency in the following years. The results of the revenue requirement analysis indicate a deficiency of funds over the rate setting period. The deficiency ranges from approximately \$3.9 million in FY 2024 to \$12.7 million by FY 2028 which equates to a cumulative deficiency in FY 2028 of 96.3%. Based on the revenue requirement analysis developed, HDR recommends the Agency adjust utility rates beginning in FY 2024. It is recommended that annual adjustments of 30.0% in FY 2024, 18.5% in FY 2025, 13.5% in FY 2026, 8.5% in FY 2027, and 3.5% FY 2028 be implemented to adequately fund the operating and capital needs of the Agency and meet the Agency’s debt service coverage requirements.

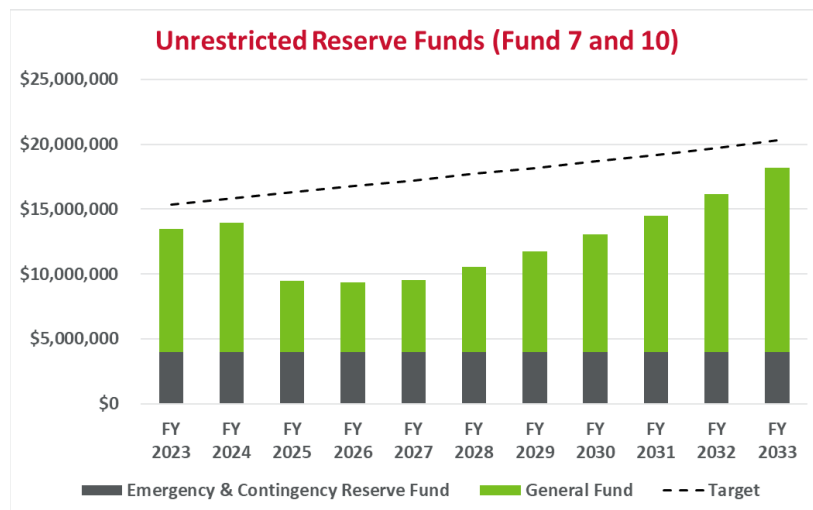
3.7 Summary of the Designated Reserve Funds

Reserves are an important part of a utility’s financial picture. There can be many different purposes for reserves. The Agency currently has four (4) designated reserve funds: the general fund (Fund 10), capital fund (Fund 2), RRU Fund (Fund 6), and emergency & contingency fund. As part of the utilization and maintenance of the reserve funds, it is important for the Agency to set a minimum or target balance for each reserve fund. When the fund balance reaches the minimum level, it is a signal for action on the Agency’s part. Table 3 – 6 shows a summary of each reserve fund, discusses the target minimum, and the purpose for the reserve.

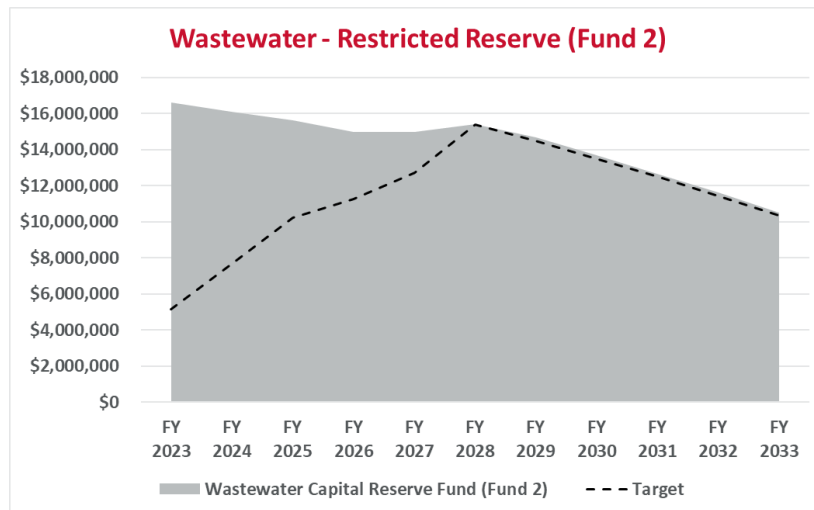
Table 3 - 6
Summary of the Reserve Fund Balances

Fund	Minimum Balance	Purpose
Operating	60% of O&M + UAL; \$11.4 million in FY 2023	Cash flow and liquidity
Capital Reserve (Fund 2)	50% of the 5-year project total for Fund 2 capital; \$5.2 in FY 2023	Fund 2 capital projects; connection fee revenues and expenses
Replace, Rehab, and Upgrade Reserve (Fund 6)	50% of the 5-year project total for Fund 6 capital; \$28.1 in FY 2023	Fund 6 capital projects
Emergency & Contingency Reserve	\$4.0 million	Additional funds in a catastrophic emergency or contingency for revenue loss / interruption

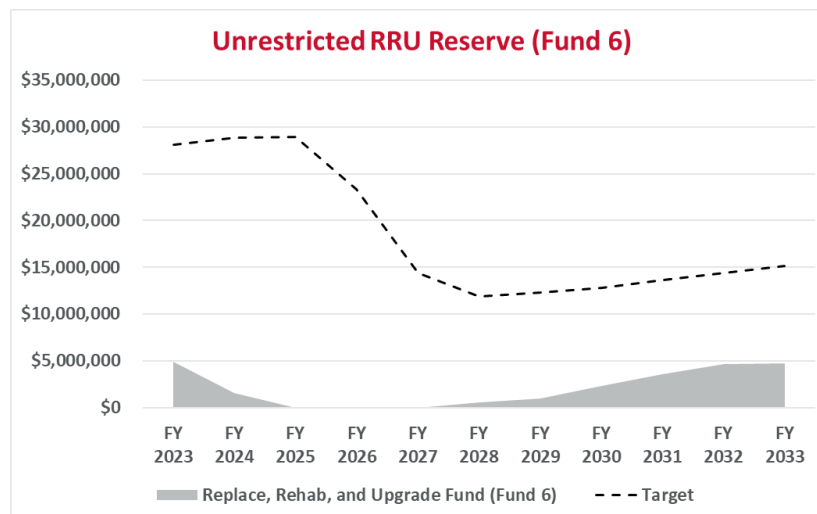
Provided in the graphs below is a summary of the reserve fund balances and the target ending fund balances. As a point of reference, the ending reserve balances are based on the implementation of the proposed rate revenue adjustments as outlined in Table 3 – 5.



As can be seen, even with the proposed rate revenue adjustments, Funds 7 and 10 do not meet the target reserve based on the revenues, expenses, and capital funding needs. Over time the reserves increase and are closer to target minimum reserve levels.



Fund 2, which is funded through annual connection fee revenues, and funds annual expansion related capital and debt service, does meet the target minimums based on the study projection of annual connection fees. It is important to note that the District is currently evaluating the level of the connection fee and changes in the fee may impact the reserve balance either positively or negatively.



As shown, the reserve funds are drawn down to fund annual capital as well as operating deficiencies. Over time as the proposed rate transition plan is implemented, the reserve fund balances begin to rebound and are enhanced towards the minimums.

3.8 Consultant's Recommendations

Based upon the revenue requirement analysis, HDR recommends the Agency implement annual rate revenue adjustments of 30.0% in FY 2024, 18.5% in FY 2025, 13.5% in FY 2026, 8.5% in FY 2027, and 3.5% in FY 2028. The proposed adjustments would move the Agency to fully supporting the operations and capital needs over the review period.



4 Development of the Cost of Service

In the previous section, the revenue requirement analysis focused on determining the appropriate level of revenue to be collected through rates. This section will discuss the development of the cost of service analysis for the Agency. A cost of service analysis is concerned with the allocation and distribution of the revenue requirement among the Agency's customers. The Agency has a rate schedule on a per EDU basis. Each customer is assigned an EDU, or a number of EDUs. Given that, the costs were allocated to the cost components, and then divided by the number of EDU's to develop the proposed rates for the member agencies. The revenue requirement for FY 2024 presented in Section 3 of this report is utilized in the cost of service analysis.

In recent years, increasing emphasis has been placed on cost of service studies by government agencies, customers, utility regulatory commissions, and other parties. This interest has been generated in part by continued inflationary trends, increased operating and capital expenditures, and concerns of proportionality in rates among customers. Following the generally-accepted guidelines and principles of a cost of service analysis will inherently lead to rates which are proportional, cost-based, and not viewed as arbitrary or capricious in nature.

4.1 Objectives of a Cost of Service Study

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

- Allocate the revenue requirement among the customer classes of service
- Derive average unit costs for subsequent rate designs

The objectives of a cost of service analysis are different from determining the revenue requirement. As noted in the previous section, a revenue requirement analysis determines the utility's overall financial needs, while the cost of service study determines the equitable and proportional manner in which to collect the revenue requirement.

The second rationale for conducting a cost of service analysis is to design the rates such that they properly reflect the costs incurred by the Agency. For example, the Agency incurs costs related to flow or total volume, the strength of the wastewater flow, and customer cost components. Each of these types of costs may be collected in a slightly different manner to allow for the development of a rate that collects costs in the same manner as they are incurred.

4.2 Determining the Customer Classes of Service

The first step in a cost of service study is to determine the customer classes of service. The Agency is a wastewater treatment service provider and provides service to area member agencies. As mentioned previously, for purposes of the Agency's cost of service analysis, costs are distributed to all customers on a per EDU basis.

4.3 General Cost of Service Procedures

A cost of service study utilizes a three-step approach to review costs. These were previously discussed in Section 2, and take the form of functionalization, allocation, and distribution. Provided below is a detailed discussion of the cost of service study conducted for the Agency, and the specific steps taken in the analysis.

4.3.1 Functionalization of Costs

The first analytical step in the cost of service process is functionalization. Functionalization is the arrangement of expenses and asset (facility) data by major operating functions within each utility. For example, pumping, treatment, collection, etc. Given that the Agency is primarily a treatment facility with a minimal conveyance system, the functionalization of the cost data was largely accomplished through the Agency's system of accounts.

4.3.2 Allocation of Costs

The second analytical task performed in a cost of service study is the allocation of the costs, that is the revenue requirement. Allocation determines why the expenses were incurred or what type of need is being met. The Agency's facility accounts and revenue requirement were reviewed and allocated on a per EDU basis as the Agency charges each customer based on the number of EDUs.

4.3.3 Development of Distribution Factors

Once the allocation process is complete, and the customer groups have been defined, the allocated costs were distributed to all customers. The Agency's allocated costs were distributed using the customer, or EDU, distribution factor. The Agency's rate schedule has various customer charges based on a per EDU proportion. This rate schedule is then utilized by the Agency to establish the annual bill for each customer and the bill is placed on the tax rolls to collect the revenue. All costs from the FY 2024 test year were distributed on the totally system EDUs.

Given the development of the distribution factors, the final step in the cost of service study is to distribute the allocated costs to the various customer classes of service.

Terminology of a Wastewater Cost of Service Analysis

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

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

Distribution – Distributing the allocated costs based the proportional contribution to that specific cost component.

Volume Costs – Costs that are allocated as volume related vary with the total flow of wastewater (e.g., chemical use at the treatment facility).

Strength Costs – Costs allocated as strength related refer to the wastewater treatment function. For the Agency's study, strength-related costs are further defined as biochemical oxygen demand (BOD), suspended solids (SS), and Nitrogen. Customers with higher wastewater strength characteristics cost more to treat. Facilities are often designed and sized around meeting these costs.

Direct Assignment – Costs that can be clearly identified as belonging to a specific member agency.

4.4 Functionalization and Allocation of Operating Expenses

For the Agency's Study, the revenue requirement for FY 2024 was functionalized, allocated, and distributed. As noted earlier, the Agency utilized a cash basis revenue requirement, which was comprised of operation and maintenance expenses, taxes and transfers, debt service, and capital improvements funded from rates. The Agency's study is simplified as the wastewater system provides regional conveyance and treatment services and charges the member agencies on a per EDU basis. As such, the costs were all allocated as EDU costs. A more detailed review of the classification of revenue requirement can be found in the Technical Appendix, Exhibit 12. Table 4 – 1 below shows a summary of the cost of service allocation of the revenue requirement.

Table 4 – 1
Summary of the Allocation of the FY 2024 Revenue Requirement (\$000's)

Total	Volume	Strength Related			Customer (EDU)	Direct Assignment
		Nitrogen	BOD	SS		
\$16,768	\$0	\$0	\$0	\$0	\$16,768	\$0

4.5 Major Assumptions of the Cost of Service Study

A number of key assumptions were used in the Agency's cost of service study. Below is a brief discussion of the major assumptions used.

- The test period used for the cost of service analysis was FY 2024. The revenue and expense data was previously developed within the revenue requirement study.
- The revenue projections were based on the revenues collected from the member agencies, based on the current billing practices of the Agency
- A cash basis approach was utilized which conforms to generally accepted cost of service approaches and methodologies
- The allocation of the Agency's facilities was developed based upon generally accepted cost allocation techniques and Agency specific data

4.6 Summary of the Cost of Service Results

In summary, the cost of service analysis began by functionalizing the Agency's operating expenses. The functionalized revenue requirement was then allocated into the appropriate cost component. The individual allocation totals were aggregated to determine the total cost associated with an EDU. A summary of the detailed cost responsibility is shown in Table 4 - 2.

Table 4 - 2 Summary of the Cost of Service Analysis (\$000s)				
	Present Rate Revenues	Distributed Costs	\$ Difference	% Difference
Total	\$12,899	\$16,768	(\$3,870)	30.0%

The results of the cost of service analysis reflect the overall proposed rate adjustment of 30.0% in FY 2024 on a per EDU basis.

4.7 Consultant's Conclusions and Recommendations

As was presented in Table 4 - 2 based on the distribution of costs, it is recommended that the Agency implement the proposed rate adjustments to all customers based on the results of the cost of service on a cost per EDU basis.

5 Development of the Rate Design

The final step of the comprehensive rate study process is the design of wastewater rates to collect the desired levels of revenues, based on the results of the revenue requirement and cost of service analysis. In reviewing wastewater rate designs, consideration is given to the level of the rates and the structure of the rates.

5.1 Rate Design Criteria and Considerations

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

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

Many contemporary rate practitioners and regulatory agencies feel the last consideration, cost-based rates, should be of paramount importance and provide the primary guidance to utilities on rate structure and policy as well as meet the intent of Proposition 218.

5.2 Development of Cost-Based Wastewater Rates

As mentioned, developing cost-based and proportional rates is of paramount importance in developing proposed wastewater rates. While always a key consideration in developing rates, meeting the legal requirements, and documenting the steps taken to meet the requirements, has been in the forefront with the recent legal challenges in the State of California on utility rates and fees. Given this, the development of the Agency's proposed wastewater rates have been developed to meet the legal requirements of California Constitution article XIII C, section 1 (Article XIII C). Article XIII C defines a tax to mean a levy, charge, or exaction of any kind imposed by a local government, except for levies, charges, or exactions that fall under one of seven express exemptions. Of particular relevance is the second exemption – charges imposed for a specific government service or product provided directly to the payor that is not provided to those not charged, and which does not exceed the reasonable costs to the local government of providing the service or product.

