Report For:

Keyes Community Services District

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Keyes, CA 95328
(209) 668-8341

Report on Wastewater Rate Study

Submitted By:

Tuckfield & Associates

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FINANCIAL CONSULTING TUCKFIELD & ASSOCIATES MANAGEMENT CONSULTING

August 2025

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August 15, 2025

Mr. Ernie Garza
General Manager
Keyes Community Services District
5601 7th Street
Keyes, CA 95328

Dear Mr. Garza:

I am pleased to present this Wastewater Rate Study (Study) report for the Keyes Community Services District (District). This study included a review and analysis of the number of customers, volumes, revenue, operation and maintenance expense, and capital needs of the wastewater enterprise. Financial plans were developed to determine the need for any rate adjustments. The annual costs of providing wastewater service were allocated to customer classifications following industry methodology and wastewater rates were designed following current industry practice.

The major objectives of the Study include the following.

- Generate positive levels of income in the Study period
- Maintain operating and capital reserves at or greater than target levels
- Meet annual capital replacement spending from wastewater rates and reserves
- Design rates that are fair and equitable in the current regulatory environment

This report presents the findings and recommendations for the financial plans and rates for the District's wastewater system. Tables and figures throughout the report are provided to demonstrate the calculations.

It has been a pleasure to work with District staff during the performance of this study. If there are any questions, please contact me at (949) 760-9454.

Very Truly Yours,

TUCKFIELD & ASSOCIATES

G. Clayton Tuckfield
President/Project Consultant

Wastewater Rate Study

KEYES COMMUNITY SERVICES DISTRICT

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Executive Summary

The Keyes Community Services District (District) retained Tuckfield & Associates to conduct a comprehensive Wastewater Rate Study (Study). The major objective of the Study is to determine wastewater rates for FY 2025-26 to FY 2029-30 (the "Study Period") by projecting revenues and revenue requirements for the wastewater system (the "System") and by analyses to determine the costs of providing service.

Wastewater Financial Plan

A forward-looking financial plan was developed for the wastewater enterprise that projected revenue requirements (costs) of the System. The amount of revenue generated from the current rates of the System was determined for the Study Period and was found to be insufficient to maintain a financially sustainable wastewater enterprise. A revenue increase of 75.9 percent on December 1, 2025 is necessary to maintain the financial health of the system. Table 10 provides the financial plan for the wastewater system.

Proposed Wastewater Rate Structure and Rates

Table ES-1 presents the current and proposed wastewater rates for the next five years.

Table ES-1
Current and Proposed Wastewater Service Charges

Classification	Current Rate	December 1, 2025	July 1, 2026	July 1, 2027	July 1, 2028	July 1, 2029
			Fixed Charge ($ per month)			
Single-family	$64.23	$102.39	$102.39	$102.39	$102.39	$102.39
Multifamily	$64.23	$81.94	$81.94	$81.94	$81.94	$81.94
Mobile Home	$51.39	$81.94	$81.94	$81.94	$81.94	$81.94
Schools Charge per ADA [1]	$2.52	$4.33	$4.33	$4.33	$4.33	$4.33
			Commercial Fixed Charges by Meter size			
Meter Size						
3/4	n/a	$73.26	$73.26	$73.26	$73.26	$73.26
1.0	n/a	$122.10	$122.10	$122.10	$122.10	$122.10
1.5	n/a	$244.20	$244.20	$244.20	$244.20	$244.20
2.0	n/a	$390.72	$390.72	$390.72	$390.72	$390.72
3.0	n/a	$781.44	$781.44	$781.44	$781.44	$781.44
4.0	n/a	$1,221.00	$1,221.00	$1,221.00	$1,221.00	$1,221.00
			Commercial Variable Charges [2]			
Commercial Only						
Wastewater Flow ($ per HCF)	n/a	$2.6255	$2.7048	$2.7856	$2.8693	$2.9546
BOD ($ per lb)	n/a	$0.375	$0.386	$0.398	$0.410	$0.420
SS ($ per lb)	n/a	$0.712	$0.733	$0.755	$0.778	$0.800

[1] Includes Keyes Elementary and Spradling Middle School.
[2] Pass-through rates charged to Commercial customers. (Same rates as charged by the City of Turlock).

Wastewater Bill Impacts

Table ES-2 presents the impacts to SFR bills from the implementation of the proposed December 1, 2025 wastewater service charges. The table shows that the wastewater bill of a SFR customer will increase from $64.23 to $102.39, an increase of $38.16, or 59.4 percent.

Table ES-2
Comparison of Current Residential Monthly Wastewater Bills with
Monthly Bills Using Proposed Wastewater Rates

		Proposed December 1, 2025 Bill		
Customer Class	Current Monthly Bill	Proposed Charge	Dollar Difference	Percent Increase
Single-family	$64.23	$102.39	$38.16	59.4%
Multifamily	64.23	81.94	17.71	27.6%
Mobile Home	$51.39	$81.94	$30.55	59.4%

Wastewater Rate Survey

Chart ES-1 has been prepared to compare the City's SFR wastewater bill with those of other communities for rates in effect April 2025. The chart indicates that the District's SFR wastewater bill using the proposed rates is the highest of the communities listed.

Chart ES-1
Comparison of Single-family Residential Monthly Wastewater Bills

Note: Above table uses wastewater rates in effect April 2025. Keyes Community Services District bill is based on the rate structure and rates in Table ES-1.

Introduction

The Keyes Community Services District (District) engaged Tuckfield & Associates to conduct a comprehensive Wastewater Rate Study for its wastewater enterprise system. This Study develops a pro forma statement of revenues and revenue requirements for the wastewater enterprise and determines revenue adjustments required to provide a financially sustainable wastewater system. Annual costs of service are allocated to customer classification using industry methodology and rates are designed following industry practice.

Background

The Keyes Community Services District (District) provides water and wastewater service to about 1,750 customers in the central-south region of Stanislaus County, approximately 9 miles southeast of the City of Modesto along Highway 99. The customer base consists mostly of residential customers with a small number of commercial customers, and an elementary and middle school.

