

CITY OF RIVERSIDE

Wastewater Master Planning Services

TECHNICAL MEMORANDUM

Septage and Commercial Waste Tipping Fees

FINAL / September 2024

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Abbreviations

BOD	Biochemical Oxygen Demand
Carollo	Carollo Engineers
lbs	pounds
mg/L	milligrams per liter
mgd	million gallons per day
RWQCP	Regional Water Quality Control Plant
TSS	total suspended solids

Purpose

This technical memorandum presents the development of cost-based tipping fees for septage and commercial waste to be received and treated at the City of Riverside's (City) Regional Water Quality Control Plant (RWQCP or plant).

Methodology

The tipping fee is calculated by determining the City's unit costs to treat septage or commercial waste at the RWQCP per gallon of flow, per pound of Biochemical Oxygen Demand (BOD), and per pound of Total Suspended Solids (TSS). Then, those unit costs are applied to the assumed BOD and TSS concentrations for septage or commercial waste to determine a tipping fee per 1,000 gallons.

The analysis utilizes the financial model and the performance-based budget model that were developed during the recent (2019) master planning effort. The financial model has been updated to reflect the most recent fiscal year's (FY) actual costs, budgeted revenues, inflation factors, and capital improvement plan. The financial model is used to determine the total revenue requirements for the FY 2024/25¹ test year.

The performance-based budget model is used to allocate those revenue requirements to the functional constituents of Flow, BOD, and TSS. Those allocated costs are then divided by the total flows and loads to the plant to develop unit costs for each constituent. Lastly, the typical BOD and TSS concentrations are applied to the unit costs to determine the cost per volume of septage or commercial waste received.

The tipping fees also include components to recover costs for activities beyond the typical treatment process that the City performs specifically to receive and treat septage and commercial waste. These additional costs include capital and operating costs for the septage receiving stations and staff costs for the operators who will operate and maintain the receiving facilities.

Key Assumptions

The calculated tipping fees presented in this document are based on the following key assumptions and the costs, plant flows and loads, and septage or commercial waste characteristics outlined in subsequent sections of this memorandum. Should these assumptions or other conditions at the plant change, the tipping fee should be reevaluated.

The City currently receives an average of 1.06 million gallons of septage and commercial waste per month, equivalent to 12.7 million gallons per year. Table 1 summarizes the assumed septage and commercial waste volume and concentrations.

¹ The fiscal years discussed in this Memorandum all begin on July 1 of the first year mentioned; for example, FY 2024/25 begins on July 1, 2024.

Table 1 Septage and Commercial Waste Volume and Concentrations)

Description	Value
Septage and Commercial Waste Volume	
Gallons per Month	1,060,000
Gallons per Day	34,850
MG per year	12.72
Septage Concentrations	
BOD (mg/L) ¹	5,400
TSS (mg/L) ¹	12,000
Commercial Waste Concentrations	
BOD (mg/L) ²	4,000
TSS (mg/L) ³	8,900

Notes:

- (1) Concentration assumptions from California Revenue Program Appendix G.
- (2) Based on sampling data from Feb. 21, 2023 to Feb. 28, 2023, upper limit of all Chemical Oxygen Demand with a 99% confidence interval samples was 8,000 mg/L. Assumes COD to BOD ratio of 2:1.
- (3) Based on sampling data from Feb. 21, 2023 to Feb. 28, 2023, upper limit of TSS samples with a 99% confidence interval.

The estimated total flow and loads for the RWQCP for the FY 2024/25 test year are shown in Table 2. The annual values were estimated based on the flow and load projections developed for the 2019 Master Plan. Revenues from the community services districts are applied as an offset to the total allocated treatment costs. Thus, the costs used to calculate the tipping fees are only those related to the City of Riverside customers and septage and commercial waste deliveries. Therefore, the flow and loads used to calculate the unit costs should only reflect those from City of Riverside customers and septage and commercial waste deliveries.