In addition, Article XIII C requires the local government imposing the fee or charge to prove, with evidence, that a levy, charge, or other exaction is not a tax, that the amount is no more than necessary to cover the reasonable costs of the governmental activity, and that the manner in

which those costs are allocated to a payor bear a fair or reasonable relationship to the payor's burdens on, or benefits received from, the governmental activity. A fundamental part of this analysis, therefore, is to demonstrate that a fee or charge recovers sufficient revenue to provide the government service, is proportional to the burdens on the system placed by each payor, and generates revenue to be used for the purpose of providing such service.

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

- ✓ **The revenue derived from sewer rates does not exceed the funds required to provide the property related service (i.e., sewer service).** The proposed rates are designed to collect the overall revenue requirement of the Agency's sewer system.
- ✓ **The revenues derived from sewer rates shall not be used for any purpose other than that for which the fee or charge is imposed.** The revenues derived from the Agency's sewer rates are used exclusively to operate and maintain the Agency's sewer system.
- ✓ **The amount of a fee or charge imposed upon a parcel or person as an incident of property ownership shall not exceed the proportional costs of the service attributable to the parcel.** The cost of service analysis was specifically developed to focus on the issue of proportional assignment of costs. Since there is only one class of service, allocation of costs is simplified on an EDU basis. The proposed rates reflect the system requirements and costs to provide service on an EDU basis.

5.3 Review of the Overall Rate Adjustments

As indicated in the results of the revenue requirement analysis the recommendation is annual adjustments of 30.0% in FY 2024, 18.5% in FY 2025, 13.5% in FY 2026, 8.5% in FY 2027, and 3.5% in FY 2028. The results of the cost of service analysis also showed that the Agency's current rate structure on an EDU basis is cost-based and proportional. The next section will discuss the proposed rate based on the Agency's cost structure and reflects the cost of service analysis.

5.4 Present and Proposed Wastewater Rates

The Agency establishes its rates annually on a per EDU basis whereby total wastewater revenue requirements are divided by system EDUs to establish the rate. The Agency then charges its rates to the customers per EDU on an annual basis on the property tax rolls. The Agency currently has two rate schedules, one for the taxable area and one for the non-taxable area. These areas represent where the Agency receives property tax revenue. In discussion with the Agency and Board, for a variety of reasons, including simplifying the rate approach, minimal non-taxable customers, and administrative ease, it was determined that a single rate structure would be proposed and there would not be a taxable and non-taxable rate schedule. Table 5 - 1 provides a summary of the present (taxable area) and proposed EDU charge (all customers).

Table 5 - 1
Present and Proposed Sewer Rates

Sewer Service	TTSA Code	Units	Present Rates	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Beauty/Barber Shop	A	# of service chairs	\$138.36	\$179.96	\$213.42	\$242.36	\$263.16	\$272.20
Commercial Establishments (unless otherwise noted)	B	# of fixture units	39.24	51.04	60.53	68.73	74.63	77.20
Dump Station	D	# of stations	306.00	398.00	472.00	536.00	582.00	602.00
Restaurant or Bar	F	# of seats inside	30.00	39.02	46.27	52.55	57.06	59.02
	Z	# of seats outside	10.80	14.05	16.66	18.92	20.54	21.25
	Z	# of seats banquet	10.80	14.05	16.66	18.92	20.54	21.25
Grocery	G	# of fixture units	60.60	78.82	93.47	106.15	115.26	119.22
Industrial User	I	as calculated pursuant to Table A-2	306.00	398.00	472.00	536.00	582.00	602.00
Car Washes	J	# of bays, Automatic	459.00	597.00	708.00	804.00	873.00	903.00
		# of bays, Automatic - Recycled	367.20	477.60	566.40	643.20	698.40	722.40
		# of bays, Self-Serve	306.00	398.00	472.00	536.00	582.00	602.00
		# of bays, Self-Serve - Recycled	244.80	318.40	377.60	428.80	465.60	481.60
Campsite with Sewer Connection	K	# of sites	164.16	213.52	253.21	287.55	312.23	322.96
Laundromat	L	# of washing machines	163.32	212.42	251.92	286.08	310.63	321.30
Motel or Hotel Unit	M	# of units	153.00	199.00	236.00	268.00	291.00	301.00
Motel or Hotel Unit with Kitchen	N	# of units	201.96	262.68	311.52	353.76	384.12	397.32
Swimming Pool or Spa	P	# of P units, see table A-1	5.64	7.34	8.70	9.88	10.73	11.10
Campsite without Sewer Connection	Q	# of sites	138.84	180.58	214.16	243.20	264.07	273.14
Residential Unit	R	# of dwelling units	306.00	398.00	472.00	536.00	582.00	602.00
Other	S	As Determined by General Manager	5.64	7.34	8.70	9.88	10.73	11.10
Assembly Hall	T	# of seats	2.28	2.97	3.52	3.99	4.34	4.49
Public Schools	---	Per 1,000 gallons		3.67	4.35	4.94	5.36	5.55

It was determined that the current rate design was appropriate at this time for several reasons. First, the Agency incurs the majority of its costs on a fixed basis. The Agency serves an area that has fairly low residential occupancy with periods of high tourist-based occupancy. This results in higher seasonal flows and treatment capacity needs.

5.5 Summary of the Sewer Rate Study

This completes the analysis for the Agency's wastewater utility rates. It is recommended that annual revenue adjustments are implemented of 30.0% in FY 2024, 18.5% in FY 2025, 13.5% in FY 2026, 8.5% in FY 2027, and 3.5% in FY 2028 to adequately fund the Agency's operating and capital costs. The rate structure suggested is consistent with the cost of service analysis and reflects the actual cost to serve each of the member agencies, the Agency's cost structure, and the occupancy characteristics of the Agency's service area.



Technical Appendix

Tahoe-Truckee Sanatary Agency
Wastewater Rate Study
Revenue Requirement Summary
Exhibit 1

	<i>Proposed</i>	<i>Projected</i>									
	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033
Revenues											
Rate Revenues	\$12,834,515	\$12,898,688	\$12,963,181	\$13,027,997	\$13,093,137	\$13,158,603	\$13,224,396	\$13,290,518	\$13,356,971	\$13,423,755	\$13,490,874
Miscellaneous Revenues	4,580,000	4,847,059	4,953,043	5,091,714	5,239,308	5,400,110	5,560,031	5,728,332	5,901,658	6,080,101	6,260,257
Total Revenues	\$17,414,515	\$17,745,747	\$17,916,224	\$18,119,711	\$18,332,446	\$18,558,713	\$18,784,427	\$19,018,850	\$19,258,629	\$19,503,857	\$19,751,131
Expenses											
Total Finance & Admin	\$4,438,000	\$4,596,076	\$4,813,524	\$4,993,102	\$5,158,082	\$5,401,518	\$5,531,135	\$5,727,933	\$5,931,920	\$6,143,366	\$6,435,151
Total Engineering	1,490,000	1,538,270	1,588,147	1,639,687	1,692,946	1,747,984	1,804,863	1,863,645	1,924,396	1,987,185	2,052,083
Total Safety	387,000	399,355	412,118	425,303	438,924	452,996	467,535	482,557	498,078	514,115	530,687
Total Operations	6,056,500	6,385,653	6,621,230	6,865,739	7,119,525	7,382,947	7,656,379	7,940,210	8,234,843	8,540,698	8,858,212
Total Laboratory	976,000	1,010,095	1,043,361	1,077,771	1,113,365	1,150,187	1,188,279	1,227,689	1,268,463	1,310,651	1,354,304
Total Maintenance	2,931,000	3,030,050	3,132,563	3,238,663	3,348,482	3,462,154	3,579,820	3,701,624	3,827,718	3,958,259	4,093,408
Total Electrical & Instrumentation	1,002,000	1,035,090	1,069,311	1,104,704	1,141,309	1,179,170	1,218,333	1,258,842	1,300,747	1,344,097	1,388,943
Total Information Technology	645,000	666,190	688,096	710,742	734,155	758,361	783,389	809,265	836,021	863,688	892,296
Total Warehouse	159,000	164,325	169,837	175,542	181,448	187,562	193,892	200,445	207,231	214,257	221,532
Total Additional O&M	0	0	0	0	0	0	0	0	0	0	0
Total O&M Expenses	\$18,084,500	\$18,825,104	\$19,538,187	\$20,231,252	\$20,928,236	\$21,722,880	\$22,423,624	\$23,212,210	\$24,029,417	\$24,876,315	\$25,826,615
Rate Funded Capital	\$0	\$1,650,000	\$4,810,000	\$4,700,000	\$5,470,000	\$5,500,000	\$5,600,000	\$5,700,000	\$5,800,000	\$5,850,000	\$5,825,000
Net Debt Service	649,900	683,400	1,430,329	3,029,103	3,494,706	3,005,087	3,235,715	3,462,500	3,704,659	3,962,195	4,004,476
Reserve Funding	(1,319,885)	456,850	(855,693)	(89,612)	185,190	1,008,867	1,175,406	1,308,028	1,445,055	1,637,252	2,064,946
Total Revenue Requirement	\$17,414,515	\$21,615,354	\$24,922,824	\$27,870,744	\$30,078,132	\$31,236,834	\$32,434,745	\$33,682,738	\$34,979,132	\$36,325,762	\$37,721,037
Bal. / (Def.) of Funds	\$0	(\$3,869,606)	(\$7,006,600)	(\$9,751,033)	(\$11,745,686)	(\$12,678,120)	(\$13,650,318)	(\$14,663,887)	(\$15,720,503)	(\$16,821,906)	(\$17,969,906)
Proposed Rate Adjustment	0.0%	30.0%	18.5%	13.5%	8.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Add'l Revenue with Rate Adj.	\$0	\$3,869,606	\$7,006,600	\$9,751,033	\$11,745,686	\$12,678,120	\$13,650,318	\$14,663,887	\$15,720,503	\$16,821,906	\$17,969,906
Total Bal. / (Def.) of Funds	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Unrestricted	\$18,351,995	\$15,463,062	\$9,462,791	\$9,373,179	\$9,558,369	\$11,093,373	\$12,705,909	\$15,329,462	\$18,023,431	\$20,786,656	\$22,921,305
<i>Target</i>	<i>\$43,434,631</i>	<i>\$44,752,751</i>	<i>\$45,308,650</i>	<i>\$40,085,927</i>	<i>\$31,637,143</i>	<i>\$29,614,661</i>	<i>\$30,453,135</i>	<i>\$31,478,946</i>	<i>\$32,834,720</i>	<i>\$34,113,371</i>	<i>\$35,483,403</i>
Total Restricted	\$16,629,509	\$16,098,796	\$15,643,812	\$14,989,898	\$14,995,078	\$15,415,828	\$14,680,436	\$13,680,708	\$12,658,136	\$11,603,890	\$10,505,195
<i>Target</i>	<i>\$5,168,515</i>	<i>\$7,679,860</i>	<i>\$10,242,513</i>	<i>\$11,247,915</i>	<i>\$12,714,819</i>	<i>\$15,407,336</i>	<i>\$14,494,617</i>	<i>\$13,509,535</i>	<i>\$12,506,576</i>	<i>\$11,445,206</i>	<i>\$10,343,503</i>

Tahoe-Truckee Sanatary Agency
Wastewater Rate Study
Escalation Factors
Exhibit 2

	<i>Proposed</i>	<i>Projected</i>										
	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	<i>Notes</i>
Revenues												
Customer Growth	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	
Property Tax	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	
Misc. Revenues	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	
Expenses												
Salaries	Budget	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	
Benefits	Budget	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	
Benefits - Medical	Budget	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	
Benefits - Retirement	Budget	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	
Materials & Supplies	Budget	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	
Equipment	Budget	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	
Miscellaneous	Budget	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	
Utilities	Budget	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	
Flat	Budget	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Insurance	Budget	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	
Chemicals	Budget	10.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	
General Expenses	Budget	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	
Interest												
	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	
New Debt Service												
<i>Low Interest Loans</i>												
Term in Years	20	20	20	20	20	20	20	20	20	20	20	
Rate	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	
<i>Revenue Bond</i>												
Term in Years	20	20	20	20	20	20	20	20	20	20	20	
Rate	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	4.5%	

	<i>Proposed</i>	<i>Projected</i>										
	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	Notes
Revenues												
<i>Rate Revenues</i>												
NTPUD	\$2,232,002	\$2,243,162	\$2,254,378	\$2,265,650	\$2,276,978	\$2,288,363	\$2,299,805	\$2,311,304	\$2,322,860	\$2,334,475	\$2,346,147	Exhibit 7
TCPUD	3,041,629	3,056,837	3,072,121	3,087,482	3,102,919	3,118,434	3,134,026	3,149,696	3,165,444	3,181,272	3,197,178	Exhibit 7
ASCWD	279,179	280,575	281,978	283,388	284,805	286,229	287,660	289,098	290,544	291,996	293,456	Exhibit 7
OVSPD	993,100	998,065	1,003,055	1,008,071	1,013,111	1,018,177	1,023,267	1,028,384	1,033,526	1,038,693	1,043,887	Exhibit 7
TSD	5,424,941	5,452,066	5,479,326	5,506,723	5,534,256	5,561,928	5,589,737	5,617,686	5,645,774	5,674,003	5,702,373	Exhibit 7
NCSD	863,665	867,983	872,323	876,684	881,068	885,473	889,901	894,350	898,822	903,316	907,833	Exhibit 7
<i>Total Rate Revenues</i>	<i>\$12,834,515</i>	<i>\$12,898,688</i>	<i>\$12,963,181</i>	<i>\$13,027,997</i>	<i>\$13,093,137</i>	<i>\$13,158,603</i>	<i>\$13,224,396</i>	<i>\$13,290,518</i>	<i>\$13,356,971</i>	<i>\$13,423,755</i>	<i>\$13,490,874</i>	
<i>Other Revenues</i>												
Ad Valorem Taxes	\$4,445,000	\$4,578,350	\$4,715,701	\$4,857,172	\$5,002,887	\$5,152,973	\$5,307,562	\$5,466,789	\$5,630,793	\$5,799,717	\$5,973,708	As Property Tax
Temporary Discharge Permits	25,000	25,250	25,503	25,758	26,015	26,275	26,538	26,803	27,071	27,342	27,616	As Misc. Revenues
Interest	45,000	177,809	145,533	141,815	142,767	152,546	156,932	165,051	173,408	181,953	187,132	Calculated
Other Revenue	65,000	65,650	66,307	66,970	67,639	68,316	68,999	69,689	70,386	71,090	71,800	As Misc. Revenues
<i>Total Other Revenues</i>	<i>\$4,580,000</i>	<i>\$4,847,059</i>	<i>\$4,953,043</i>	<i>\$5,091,714</i>	<i>\$5,239,308</i>	<i>\$5,400,110</i>	<i>\$5,560,031</i>	<i>\$5,728,332</i>	<i>\$5,901,658</i>	<i>\$6,080,101</i>	<i>\$6,260,257</i>	
Total Revenues	\$17,414,515	\$17,745,747	\$17,916,224	\$18,119,711	\$18,332,446	\$18,558,713	\$18,784,427	\$19,018,850	\$19,258,629	\$19,503,857	\$19,751,131	