The District's wastewater is collected through the District owned collection system and is conveyed to a treatment facility owned by the City of Turlock (Turlock). The District has an agreement with Turlock that secures its rights to 50 percent of the capacity of the trunk conveyance pipeline in return for reimbursement for the District's share of the construction cost. The District has contracted for 0.597 million gallons per day (mgd) of capacity of the treatment plant owned by Turlock for treatment of the District's wastewater. Turlock invoices the District monthly for wastewater treatment service.

Objectives

The objectives of this Study are to (1) review the current and future financial status of the wastewater enterprise, (2) make any adjustments to rate revenue being received to ensure that the financial obligations are being met now and in the future, including adequate reserves and debt service coverage, and (3) design wastewater rates that generates the required revenue while being fair and equitable for its customers.

Scope of the Study

This Study includes the findings and recommendations of analyzing the wastewater system's financial status and related capital improvement projects (CIP). Historical trends were analyzed from data supplied by the District showing the number of customers, volumes, revenue, and revenue requirements.

Revenue requirements of the enterprise include operation and maintenance (O&M) expense, capital improvements and funding, and additions to reserves. Changing conditions such as additional facilities, system growth, employee additions/reductions, and non-recurring maintenance expenditures are recognized. Inflation for ongoing expenditures is included to reflect cost escalation.

The financial plan and rates developed herein are based on funding of the CIP and estimates of O&M expenses provided by the District. Deviation from the financial plans, construction cost estimates and funding requirements, major operational changes, or other financial policy changes that were not foreseen, may result in the need for lower or higher revenue than anticipated. It is suggested that the District conduct an update to the rate study at least every three to five years for prudent rate planning.

Assumptions

Several assumptions were used to conduct the Study for the period FY 2025-26 to FY 2029-30. The assumptions included growth rates in customer accounts and related consumption, expense inflation factors, and other assumptions used for projecting revenues, expenses, and capital. The financial planning assumptions are provided in Table 1.

Table 1
Assumptions and Planning Factors

Description	Value
Annual Account & Demand growth [1]	
Residential	3.0%
All Other	0.0%
Interest earnings on fund reserves (annual)	3.0%
Cost Escalation	
Personnel Services [2]	5.0%
Benefits	8.0%
Electrical Power	10.0%
Chemicals	5.0%
Turlock Treatment	3.0%
All Other Operations & Maintenance	3.0%
Capital	3.0%

[1] Annualized growth in sewer accounts for two years as discussed with District staff.
[2] Personal Services growth in staffing, promotions, and inflation is 5% annually.

Reserve Policy

The District has adopted a reserve policy that includes maintaining a capital reserve for the wastewater system at an appropriate level. For this Study, reserve goals include maintaining an operating reserve as well as a capital reserve, both of which provide a means to meet unanticipated reductions in revenues, meet changes in the costs of providing services, provide for fixed asset repair and replacement, natural disaster needs, and other issues. The reserves provide guidelines to maintain the financial health and stability of the enterprise funds. The reserve types and the amount of reserves used in this Study are discussed below.

Operating Reserve

The purpose of the Operating Reserve is to provide working capital to meet cash flow needs during normal operations and support the operation, maintenance, and administration of the utility. This reserve ensures that operations can continue should there be significant events that impact cash flow. The target balance to be maintained is 180 days (50 percent) of the current annual operating expense budget.

Capital Replacement Reserve

The purpose of the Capital Replacement Reserve is to fund future replacement of assets and CIP projects. The capital reserves are used to fund replacement of system assets as they reach their useful life or reach obsolescence as well as CIP. The District's adopted policy reserve target is equal to $3,000,000.

Beginning Balances and Reserve Targets

As of June 30, 2024, the District's beginning reserve balance is listed in the table below. The reserves are used in developing the financial plans for the wastewater enterprise. The Target Reserves are also provided in the table.

Table 2
June 30, 2024 Beginning Fund Balances and Reserve Targets

Reserve Type	Wastewater	
	Reserve Balance	Reserve Target
Operating Fund Reserve	$867,000	$867,000
Capital Replacement Reserve	$119,000	$3,000,000
Total	**$986,000**	**$3,867,000**

Wastewater Financial Planning

Financial planning for the wastewater enterprise includes identifying and projecting revenues and revenue requirements of the wastewater system for a five-year planning period. Estimates of revenue from various sources are compared with the projected revenue requirements. This comparison allows the review of the adequacy of existing revenue to meet annual obligations and provide the basis for revenue adjustments.

This section discusses the current wastewater rates, user classifications, revenues and revenue requirements, planned CIP projects and financing sources, and proposed revenue adjustments.

Current Wastewater Rates

The current wastewater rates consist of monthly fixed charges to residential and non-residential customers. Residential customer classifications include single-family residential (SFR), multifamily residential (MFR), and mobile homes (MH). Commercial classifications include Commercial Low, Commercial Medium, Commercial High. The description of Low, Medium, and High refers to the strength of the wastewater in terms of bio-chemical oxygen demand (BOD) and suspended solids (SS). There is also an elementary school and a middle school. The current rates are presented in Table 3.

Table 3
Current Wastewater Rates

Customer Classification	Fixed Charge ($/month)
Single-family	$64.23
Multifamily	$64.23
Mobile Home	$51.39
Commercial Low	$64.23
Commercial Medium	$111.28
Commercial High	$166.67
Schools (Elem and Middle)	$1,816.67

Wastewater User Classifications

Number of Wastewater Customers

The District currently classifies wastewater customers as SFR, MFR, MH, Commercial Low, Commercial Medium, Commercial High, and Schools classifications. Development projects that were being constructed in the District's service area are near completion and 40 new SFR are projected to connect in the next two years, after which no customer growth is projected to occur in residential or non-residential accounts in the Study Period. Residential customers account for about 97 percent of the total customers/accounts served by the wastewater system. Table 4 provides the historical and projected average number of customers by classification, MFR dwelling units, and Average Daily Attendance (ADA) for Schools.