Table 2 RWQCP City of Riverside Flow and Loads (Estimated for FY 2024/25)

Item	Value
Riverside Customers Flow (MGD)	24.73
Annual Flow (MG)	9,026.45
Riverside Customers BOD Loading (lbs/day)	75,000
Annual BOD (lbs)	27,375,000
Riverside TSS Loading (lbs/day)	67,400
Annual TSS (lbs)	24,601,000

Tipping Fees Calculations

The following sections outline the tipping fee calculations including the allocated RWQCP operating costs, allocated revenue requirements and unit costs, septage and commercial waste specific costs, and the final calculation of the tipping fees.

Allocated RWQCP Operating Costs

Operating costs applicable to the tipping fee are determined using a functional allocation that assigns each of the City's operating costs to the constituents of Flow, BOD, and TSS. Within the functional allocation, each line-item is assigned an applicability to the septage and commercial waste fees based on whether its costs and function are needed to treat septage or commercial waste at the RWQCP. The assigned applicability assumes that septage and commercial waste are received at the headworks and therefore treated through the entirety of the plant's processes. The tipping fees also include a share of administrative expenditures, capital expenditures, and debt service based on the portion of those costs that are applicable to treatment. Because the septage or commercial waste is delivered directly to the RWQCP, costs associated with the collection system are not applicable. Table 3 shows the projected operating costs for FY 2024/25 and the applicability of each to septage or commercial waste treatment.

Table 3 Operating Costs Applicable to Septage or Commercial Waste

Category	FY 2024/25 Projected Cost (\$1,000s)	Applicable (%)	Applicable (\$)	Notes
SEWER SYS-ADMIN	\$6,234	74.7%	\$4,656	Weighted average O&M allocation
COLLECTION SYST MAINT	\$7,000	0.0%	\$0	Not applicable to treatment
TREATMENT	\$17,177	100.0%	\$17,177	All costs applicable
ENVIRONMENTAL COMPLIANCE	\$1,310	0.0%	\$0	Not applicable to treatment
PLANT MAINTENANCE	\$3,867	100.0%	\$3,867	All costs applicable
ELECTRICAL AND INSTRUMENTATION	\$1,533	100.0%	\$1,533	All costs applicable
SEWER SCADA & SPL	\$827	100.0%	\$827	All costs applicable
WAREHOUSE	\$201	100.0%	\$201	All costs applicable
LABORATORY SERVICES	\$1,047	100.0%	\$1,047	All costs applicable
DEBT SERVICE ADMIN	\$8	76.0%	\$6	Based on asset list
SEWER CAPITAL ENGINEERING SERV	\$554	69.9%	\$387	Based on asset list and CIP
PLANT CONST. SUPPORT	(\$29)	99.8%	(\$29)	Based on CIP
Total O&M	\$39,729	74.7%	\$29,672	

Notes:

(1) Totals may not tie due to rounding.

The second step in allocating operating costs is to assign the septage or commercial waste applicable costs to the functional constituents of Flow, BOD, and TSS. Table 4 shows the applicable costs allocated to functional constituents.

Table 4 *Applicable Operating Costs Functional Allocation (\$1,000s)*

Category	Applicable O&M	FLOW	BOD	TSS	As Weighted Average ⁽¹⁾	
SEWER SYS-ADMIN	\$4,656	\$0	\$0	\$0	\$4,656	Weighted average allocation
COLLECTION SYST MAINT	\$0	\$0	\$0	\$0	\$0	Not applicable to septage
TREATMENT	\$17,177	\$4,357	\$7,779	\$5,018	\$24	Based on performance based budget model
ENVIRONMENTAL COMPLIANCE	\$0	\$0	\$0	\$0	\$0	Not applicable to septage
PLANT MAINTENANCE	\$3,867	\$504	\$967	\$889	\$1,507	Based on performance based budget model
ELECTRICAL AND INSTRUMENTATION	\$1,533	\$291	\$828	\$276	\$138	Based on performance based budget model
SEWER SCADA & SPL	\$827	\$182	\$554	\$91	\$0	Based on performance based budget model
WAREHOUSE	\$201	\$0	\$0	\$0	\$201	Weighted average allocation
LABORATORY SERVICES	\$1,047	\$272	\$419	\$356	\$0	Based on performance based budget model
DEBT SERVICE	\$6	\$0	\$0	\$0	\$6	Based on asset list
SEWER CAPITAL ENGINEERING SERV	\$387	\$0	\$0	\$0	\$387	Based on asset list and CIP
PLANT CONST. SUPPORT	(\$29)	(\$17)	(\$9)	(\$3)	\$0	Based on CIP
Total O&M	\$29,672	\$5,589	\$10,537	\$6,628	\$6,919	
Reallocation of As All Other		\$1,700	\$3,204	\$2,016	(\$6,919)	
Resulting Allocation		\$7,288	\$13,741	\$8,643	\$0	
Percentage Allocation		24.6%	46.3%	29.1%		