	<i>Proposed</i>	<i>Projected</i>										
	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	Notes
Finance & Admin												
Salaries And Wages	\$1,196,000	\$1,231,880	\$1,268,836	\$1,306,901	\$1,346,109	\$1,386,492	\$1,428,087	\$1,470,929	\$1,515,057	\$1,560,509	\$1,607,324	As Salaries
Bond Expense	3,000	3,060	3,121	3,184	3,247	3,312	3,378	3,446	3,515	3,585	3,657	As Miscellaneous
CalPERS Pepra Retirement	43,000	44,720	46,509	48,369	50,304	52,316	54,409	56,585	58,848	61,202	63,651	As Benefits - Retirement
CalPERS Classic Retirement	134,000	139,360	144,934	150,732	156,761	163,031	169,553	176,335	183,388	190,724	198,353	As Benefits - Retirement
Worker's Comp	23,000	23,805	24,638	25,501	26,393	27,317	28,273	29,262	30,287	31,347	32,444	As Benefits
Medicare	18,000	18,810	19,656	20,541	21,465	22,431	23,441	24,496	25,598	26,750	27,953	As Benefits - Medical
SDI	500	518	536	554	574	594	615	636	658	681	705	As Benefits
Life Insurance	9,000	9,315	9,641	9,978	10,328	10,689	11,063	11,451	11,851	12,266	12,695	As Benefits
Health Insurance	214,000	223,630	233,693	244,210	255,199	266,683	278,684	291,224	304,330	318,024	332,335	As Benefits - Medical
Director Health Insurance	46,000	48,070	50,233	52,494	54,856	57,324	59,904	62,600	65,417	68,360	71,437	As Benefits - Medical
Retiree Health Insurance	90,000	94,050	98,282	102,705	107,327	112,156	117,203	122,478	127,989	133,749	139,767	As Benefits - Medical
Dental Insurance	20,000	20,900	21,841	22,823	23,850	24,924	26,045	27,217	28,442	29,722	31,059	As Benefits - Medical
HRA	34,000	35,360	36,774	38,245	39,775	41,366	43,021	44,742	46,531	48,393	50,328	As Benefits - Retirement
Director Dental Insurance	5,000	5,225	5,460	5,706	5,963	6,231	6,511	6,804	7,111	7,430	7,765	As Benefits - Medical
Cobra	500	523	546	571	596	623	651	680	711	743	776	As Benefits - Medical
Employee Screening	3,000	3,105	3,214	3,326	3,443	3,563	3,688	3,817	3,950	4,089	4,232	As Benefits
Employee Misc.	4,000	4,140	4,285	4,435	4,590	4,751	4,917	5,089	5,267	5,452	5,642	As Benefits
Annual UAL Payment	1,303,500	1,408,916	1,520,178	1,589,917	1,641,278	1,706,929	1,775,206	1,846,215	1,920,063	1,996,866	2,076,740	As Benefits - Retirement
Directors Fees	9,500	9,785	10,079	10,381	10,692	11,013	11,343	11,684	12,034	12,395	12,767	As Salaries
Insurance	336,000	347,760	359,932	372,529	385,568	399,063	413,030	427,486	442,448	457,934	473,961	As Insurance
Staff Certifications	2,500	2,550	2,601	2,653	2,706	2,760	2,815	2,872	2,929	2,988	3,047	As Miscellaneous
Staff Memberships	3,500	3,570	3,641	3,714	3,789	3,864	3,942	4,020	4,101	4,183	4,266	As Miscellaneous
Agency Memberships	29,000	29,580	30,172	30,775	31,391	32,018	32,659	33,312	33,978	34,658	35,351	As Miscellaneous
Bank Fees	15,000	15,300	15,606	15,918	16,236	16,561	16,892	17,230	17,575	17,926	18,285	As Miscellaneous
Supplies	15,000	15,450	15,914	16,391	16,883	17,389	17,911	18,448	19,002	19,572	20,159	As Materials & Supplies
Furniture	4,000	4,120	4,244	4,371	4,502	4,637	4,776	4,919	5,067	5,219	5,376	As Materials & Supplies
It Hardware	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524	6,720	As Materials & Supplies
It Software	15,000	15,450	15,914	16,391	16,883	17,389	17,911	18,448	19,002	19,572	20,159	As Materials & Supplies
Advertising	1,500	1,530	1,561	1,592	1,624	1,656	1,689	1,723	1,757	1,793	1,828	As Miscellaneous
Breakroom Supplies	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524	6,720	As Materials & Supplies
Postage/Shipping	4,000	4,120	4,244	4,371	4,502	4,637	4,776	4,919	5,067	5,219	5,376	As Materials & Supplies
Copier/Fax/Ink Expenses	4,000	4,120	4,244	4,371	4,502	4,637	4,776	4,919	5,067	5,219	5,376	As Materials & Supplies
Books/Subscriptions	3,000	3,090	3,183	3,278	3,377	3,478	3,582	3,690	3,800	3,914	4,032	As Materials & Supplies
Manager Luncheon	1,500	1,530	1,561	1,592	1,624	1,656	1,689	1,723	1,757	1,793	1,828	As Miscellaneous
Board Meeting Supplies	2,500	2,575	2,652	2,732	2,814	2,898	2,985	3,075	3,167	3,262	3,360	As Materials & Supplies
Staff Luncheons/Appreciation	15,000	15,300	15,606	15,918	16,236	16,561	16,892	17,230	17,575	17,926	18,285	As Miscellaneous
Invoice Processing	4,000	4,120	4,244	4,371	4,502	4,637	4,776	4,919	5,067	5,219	5,376	As Materials & Supplies
County Services	154,000	158,620	163,379	168,280	173,328	178,528	183,884	189,401	195,083	200,935	206,963	As Salaries
General Office	4,000	4,120	4,244	4,371	4,502	4,637	4,776	4,919	5,067	5,219	5,376	As Materials & Supplies
Uniforms	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524	6,720	As Materials & Supplies
Accounting & Billing Support	68,000	70,040	72,141	74,305	76,535	78,831	81,196	83,631	86,140	88,725	91,386	As Salaries
Financial Auditor	33,000	33,990	35,010	36,060	37,142	38,256	39,404	40,586	41,803	43,058	44,349	As Salaries
Financial/Rate Studies	50,000	0	0	0	0	60,250	0	0	0	0	72,601	As Salaries
Legal - Bsk	100,000	103,000	106,090	109,273	112,551	115,927	119,405	122,987	126,677	130,477	134,392	As Salaries
Legal - Wpr	200,000	206,000	212,180	218,545	225,102	231,855	238,810	245,975	253,354	260,955	268,783	As Salaries
Legal - Misc.	30,000	30,900	31,827	32,782	33,765	34,778	35,822	36,896	38,003	39,143	40,317	As Salaries
Conference	17,000	17,340	17,687	18,041	18,401	18,769	19,145	19,528	19,918	20,317	20,723	As Miscellaneous
Training	6,000	6,120	6,242	6,367	6,495	6,624	6,757	6,892	7,030	7,171	7,314	As Miscellaneous
Conference (Hr)	7,000	7,140	7,283	7,428	7,577	7,729	7,883	8,041	8,202	8,366	8,533	As Miscellaneous
Training (Hr)	2,000	2,040	2,081	2,122	2,165	2,208	2,252	2,297	2,343	2,390	2,438	As Miscellaneous
Conference (Gm)	5,000	5,100	5,202	5,306	5,412	5,520	5,631	5,743	5,858	5,975	6,095	As Miscellaneous
Training (Bc)	500	510	520	531	541	552	563	574	586	598	609	As Miscellaneous
Wellness Program (Hr)	6,000	6,210	6,427	6,652	6,885	7,126	7,376	7,634	7,901	8,177	8,464	As Benefits
Heating Fuel	6,500	6,760	7,030	7,312	7,604	7,908	8,225	8,554	8,896	9,252	9,622	As Utilities
Electricity	104,000	108,160	112,486	116,986	121,665	126,532	131,593	136,857	142,331	148,024	153,945	As Utilities
Water	500	520	541	562	585	608	633	658	684	712	740	As Utilities
Natural Gas	9,000	9,360	9,734	10,124	10,529	10,950	11,388	11,843	12,317	12,810	13,322	As Utilities
Telephone	9,000	9,360	9,734	10,124	10,529	10,950	11,388	11,843	12,317	12,810	13,322	As Utilities
Total Finance & Admin	\$4,438,000	\$4,596,076	\$4,813,524	\$4,993,102	\$5,158,082	\$5,401,518	\$5,531,135	\$5,727,933	\$5,931,920	\$6,143,366	\$6,435,151	

	<i>Proposed</i>	<i>Projected</i>										
	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	Notes
Engineering												
Salaries And Wages	\$680,000	\$700,400	\$721,412	\$743,054	\$765,346	\$788,306	\$811,956	\$836,314	\$861,404	\$887,246	\$913,863	As Salaries
CalPERS Pepra Retirement	21,000	21,840	22,714	23,622	24,567	25,550	26,572	27,635	28,740	29,890	31,085	As Benefits - Retirement
CalPERS Classic Retirement	83,000	86,320	89,773	93,364	97,098	100,982	105,021	109,222	113,591	118,135	122,860	As Benefits - Retirement
Worker's Comp	8,500	8,798	9,105	9,424	9,754	10,095	10,449	10,814	11,193	11,585	11,990	As Benefits
Medicare	9,000	9,405	9,828	10,270	10,733	11,216	11,720	12,248	12,799	13,375	13,977	As Benefits - Medical
Life Insurance	5,500	5,748	6,006	6,276	6,559	6,854	7,162	7,485	7,822	8,174	8,541	As Benefits - Medical
Health Insurance	110,000	114,950	120,123	125,528	131,177	137,080	143,249	149,695	156,431	163,470	170,827	As Benefits - Medical
Retiree Health Insurance	35,000	36,575	38,221	39,941	41,738	43,616	45,579	47,630	49,774	52,013	54,354	As Benefits - Medical
Dental Insurance	7,500	7,838	8,190	8,559	8,944	9,346	9,767	10,206	10,666	11,146	11,647	As Benefits - Medical
HRA	15,000	15,600	16,224	16,873	17,548	18,250	18,980	19,739	20,529	21,350	22,204	As Benefits - Retirement
Cobra	500	523	546	571	596	623	651	680	711	743	776	As Benefits - Medical
Employee Screening	1,000	1,035	1,071	1,109	1,148	1,188	1,229	1,272	1,317	1,363	1,411	As Benefits
Staff Certifications	500	510	520	531	541	552	563	574	586	598	609	As Miscellaneous
Staff Memberships	1,000	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219	As Miscellaneous
Furniture	1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267	1,305	1,344	As Materials & Supplies
It Hardware	1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267	1,305	1,344	As Materials & Supplies
It Software	17,000	17,510	18,035	18,576	19,134	19,708	20,299	20,908	21,535	22,181	22,847	As Materials & Supplies
Advertising	1,000	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219	As Miscellaneous
Books/Subscriptions	1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267	1,305	1,344	As Materials & Supplies
Facilities Maintenance	195,000	200,850	206,876	213,082	219,474	226,058	232,840	239,825	247,020	254,431	262,064	As Materials & Supplies
Mechanical Maintenance	500	515	530	546	563	580	597	615	633	652	672	As Materials & Supplies
Uniforms	500	515	530	546	563	580	597	615	633	652	672	As Materials & Supplies
Testing	7,500	7,650	7,803	7,959	8,118	8,281	8,446	8,615	8,787	8,963	9,142	As Miscellaneous
Engineering	275,000	283,250	291,748	300,500	309,515	318,800	328,364	338,215	348,362	358,813	369,577	As Salaries
Conference	6,000	6,120	6,242	6,367	6,495	6,624	6,757	6,892	7,030	7,171	7,314	As Miscellaneous
Training	4,000	4,080	4,162	4,245	4,330	4,416	4,505	4,595	4,687	4,780	4,876	As Miscellaneous
Telephone	1,500	1,560	1,622	1,687	1,755	1,825	1,898	1,974	2,053	2,135	2,220	As Utilities
Consumable Supplies	500	515	530	546	563	580	597	615	633	652	672	As Materials & Supplies
Non-Consumable Equipment	500	520	541	562	585	608	633	658	684	712	740	As Equipment
Warehouse Stock	500	515	530	546	563	580	597	615	633	652	672	As Materials & Supplies
Total Engineering	\$1,490,000	\$1,538,270	\$1,588,147	\$1,639,687	\$1,692,946	\$1,747,984	\$1,804,863	\$1,863,645	\$1,924,396	\$1,987,185	\$2,052,083	