Table 4
Historical and Projected Number of Wastewater Customers

	Historical	Projected					
Customer Class	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
Number of Accounts							
Single-family [1]	1,367	1,408	1,450	1,450	1,450	1,450	1,450
Multifamily	8	8	8	8	8	8	8
Mobile Home [2]	343	343	343	343	343	343	343
Commercial Low	40	40	40	40	40	40	40
Commercial Medium	1	1	1	1	1	1	1
Commercial High	5	5	5	5	5	5	5
Schools (Elem and Middle)	2	2	2	2	2	2	2
Total Accounts	1,766	1,807	1,849	1,849	1,849	1,849	1,849
Number of Units							
Schools (Elem and Middle) [3]	721	721	721	721	721	721	721

[1] About 40 new single-family residential dwelling units are projected for two years.
[2] Number of mobile home dwelling units.
[3] Number of Average Daily Attendance (ADA).

Water Sales Volumes of Wastewater Customers

Table 5 provides the historical and projected water sales volumes of wastewater customers by classification. Water sales volumes were projected by recognizing the growth in the number of accounts and the historical 4-year average water use per customer. Residential customers account for more than 87 percent of the water sales volumes of wastewater customers.

The water sales volumes of wastewater customers are used to calculate estimated wastewater discharge volumes. The wastewater discharge volumes are used for cost allocation purposes to assign cost responsibility to each class based on wastewater flow and strength discussed in a later section.

Table 5
Historical and Projected Water Consumption of Wastewater Customers in (HCF)

Description	Historical	Projected [1]					
	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
Single-family	238,690	248,906	256,331	256,331	256,331	256,331	256,331
Multifamily	1,397	1,455	1,455	1,455	1,455	1,455	1,455
Mobile Home	33,200	42,914	42,914	42,914	42,914	42,914	42,914
Commercial Low	4,919	4,877	4,877	4,877	4,877	4,877	4,877
Commercial Medium	50	219	219	219	219	219	219
Commercial High	17,297	30,825	30,825	30,825	30,825	30,825	30,825
Schools (Elem and Middle)	15,137	15,137	15,137	15,137	15,137	15,137	15,137
Total Water Consumption	310,690	344,333	351,758	351,758	351,758	351,758	351,758

[1 Forecast based on the historical 4-year average water use per customer and future customer growth.

Wastewater Financial Plan

The financial plan provides the means of analyzing the sufficiency of revenues to fund on-going O&M expenses, capital infrastructure requirements, and the impact on reserves. Discussed below are the projection of revenues, O&M expenses, CIP needs of the wastewater system and its funding, and revenue adjustments needed to maintain a sustainable wastewater enterprise.

Revenues

The District receives revenue from wastewater service charges and miscellaneous sources. Wastewater service revenue is received from the rates and charges presented in Table 3. Table 6 presents the projected fixed rate revenue from current wastewater rates. The revenue is projected by applying the current wastewater rates from Table 3 to the projected number of accounts and units from Table 4. The revenue calculated is entirely fixed rate revenue.

Table 6
Projected Rate-Based Wastewater Revenue Using Current Rates

Description	Projected					
	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
Fixed Charge Revenues [1]						
Single-family	$1,085,230	$1,117,602	$1,117,602	$1,117,602	$1,117,602	$1,117,602
Multifamily	6,166	6,166	6,166	6,166	6,166	6,166
Mobile Home	211,521	211,521	211,521	211,521	211,521	211,521
Commercial Low	30,830	30,830	30,830	30,830	30,830	30,830
Commercial Medium	1,335	1,335	1,335	1,335	1,335	1,335
Commercial High	10,000	10,000	10,000	10,000	10,000	10,000
Schools (Elem and Middle)	43,600	43,600	43,600	43,600	43,600	43,600
Total Fixed Charge Revenue	$1,388,683	$1,421,055	$1,421,055	$1,421,055	$1,421,055	$1,421,055

[1] Projected number of accounts and units multiplied by current wastewater rates..

Miscellaneous Revenue

Miscellaneous revenues are received from inspection fees, Turlock rate payer assistance, and investment in California CLASS. Table 7 below provides sources of wastewater miscellaneous revenue. The amount shown in the first year reflects a budgeted amount. Interest income is included with the wastewater financial plan in a later section.

Table 7
Projected Wastewater Miscellaneous Revenue

Description	Budget	Projected			
	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
Inspection Fees	$500	$500	$500	$500	$500
Turlock Rate Payer Assistance Program	180,000	-	-	-	-
California CLASS	70,000	70,000	70,000	70,000	70,000
Total Miscellaneous Revenues	$250,500	$70,500	$70,500	$70,500	$70,500

Revenue Requirements

Revenue requirements of the wastewater system include O&M expenses and capital replacement and improvements. Each of these items are discussed below.

Operation and Maintenance Expense

O&M expenses are an on-going obligation of the wastewater system and such costs are normally met from wastewater service revenue. O&M expenses include the costs to operate and maintain the wastewater collection system, technical services, and other general and administrative expenses.

O&M expenses for FY 2024-25 and FY 2025-26 are determined from the City's Budget. Future year O&M expenses have been projected recognizing the major expense categories of personnel services, electric power, chemicals,

capital, and all other expenses. Personnel costs consist of salaries and benefits expense of those personnel directly involved with providing wastewater service. Cost inflation for the expense categories of salaries, benefits, electricity, chemicals, and all other expenses are projected to increase by the inflation factors in Table 1.

The City of Turlock (Turlock) has recently conducted a rate study for its wastewater system that resulted in significant increases in wastewater rates to its customers including the District. These increases are causing the District's projected treatment expense to increase significantly and is a major reason for this Study. Table 8 provides a summary of the wastewater O&M expenses for the Study period including the increased Turlock treatment expenses.