Notes:

- (1) Costs for general functions or those that are not easily categorized are allocated based on the weighted average allocation of all other directly allocable costs.
- (2) Totals may not tie due to rounding.

Revenue Requirements and Unit Rates

The revenue requirements include all operating and maintenance (O&M), debt service, capital, and administrative costs that the City incurs each year as well as net cash flows which are necessary to provide capital funding in future years, meet the City's debt coverage obligations, and support the Council approved reserve policy, less any offsetting revenues. To update the revenue requirements for this analysis, key inputs throughout the financial model were updated to reflect the latest financial information available to Carollo as of May 2023.

Table 5 presents the calculation of revenue requirements for FY 2024/25 and the applicability of each revenue requirement element to septage or commercial waste receiving and treatment.

Table 5 Revenue Requirements Applicable to Septage or Commercial Waste

	FY 2024/25 Rev. Req. (\$1,000s)	Applicable (%)	Applicable (\$1,000s)	Notes
Total O&M	\$39,729	74.7%	\$29,672	Weighted average of operating costs
Debt Service	\$28,138	76.0%	\$21,372	Fixed assets related to treatment
Net Cash Flows	\$5,267	69.9%	\$3,684	Fixed assets and capital related to treatment
Offsetting Revenues				
Non-Rate Revenue	(\$1,825)	74.7%	(\$1,363)	Weighted average of operating costs
Connection Fees	(\$1,106)	69.9%	(\$774)	Fixed assets and capital related to treatment
CSD O&M Revenue	(\$3,369)	100.0%	(\$3,369)	All treatment related
Use of Money and Property	(\$970)	69.9%	(\$678)	Fixed assets and capital related to treatment
Revenue Requirements	\$65,864	73.7%	\$48,544	

Notes:

(1) Totals may not tie due to rounding.

Table 6 presents the allocation of applicable revenue requirements to each functional constituent.

Table 6 Applicable Revenue Requirements Functional Allocation (\$1,000s)

	Applicable Rev. Req.	FLOW	BOD	TSS	As Weighted Average ⁽¹⁾	Notes
Total O&M	\$29,672	\$7,288	\$13,741	\$8,643	\$0	[Calculated]
Debt Service	\$21,372	\$9,618	\$9,190	\$2,565	\$0	As Fixed Assets
Net Cash Flows	\$3,684	\$1,730	\$1,510	\$443	\$0	Fixed Assets and Capital
Offsetting Revenues						
Non-Rate Revenue	(\$1,363)	\$0	\$0	\$0	(\$1,363)	As All Others
Connection Fees	(\$774)	(\$363)	(\$317)	(\$93)	\$0	Fixed Assets and Capital
CSD O&M Revenue	(\$3,369)	(\$828)	(\$1,560)	(\$981)	\$0	As O&M
Use of Money and Property	(\$678)	(\$319)	(\$278)	(\$82)	\$0	Fixed Assets and Capital
Revenue Requirements	\$48,544	\$17,127	\$22,285	\$10,495	(\$1,363)	
Reallocation of As All Others		(\$468)	(\$608)	(\$287)	\$1,363	
Resulting Allocation	\$48,544	\$16,659	\$21,677	\$10,208	\$0	

Notes:

(1) Items for general functions or those that are not easily categorized are allocated based on the weighted average allocation of all other directly allocable costs.

(2) Totals may not tie due to rounding.