	<i>Proposed</i>	<i>Projected</i>										
	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	Notes
Safety												
Salaries And Wages	\$150,000	\$154,500	\$159,135	\$163,909	\$168,826	\$173,891	\$179,108	\$184,481	\$190,016	\$195,716	\$201,587	As Salaries
CalPERS Pepra Retirement	9,500	9,880	10,275	10,686	11,114	11,558	12,021	12,501	13,001	13,521	14,062	As Benefits - Retirement
Worker's Comp	3,000	3,105	3,214	3,326	3,443	3,563	3,688	3,817	3,950	4,089	4,232	As Benefits
Medicare	2,000	2,090	2,184	2,282	2,385	2,492	2,605	2,722	2,844	2,972	3,106	As Benefits - Medical
SDI	500	518	536	554	574	594	615	636	658	681	705	As Benefits
Life Insurance	1,500	1,568	1,638	1,712	1,789	1,869	1,953	2,041	2,133	2,229	2,329	As Benefits - Medical
Health Insurance	25,000	26,125	27,301	28,529	29,813	31,155	32,557	34,022	35,553	37,152	38,824	As Benefits - Medical
Dental Insurance	2,500	2,613	2,730	2,853	2,981	3,115	3,256	3,402	3,555	3,715	3,882	As Benefits - Medical
HRA	7,000	7,280	7,571	7,874	8,189	8,517	8,857	9,212	9,580	9,963	10,362	As Benefits - Retirement
Cobra	500	523	546	571	596	623	651	680	711	743	776	As Benefits - Medical
Staff Certifications	1,000	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219	As Miscellaneous
Staff Memberships	500	510	520	531	541	552	563	574	586	598	609	As Miscellaneous
Furniture	1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267	1,305	1,344	As Materials & Supplies
It Hardware	5,500	5,665	5,835	6,010	6,190	6,376	6,567	6,764	6,967	7,176	7,392	As Materials & Supplies
It Software	2,500	2,575	2,652	2,732	2,814	2,898	2,985	3,075	3,167	3,262	3,360	As Materials & Supplies
Books/Subscriptions	1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267	1,305	1,344	As Materials & Supplies
Facilities Maintenance	65,000	66,950	68,959	71,027	73,158	75,353	77,613	79,942	82,340	84,810	87,355	As Materials & Supplies
Mechanical Maintenance	500	515	530	546	563	580	597	615	633	652	672	As Materials & Supplies
Uniforms	3,500	3,605	3,713	3,825	3,939	4,057	4,179	4,305	4,434	4,567	4,704	As Materials & Supplies
Conference	1,500	1,530	1,561	1,592	1,624	1,656	1,689	1,723	1,757	1,793	1,828	As Miscellaneous
Training	23,000	23,460	23,929	24,408	24,896	25,394	25,902	26,420	26,948	27,487	28,037	As Miscellaneous
PPE	40,000	41,200	42,436	43,709	45,020	46,371	47,762	49,195	50,671	52,191	53,757	As Materials & Supplies
Consumable Supplies	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524	6,720	As Materials & Supplies
Non-Consumable Equipment	35,000	36,400	37,856	39,370	40,945	42,583	44,286	46,058	47,900	49,816	51,809	As Equipment
Warehouse Stock	500	515	530	546	563	580	597	615	633	652	672	As Materials & Supplies
Total Safety	\$387,000	\$399,355	\$412,118	\$425,303	\$438,924	\$452,996	\$467,535	\$482,557	\$498,078	\$514,115	\$530,687	

	<i>Proposed</i>	<i>Projected</i>										
	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	Notes
Operations												
Salaries And Wages	\$1,739,000	\$1,791,170	\$1,844,905	\$1,900,252	\$1,957,260	\$2,015,978	\$2,076,457	\$2,138,751	\$2,202,913	\$2,269,001	\$2,337,071	As Salaries
Calpers Pepra Retirement	54,000	56,160	58,406	60,743	63,172	65,699	68,327	71,060	73,903	76,859	79,933	As Benefits - Retirement
Calpers Classic Retirement	235,000	244,400	254,176	264,343	274,917	285,913	297,350	309,244	321,614	334,478	347,857	As Benefits - Retirement
Worker'S Comp	40,000	41,400	42,849	44,349	45,901	47,507	49,170	50,891	52,672	54,516	56,424	As Benefits
Medicare	24,000	25,080	26,209	27,388	28,620	29,908	31,254	32,661	34,130	35,666	37,271	As Benefits - Medical
Life Insurance	14,000	14,630	15,288	15,976	16,695	17,447	18,232	19,052	19,909	20,805	21,742	As Benefits - Medical
Health Insurance	350,000	365,750	382,209	399,408	417,382	436,164	455,791	476,302	497,735	520,133	543,539	As Benefits - Medical
Retiree Health Insurance	285,000	297,825	311,227	325,232	339,868	355,162	371,144	387,846	405,299	423,537	442,596	As Benefits - Medical
Dental Insurance	27,000	28,215	29,485	30,811	32,198	33,647	35,161	36,743	38,397	40,125	41,930	As Benefits - Medical
Hra	50,000	52,000	54,080	56,243	58,493	60,833	63,266	65,797	68,428	71,166	74,012	As Benefits - Retirement
Cobra	500	523	546	571	596	623	651	680	711	743	776	As Benefits - Medical
Employee Screening	1,500	1,553	1,607	1,663	1,721	1,782	1,844	1,908	1,975	2,044	2,116	As Benefits
Employee Misc.	4,500	4,658	4,821	4,989	5,164	5,345	5,532	5,725	5,926	6,133	6,348	As Benefits
Staff Certifications	3,500	3,570	3,641	3,714	3,789	3,864	3,942	4,020	4,101	4,183	4,266	As Miscellaneous
Staff Memberships	1,000	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219	As Miscellaneous
Permits & Licenses	190,000	193,800	197,676	201,630	205,662	209,775	213,971	218,250	222,615	227,068	231,609	As Miscellaneous
Furniture	1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267	1,305	1,344	As Materials & Supplies
It Hardware	6,000	6,180	6,365	6,556	6,753	6,956	7,164	7,379	7,601	7,829	8,063	As Materials & Supplies
It Software	10,000	10,300	10,609	10,927	11,255	11,593	11,941	12,299	12,668	13,048	13,439	As Materials & Supplies
Advertising	2,000	2,060	2,122	2,185	2,251	2,319	2,388	2,460	2,534	2,610	2,688	As Materials & Supplies
Books/Subscriptions	500	515	530	546	563	580	597	615	633	652	672	As Materials & Supplies
Uniforms	9,000	9,270	9,548	9,835	10,130	10,433	10,746	11,069	11,401	11,743	12,095	As Materials & Supplies
Leases	1,000	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219	As Miscellaneous
Sludge Disposal	299,500	329,450	342,628	356,333	370,586	385,410	400,826	416,859	433,534	450,875	468,910	As Chemicals
Chemicals-Hydrated Lime	335,000	368,500	383,240	398,570	414,512	431,093	448,337	466,270	484,921	504,318	524,490	As Chemicals
Chemicals-Liquid Chlorine	165,000	181,500	188,760	196,310	204,163	212,329	220,823	229,655	238,842	248,395	258,331	As Chemicals
Chemicals-Sodium Hydroxide	60,000	66,000	68,640	71,386	74,241	77,211	80,299	83,511	86,851	90,326	93,939	As Chemicals
Chemicals-Hydrochloric Acid	20,000	22,000	22,880	23,795	24,747	25,737	26,766	27,837	28,950	30,109	31,313	As Chemicals
Chemicals-Liquid Co2	8,000	8,800	9,152	9,518	9,899	10,295	10,707	11,135	11,580	12,043	12,525	As Chemicals
Chemicals-Liquid O2	220,000	242,000	251,680	261,747	272,217	283,106	294,430	306,207	318,455	331,194	344,441	As Chemicals
Chemicals-Ferric Chloride	85,000	93,500	97,240	101,130	105,175	109,382	113,757	118,307	123,040	127,961	133,080	As Chemicals
Chemicals-Methanol	400,000	440,000	457,600	475,904	494,940	514,738	535,327	556,740	579,010	602,170	626,257	As Chemicals
Chemicals-Polymer	135,000	148,500	154,440	160,618	167,042	173,724	180,673	187,900	195,416	203,233	211,362	As Chemicals
Chemicals-Boiler Chemical	20,000	22,000	22,880	23,795	24,747	25,737	26,766	27,837	28,950	30,109	31,313	As Chemicals
Chemicals-Ammonia Analyzers	7,500	8,250	8,580	8,923	9,280	9,651	10,037	10,439	10,856	11,291	11,742	As Chemicals
Chemicals-Miscellaneous	16,000	17,600	18,304	19,036	19,798	20,590	21,413	22,270	23,160	24,087	25,050	As Chemicals
Conference	3,000	3,060	3,121	3,184	3,247	3,312	3,378	3,446	3,515	3,585	3,657	As Miscellaneous
Training	6,000	6,120	6,242	6,367	6,495	6,624	6,757	6,892	7,030	7,171	7,314	As Miscellaneous
Heating Fuel	60,000	62,400	64,896	67,492	70,192	72,999	75,919	78,956	82,114	85,399	88,815	As Utilities
Electricity	1,000,000	1,040,000	1,081,600	1,124,864	1,169,859	1,216,653	1,265,319	1,315,932	1,368,569	1,423,312	1,480,244	As Utilities
Water	1,500	1,560	1,622	1,687	1,755	1,825	1,898	1,974	2,053	2,135	2,220	As Utilities
Natural Gas	70,000	72,800	75,712	78,740	81,890	85,166	88,572	92,115	95,800	99,632	103,617	As Utilities
Telephone	40,000	41,600	43,264	44,995	46,794	48,666	50,613	52,637	54,743	56,932	59,210	As Utilities
Bnr-Miscellaneous	2,500	2,550	2,601	2,653	2,706	2,760	2,815	2,872	2,929	2,988	3,047	As Miscellaneous
Filtration-Miscellaneous	8,000	8,160	8,323	8,490	8,659	8,833	9,009	9,189	9,373	9,561	9,752	As Miscellaneous
Digestion-Miscellaneous	25,000	25,500	26,010	26,530	27,061	27,602	28,154	28,717	29,291	29,877	30,475	As Miscellaneous
Lime System-Miscellaneous	500	510	520	531	541	552	563	574	586	598	609	As Miscellaneous
All Facility Purpose-Tools	3,000	3,120	3,245	3,375	3,510	3,650	3,796	3,948	4,106	4,270	4,441	As Equipment
All Facility Purpose-Small Equipment	5,000	5,200	5,408	5,624	5,849	6,083	6,327	6,580	6,843	7,117	7,401	As Equipment
All Facility Purpose-Hoses	3,000	3,090	3,183	3,278	3,377	3,478	3,582	3,690	3,800	3,914	4,032	As Materials & Supplies
All Facility Purpose-Miscellaneous	1,500	1,530	1,561	1,592	1,624	1,656	1,689	1,723	1,757	1,793	1,828	As Miscellaneous
Chemical Facilities-Mechanical	6,000	6,180	6,365	6,556	6,753	6,956	7,164	7,379	7,601	7,829	8,063	As Materials & Supplies
Chemical Facilities-Miscellaneous	1,500	1,530	1,561	1,592	1,624	1,656	1,689	1,723	1,757	1,793	1,828	As Miscellaneous
Warehouse Stock	500	515	530	546	563	580	597	615	633	652	672	As Materials & Supplies
Total Operations	\$6,056,500	\$6,385,653	\$6,621,230	\$6,865,739	\$7,119,525	\$7,382,947	\$7,656,379	\$7,940,210	\$8,234,843	\$8,540,698	\$8,858,212	

	<i>Proposed</i>	<i>Projected</i>										
	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	Notes
Laboratory												
Salaries And Wages	\$469,000	\$483,070	\$497,562	\$512,489	\$527,864	\$543,700	\$560,011	\$576,811	\$594,115	\$611,939	\$630,297	As Salaries
CalPERS Classic Retirement	105,000	108,150	111,395	114,736	118,178	121,724	125,375	129,137	133,011	137,001	141,111	As Salaries
Worker'S Comp	11,000	11,385	11,783	12,196	12,623	13,065	13,522	13,995	14,485	14,992	15,517	As Benefits
Medicare	7,000	7,315	7,644	7,988	8,348	8,723	9,116	9,526	9,955	10,403	10,871	As Benefits - Medical
Sdi	500	518	536	554	574	594	615	636	658	681	705	As Benefits
Life Insurance	5,000	5,225	5,460	5,706	5,963	6,231	6,511	6,804	7,111	7,430	7,765	As Benefits - Medical
Health Insurance	115,000	120,175	125,583	131,234	137,140	143,311	149,760	156,499	163,542	170,901	178,591	As Benefits - Medical
Retiree Health Insurance	45,000	47,025	49,141	51,352	53,663	56,078	58,602	61,239	63,995	66,874	69,884	As Benefits - Medical
Dental Insurance	9,000	9,405	9,828	10,270	10,733	11,216	11,720	12,248	12,799	13,375	13,977	As Benefits - Medical
Hra	9,000	9,360	9,734	10,124	10,529	10,950	11,388	11,843	12,317	12,810	13,322	As Benefits - Retirement
Cobra	500	523	546	571	596	623	651	680	711	743	776	As Benefits - Medical
Employee Screening	500	510	520	531	541	552	563	574	586	598	609	As Miscellaneous
Staff Certifications	1,000	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219	As Miscellaneous
Staff Memberships	1,000	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219	As Miscellaneous
Permits & Licenses	12,000	12,240	12,485	12,734	12,989	13,249	13,514	13,784	14,060	14,341	14,628	As Miscellaneous
Furniture	500	515	530	546	563	580	597	615	633	652	672	As Materials & Supplies
It Hardware	3,500	3,605	3,713	3,825	3,939	4,057	4,179	4,305	4,434	4,567	4,704	As Materials & Supplies
It Software	6,000	6,180	6,365	6,556	6,753	6,956	7,164	7,379	7,601	7,829	8,063	As Materials & Supplies
Books/Subscriptions	500	515	530	546	563	580	597	615	633	652	672	As Materials & Supplies
Janitorial	500	515	530	546	563	580	597	615	633	652	672	As Materials & Supplies
Mechanical Maintenance	8,500	8,755	9,018	9,288	9,567	9,854	10,149	10,454	10,768	11,091	11,423	As Materials & Supplies
Uniforms	2,000	2,060	2,122	2,185	2,251	2,319	2,388	2,460	2,534	2,610	2,688	As Materials & Supplies
Leases	1,500	1,530	1,561	1,592	1,624	1,656	1,689	1,723	1,757	1,793	1,828	As Miscellaneous
Outsource Testing Location 1	37,000	37,740	38,495	39,265	40,050	40,851	41,668	42,501	43,351	44,218	45,103	As Miscellaneous
Outsource Testing Location 2	3,500	3,570	3,641	3,714	3,789	3,864	3,942	4,020	4,101	4,183	4,266	As Miscellaneous
Outsource Testing Location 3	4,500	4,590	4,682	4,775	4,871	4,968	5,068	5,169	5,272	5,378	5,485	As Miscellaneous
Conference	1,000	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219	As Miscellaneous
Training	1,000	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219	As Miscellaneous
Main Lab-Equipment	13,000	13,520	14,061	14,623	15,208	15,816	16,449	17,107	17,791	18,503	19,243	As Equipment
Main Lab-Supplies	29,000	29,870	30,766	31,689	32,640	33,619	34,628	35,666	36,736	37,838	38,974	As Materials & Supplies
Main Lab-Chemicals	26,000	28,600	29,744	30,934	32,171	33,458	34,796	36,188	37,636	39,141	40,707	As Chemicals
Main Lab-Miscellaneous	1,000	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219	As Miscellaneous
Satellite Labs-Equipment	2,500	2,600	2,704	2,812	2,925	3,042	3,163	3,290	3,421	3,558	3,701	As Equipment
Satellite Labs-Supplies	5,500	5,665	5,835	6,010	6,190	6,376	6,567	6,764	6,967	7,176	7,392	As Materials & Supplies
Satellite Labs-Chemicals	5,500	6,050	6,292	6,544	6,805	7,078	7,361	7,655	7,961	8,280	8,611	As Chemicals
Tkn/Ammonia-Supplies	1,500	1,545	1,591	1,639	1,688	1,739	1,791	1,845	1,900	1,957	2,016	As Materials & Supplies
Tkn/Ammonia-Chemicals	1,000	1,100	1,144	1,190	1,237	1,287	1,338	1,392	1,448	1,505	1,566	As Chemicals
Toc-Equipment	1,500	1,560	1,622	1,687	1,755	1,825	1,898	1,974	2,053	2,135	2,220	As Equipment
Toc-Supplies	3,000	3,090	3,183	3,278	3,377	3,478	3,582	3,690	3,800	3,914	4,032	As Materials & Supplies
Anions-Equipment	4,000	4,160	4,326	4,499	4,679	4,867	5,061	5,264	5,474	5,693	5,921	As Equipment
Anions-Supplies	3,000	3,090	3,183	3,278	3,377	3,478	3,582	3,690	3,800	3,914	4,032	As Materials & Supplies
Anions-Chemicals	1,000	1,100	1,144	1,190	1,237	1,287	1,338	1,392	1,448	1,505	1,566	As Chemicals
Di System-Supplies	3,500	3,605	3,713	3,825	3,939	4,057	4,179	4,305	4,434	4,567	4,704	As Materials & Supplies
Drinking Water Testing-Supplies	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524	6,720	As Materials & Supplies
Pt Study (Proficiency Testing)	3,000	3,090	3,183	3,278	3,377	3,478	3,582	3,690	3,800	3,914	4,032	As Materials & Supplies
Field Sampling-Equipment	3,000	3,120	3,245	3,375	3,510	3,650	3,796	3,948	4,106	4,270	4,441	As Equipment
PPE	3,000	3,090	3,183	3,278	3,377	3,478	3,582	3,690	3,800	3,914	4,032	As Materials & Supplies
Warehouse Stock	500	515	530	546	563	580	597	615	633	652	672	As Materials & Supplies
Total Laboratory	\$976,000	\$1,010,095	\$1,043,361	\$1,077,771	\$1,113,365	\$1,150,187	\$1,188,279	\$1,227,689	\$1,268,463	\$1,310,651	\$1,354,304	