Table 8
Historical and Projected Wastewater Operation and Maintenance Expense

	Historical	Estimated	Budget	Projected			
Description	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
Adminstration							
Salaries	$100,519	$124,692	$118,000	$123,900	$130,096	$136,601	$143,432
Benefits	62,486	74,514	60,300	65,124	70,334	75,961	82,039
All Other	289,140	1,258,832	125,100	128,854	132,720	136,703	140,807
Subtotal	$452,144	$1,458,038	$303,400	$317,878	$333,150	$349,265	$366,278
Maintenance							
Salaries	$168,221	$185,190	$141,000	$148,050	$155,455	$163,225	$171,385
Benefits	121,300	150,007	106,800	115,345	124,570	134,535	145,300
Contracts	38,983	40,435	30,000	30,900	31,827	32,782	33,765
Turlock Treatment Contract	490,768	561,077	824,683	849,273	874,804	901,184	926,792
H2S Treatment	55,968	97,622	98,000	100,940	103,968	107,087	110,300
All Other	145,003	122,157	130,700	130,810	134,735	138,775	142,940
Subtotal	$1,020,243	$1,156,488	$1,331,183	$1,375,318	$1,425,359	$1,477,588	$1,530,482
General Manager and Directors							
Salaries	$71,483	$83,684	$84,500	$88,728	$93,162	$97,818	$102,708
Benefits	5,964	6,325	6,630	7,158	7,728	8,340	9,006
All Other	9,810	6,037	9,095	9,368	9,648	9,938	10,235
Subtotal Capital Outlay	$87,256	$96,046	$100,225	$105,254	$110,538	$116,096	$121,949
Total Wastewater System O&M Expens	$1,559,643	$2,710,572	$1,734,808	$1,798,450	$1,869,047	$1,942,949	$2,018,709

Capital Replacement

An annual amount for capital replacement is generated from the current wastewater rates and is used towards capital spending or is kept in reserve for such spending. The amount is projected to be $50,000 annually during the Study period.

Wastewater Capital Improvement Program

The District has developed a CIP that lists wastewater capital expenditures for FY 2025-26 through FY 2029-30, presented in Table 9. The projects identified include a new Wellsite #6 metal building and the wastewater enterprise's 50 percent share of a new administration building. The District projects that it will spend approximately $477,100 over the Study Period. The CIP is funded through wastewater rate revenue and reserves.

Table 9
Wastewater Capital Improvement Program

Description	Budget FY 24-25	Projected FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
Current Capital Improvement Program (CIP) Projects [1]						
Well Site #6 Metal Building	$0	$0	$106,100	$0	$0	$0
Administration Building	-	-	-	-	-	371,000
Total Wastewater CIP	**$0**	**$0**	**$106,100**	**$0**	**$0**	**$371,000**

[1] CIP Source: District staff.

Wastewater Financial Plan

A financial plan has been prepared for the wastewater utility that includes the revenues and revenue requirements that were identified for the wastewater system. The plan is presented in Table 10 and incorporates specific financial planning goals to provide guidance to maintain the health of the wastewater utility on an on-going basis. The goals included the following items.

- Generate positive levels of income in each year of the Study period
- Provide funding for capital improvement program requirements
- Maintain the operating and capital reserves at or greater than target levels

Proposed Revenue Adjustments

Table 10 provides the annual revenue increases recommended to meet the financial planning goals for the five-year Study period shown on the first line of the table. The financial plan indicates that a revenue increase is required during the Study period. The proposed adjustments include a revenue increase of 75.9 percent beginning December 1, 2025 with no additional revenue increases during the Study period. The proposed adjustments will increase revenue to pay for O&M expenses, including the increased Turlock treatment expenses, capital spending, and to increase reserves toward target levels for the Study Period.

Table 10
Wastewater Financial Plan

Description	Projected					
	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
Proposed Revenue Increase (December 1)		**75.9%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
Wastewater Operations						
Revenue						
Revenues from Existing Sewer Rates [1]	$1,388,683	$1,421,055	$1,421,055	$1,421,055	$1,421,055	$1,421,055
Additional Revenue from Revenue Increases [2]	-	539,290	1,078,581	1,078,581	1,078,581	1,078,581
Miscellaneous Income [3]	78,713	250,500	70,500	70,500	70,500	70,500
Interest Income [4]	14,790	3,558	17,360	38,702	60,108	74,237
Total Revenues	$1,482,186	$2,214,403	$2,587,496	$2,608,838	$2,630,244	$2,644,373
Revenue Requirements						
Operation and Maintenance Expense	$2,149,495	$910,125	$949,177	$994,243	$1,041,765	$1,091,917
Turlock Treatment Expense	561,077	824,683	849,273	874,804	901,184	926,792
Capital Replacement Transfer	50,000	50,000	50,000	50,000	50,000	50,000
Total Revenue Requirements	$2,760,572	$1,784,808	$1,848,450	$1,919,047	$1,992,949	$2,068,709
Net Funds Available Before Capital	($1,278,386)	$429,595	$739,046	$689,791	$637,295	$575,664
Wastewater Capital						
Capital Sources of Funds						
Capital Replacement Transfer	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000
Total Capital Sources	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000
Capital Uses of Funds						
Capital Improvement Program	$0	$0	$106,100	$0	$0	$371,000
Total Capital Improvement Spending	$0	$0	$106,100	$0	$0	$371,000
Net Funds After Capital	($1,228,386)	$479,595	$682,946	$739,791	$687,295	$254,664
Available Reserves						
Beginning available reserves [5]	$986,000	$0	$237,209	$920,155	$1,659,946	$2,347,241
Additions (reductions)	(1,228,386)	479,595	682,946	739,791	687,295	254,664
Short-term Borrowing/(Repayment)	242,386	(242,386)				
Ending available reserves	**$0**	**$237,209**	**$920,155**	**$1,659,946**	**$2,347,241**	**$2,601,905**
Target Reserves [6]	3,799,000	3,867,000	3,899,000	3,935,000	3,971,000	4,009,000
Above (below) Target	($3,799,000)	($3,629,791)	($2,978,845)	($2,275,054)	($1,623,759)	($1,407,095)

[1] Projected using the existing rate schedule from Table 3.
[2] Additional revenue from proposed rate adjustments.
[3] Includes miscellaneous revenue from Tabel 7.
[4] Interest earnings on the average fund balance calculated at 3.0%.
[5] The available beginning FY 24-25 reserve balance provided by City.
[6] Includes Operation and Maintenance reserve and Capital Replacement reserve.

A graphical depiction of the revenue and revenue requirements from Table 10 are presented in Figure 1 and has been expanded to include a 10 year period. Revenue using the current rates is shown as the black line while revenue using the increased rates is shown as the red line. Figure 1 shows that the wastewater revenue increase from Table 10 is necessary to meet annual O&M expenses, capital requirements, and build reserves. No revenue increases are assumed beyond FY 2029-30.