As shown in Table 7, unit costs for each functional constituent are calculated by dividing the total septage and commercial waste applicable costs for each constituent (from Table 6) by the corresponding units (from Table 2).

Table 7 Treatment Unit Costs

	FLOW	BOD	TSS
Allocated Rev. Req. (\$1,000s)	\$16,659	\$21,677	\$10,208
Annual Units - Riverside Customers	9,026	27,375	24,601
	MG	klbs	klbs
Unit Cost	\$1,846	\$0.79	\$0.41
	per MG	per lb	per lb

Notes:

(1) Totals may not tie due to rounding.

The septage treatment cost reflects the unit costs from Table 7 and the assumed septage BOD and TSS concentrations from Table 1. As the septage fees are charged per 1,000 gallons received, the treatment cost is calculated by converting the unit rates per pound of BOD and TSS into costs per gallon at the assumed septage concentrations, then multiplying the cost per gallon by 1,000 resulting in a septage treatment cost of \$78.81 per 1,000 gallons. This calculation is summarized in Table 8.

Table 8 Septage Treatment Cost per 1,000 Gallons

	FLOW	BOD	TSS	Total
Unit Cost	\$1,846	\$0.79	\$0.41	n/a
	per MG	per lb	per lb	
Concentration (mg/L)	n/a	5,400	12,000	n/a
Cost per Gallon¹	\$0.00185	\$0.03556	\$0.04141	\$0.07881
Cost per 1,000 Gallons	\$1.85	\$35.56	\$41.41	\$78.81

Notes:

(1) The cost per gallon for BOD and TSS is calculated as:

[Unit Cost (\$/lb) x Concentration (mg/L) x 3.78 (gal./L) x 2.2 (lb/kg)] / [1,000,000 (mg/kg)]

(2) Totals may not tie due to rounding.

The commercial waste treatment cost reflects the unit costs from Table 7 and the assumed commercial waste BOD and TSS concentrations from Table 1. The treatment cost is calculated by converting the unit rates per pound of BOD and TSS into costs per gallon at the assumed commercial waste concentrations, then multiplying the cost per gallon by 1,000 resulting in a commercial waste treatment cost of \$58.90 per 1,000 gallons. This calculation is summarized in Table 9.

Table 9 Commercial Waste Treatment Cost per 1,000 Gallons

	FLOW	BOD	TSS	Total
Unit Cost	\$1,846	\$0.79	\$0.41	n/a
	per MG	per lb	per lb	
Concentration (mg/L)	n/a	4,000	8,900	n/a
Cost per Gallon¹	\$0.00185	\$0.0263	\$0.0307	\$0.0589
Cost per 1,000 Gallons	\$1.85	\$26.34	\$30.71	\$58.90

Notes:

- (1) The cost per gallon for BOD and TSS is calculated as:

$$[\text{Unit Cost } (\$/\text{lb}) \times \text{Concentration (mg/L)} \times 3.78 \text{ (gal./L)} \times 2.2 \text{ (lb/kg)}] / [1000000 \text{ (mg/kg)}]$$
- (2) Totals may not tie due to rounding.

Septage and Commercial Waste Receiving Costs

Along with treatment costs, the City has and expects to incur additional costs to receive septage and commercial waste at the RWQCP.

Annual operating and maintenance (O&M) costs for the receiving stations are estimated at 2-percent of capital costs, approximately \$2,475 per year. As shown in Table 10 this equates to \$0.19 per 1,000 gallons of septage or commercial waste received based on the annual volume from Table 1.

Table 10 Receiving Station O&M per 1,000 Gallons

Description	Value
Septage Receiving Station 1	\$59,165
Septage Receiving Station Attendant Structure	\$64,573
Receiving Stations Project Cost	\$123,739
Annual O&M % of Capital Cost	2%
Annual O&M	\$2,475
O&M Unit Costs	
Cost per gallon	\$0.00019
Cost per 1,000 gallons	\$0.19

Notes:

- (1) Totals may not tie due to rounding.