	Proposed	Projected										Notes
	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	
Maintenance												
Salaries And Wages	\$1,099,000	\$1,131,970	\$1,165,929	\$1,200,907	\$1,236,934	\$1,274,042	\$1,312,263	\$1,351,631	\$1,392,180	\$1,433,946	\$1,476,964	As Salaries
CalPERS Pepra Retirement	30,000	31,200	32,448	33,746	35,096	36,500	37,960	39,478	41,057	42,699	44,407	As Benefits - Retirement
CalPERS Classic Retirement	160,000	166,400	173,056	179,978	187,177	194,664	202,451	210,549	218,971	227,730	236,839	As Benefits - Retirement
Worker'S Comp	28,000	28,980	29,994	31,044	32,131	33,255	34,419	35,624	36,871	38,161	39,497	As Benefits
Medicare	16,000	16,720	17,472	18,259	19,080	19,939	20,836	21,774	22,754	23,778	24,848	As Benefits - Medical
Life Insurance	8,000	8,360	8,736	9,129	9,540	9,969	10,418	10,887	11,377	11,889	12,424	As Benefits - Medical
Health Insurance	260,000	271,700	283,927	296,703	310,055	324,007	338,588	353,824	369,746	386,385	403,772	As Benefits - Medical
Retiree Health Insurance	229,000	239,305	250,074	261,327	273,087	285,376	298,218	311,637	325,661	340,316	355,630	As Benefits - Medical
Dental Insurance	27,000	28,215	29,485	30,811	32,198	33,647	35,161	36,743	38,397	40,125	41,930	As Benefits - Medical
HRA	38,000	39,520	41,101	42,745	44,455	46,233	48,082	50,005	52,006	54,086	56,249	As Benefits - Retirement
Cobra	500	523	546	571	596	623	651	680	711	743	776	As Benefits - Medical
Employee Screening	1,500	1,553	1,607	1,663	1,721	1,782	1,844	1,908	1,975	2,044	2,116	As Benefits
Employee Misc.	4,500	4,590	4,682	4,775	4,871	4,968	5,068	5,169	5,272	5,378	5,485	As Miscellaneous
Gasoline/Diesel	25,000	26,000	27,040	28,122	29,246	30,416	31,633	32,898	34,214	35,583	37,006	As Utilities
Vhcl-01	1,000	1,040	1,082	1,125	1,170	1,217	1,265	1,316	1,369	1,423	1,480	As Equipment
Vhcl-06	1,000	1,040	1,082	1,125	1,170	1,217	1,265	1,316	1,369	1,423	1,480	As Equipment
Vhcl-07	10,000	10,400	10,816	11,249	11,699	12,167	12,653	13,159	13,686	14,233	14,802	As Equipment
Vhcl-08	1,000	1,040	1,082	1,125	1,170	1,217	1,265	1,316	1,369	1,423	1,480	As Equipment
Vhcl-09	2,000	2,080	2,163	2,250	2,340	2,433	2,531	2,632	2,737	2,847	2,960	As Equipment
Vhcl-10	500	520	541	562	585	608	633	658	684	712	740	As Equipment
Vhcl-11	500	520	541	562	585	608	633	658	684	712	740	As Equipment
Vhcl-13	1,000	1,040	1,082	1,125	1,170	1,217	1,265	1,316	1,369	1,423	1,480	As Equipment
Vhcl-17	1,000	1,040	1,082	1,125	1,170	1,217	1,265	1,316	1,369	1,423	1,480	As Equipment
Vhcl-20	1,000	1,040	1,082	1,125	1,170	1,217	1,265	1,316	1,369	1,423	1,480	As Equipment
Vhcl-21	3,000	3,120	3,245	3,375	3,510	3,650	3,796	3,948	4,106	4,270	4,441	As Equipment
Vhcl-22	10,000	10,400	10,816	11,249	11,699	12,167	12,653	13,159	13,686	14,233	14,802	As Equipment
Vhcl-25	500	520	541	562	585	608	633	658	684	712	740	As Equipment
Vhcl-26	2,000	2,080	2,163	2,250	2,340	2,433	2,531	2,632	2,737	2,847	2,960	As Equipment
Vhct-06	500	520	541	562	585	608	633	658	684	712	740	As Equipment
Vhct-07	500	520	541	562	585	608	633	658	684	712	740	As Equipment
Vhct-09	500	520	541	562	585	608	633	658	684	712	740	As Equipment
Vhct-10	500	520	541	562	585	608	633	658	684	712	740	As Equipment
Vhct-11	500	520	541	562	585	608	633	658	684	712	740	As Equipment
Vhct-12	500	520	541	562	585	608	633	658	684	712	740	As Equipment
Vhct-26	500	520	541	562	585	608	633	658	684	712	740	As Equipment
Vheq-02	3,000	3,120	3,245	3,375	3,510	3,650	3,796	3,948	4,106	4,270	4,441	As Equipment
Vheq-06	5,000	5,200	5,408	5,624	5,849	6,083	6,327	6,580	6,843	7,117	7,401	As Equipment
Vheq-09	1,000	1,040	1,082	1,125	1,170	1,217	1,265	1,316	1,369	1,423	1,480	As Equipment
Vheq-10	10,000	10,400	10,816	11,249	11,699	12,167	12,653	13,159	13,686	14,233	14,802	As Equipment
Vheq-23	500	520	541	562	585	608	633	658	684	712	740	As Equipment
Vheq-24	1,000	1,040	1,082	1,125	1,170	1,217	1,265	1,316	1,369	1,423	1,480	As Equipment
Vheq-26 Polaris	500	520	541	562	585	608	633	658	684	712	740	As Equipment
Vheq-49 Warehouse Forklift	500	520	541	562	585	608	633	658	684	712	740	As Equipment
Vehicle Miscellaneous	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524	6,720	As Materials & Supplies
Staff Certifications	2,500	2,550	2,601	2,653	2,706	2,760	2,815	2,872	2,929	2,988	3,047	As Miscellaneous
Staff Memberships	3,000	3,060	3,121	3,184	3,247	3,312	3,378	3,446	3,515	3,585	3,657	As Miscellaneous
Permits & Licenses	1,000	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219	As Miscellaneous
Supplies	500	515	530	546	563	580	597	615	633	652	672	As Materials & Supplies
Furniture	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524	6,720	As Materials & Supplies
It Hardware	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524	6,720	As Materials & Supplies
It Software	71,000	73,130	75,324	77,584	79,911	82,308	84,778	87,321	89,941	92,639	95,418	As Materials & Supplies
Copier/Fax/Ink Expenses	2,500	2,575	2,652	2,732	2,814	2,898	2,985	3,075	3,167	3,262	3,360	As Materials & Supplies
Books/Subscriptions	500	515	530	546	563	580	597	615	633	652	672	As Materials & Supplies
Janitorial	50,000	51,500	53,045	54,636	56,275	57,964	59,703	61,494	63,339	65,239	67,196	As Materials & Supplies
Facilities Maintenance	106,500	109,695	112,986	116,375	119,867	123,463	127,167	130,982	134,911	138,958	143,127	As Materials & Supplies
Mechanical Maintenance	35,000	36,050	37,132	38,245	39,393	40,575	41,792	43,046	44,337	45,667	47,037	As Materials & Supplies
Uniforms	7,000	7,210	7,426	7,649	7,879	8,115	8,358	8,609	8,867	9,133	9,407	As Materials & Supplies
Leases	2,500	2,550	2,601	2,653	2,706	2,760	2,815	2,872	2,929	2,988	3,047	As Miscellaneous
Material Waste Disposal	3,000	3,090	3,183	3,278	3,377	3,478	3,582	3,690	3,800	3,914	4,032	As Materials & Supplies
Conference	4,000	4,080	4,162	4,245	4,330	4,416	4,505	4,595	4,687	4,780	4,876	As Miscellaneous
Training	9,000	9,180	9,364	9,551	9,742	9,937	10,135	10,338	10,545	10,756	10,971	As Miscellaneous
Tuition Reimbursement	1,000	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219	As Miscellaneous
Telephone	3,000	3,120	3,245	3,375	3,510	3,650	3,796	3,948	4,106	4,270	4,441	As Utilities
Flocculation-Mechanical	20,000	20,600	21,218	21,855	22,510	23,185	23,881	24,597	25,335	26,095	26,878	As Materials & Supplies
Bnr Influent Pumping-Mechanical	25,000	25,750	26,523	27,318	28,138	28,982	29,851	30,747	31,669	32,619	33,598	As Materials & Supplies
Bnr-Mechanical	30,000	30,900	31,827	32,782	33,765	34,778	35,822	36,896	38,003	39,143	40,317	As Materials & Supplies
Digestion-Mechanical	10,000	10,300	10,609	10,927	11,255	11,593	11,941	12,299	12,668	13,048	13,439	As Materials & Supplies
Dewatering-Mechanical	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524	6,720	As Materials & Supplies
General Buildings And Grounds-Structure	20,000	20,600	21,218	21,855	22,510	23,185	23,881	24,597	25,335	26,095	26,878	As Materials & Supplies
General Buildings And Grounds-Mechanical	4,000	4,120	4,244	4,371	4,502	4,637	4,776	4,919	5,067	5,219	5,376	As Materials & Supplies
All Facility Purpose-Tools	25,000	25,750	26,523	27,318	28,138	28,982	29,851	30,747	31,669	32,619	33,598	As Materials & Supplies
All Facility Purpose-Oil/Lubricants	1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267	1,305	1,344	As Materials & Supplies
All Facility Purpose-Bicycles	1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267	1,305	1,344	As Materials & Supplies
All Facility Purpose-Facility Carts	1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267	1,305	1,344	As Materials & Supplies
All Facility Purpose-Small Equipment	3,500	3,640	3,786	3,937	4,095	4,258	4,429	4,606	4,790	4,982	5,181	As Equipment
All Facility Purpose-Security	2,500	2,575	2,652	2,732	2,814	2,898	2,985	3,075	3,167	3,262	3,360	As Materials & Supplies
All Facility Purpose-Janitorial Supplies	7,000	7,210	7,426	7,649	7,879	8,115	8,358	8,609	8,867	9,133	9,407	As Materials & Supplies
All Facility Purpose-Paint Supplies	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524	6,720	As Materials & Supplies
All Facility Purpose-Miscellaneous	5,000	5,100	5,202	5,306	5,412	5,520	5,631	5,743	5,858	5,975	6,095	As Miscellaneous
Tri-Mechanical	110,000	113,300	116,699	120,200	123,806	127,520	131,346	135,286	139,345	143,525	147,831	As Materials & Supplies
Warehouse Stock	353,000	363,590	374,498	385,733	397,305	409,224	421,500	434,145	447,170	460,585	474,402	As Materials & Supplies
Total Maintenance	\$2,931,000	\$3,030,050	\$3,132,563	\$3,238,663	\$3,348,482	\$3,462,154	\$3,579,820	\$3,701,624	\$3,827,718	\$3,958,259	\$4,093,408	