Figure 1
Wastewater Financial Plan
Comparison of Annual Revenue with Revenue Requirements

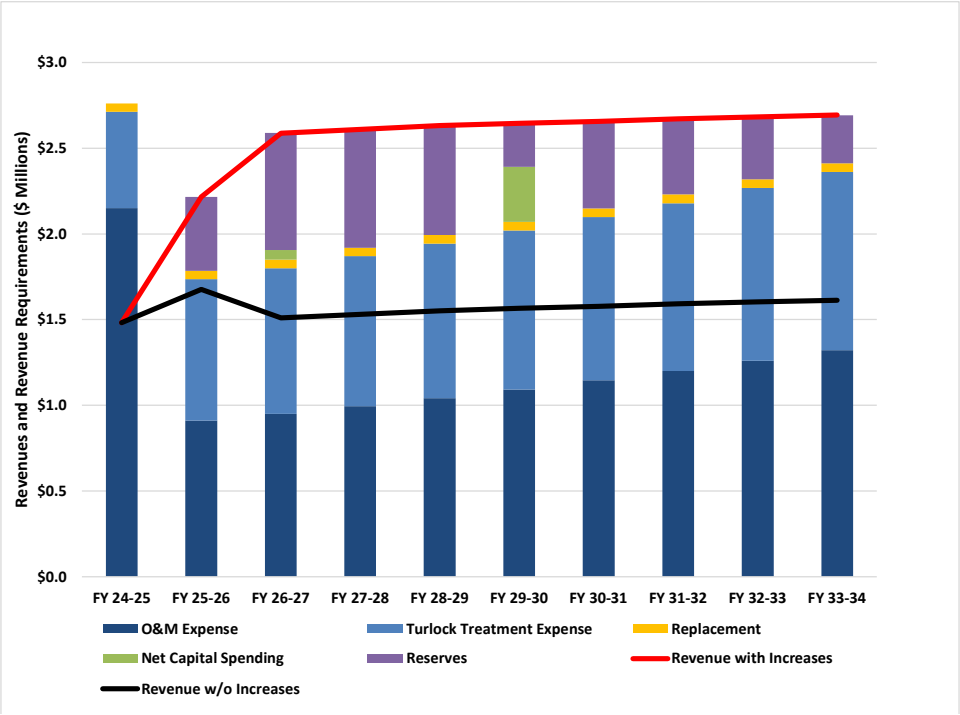
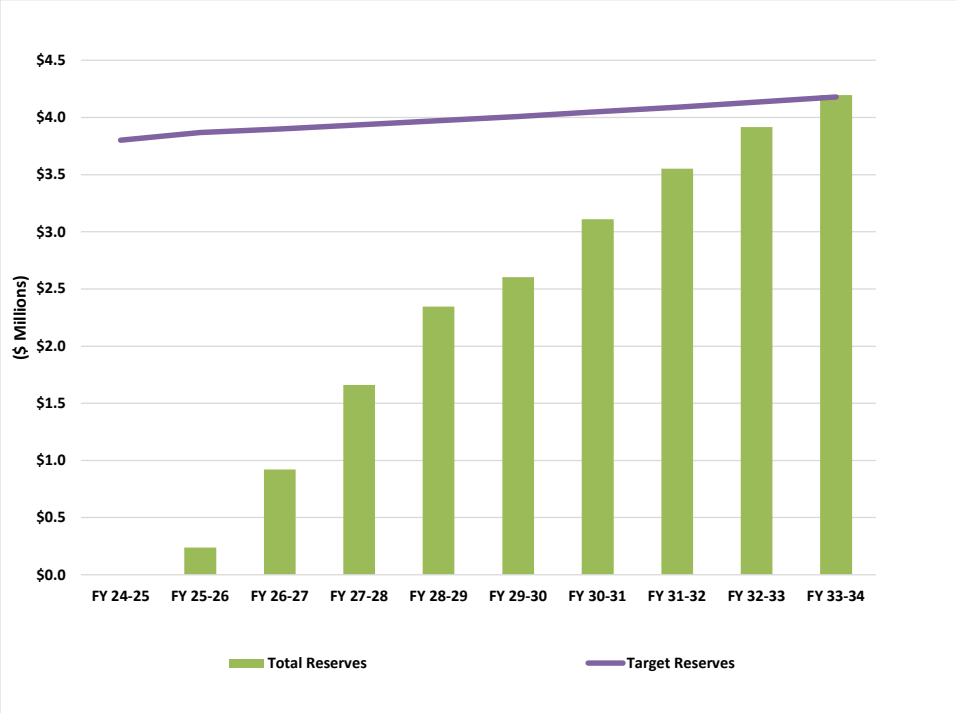


Figure 2 compares the reserves at the end-of-year with the Target Reserve level developed for the 10-year period. The columns represent the reserve balance at the end-of-year while the purple line indicates the Target Reserve level. The figure shows that the reserve balance (column) increases to the Target Reserve (purple line) by the end of the 10-year period.

Figure 2
Wastewater Reserves
Comparison of Projected End of Year Reserves with Target Reserve Level



Wastewater Cost of Service

This section of the report discusses how the wastewater system's operating and capital costs are allocated for use in the design of rates. Establishing rates in California requires that the agency responsible for imposing property-related fees create a nexus between the cost of providing service and the rates to be imposed. Once cost responsibility is assigned to each customer classification, the current revenue received from each classification can be compared with its cost of service to evaluate any inequity of the current rate structure and rates, which will provide the basis for proposed rate adjustments.

Industry Methodology

Methodology from the Water Environment Federation (WEF) is used in this Study to allocate wastewater costs in an appropriate manner. WEF is an industry trade organization that provides guidance on operations, technical training, education, and management of wastewater utilities. General principles are provided to assist agencies with the design of wastewater rates and charges that are consistent with local requirements while also recognizing state laws and legal framework.

Costs of Service

The annual revenue requirement for each year in the Study period is defined as the cost of providing service for that year. The cost of service consists of O&M expenses, annual capital replacement and improvement spending, and other adjustments identified from Table 10. Table 11 below provides the annual costs to be recovered from wastewater rates.