Two additional staff members will be needed to operate the receiving station and unload trucks. The annual cost for each staff member is based on the City's salary schedule as of July 5, 2024, assuming the Plant Operator 1 position at step 3. The overhead costs are estimated based on the actual overhead costs for FY 2021/22 for treatment plant staff. As shown in Table 11 the annual cost for two operators is

\$270,000. With an additional \$10,000 in startup staffing costs, the total staff cost per 1,000 gallons of septage or commercial waste received, based on the annual volume from Table 1, is \$21.97.

Table 11 Receiving Station Staff Costs per 1,000 Gallons

Description	Value
Operators	
Annual Pay Per Operator	\$75,408
Annual Cost with Overhead per Operator ¹	\$135,000
Annual Cost for 2 Operators	\$270,000
Startup Staffing Cost	\$10,000
Total Operators and Startup Costs	\$280,000
Operators Unit Cost	
Cost per gallon	\$0.02197
Cost per 1,000 gallons	\$21.97

Notes:

(1) Based on FY 2021/22 actual costs, overhead is assumed at 79-percent of salary costs.

Calculated Tipping Fees

The calculated tipping fees are the sum of the treatment cost and the receiving station staff costs. As shown in Table 12, the calculated tipping fee, based on FY 2024/25 costs, is \$101.00 per 1,000 gallons of septage or \$81.10 per 1,000 gallons of commercial waste received.

Table 12 Calculated Septage and Commercial Waste Tipping Fees, FY 2024/25 costs

Item	Septage Cost per 1,000 Gallons	Commercial Waste Cost per 1,000 Gallons
Treatment	\$78.81	\$58.90
Receiving Station O&M	\$0.19	\$0.19
Receiving Station Staff	\$21.97	\$21.97
Total Cost per 1,000 Gallons	\$100.97	\$81.06
Tipping Fee per 1,000 Gallons (Rounded to Nearest \$0.10)	\$101.00	\$81.10

Notes:

(1) Calculated fees are rounded to the nearest \$0.10.

To keep up with costs for receiving and treatment, tipping fees should be escalated each year in line with increases in costs at the RWQCP. Based on the financial model, treatment plant costs are expected to increase at 3.9-percent per year starting in FY 2025/26. Table 13 shows the projected tipping fees based on the expected inflation in treatment costs.

Table 13 Projected Septage and Commercial Waste Tipping Fees

	Annual Escalation	Residential Septage (per 1,000 gallons)	Commercial Waste (per 1,000 gallons)
FY 2024/25 (July 1, 2024)	n/a	\$101.00	\$81.10
FY 2025/26 (July 1, 2025)	3.9%	\$104.90	\$84.30

Notes:

(1) Calculated fees are rounded to the nearest \$0.10.

Smoothed Fee Implementation

The City plans to implement the projected tipping fees over time to smooth increases for waste haulers disposing of residential septage. As shown in Table 14, rates for residential septage will be updated to \$60.00 per 1,000 gallons on January 1, 2025, then increase to the projected FY 2025/26 fee of \$104.90 per 1,000 gallons on July 1, 2025. For commercial waste there is currently no charge because dumping of commercial waste is not allowed. Therefore, the fee will start at the projected FY 2024/25 fee of \$81.10 per 1,000 gallons on January 1, 2025, and then increase to the projected FY 2025/26 rate of \$84.30 per 1,000 gallons on July 1, 2025. After that time, the fees will be updated whenever the City's other wastewater rates are updated.

Table 14 Proposed Septage and Commercial Waste Tipping Fees

	Residential Septage (per 1,000 gallons)	Commercial Waste (per 1,000 gallons)
Current Charge	\$30.00	n/a
January 1, 2025	\$60.00	\$81.10
July 1, 2025	\$104.90	\$84.30

Conclusion

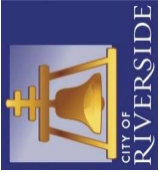
Based on the analysis and assumptions outlined in this memo, the City should implement the tipping fees presented in Table 14. After that time, the fees should be updated annually, or whenever the City updates its other wastewater rates, based on the expected increase in treatment costs or another cost index such as the consumer price index, engineering news record construction cost index, or another metric identified by the City to estimate inflationary increases. Should any of the assumptions or other conditions at the plant change, the tipping fees should be reevaluated and adjusted so that they recover the full cost of septage or commercial waste receiving and treatment.