	<i>Proposed</i>	<i>Projected</i>										
	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	Notes
Electrical & Instrumentation												
Salaries And Wages	\$520,000	\$535,600	\$551,668	\$568,218	\$585,265	\$602,823	\$620,907	\$639,534	\$658,720	\$678,482	\$698,837	As Salaries
CalPERS Pepra Retirement	28,000	29,120	30,285	31,496	32,756	34,066	35,429	36,846	38,320	39,853	41,447	As Benefits - Retirement
CalPERS Classic Retirement	35,000	36,400	37,856	39,370	40,945	42,583	44,286	46,058	47,900	49,816	51,809	As Benefits - Retirement
Worker's Comp	12,000	12,420	12,855	13,305	13,770	14,252	14,751	15,267	15,802	16,355	16,927	As Benefits
Medicare	8,000	8,360	8,736	9,129	9,540	9,969	10,418	10,887	11,377	11,889	12,424	As Benefits - Medical
SDI	500	518	536	554	574	594	615	636	658	681	705	As Benefits
Life Insurance	5,000	5,225	5,460	5,706	5,963	6,231	6,511	6,804	7,111	7,430	7,765	As Benefits - Medical
Health Insurance	80,000	83,600	87,362	91,293	95,401	99,695	104,181	108,869	113,768	118,888	124,238	As Benefits - Medical
Retiree Health Insurance	67,000	70,015	73,166	76,458	79,899	83,494	87,251	91,178	95,281	99,568	104,049	As Benefits - Medical
Dental Insurance	6,000	6,270	6,552	6,847	7,155	7,477	7,814	8,165	8,533	8,917	9,318	As Benefits - Medical
HRA	8,000	8,320	8,653	8,999	9,359	9,733	10,123	10,527	10,949	11,386	11,842	As Benefits - Retirement
Cobra	500	523	546	571	596	623	651	680	711	743	776	As Benefits - Medical
Vhcl-20	500	520	541	562	585	608	633	658	684	712	740	As Equipment
Staff Certifications	500	510	520	531	541	552	563	574	586	598	609	As Miscellaneous
Staff Memberships	1,000	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219	As Miscellaneous
Furniture	4,500	4,635	4,774	4,917	5,065	5,217	5,373	5,534	5,700	5,871	6,048	As Materials & Supplies
It Hardware	5,500	5,665	5,835	6,010	6,190	6,376	6,567	6,764	6,967	7,176	7,392	As Materials & Supplies
It Software	3,000	3,090	3,183	3,278	3,377	3,478	3,582	3,690	3,800	3,914	4,032	As Materials & Supplies
Books/Subscriptions	500	515	530	546	563	580	597	615	633	652	672	As Materials & Supplies
Uniforms	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524	6,720	As Materials & Supplies
Leases	12,000	12,240	12,485	12,734	12,989	13,249	13,514	13,784	14,060	14,341	14,628	As Miscellaneous
Electrical Maintenance	31,500	32,445	33,418	34,421	35,454	36,517	37,613	38,741	39,903	41,100	42,333	As Materials & Supplies
Conference	2,000	2,040	2,081	2,122	2,165	2,208	2,252	2,297	2,343	2,390	2,438	As Miscellaneous
Training	10,000	10,200	10,404	10,612	10,824	11,041	11,262	11,487	11,717	11,951	12,190	As Miscellaneous
Telephone	1,000	1,040	1,082	1,125	1,170	1,217	1,265	1,316	1,369	1,423	1,480	As Utilities
General Buildings And Grounds-Mechanical	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524	6,720	As Materials & Supplies
All Facility Purpose-Tools	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524	6,720	As Materials & Supplies
All Facility Purpose-Radios	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524	6,720	As Materials & Supplies
Warehouse Stock	140,000	144,200	148,526	152,982	157,571	162,298	167,167	172,182	177,348	182,668	188,148	As Materials & Supplies
Total Electrical & Instrumentation	\$1,002,000	\$1,035,090	\$1,069,311	\$1,104,704	\$1,141,309	\$1,179,170	\$1,218,333	\$1,258,842	\$1,300,747	\$1,344,097	\$1,388,943	

	<i>Proposed</i>	<i>Projected</i>										
	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	Notes
Information Technology												
Salaries And Wages	\$255,000	\$262,650	\$270,530	\$278,645	\$287,005	\$295,615	\$304,483	\$313,618	\$323,026	\$332,717	\$342,699	As Salaries
CalPERS Classic Retirement	57,000	59,280	61,651	64,117	66,682	69,349	72,123	75,008	78,008	81,129	84,374	As Benefits - Retirement
Worker'S Comp	7,000	7,245	7,499	7,761	8,033	8,314	8,605	8,906	9,218	9,540	9,874	As Benefits
Medicare	7,000	7,315	7,644	7,988	8,348	8,723	9,116	9,526	9,955	10,403	10,871	As Benefits - Medical
SDI	500	518	536	554	574	594	615	636	658	681	705	As Benefits
Life Insurance	3,000	3,135	3,276	3,423	3,578	3,739	3,907	4,083	4,266	4,458	4,659	As Benefits - Medical
Health Insurance	33,000	34,485	36,037	37,658	39,353	41,124	42,975	44,908	46,929	49,041	51,248	As Benefits - Medical
Retiree Health Insurance	13,000	13,585	14,196	14,835	15,503	16,200	16,929	17,691	18,487	19,319	20,189	As Benefits - Medical
Dental Insurance	3,000	3,135	3,276	3,423	3,578	3,739	3,907	4,083	4,266	4,458	4,659	As Benefits - Medical
HRA	8,000	8,320	8,653	8,999	9,359	9,733	10,123	10,527	10,949	11,386	11,842	As Benefits - Retirement
Cobra	500	523	546	571	596	623	651	680	711	743	776	As Benefits - Medical
Staff Certifications	500	510	520	531	541	552	563	574	586	598	609	As Miscellaneous
Staff Memberships	500	510	520	531	541	552	563	574	586	598	609	As Miscellaneous
Furniture	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524	6,720	As Materials & Supplies
It Hardware	2,000	2,060	2,122	2,185	2,251	2,319	2,388	2,460	2,534	2,610	2,688	As Materials & Supplies
It Software	63,000	64,890	66,837	68,842	70,907	73,034	75,225	77,482	79,807	82,201	84,667	As Materials & Supplies
Copier/Fax/Ink Expenses	6,500	6,695	6,896	7,103	7,316	7,535	7,761	7,994	8,234	8,481	8,735	As Materials & Supplies
Uniforms	500	515	530	546	563	580	597	615	633	652	672	As Materials & Supplies
Contractural Services	78,000	80,340	82,750	85,233	87,790	90,423	93,136	95,930	98,808	101,772	104,825	As Salaries
Training	10,000	10,200	10,404	10,612	10,824	11,041	11,262	11,487	11,717	11,951	12,190	As Miscellaneous
Telephone	2,000	2,080	2,163	2,250	2,340	2,433	2,531	2,632	2,737	2,847	2,960	As Utilities
All Facility Purpose-Tools	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524	6,720	As Materials & Supplies
All Facility Purpose-It Scada	35,000	36,050	37,132	38,245	39,393	40,575	41,792	43,046	44,337	45,667	47,037	As Materials & Supplies
All Facility Purpose-It Equipment	35,000	36,400	37,856	39,370	40,945	42,583	44,286	46,058	47,900	49,816	51,809	As Equipment
All Facility Purpose-It Computers	10,000	10,300	10,609	10,927	11,255	11,593	11,941	12,299	12,668	13,048	13,439	As Materials & Supplies
All Facility Purpose-Security	5,000	5,150	5,305	5,464	5,628	5,796	5,970	6,149	6,334	6,524	6,720	As Materials & Supplies
Total Information Technology	\$645,000	\$666,190	\$688,096	\$710,742	\$734,155	\$758,361	\$783,389	\$809,265	\$836,021	\$863,688	\$892,296	

	<i>Proposed</i>	<i>Projected</i>										
	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	Notes
Warehouse												
Salaries And Wages	\$86,000	\$88,580	\$91,237	\$93,975	\$96,794	\$99,698	\$102,688	\$105,769	\$108,942	\$112,210	\$115,577	As Salaries
CalPERS Pepra Retirement	7,000	7,280	7,571	7,874	8,189	8,517	8,857	9,212	9,580	9,963	10,362	As Benefits - Retirement
Worker's Comp	4,000	4,140	4,285	4,435	4,590	4,751	4,917	5,089	5,267	5,452	5,642	As Benefits
Medicare	3,000	3,135	3,276	3,423	3,578	3,739	3,907	4,083	4,266	4,458	4,659	As Benefits - Medical
SDI	500	518	536	554	574	594	615	636	658	681	705	As Benefits
Life Insurance	2,000	2,090	2,184	2,282	2,385	2,492	2,605	2,722	2,844	2,972	3,106	As Benefits - Medical
Health Insurance	25,000	26,125	27,301	28,529	29,813	31,155	32,557	34,022	35,553	37,152	38,824	As Benefits - Medical
Dental Insurance	3,000	3,135	3,276	3,423	3,578	3,739	3,907	4,083	4,266	4,458	4,659	As Benefits - Medical
HRA	8,000	8,320	8,653	8,999	9,359	9,733	10,123	10,527	10,949	11,386	11,842	As Benefits - Retirement
Cobra	500	523	546	571	596	623	651	680	711	743	776	As Benefits - Medical
Staff Certifications	500	510	520	531	541	552	563	574	586	598	609	As Miscellaneous
Staff Memberships	500	510	520	531	541	552	563	574	586	598	609	As Miscellaneous
Furniture	1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267	1,305	1,344	As Materials & Supplies
Uniforms	1,000	1,030	1,061	1,093	1,126	1,159	1,194	1,230	1,267	1,305	1,344	As Materials & Supplies
Conference	1,000	1,020	1,040	1,061	1,082	1,104	1,126	1,149	1,172	1,195	1,219	As Miscellaneous
General Buildings And Grounds-Structure	10,000	10,200	10,404	10,612	10,824	11,041	11,262	11,487	11,717	11,951	12,190	As Miscellaneous
Warehouse Supplies - Misc	6,000	6,180	6,365	6,556	6,753	6,956	7,164	7,379	7,601	7,829	8,063	As Materials & Supplies
Total Warehouse	\$159,000	\$164,325	\$169,837	\$175,542	\$181,448	\$187,562	\$193,892	\$200,445	\$207,231	\$214,257	\$221,532	
Additional O&M												
Staffing Adjustments	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	As Salaries
Total Additional O&M	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total O&M Expenses	\$18,084,500	\$18,825,104	\$19,538,187	\$20,231,252	\$20,928,236	\$21,722,880	\$22,423,624	\$23,212,210	\$24,029,417	\$24,876,315	\$25,826,615	
Rate Funded Capital	\$0	\$1,650,000	\$4,810,000	\$4,700,000	\$5,470,000	\$5,500,000	\$5,600,000	\$5,700,000	\$5,800,000	\$5,850,000	\$5,825,000	\$3,215,987 FY 2021 Dep. Exp.

	Proposed	Projected										Notes
	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	
Debt Service												
2020 WWTP Rev Ref Bond	\$2,425,000	\$2,550,000	\$2,680,000	\$2,815,000	\$2,960,000	\$0	\$0	\$0	\$0	\$0	\$0	Debt Schedule Calc'd @ 4.5% for 20 yrs Calc'd @ 4.5% for 20 yrs Calc'd @ 4.5% for 20 yrs
Assumed Revenue Bond (Fund 2)	0	0	269,067	476,632	572,416	876,077	1,106,706	1,333,490	1,575,650	1,833,185	1,875,467	
Assumed Revenue Bond (Fund 6)	0	(0)	443,023	1,798,051	2,129,009	2,129,009	2,129,009	2,129,009	2,129,009	2,129,009	2,129,009	
Additional Long-Term Debt	0	0	0	0	0	0	0	0	0	0	0	
Total Debt Service	\$2,425,000	\$2,550,000	\$3,392,089	\$5,089,683	\$5,661,426	\$3,005,087	\$3,235,715	\$3,462,500	\$3,704,659	\$3,962,195	\$4,004,476	
LESS: Other Funding												
Connection Fees	\$1,775,100	\$1,866,600	\$1,961,760	\$2,060,580	\$2,166,720	\$0	\$0	\$0	\$0	\$0	\$0	
Net Debt Service	\$649,900	\$683,400	\$1,430,329	\$3,029,103	\$3,494,706	\$3,005,087	\$3,235,715	\$3,462,500	\$3,704,659	\$3,962,195	\$4,004,476	
Reserve Funding												
To / (From) General Fund	(\$1,319,885)	\$456,850	(\$855,693)	(\$89,612)	\$185,190	\$1,008,867	\$1,175,406	\$1,308,028	\$1,445,055	\$1,637,252	\$2,064,946	
To / (From) Wastewater Capital Reserve Fund (Fund 2)	0	0	0	0	0	0	0	0	0	0	0	
To / (From) Replace, Rehab, and Upgrade Fund (Fund 6)	0	0	0	0	0	0	0	0	0	0	0	
To / (From) Emergency & Contingency Reserve Fund	0	0	0	0	0	0	0	0	0	0	0	
Total Reserve Funding	(\$1,319,885)	\$456,850	(\$855,693)	(\$89,612)	\$185,190	\$1,008,867	\$1,175,406	\$1,308,028	\$1,445,055	\$1,637,252	\$2,064,946	
Total Revenue Requirement	\$17,414,515	\$21,615,354	\$24,922,824	\$27,870,744	\$30,078,132	\$31,236,834	\$32,434,745	\$33,682,738	\$34,979,132	\$36,325,762	\$37,721,037	
Bal. / (Def.) of Funds	\$0	(\$3,869,606)	(\$7,006,600)	(\$9,751,033)	(\$11,745,686)	(\$12,678,120)	(\$13,650,318)	(\$14,663,887)	(\$15,720,503)	(\$16,821,906)	(\$17,969,906)	
Balance a % of Rate Adj. Req'd	0.0%	30.0%	54.1%	74.8%	89.7%	96.3%	103.2%	110.3%	117.7%	125.3%	133.2%	
Proposed Rate Adjustment	0.0%	30.0%	18.5%	13.5%	8.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	
Months of Adjustment	12	12	12	12	12	12	12	12	12	12	12	
Add'l Revenue with Rate Adj.	\$0	\$3,869,606	\$7,006,600	\$9,751,033	\$11,745,686	\$12,678,120	\$13,650,318	\$14,663,887	\$15,720,503	\$16,821,906	\$17,969,906	
Bal. / (Def.) After Rate Adj.	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Add'l Rate Adj. Req'd	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Annual Residential Customer Bill												
Customer Bill on Proposed Adjustment	\$306.00	\$398.00	\$472.00	\$536.00	\$582.00	\$602.00	\$623.07	\$644.88	\$667.45	\$690.81	\$714.99	
Bill Difference - Monthly		\$92.00	\$74.00	\$64.00	\$46.00	\$20.00	21.07	21.81	22.57	23.36	24.18	
Cumulative Bill Difference		92.00	166.00	230.00	276.00	296.00	317.07	338.88	361.45	384.81	408.99	
Monthly Residential Customer Bill												
Customer Bill on Proposed Adjustment	\$25.50	\$33.17	\$39.33	\$44.67	\$48.50	\$50.17	\$51.92	\$53.74	\$55.62	\$57.57	\$59.58	
Bill Difference - Monthly		\$7.67	\$6.17	\$5.33	\$3.83	\$1.67	1.76	1.82	1.88	1.95	2.01	
Cumulative Bill Difference		7.67	13.83	19.17	23.00	24.67	26.42	28.24	30.12	32.07	34.08	
Debt Service Coverage Ratio (all debt)												
Before Rate Adjustment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
After Proposed Rate Adjustment	0.00	1.09	1.59	1.50	1.62	3.17	3.09	3.02	2.96	2.89	2.97	