Table 11
Costs to be Recovered from Rates

Description	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30
Operating Expense					
Operation and Maintenance Expense	$910,125	$949,177	$994,243	$1,041,765	$1,091,917
Turlock Treatment Expense	824,683	849,273	874,804	901,184	926,792
Subtotal	$1,734,808	$1,798,450	$1,869,047	$1,942,949	$2,018,709
Capital Spending					
Capital Replacement Transfer	$50,000	$50,000	$50,000	$50,000	$50,000
Capital Improvement Program	0	106,100	0	0	371,000
Subtotal	$50,000	$156,100	$50,000	$50,000	$421,000
Met From Other Sources					
Miscellaneous Income [3]	($250,500)	($70,500)	($70,500)	($70,500)	($70,500)
Interest Income [4]	(3,558)	(17,360)	(38,702)	(60,108)	(74,237)
Capital Replacement Transfer	(50,000)	(50,000)	(50,000)	(50,000)	(50,000)
Subtotal	($304,058)	($137,860)	($159,202)	($180,608)	($194,737)
Adjustments					
Adjustments for Annual Cash Balance	$479,595	$682,946	$739,791	$687,295	$254,664
Adjustments to Annualize Rate Increase [1]	539,291	0	0	0	0
Subtotal	$1,018,886	$682,946	$739,791	$687,295	$254,664
Total Costs to be Recovered from Rates	$2,499,636	$2,499,636	$2,499,637	$2,499,637	$2,499,637

[1] Adjustment to annualize revenue for the partial year rate increase.

Cost Allocation to Wastewater Parameters

Each year's cost of service from Table 11 is allocated to wastewater parameters that include Flow, BOD, SS, and Collection which forms the basis for the proposed rates as discussed further below. To allocate the annual costs of providing service to the users of the wastewater system, costs need to first be allocated to these wastewater parameters.

The annual costs of service are assigned to each parameter based on the functional operation and design of the facilities. The District's costs are Collection related. The treatment expenses charged to the District from Turlock are related to Flow, BOD, and SS and is allocated to those parameters based on the rates developed by Turlock for wastewater treatment service.

The total cost of service to be recovered from the users of the System for each year of the Study period is summarized in Table 12. The annual revenue requirement (cost of service) for each year is allocated to each wastewater parameter based on the discussion above.

Table 12
Summary of Annual Cost of Service Allocation

Year	Annual Cost of Service	Flow	Strength		Collection
			BOD	SS	
FY 25-26	$2,499,636	$458,071	$132,736	$232,635	$1,676,194
FY 26-27	2,499,636	471,905	136,629	239,496	1,651,606
FY 27-28	2,499,636	485,999	140,877	246,684	1,626,076
FY 28-29	2,499,636	500,616	145,124	254,199	1,599,697
FY 29-30	$2,499,636	$515,493	$148,664	$261,387	$1,574,091

Units of Service

The total costs of service of each parameter that were summarized in Table 12 are distributed to each user classification by identifying how each group uses the wastewater system. This use of the wastewater system by each customer classification is determined by developing their units of service. Each customer classification contributes wastewater flow to the System that has a certain wastewater strength and therefore will be charged proportionally to collect and treat their wastewater.

The units of service for each customer classification are provided in Table 13 below for FY 2025-26. The units of service were developed from an analysis of the District's wastewater flow and strength received at Turlock for FY 2025-26. Units of service for FY 2026-27 through FY 2029-30 were developed in a similar manner.

Table 13
Units of Service

Customer Class	FY 25-26 Annual Use	Overall Return Factor	Contributed Wastewater Volume	Strength		Strength		Capacity	Bills
				BOD	SS	BOD	SS		
	HCF		HCF	mg/l	mg/l	lb	lb	Eq. Mtr	Bills
			0						
Single-family	256,331	41%	106,035	250	250	165,477	165,477	18,064	17,400
Multifamily	1,455	13%	193	250	250	301	301	96	96
Mobile Home	42,914	70%	29,899	250	250	46,660	46,660	2,840	4,116
Commercial Low	4,877	100%	4,877	250	250	7,611	7,611	1,148	480
Commercial Medium	219	100%	219	400	400	547	547	12	12
Commercial High	30,825	100%	30,825	675	550	131,399	104,626	320	60
Schools (Elem and Middle)	15,137	16%	2,424	130	100	1,967	1,513	400	24
Total System	351,758		174,471			353,962	326,734	22,880	22,188

Unit Costs of Service

Table 14 presents the unit costs of service for the System for FY 2025-26. Unit costs are determined by taking the annual cost of service for FY 2025-26 allocated to each parameter from Table 12 and dividing those costs by the units of service from Table 13.

Table 14
Development of Unit Costs of Service

Description	FY 25-26 Total Costs	Flow	Strength BOD	Strength SS	Collection
Total Costs of Service	$2,499,636	$458,071	$132,736	$232,635	$1,676,194
Units of Service		174,471	353,962	326,734	22,880
Unit Costs of Service		$2.6255	$0.3750	$0.7120	$73.2601
Units of Measure		HCF	lb	lb	Eq. Mtrs

User Class Costs

The unit costs from Table 14 are applied to each customer classifications' units of service from Table 13 to establish user class costs. The cost responsibility of each class is summarized in Table 15 below.