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APPENDIX A

DETAILED O&M AND REVENUE REQUIREMENTS ALLOCATION

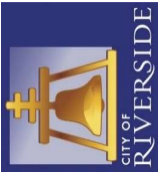
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RIVERSIDE WASTEWATER UTILITY
Financial and Rate Model
Tipping Fees

SEPTAGE AND COMMERCIAL WASTE RECEIVING TIPPING FEE CALCULATION

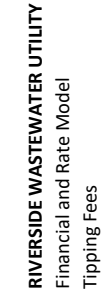
Allocation Basis										PUMPING	FLOW	BOD	TSS	AS ALL OTHER	TOTAL	
Not Included																
Applicable to Septage/Comm. Waste										Allocation Basis	PUMPING	FLOW	BOD	TSS	AS ALL OTHER	TOTAL
SEWER SYS-ADMIN (4125000)																
Personnel		\$1,833,055	74.69%	As All Others	\$0	\$0	\$0	\$0	\$1,369,032	\$1,369,032						
Non-Personnel		\$1,121,523	74.69%	As All Others	\$0	\$0	\$0	\$0	\$837,619	\$837,619						
Grants and Capital Projects		\$158,592	74.69%	As All Others	\$0	\$0	\$0	\$0	\$118,446	\$118,446						
Special Programs		\$0	74.69%	As All Others	\$0	\$0	\$0	\$0	\$0	\$0						
Charges from Others		\$3,299,686	74.69%	As All Others	\$0	\$0	\$0	\$0	\$2,464,398	\$2,464,398						
Charges to Others		(\$178,406)	74.69%	As All Others	\$0	\$0	\$0	\$0	(\$133,244)	(\$133,244)						
COLLECTION SYST MAINT (4125100)																
Personnel		\$2,339,786	0%	Not Applicable	\$0	\$0	\$0	\$0	\$0	\$0						
Non-Personnel		\$1,792,021	0%	Not Applicable	\$0	\$0	\$0	\$0	\$0	\$0						
Grants and Capital Projects		\$0	0%	Not Applicable	\$0	\$0	\$0	\$0	\$0	\$0						
Special Programs		\$2,302,164	0%	Not Applicable	\$0	\$0	\$0	\$0	\$0	\$0						
Capital Purchases		\$0	0%	Not Applicable	\$0	\$0	\$0	\$0	\$0	\$0						
Charges from Others		\$660,462	0%	Not Applicable	\$0	\$0	\$0	\$0	\$0	\$0						
Charges to Others		(\$94,014)	0%	Not Applicable	\$0	\$0	\$0	\$0	\$0	\$0						
TREATMENT (4125200)																
Personnel		\$3,781,846	100%	Operations	\$0	\$983,280	\$1,512,738	\$1,285,828	\$0	\$3,781,846						
Electric		\$2,739,152	100%	Power	\$0	\$602,614	\$1,835,232	\$301,307	\$0	\$2,739,152						
Refuse/Disposal Fees		\$4,196,153	100%	Solids	\$0	\$0	\$2,098,076	\$2,098,076	\$0	\$4,196,153						
Chemical Supplies		\$4,102,388	100%	Chemical	\$0	\$1,969,146	\$1,271,740	\$861,501	\$0	\$4,102,388						
Other Non-Personnel		\$1,550,030	100%	Treatment Ops	\$0	\$527,010	\$697,514	\$310,006	\$15,500	\$1,550,030						
Grants and Capital Projects		\$0	100%	Treatment Ops	\$0	\$0	\$0	\$0	\$0	\$0						
Capital Purchases		\$0	100%	Treatment Ops	\$0	\$0	\$0	\$0	\$0	\$0						
Charges from Others		\$807,491	100%	Treatment Ops	\$0	\$274,547	\$363,371	\$161,498	\$8,075	\$807,491						
Charges to Others		\$0	100%	Treatment Ops	\$0	\$0	\$0	\$0	\$0	\$0						