	<i>Proposed</i>	<i>Projected</i>										
	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	Notes
Reserve Funds												
Beginning Reserve Balance	\$39,947,489	\$34,981,504	\$31,561,858	\$25,106,602	\$24,363,077	\$24,553,447	\$26,509,202	\$27,386,345	\$29,010,169	\$30,681,567	\$32,390,546	
General Fund												
Beginning Balance	\$10,805,720	\$9,485,835	\$9,942,685	\$5,462,790	\$5,373,179	\$5,558,369	\$6,567,236	\$7,742,642	\$9,050,670	\$10,495,725	\$12,132,978	
Plus: Additions	0	456,850	0	0	185,190	1,008,867	1,175,406	1,308,028	1,445,055	1,637,252	2,064,946	
Ending Fund Balance	0	0	0	0	0	0	0	0	0	0	0	
Less: Uses of Funds	(1,319,885)	0	(4,479,895)	(89,612)	0	0	0	0	0	0	0	
Ending Balance	\$9,485,835	\$9,942,685	\$5,462,790	\$5,373,179	\$5,558,369	\$6,567,236	\$7,742,642	\$9,050,670	\$10,495,725	\$12,132,978	\$14,197,923	
Target: 60% of O&M + UAL	\$11,372,100	\$11,858,629	\$12,330,984	\$12,774,718	\$13,213,453	\$13,716,500	\$14,164,257	\$14,665,812	\$15,185,676	\$15,724,535	\$16,326,665	
Wastewater Capital Reserve Fund (Fund 2)												
Beginning Balance	\$16,964,929	\$16,629,509	\$16,098,796	\$15,643,812	\$14,989,898	\$14,995,078	\$15,415,828	\$14,680,436	\$13,680,708	\$12,658,136	\$11,603,890	
Plus: Additions	0	0	0	0	0	0	0	0	0	0	0	
Connection Fees	2,129,000	2,139,645	2,150,343	2,161,095	2,171,900	2,182,760	2,193,674	2,204,642	2,215,665	2,226,744	2,237,877	As Customer Growth
Less: Uses of Funds	(2,464,420)	(2,670,359)	(2,605,327)	(2,815,009)	(2,166,720)	(1,762,010)	(2,929,066)	(3,204,370)	(3,238,237)	(3,280,990)	(3,336,572)	
Ending Balance	\$16,629,509	\$16,098,796	\$15,643,812	\$14,989,898	\$14,995,078	\$15,415,828	\$14,680,436	\$13,680,708	\$12,658,136	\$11,603,890	\$10,505,195	
Target: 50% of 5-yr proj. capital	\$5,168,515	\$7,679,860	\$10,242,513	\$11,247,915	\$12,714,819	\$15,407,336	\$14,494,617	\$13,509,535	\$12,506,576	\$11,445,206	\$10,343,503	
Replace, Rehab, and Upgrade Fund (Fund 6)												
Beginning Balance	\$8,176,839	\$4,866,159	\$1,520,376	\$0	\$0	\$0	\$526,137	\$963,267	\$2,278,791	\$3,527,705	\$4,653,678	
Plus: Additions	0	0	0	0	0	526,137	437,130	1,315,524	1,248,914	1,125,973	69,703	
Balance: From Operating	0	0	0	0	0	0	0	0	0	0	0	
Less: Uses of Funds	(3,310,680)	(3,345,783)	(1,520,376)	0	0	0	0	0	0	0	0	
Ending Balance	\$4,866,159	\$1,520,376	\$0	\$0	\$0	\$526,137	\$963,267	\$2,278,791	\$3,527,705	\$4,653,678	\$4,723,381	
Target: 50% of 5-yr proj. capital	\$28,062,531	\$28,894,122	\$28,977,666	\$23,311,209	\$14,423,691	\$11,898,161	\$12,288,878	\$12,813,134	\$13,649,044	\$14,388,835	\$15,156,738	
Emergency & Contingency Reserve Fund												
Beginning Balance	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	
Plus: Additions	0	0	0	0	0	0	0	0	0	0	0	
Balance: From Operating	0	0	0	0	0	0	0	0	0	0	0	
Less: Uses of Funds	0	0	0	0	0	0	0	0	0	0	0	
Ending Balance	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	
Target: \$4 Million	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	\$4,000,000	
Ending Reserve Balance	\$34,981,504	\$31,561,858	\$25,106,602	\$24,363,077	\$24,553,447	\$26,509,202	\$27,386,345	\$29,010,169	\$30,681,567	\$32,390,546	\$33,426,500	
Total Unrestricted	\$18,351,995	\$15,463,062	\$9,462,791	\$9,373,179	\$9,558,369	\$11,093,373	\$12,705,909	\$15,329,462	\$18,023,431	\$20,786,656	\$22,921,305	
Target	\$43,434,631	\$44,752,751	\$45,308,650	\$40,085,927	\$31,637,143	\$29,614,661	\$30,453,135	\$31,478,946	\$32,834,720	\$34,113,371	\$35,483,403	
Total Restricted	\$16,629,509	\$16,098,796	\$15,643,812	\$14,989,898	\$14,995,078	\$15,415,828	\$14,680,436	\$13,680,708	\$12,658,136	\$11,603,890	\$10,505,195	
Target	\$5,168,515	\$7,679,860	\$10,242,513	\$11,247,915	\$12,714,819	\$15,407,336	\$14,494,617	\$13,509,535	\$12,506,576	\$11,445,206	\$10,343,503	

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	Total	Notes
Capital Reserve Funded													
Equipment/Vehicle Warehouse	\$0	\$0	\$2,488,896	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,488,896	
Control Room Upgrades #02 & #13 - HVAC	0	0	0	0	0	0	0	0	0	0	0	0	
Gravity Main between MH 57 and MH 62	0	0	0	0	0	0	0	0	0	0	1,042,553	5,624,276	50% RRU
Gravity Main between MH 71 and MH 72	0	0	0	0	0	0	0	0	0	0	0	1,566,885	50% RRU
Effluent Disposal Field Expansion Project	0	0	0	0	0	0	0	0	0	0	1,829,549	9,869,899	
WAS Thickening Improvements Project	0	0	0	0	0	0	0	0	0	0	59,591	321,477	88% RRU
Offsite Flow Equalization Improvements Project	0	0	0	0	0	0	0	0	0	0	0	19,803,156	
WASSTRIP Implementation	0	0	0	0	0	951,949	988,123	1,025,672	1,064,648	1,105,104	0	5,135,497	
Nitrified Effluent Recycle Pilot	0	0	49,778	422,750	0	0	0	0	0	0	0	472,528	
Flow Equalization Improvements Project	0	0	0	0	0	0	0	0	0	0	461,743	2,490,974	
Biogas Storage Project	0	0	0	0	0	0	0	0	0	0	0	5,229,241	
Flowmeter Improvements	75,000	0	0	0	0	0	0	0	0	0	0	75,000	
Manlift	60,000	0	0	0	0	0	0	0	0	0	0	60,000	
BNR Structural Retrofit and Nitrified Effluent Recycle Project	0	0	0	0	0	277,150	287,682	298,613	309,961	321,739	0	1,495,145	
Disinfection Process Modernization	0	467,100	0	0	0	4,007,827	4,160,125	4,318,210	4,482,302	4,652,629	0	22,088,193	
Develop Standards	241,000	0	0	0	0	0	0	0	0	0	72,601	419,020	
Upgrade Reports	0	0	0	107,365	0	0	0	0	0	0	0	203,268	
Improve Physical Security	147,000	0	0	0	170,650	0	0	0	0	0	0	513,333	
Plant Coating Improvements	57,600	0	85,334	0	0	0	0	0	0	0	0	142,934	88% RRU
Lime Systems Improvements	0	27,403	0	0	0	0	0	0	0	0	0	27,403	88% RRU
Maintenance/E&I Shop Improvements	0	0	0	0	110,052	0	0	0	0	0	0	110,052	88% RRU
River Crossing, Gravity Main (MH 33 and MH 35)	27,720	57,021	236,492	0	0	0	0	0	0	0	0	321,234	89% RRU
River Crossing, Gravity Main (MH 65 and MH 66)	0	0	0	6,710	12,538	10,411	10,807	11,217	11,644	12,086	0	75,413	88% RRU
River Crossing, Gravity Main (MH 88 and MH 89)	0	0	0	22,368	41,792	34,704	36,023	37,392	38,812	40,287	0	251,378	60% RRU
TRI Renewal Program	0	0	0	0	0	118,210	122,702	127,365	132,205	137,229	142,443	3,447,922	88% RRU
Primary and Secondary Treatment Repairs	0	0	7,253	30,800	31,971	0	0	0	0	0	0	70,025	88% RRU
Phosphorus Removal and Recarb Rehabilitation	0	0	50,631	214,999	223,169	0	0	0	0	0	0	488,799	88% RRU
Plant Wide Electrical Improvements (Phase 1)	0	0	41,245	42,812	0	0	0	0	0	0	0	84,056	88% RRU
Plant Wide Electrical Improvements (Phase 2)	0	0	0	0	0	135,056	140,188	145,516	151,045	156,785	0	728,591	88% RRU
Plant Wide Electrical Improvements (Phase 3)	0	0	0	0	0	0	0	0	0	0	46,349	250,037	88% RRU
Plant Wide Electrical Improvements (Phase 4)	0	0	0	0	0	0	0	0	0	0	0	56,634	88% RRU
Plant Wide Electrical Improvements (Phase 5)	0	0	0	0	0	0	0	0	0	0	0	788,905	88% RRU
Grit System Improvements	0	0	0	0	0	62,467	64,841	67,305	69,862	72,517	0	336,993	88% RRU
Primary & Secondary Treatment Rehab Project	0	0	144,356	612,988	636,281	0	0	0	0	0	0	1,393,625	88% RRU
Recarbonation Improvements	0	0	0	0	0	15,617	16,210	16,826	17,466	18,129	0	84,248	88% RRU
TWAS Pump Replacement Project	0	0	0	0	19,503	0	0	0	0	0	0	19,503	88% RRU
Solids Dewatering Improvements	0	0	0	0	0	14,749	15,310	15,891	16,495	17,122	0	79,568	88% RRU
Filtration Rehabilitation Project	0	0	0	0	0	35,572	36,923	38,326	39,783	41,295	0	191,899	88% RRU
AWT Improvements	0	0	0	0	0	48,296	50,132	52,037	54,014	56,067	0	260,545	88% RRU
Odorous Air Treatment Improvements Project	0	0	0	0	0	0	0	0	0	0	0	106,461	88% RRU
MPPS Improvements Project	0	0	0	0	0	0	0	0	0	0	89,212	481,275	88% RRU
Misc Plant Rehab Project	0	0	0	0	0	0	0	0	0	0	142,531	768,912	88% RRU
Plant Air System Upgrades	0	0	121,600	114,746	0	0	0	0	0	0	0	236,347	88% RRU
Digestion Improvements Project	81,000	252,234	917,982	1,878,890	0	0	0	0	0	0	0	3,130,106	88% RRU
Total Capital Reserve Funded	\$689,320	\$803,759	\$4,143,567	\$3,454,429	\$1,245,955	\$5,712,010	\$5,929,066	\$6,154,370	\$6,388,237	\$6,630,990	\$3,886,572	\$91,789,651	

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	Total	Notes
Replace, Rehab, and Upgrade Funded													
River Crossing, Gravity Main (MH 33 and MH 35)	\$224,280	\$461,356	\$1,913,439	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,599,075	89% RRU
River Crossing, Gravity Main (MH 65 and MH 66)	0	0	0	49,209	91,942	76,349	79,250	82,262	85,387	88,632	0	553,031	88% RRU
River Crossing, Gravity Main (MH 88 and MH 89)	0	0	0	33,552	62,688	52,056	54,034	56,087	58,219	60,431	0	377,067	60% RRU
TRI Renewal Program	0	0	0	0	0	866,876	899,818	934,011	969,503	1,006,344	1,044,585	25,284,760	88% RRU
Visible Reinforcement Study	105,000	0	0	0	0	15,665	16,260	16,878	17,520	18,185	0	189,508	
2022 TRI Improvements Project	0	0	0	0	0	0	0	0	0	0	0	0	
Plant Coating Improvements	422,400	0	625,779	0	0	0	0	0	0	0	0	1,048,179	88% RRU
Lab Equipment Replacements	80,000	30,448	63,210	0	0	0	0	0	0	0	0	173,658	
Lime Systems Improvements	0	200,957	0	0	0	0	0	0	0	0	0	200,957	88% RRU
Chlorine Scrubber Improvements	1,150,000	0	0	0	0	0	0	0	0	0	0	1,150,000	
Translucent Panel Rehab	0	0	71,111	0	0	0	0	0	0	0	0	71,111	
Centrifuge Rebuild	50,000	0	0	0	0	0	0	0	0	0	0	50,000	
Communications Network Replacement	0	0	248,890	0	0	0	0	0	0	0	0	248,890	
Odorous Air Biofilter Media Replacement	0	0	0	55,919	0	0	0	0	0	0	0	55,919	
Control Room Upgrades #02 and #13	185,000	0	0	0	0	0	0	0	0	0	0	185,000	
Maintenance/E&I Shop Improvements	0	0	0	0	807,048	0	0	0	0	0	0	807,048	88% RRU
Plant-wide NFPA 820 Compliance Evaluation	0	125,598	0	0	0	0	0	0	0	0	0	125,598	
Chemical Storage and Feed System Improvements	0	0	0	0	0	84,350	87,555	90,882	94,336	97,921	0	455,044	
Primary and Secondary Treatment Repairs	0	0	53,191	225,869	234,452	0	0	0	0	0	0	513,513	88% RRU
Phosphorus Removal and Recarb Rehabilitation	0	0	371,296	1,576,657	1,636,570	0	0	0	0	0	0	3,584,523	88% RRU
Plant Wide Electrical Improvements (Phase 1)	0	0	302,460	313,954	0	0	0	0	0	0	0	616,414	88% RRU
Harmonic Filter Replacement For Area 71	0	148,434	0	0	0	0	0	0	0	0	0	148,434	
Plant Wide Electrical Improvements (Phase 2)	0	0	0	0	0	990,413	1,028,049	1,067,115	1,107,665	1,149,756	0	5,342,997	88% RRU
Condition Assessment and Inspection	0	148,434	0	0	0	0	0	0	0	0	0	148,434	
Plant Wide Electrical Improvements (Phase 3)	0	0	0	0	0	0	0	0	0	0	339,890	1,833,608	88% RRU
Digestion Improvements Project	594,000	1,849,716	6,731,870	13,778,526	0	0	0	0	0	0	0	22,954,112	88% RRU
Plant Wide Electrical Improvements (Phase 4)	0	0	0	0	0	0	0	0	0	0	0	415,319	88% RRU
Plant Wide Electrical Improvements (Phase 5)	0	0	0	0	0	0	0	0	0	0	0	5,785,304	88% RRU
2-Water System Improvements	0	39,963	170,667	0	0	0	0	0	0	0	0	210,630	
Grit System Improvements	0	0	0	0	0	458,093	475,500	493,569	512,325	531,793	0	2,471,279	88% RRU
LEL Equipment Replacement	0	0	379,260	0	0	0	0	0	0	0	0	379,260	
Primary & Secondary Treatment Rehab Project	0	0	1,058,610	4,495,244	4,666,063	0	0	0	0	0	0	10,219,918	88% RRU
Recarbonation Improvements	0	0	0	0	0	114,523	118,875	123,392	128,081	132,948	0	617,820	88% RRU
TWAS Pump Replacement Project	0	0	0	0	143,021	0	0	0	0	0	0	143,021	88% RRU
Solids Dewatering Improvements	0	0	0	0	0	108,161	112,271	116,537	120,966	125,562	0	583,496	88% RRU
Filtration Rehabilitation Project	0	0	0	0	0	260,858	270,771	281,060	291,740	302,827	0	1,407,256	88% RRU
AWT Improvements	0	0	0	0	0	354,173	367,632	381,602	396,103	411,155	0	1,910,665	88% RRU
Building Roof Replacements	0	0	1,268,152	0	1,552,104	605,874	628,897	652,795	677,601	703,350	730,077	20,492,173	
Odorous Air Treatment Improvements Project	0	0	0	0	0	0	0	0	0	0	0	780,716	88% RRU
Asphalt Sealing and Replacement Project	0	0	201,482	0	0	81,940	85,054	88,286	91,641	95,123	98,738	2,591,479	
MPPS Improvements Project	0	0	0	0	0	0	0	0	0	0	654,224	3,529,351	88% RRU
Misc Plant Rehab Project	0	0	0	0	0	0	0	0	0	0	1,045,224	5,638,689	88% RRU
Plant Air System Upgrades	0	0	891,736	841,474	0	0	0	0	0	0	0	1,733,210	88% RRU
Odorous Air VFD Replacement	35,000	39,963	0	0	0	0	0	0	0	0	0	74,963	
Replace Servers	250,000	0	0	0	0	301,250	312,697	0	0	0	363,006	3,569,433	
Upgrade Networks	0	188,397	195,556	0	0	0	0	0	0	0	0	1,572,444	
Replace Pilot PLCs (4)	0	227,104	314,312	222,447	0	0	0	0	0	0	0	2,219,817	
Replace WRP PLCs (13)	0	0	421,216	397,475	412,579	428,257	444,530	0	0	0	0	4,608,738	
Replace RTUs (14)	0	0	0	162,446	168,619	175,026	181,677	0	0	0	0	1,384,573	
BNR Blower Replacement	0	28,545	0	27,960	0	0	0	0	0	0	0	56,505	
Arc Flash Study/Breaker Replacement	20,000	0	0	0	0	0	0	0	0	0	0	20,000	
Filter Press Feed Pump VFD Replacement	45,000	51,381	0	0	0	0	0	0	0	0	0	96,381	
Cake Discharge VFD Replacement	35,000	0	0	0	0	0	0	0	0	0	0	35,000	
SCADA Repeater Replacement	50,000	0	0	0	0	0	0	0	0	0	0	50,000	
Front Entry Landscape Improvements	0	856,350	404,042	0	0	0	0	0	0	0	0	1,260,392	
Telephone System Upgrade	40,000	0	0	0	0	0	0	0	0	0	0	40,000	
2-Water Valve Replacements	0	85,635	0	0	0	0	0	0	0	0	0	85,635	
VFD Replacements	0	34,254	0	33,552	0	0	0	0	0	0	0	67,806	
Gravity Main between MH 57 and MH 62	0	0	0	0	0	0	0	0	0	0	1,042,553	5,624,276	50% RRU
Gravity Main between MH 71 and MH 72	0	0	0	0	0	0	0	0	0	0	0	1,566,885	50% RRU
WAS Thickening Improvements Project	0	0	0	0	0	0	0	0	0	0	437,001	2,357,496	88% RRU
Maintenance Carts	25,000	0	31,111	0	0	0	0	0	0	0	0	56,111	
Cashman CAT Skid Steer Loader	0	78,208	0	0	0	0	0	0	0	0	0	78,208	
Cashman CAT 938M Wheel Loader w/ stand equip	0	297,240	0	0	0	0	0	0	0	0	0	297,240	
Light vehicle replacement	0	103,800	0	111,839	0	0	0	0	0	0	0	215,639	
Total Replace, Rehab, and Upgrade Funded	\$3,310,680	\$4,995,783	\$15,717,390	\$22,326,122	\$9,775,086	\$4,973,863	\$5,162,870	\$4,384,476	\$4,551,086	\$4,724,027	\$5,755,297	\$152,964,006	