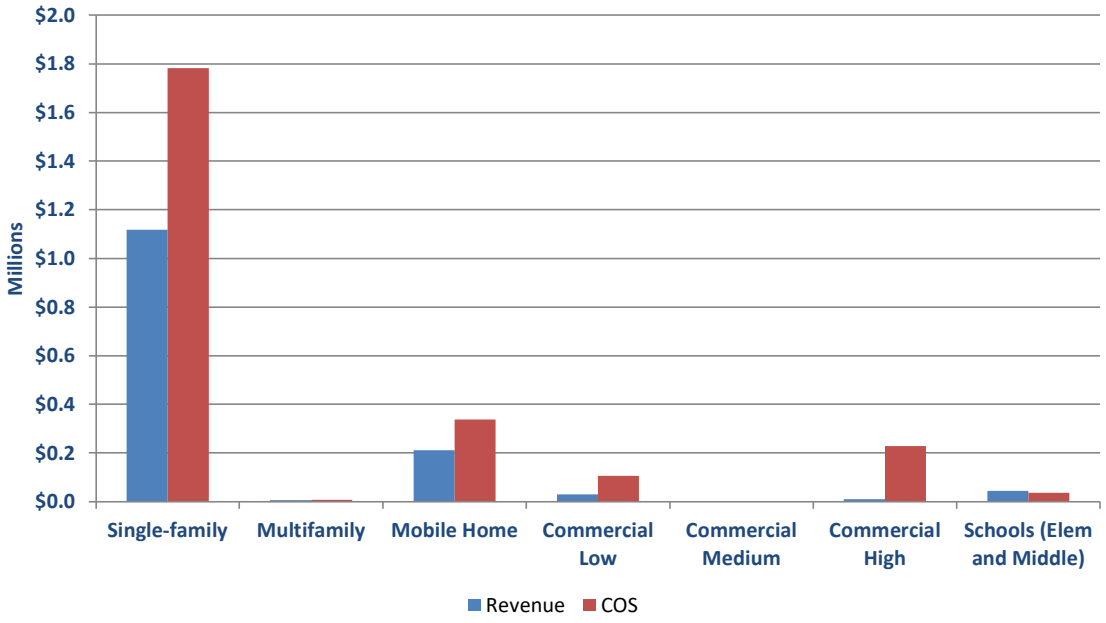
From inspection of Table 15, the residential classifications have the largest assignment of costs and are responsible for about 85 percent of the total cost of service. Additionally, the table shows the overall increase in revenue required of 75.9 percent, to be derived from the user classes in varying percentages, is the same as the percentage increase required stated in the financial plan for FY 2025-26.

Table 15
Comparison of Cost of Service with Projected Revenue Using Current Rates

Customer Class	COS Allocation	FY 25-26 Revenue Collected	Indicated Revenue Increase	Percent Revenue Increase
Single-family	$1,781,637	$1,117,602	$664,035	59.4%
Multifamily	7,866	6,166	1,700	27.6%
Mobile Home	337,279	211,521	125,758	59.5%
Commercial Low	105,180	30,830	74,350	241.2%
Commercial Medium	2,049	1,335	713	53.4%
Commercial High	228,142	10,000	218,142	2181.4%
Schools (Elem and Middle)	37,483	43,600	(6,117)	-14.0%
Total System	$2,499,636	$1,421,055	$1,078,581	75.9%

Chart 1 compares the current revenue received from each user class with the allocated cost of service from Table 15. As shown in the chart, residential customers dominate the responsibility for the cost of providing service. The difference in the column heights between revenue and the cost of service (blue vs. red) indicates how well a user classification's current rates are recovering the cost of service.

Chart 1
Comparison of Projected Revenue Using Current Wastewater Rates
With FY 2025-26 Allocated Cost of Service



Wastewater Rate Design

The cost of service analyses described in the previous section provides the basis for wastewater rate design. The emphasis on the design of rates is to achieve fairness and ensure that each customer class pays its fair share of costs. Rates should be simple to administer, easy to understand, and comply with regulatory requirements.

The inequities in the current wastewater rates, shown in Table 15, are improved with the design of the proposed wastewater rates. This section describes how wastewater rates and charges are designed and also includes the proposed schedule of wastewater rates for implementation.

Monthly Fixed Charges

The current rate structure for SFR, MFR, and MH customers is monthly flat charges. This rate structure provides a stable revenue stream for the wastewater enterprise. As noted in the cost of service analyses, the residential classes are responsible for about 85 percent of the cost of service.

The proposed wastewater rate structure for residential customers is the same as the current rate structure which is designed as monthly flat charges applicable to each dwelling unit. The total cost of service of each residential class is divided by the number of bills of projected dwelling units for FY 2025-26. Table 16 provides the monthly fixed service charges for residential and schools classifications.

Table 16
Design of FY 2025-26 Monthly Fixed Charges

Customer Classification	FY 25-26 Cost of Service [1]	Number of Customer Bills	Number of ADA	Proposed Fixed Charge
				($/month)
Single-family	$1,781,637	17,400		$102.39
Multifamily [2]	7,866	96		$81.94
Mobile Home [2]	337,279	4,116		$81.94
Schools (Elem and Middle) [3]	$37,483		721	$4.33

[1] From Table 15.
[2] Charged per dwelling unit.
[3] Includes Keyes Elementary and Spradling Middle schools. Charge per Average Daily Attendance (ADA).

Monthly fixed charges for commercial customers are designed to recover only the District's collection costs that were assigned to the commercial classes. The Collection charge per equivalent meter from Table 14 is increased by the meter capacity ratio shown in Table 17. Table 17 provides the Commercial monthly fixed charges for the FY 2025-26 cost of service. Fixed monthly charges for FY 2026-27 through FY 2029-30 are calculated in a similar manner.

Table 17
Design of FY 2025-26 Commercial Monthly Fixed Charges

Meter Size	Monthly Capacity Charge [1]	Meter Capacity Ratio	Monthly Meter Charge
inches			
3/4	$73.26	1.00	$73.26
1.0	$73.26	1.67	$122.10
1.5	$73.26	3.33	$244.20
2.0	$73.26	5.33	$390.72
3.0	$73.26	10.67	$781.44

[1] From Table 14.

Variable Rates

The variable rates are designed to recover the costs of service related to the Flow, BOD, and SS parameters for the commercial classes. These unit costs of service for Flow, BOD, and SS that were calculated in Table 14 are used to recover the Flow, BOD, and SS costs of the commercial classes directly. The charges consist of a Flow charge in dollars per hundred cubic feet ($/HCF) and strength charges per pound (lb) of BOD and lb of SS.

Table 18 summarizes the variable charges applicable to the commercial classes only. The Flow, BOD, and SS costs of the other classes were included in the monthly fixed charges. The rates shown in Table 18 were designed such that they are the same as those charged by Turlock to the to the District from their last Proposition 218 Public Hearing.