RIVERSIDE WASTEWATER UTILITY
Financial and Rate Model
Tipping Fees

SEPTAGE AND COMMERCIAL WASTE RECEIVING TIPPING FEE CALCULATION

		Allocation Basis	PUMPING	FLOW	BOD	TSS	AS ALL OTHER	TOTAL
			Not Included					
ENVIRONMENTAL COMPLIANCE (4125300)								
Personnel	\$1,074,975	0%	\$0	\$0	\$0	\$0	\$0	\$0
Non-Personnel	\$157,305	0%	\$0	\$0	\$0	\$0	\$0	\$0
Grants and Capital Projects	\$0	0%	\$0	\$0	\$0	\$0	\$0	\$0
Special Programs	\$60,677	0%	\$0	\$0	\$0	\$0	\$0	\$0
Capital Purchases	\$0	0%	\$0	\$0	\$0	\$0	\$0	\$0
Charges from Others	\$148,126	0%	\$0	\$0	\$0	\$0	\$0	\$0
Charges to Others	(\$131,077)	0%	\$0	\$0	\$0	\$0	\$0	\$0
PLANT MAINTENANCE (4125400)								
Personnel	\$1,827,586	100%	\$0	\$237,586	\$456,896	\$420,345	\$712,758	\$1,827,586
Chemical Supplies	\$2,482	100%	\$0	\$1,191	\$769	\$521	\$0	\$2,482
Non-Personnel	\$1,236,693	100%	\$0	\$160,770	\$309,173	\$284,439	\$482,310	\$1,236,693
Grants and Capital Projects	\$0	100%	\$0	\$0	\$0	\$0	\$0	\$0
Capital Purchases	\$444,458	100%	\$0	\$57,779	\$111,114	\$102,225	\$173,338	\$444,458
Charges from Others	\$396,487	100%	\$0	\$51,543	\$99,122	\$91,192	\$154,630	\$396,487
Charges to Others	(\$41,161)	100%	\$0	(\$5,351)	(\$10,290)	(\$9,467)	(\$16,053)	(\$41,161)
ELECTRICAL AND INSTRUMENTATION (4125410)								
Personnel	\$956,818	100%	\$0	\$181,795	\$516,682	\$172,227	\$86,114	\$956,818
Non-Personnel	\$440,366	100%	\$0	\$83,670	\$237,798	\$79,266	\$39,633	\$440,366
Grants and Capital Projects	\$0	100%	\$0	\$0	\$0	\$0	\$0	\$0
Capital Purchases	\$16,059	100%	\$0	\$3,051	\$8,672	\$2,891	\$1,445	\$16,059
Charges from Others	\$181,433	100%	\$0	\$34,472	\$97,974	\$32,658	\$16,329	\$181,433
Charges to Others	(\$61,984)	100%	\$0	(\$11,777)	(\$33,471)	(\$11,157)	(\$5,579)	(\$61,984)
		100%	\$0	\$0	\$0	\$0	\$0	\$0
SEWER SCADA & SPL (4125420)								
Personnel	\$463,560	100%	\$0	\$101,983	\$310,585	\$50,992	\$0	\$463,560
Non-Personnel	\$220,911	100%	\$0	\$48,600	\$148,010	\$24,300	\$0	\$220,911
Capital Purchases	\$46,083	100%	\$0	\$10,138	\$30,876	\$5,069	\$0	\$46,083
Charges from Others	\$125,688	100%	\$0	\$27,651	\$84,211	\$13,826	\$0	\$125,688
Charges to Others	(\$29,070)	100%	\$0	(\$6,395)	(\$19,477)	(\$3,198)	\$0	(\$29,070)