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033	Total	Notes
Future Capital Projects	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,100,000	
Transfer to Fund 6 Reserves	\$0	\$0	\$0	\$0	\$0	\$526,137	\$437,130	\$1,315,524	\$1,248,914	\$1,125,973	\$69,703	\$20,738,099	
Total Capital Improvement Projects	\$4,000,000	\$5,799,541	\$19,860,958	\$25,780,551	\$11,021,041	\$11,212,010	\$11,529,066	\$11,854,370	\$12,188,237	\$12,480,990	\$9,711,572	\$271,591,755	
Less: Outside Funding Sources													
General Fund	\$0	\$0	\$3,624,202	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$3,624,202	
Wastewater Capital Reserve Fund (Fund 2)	689,320	803,759	643,567	754,429	0	1,762,010	2,929,066	3,204,370	3,238,237	3,280,990	3,336,572	49,978,696	
Replace, Rehab, and Upgrade Fund (Fund 6)	3,310,680	3,345,783	1,520,376	0	0	0	0	0	0	0	0	8,603,881	
Emergency & Contingency Reserve Fund	0	0	0	0	0	0	0	0	0	0	0	0	
Secured Debt (SRF)	0	0	0	0	0	0	0	0	0	0	0	0	
Assumed Revenue Bond (Fund 2)	0	0	3,500,000	2,700,000	1,245,955	3,950,000	3,000,000	2,950,000	3,150,000	3,350,000	550,000	41,810,955	
Assumed Revenue Bond (Fund 6)	0	(0)	5,762,812	17,626,122	4,305,086	0	0	0	0	0	0	27,694,021	
Additional Revenue Bonds	0	0	0	0	0	0	0	0	0	0	0	0	
Total Funding Sources	\$4,000,000	\$4,149,541	\$15,050,958	\$21,080,551	\$5,551,041	\$5,712,010	\$5,929,066	\$6,154,370	\$6,388,237	\$6,630,990	\$3,886,572	\$131,711,755	
Rate Funded Capital	\$0	\$1,650,000	\$4,810,000	\$4,700,000	\$5,470,000	\$5,500,000	\$5,600,000	\$5,700,000	\$5,800,000	\$5,850,000	\$5,825,000	\$139,880,000	

Tahoe-Truckee Sanatary Agency
Wastewater Rate Study
Debt Schedule
Exhibit 5

	2020 WWTP Rev Ref Bond	Total
FY 2023	\$2,425,000	\$2,425,000
FY 2024	2,550,000	2,550,000
FY 2025	2,680,000	2,680,000
FY 2026	2,815,000	2,815,000
FY 2027	2,960,000	2,960,000
FY 2028	0	0
FY 2029	0	0
FY 2030	0	0
FY 2031	0	0
FY 2032	0	0
FY 2033	0	0
FY 2034	0	0
FY 2035	0	0
FY 2036	0	0
FY 2037	0	0
FY 2038	0	0
FY 2039	0	0
FY 2040	0	0
FY 2041	0	0
FY 2042	0	0
FY 2043	0	0
FY 2044	0	0
FY 2045	0	0
FY 2046	0	0
FY 2047	0	0
FY 2048	0	0
FY 2049	0	0
FY 2050	0	0
FY 2051	0	0
FY 2052	0	0
Total Debt Service	\$13,430,000	\$13,430,000

Source: Agency provided debt service schedules

Tahoe-Truckee Sanitary Agency
Wastewater Rate Study
Revenues at Present Rates
Exhibit 6

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FY 2022 Rates		Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Total
NTPUD	\$ / EDU													
Residential	\$25.50	6,085	6,085	6,085	6,085	6,085	6,085	6,088	6,088	6,088	6,097	6,097	6,097	6,089
Other	25.50	1,207	1,207	1,207	1,207	1,203	1,203	1,205	1,205	1,205	1,205	1,205	1,205	1,205
Total NTPUD		7,292	7,292	7,292	7,292	7,288	7,288	7,293	7,293	7,293	7,302	7,302	7,302	7,294
TCPUD	\$ / EDU													
Residential	\$25.50	7,955	7,957	7,958	7,958	7,959	7,959	7,959	7,959	7,959	7,962	7,962	7,962	7,959
Other	25.50	1,981	1,981	1,981	1,981	1,981	1,981	1,981	1,981	1,981	1,981	1,981	1,981	1,981
Total TCPUD		9,936	9,938	9,939	9,939	9,940	9,940	9,940	9,940	9,940	9,943	9,943	9,943	9,940
ASCWD	\$ / EDU													
Residential	\$25.50	664	664	664	664	664	664	664	664	664	665	665	665	664
Other	25.50	248	248	248	248	248	248	248	248	248	248	248	248	248
Total ASCWD		912	912	912	912	912	912	912	912	912	913	913	913	912
OVSPD	\$ / EDU													
Residential	\$25.50	1,948	1,949	1,949	1,949	1,949	1,949	1,953	1,954	1,954	1,977	1,977	1,977	1,957
Other	25.50	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288
Total OVSPD		3,236	3,237	3,237	3,237	3,237	3,237	3,241	3,242	3,242	3,265	3,265	3,265	3,245
TSD	\$ / EDU													
Residential	\$25.50	13,554	13,606	13,616	13,641	13,748	13,759	13,833	13,912	13,920	13,933	13,933	13,942	13,783
Other	25.50	3,924	3,924	3,925	3,945	3,952	3,952	3,954	3,954	3,954	3,954	3,954	3,954	3,945
Total TSD		17,478	17,530	17,541	17,586	17,700	17,711	17,787	17,866	17,874	17,887	17,887	17,896	17,729
NCSD	\$ / EDU													
Residential	\$25.50	1,910	1,910	1,912	1,912	1,915	1,915	1,918	1,918	1,918	1,918	1,918	1,920	1,915
Other	25.50	907	907	907	907	907	907	907	907	907	907	907	907	907
Total NCSD		2,817	2,817	2,819	2,819	2,822	2,822	2,825	2,825	2,825	2,825	2,825	2,827	2,822
Revenue		\$1,062,610	\$1,064,012	\$1,064,388	\$1,065,529	\$1,068,442	\$1,068,722	\$1,070,961	\$1,073,001	\$1,073,205	\$1,074,455	\$1,074,455	\$1,074,735	\$12,834,515

Tahoe-Truckee Sanitary Agency
Wastewater Rate Study
Revenues at Present Rates
Exhibit 6

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<i>FY 2022 Rates</i>	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Total
Summary													
EDU													
NTPUD	7,292	7,292	7,292	7,292	7,288	7,288	7,293	7,293	7,293	7,302	7,302	7,302	7,294
TCPUD	9,936	9,938	9,939	9,939	9,940	9,940	9,940	9,940	9,940	9,943	9,943	9,943	9,940
ASCWD	912	912	912	912	912	912	912	912	912	913	913	913	912
OVSPD	3,236	3,237	3,237	3,237	3,237	3,237	3,241	3,242	3,242	3,265	3,265	3,265	3,245
TSD	17,478	17,530	17,541	17,586	17,700	17,711	17,787	17,866	17,874	17,887	17,887	17,896	17,729
NCSD	2,817	2,817	2,819	2,819	2,822	2,822	2,825	2,825	2,825	2,825	2,825	2,827	2,822
<i>Total Number of EDU</i>	41,671	41,726	41,741	41,785	41,900	41,911	41,998	42,078	42,086	42,135	42,135	42,146	41,943
Volume													
NTPUD	0	0	0	0	0	0	0	0	0	0	0	0	0
TCPUD	0	0	0	0	0	0	0	0	0	0	0	0	0
ASCWD	0	0	0	0	0	0	0	0	0	0	0	0	0
OVSPD	0	0	0	0	0	0	0	0	0	0	0	0	0
TSD	0	0	0	0	0	0	0	0	0	0	0	0	0
NCSD	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Total Volume</i>	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Revenues	\$1,062,610	\$1,064,012	\$1,064,388	\$1,065,529	\$1,068,442	\$1,068,722	\$1,070,961	\$1,073,001	\$1,073,205	\$1,074,455	\$1,074,455	\$1,074,735	\$12,834,515
FY 2021 Actual													\$12,671,439
<i>Difference</i>													<i>\$163,076</i>
<i>Percent</i>													<i>1.3%</i>
FY 2023 Budgeted													\$13,171,000
<i>Difference</i>													<i>(\$336,485)</i>
<i>Percent</i>													<i>-2.6%</i>

Sewer Service	TTSA Code	Units	Existing Per Unit Charge (\$)	Proposed FY 2024 Per Unit Charge (\$)	Proposed FY 2025 Per Unit Charge (\$)	Proposed FY 2026 Per Unit Charge (\$)	Proposed FY 2027 Per Unit Charge (\$)	Proposed FY 2028 Per Unit Charge (\$)
Beauty/Barber Shop	A	# of service chairs	\$138.36	\$179.96	\$213.42	\$242.36	\$263.16	\$272.20
Commercial Establishments (1) (unless otherwise noted)	B	# of fixture units	39.24	51.04	60.53	68.73	74.63	77.20
Dump Station	D	# of stations	306.00	398.00	472.00	536.00	582.00	602.00
Restaurant or Bar	F	# of seats inside	30.00	39.02	46.27	52.55	57.06	59.02
	Z	# of seats outside	10.80	14.05	16.66	18.92	20.54	21.25
	Z	# of seats banquet	10.80	14.05	16.66	18.92	20.54	21.25
Grocery	G	# of fixture units	60.60	78.82	93.47	106.15	115.26	119.22
Industrial User	I	as calculated pursuant to Table A-2	306.00	398.00	472.00	536.00	582.00	602.00
Car Washes	J	# of bays, Automatic	459.00	597.00	708.00	804.00	873.00	903.00
		# of bays, Automatic - Recycled	367.20	477.60	566.40	643.20	698.40	722.40
		# of bays, Self-Serve	306.00	398.00	472.00	536.00	582.00	602.00
		# of bays, Self-Serve - Recycled	244.80	318.40	377.60	428.80	465.60	481.60
Campsite with Sewer Connection	K	# of sites	164.16	213.52	253.21	287.55	312.23	322.96
Laundromat	L	# of washing machines	163.32	212.42	251.92	286.08	310.63	321.30
Motel or Hotel Unit	M	# of units	153.00	199.00	236.00	268.00	291.00	301.00
Motel or Hotel Unit with Kitchen	N	# of units	201.96	262.68	311.52	353.76	384.12	397.32
Swimming Pool or Spa	P	# of P units, see table A-1	5.64	7.34	8.70	9.88	10.73	11.10
Campsite without Sewer Connection	Q	# of sites	138.84	180.58	214.16	243.20	264.07	273.14
Residential Unit	R	# of dwelling units	306.00	398.00	472.00	536.00	582.00	602.00
Other	S	As Determined by General Manager	5.64	7.34	8.70	9.88	10.73	11.10
Assembly Hall	T	# of seats	2.28	2.97	3.52	3.99	4.34	4.49
Public Schools	---	Per 1,000 gallons	0.00	3.67	4.35	4.94	5.36	5.55