Table 18
Commercial Variable Charges [1]

		Strength	
Fiscal Year	Flow	BOD	SS
	$/HCF	$/lb	$/lb
FY 25-26	$2.6255	$0.375	$0.712
FY 26-27	2.7048	0.386	0.733
FY 27-28	2.7856	0.398	0.755
FY 28-29	2.8693	0.410	0.778
FY 29-30	$2.9546	$0.420	$0.800

[1] Same rates as charged by the City of Turlock for wastewater treatment. FY 29-30 rates are outside of the Turlock rate schedule and assume a 3 percent increase.

Proposed Wastewater Rates

The monthly fixed charges from Tables 16 and 17 are brought together with the variable rates from Table 18 to form the proposed rate schedule for the District. Table 19 presents the proposed fixed and variable charges for the wastewater system for the next five years. The current residential fixed charges are also provided in the table.

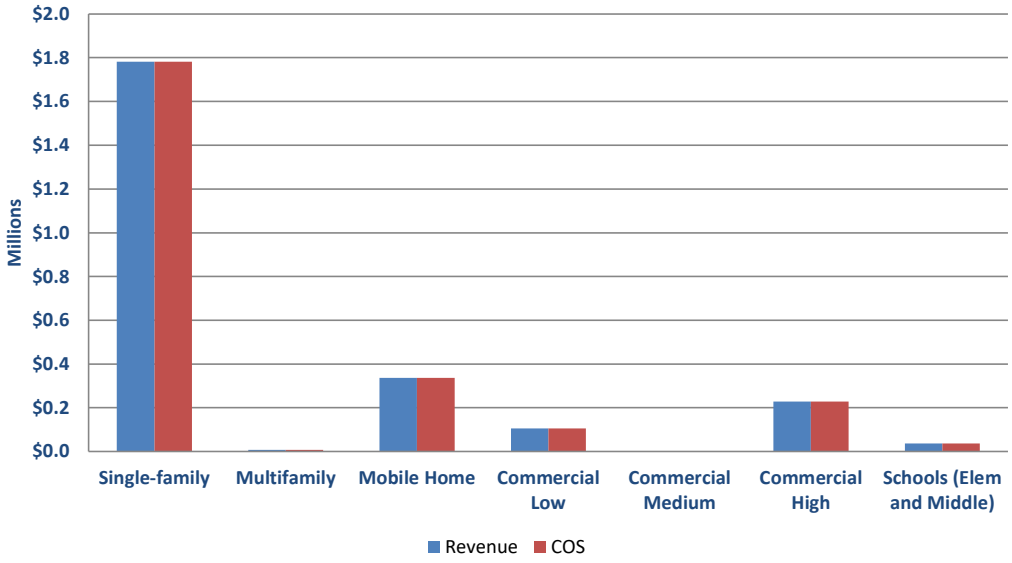
Table 19
Current and Proposed Wastewater Rates

Classification	Current Rate	December 1, 2025	July 1, 2026	July 1, 2027	July 1, 2028	July 1, 2029
	Fixed Charge ($ per month)					
Single-family	$64.23	$102.39	$102.39	$102.39	$102.39	$102.39
Multifamily	$64.23	$81.94	$81.94	$81.94	$81.94	$81.94
Mobile Home	$51.39	$81.94	$81.94	$81.94	$81.94	$81.94
Schools Charge per ADA [1]	$2.52	$4.33	$4.33	$4.33	$4.33	$4.33
	Commercial Fixed Charges by Meter size					
Meter Size						
3/4	n/a	$73.26	$73.26	$73.26	$73.26	$73.26
1.0	n/a	$122.10	$122.10	$122.10	$122.10	$122.10
1.5	n/a	$244.20	$244.20	$244.20	$244.20	$244.20
2.0	n/a	$390.72	$390.72	$390.72	$390.72	$390.72
3.0	n/a	$781.44	$781.44	$781.44	$781.44	$781.44
4.0	n/a	$1,221.00	$1,221.00	$1,221.00	$1,221.00	$1,221.00
	Commercial Variable Charges [2]					
Commercial Only						
Wastewater Flow ($ per HCF)	n/a	$2.6255	$2.7048	$2.7856	$2.8693	$2.9546
BOD ($ per lb)	n/a	$0.375	$0.386	$0.398	$0.410	$0.420
SS ($ per lb)	n/a	$0.712	$0.733	$0.755	$0.778	$0.800

[1] Includes Keyes Elementary and Spradling Middle School.
[2] Same rates as charged by the City of Turlock.

Chart 2 demonstrates that if the proposed rates for December 1, 2025 in Table 19 were applied to the projected number of accounts, dwelling units, meter sizes, and water sales volume that 100 percent cost recovery is achieved.

Chart 2
Comparison of FY 2025-26 Cost of Service with Revenue
Using December 1, 2025 Proposed Rates



Wastewater Bill Impact Analysis

An impact analysis was performed to evaluate the change in SFR customer monthly wastewater bills that would occur from the implementation of the proposed wastewater rates for the December 1, 2025 increase. As shown in Table 19, a SFR customer will experience a bill that will increase from $64.23 to $102.39, an increase of $38.16 or 59.4 percent.

Table 20
Comparison of Current Residential Monthly Wastewater Bills with
Monthly Bills Using Proposed Wastewater Rates

Customer Class	Current Monthly Bill	Proposed December 1, 2025 Bill: Proposed Charge	Dollar Difference	Percent Increase
Single-family	$64.23	$102.39	$38.16	59.4%
Multifamily	64.23	81.94	17.71	27.6%
Mobile Home	$51.39	$81.94	$30.55	59.4%

Wastewater Rate Survey

A wastewater rate survey was conducted for neighboring communities to the Keyes Community Services District. Chart 3 compares the District's SFR monthly wastewater bill with those of neighboring communities. The rate survey includes rate schedules in effect April 2025. Wastewater bills for the District's current rates are shown as the red bar and bills using the proposed rates are shown as the orange bar. The chart indicates that a District SFR customer will experience a bill that is the highest of the communities listed.

Chart 3
Comparison of Single-family Residential Monthly Wastewater Bills

Note: Above table uses wastewater rates in effect April 2025. Keyes Community Services District bill is based on the rate structure and rates in Table 19.