RIVERSIDE WASTEWATER UTILITY
Financial and Rate Model
Tipping Fees

Not Included									
WAREHOUSE (4125430)									
Personnel	\$144,400	100%							
Non-Personnel	\$9,646	100%							
Capital Purchases	\$0	100%							
Charges from Others	\$47,643	100%							
Charges to Others	(\$851)	100%							
			As All Others	\$0	\$0	\$0	\$0	\$144,400	\$144,400
			As All Others	\$0	\$0	\$0	\$0	\$9,646	\$9,646
			As All Others	\$0	\$0	\$0	\$0	\$0	\$0
			As All Others	\$0	\$0	\$0	\$0	\$47,643	\$47,643
			As All Others	\$0	\$0	\$0	\$0	(\$851)	(\$851)
LABORATORY SERVICES (4125500)									
Personnel	\$670,863	100%							
Non-Personnel	\$291,112	100%							
Capital Purchases	\$0	100%							
Charges from Others	\$84,654	100%							
			Operations	\$174,424	\$268,345	\$228,093	\$0	\$0	\$670,863
			Operations	\$75,689	\$116,445	\$98,978	\$0	\$0	\$291,112
			Operations	\$0	\$0	\$0	\$0	\$0	\$0
			Operations	\$22,010	\$33,862	\$28,782	\$0	\$0	\$84,654
DEBT SERVICE (4125600)									
Administrative Costs	\$8,443	76%							
			As All Others	\$0	\$0	\$0	\$6,413	\$6,413	\$6,413
SEWER CAPITAL ENGINEERING SERV (4125900)									
Personnel	\$1,131,443	70%							
Non-Personnel	\$62,711	70%							
Charges from Others	\$693,765	70%							
Charges to Others	(\$1,334,188)	70%							
			As All Others	\$0	\$0	\$0	\$0	\$791,375	\$791,375
			As All Others	\$0	\$0	\$0	\$0	\$43,863	\$43,863
			As All Others	\$0	\$0	\$0	\$0	\$485,246	\$485,246
			As All Others	\$0	\$0	\$0	\$0	(\$933,183)	(\$933,183)
PLANT CONST. SUPPORT (4125910)									
Personnel	\$348,015	100%							
Non-Personnel	\$20,919	100%							
Charges from Others	\$36,628	100%							
Charges to Others	(\$434,501)	100%							
			As Fixed Assets	\$202,013	\$113,662	\$31,720	\$0	\$0	\$347,394
			As Fixed Assets	\$12,143	\$6,832	\$1,907	\$0	\$0	\$20,882
			As Fixed Assets	\$21,262	\$11,963	\$3,338	\$0	\$0	\$36,563
			As Fixed Assets	(\$252,215)	(\$141,908)	(\$39,602)	\$0	\$0	(\$433,726)
Total O&M		\$39,729,048		\$0	\$5,588,631	\$10,536,515	\$6,627,562	\$6,919,304	\$29,672,012
			Reallocation of As All Others	\$0.00	\$1,699,553	\$3,204,250	\$2,015,501	(\$6,919,304)	
Resulting Allocation				\$0	\$7,288,184	\$13,740,765	\$8,643,063	\$0	\$29,672,012

Not Included									
WAREHOUSE (4125430)									
Personnel	\$144,400	100%							
Non-Personnel	\$9,646	100%							
Capital Purchases	\$0	100%							
Charges from Others	\$47,643	100%							
Charges to Others	(\$851)	100%							
			As All Others	\$0	\$0	\$0	\$0	\$144,400	\$144,400
			As All Others	\$0	\$0	\$0	\$0	\$9,646	\$9,646
			As All Others	\$0	\$0	\$0	\$0	\$0	\$0
			As All Others	\$0	\$0	\$0	\$0	\$47,643	\$47,643
			As All Others	\$0	\$0	\$0	\$0	(\$851)	(\$851)
LABORATORY SERVICES (4125500)									
Personnel	\$670,863	100%							
Non-Personnel	\$291,112	100%							
Capital Purchases	\$0	100%							
Charges from Others	\$84,654	100%							
			Operations	\$174,424	\$268,345	\$228,093	\$0	\$0	\$670,863
			Operations	\$75,689	\$116,445	\$98,978	\$0	\$0	\$291,112
			Operations	\$0	\$0	\$0	\$0	\$0	\$0
			Operations	\$22,010	\$33,862	\$28,782	\$0	\$0	\$84,654
DEBT SERVICE (4125600)									
Administrative Costs	\$8,443	76%							
			As All Others	\$0	\$0	\$0	\$6,413	\$6,413	\$6,413
SEWER CAPITAL ENGINEERING SERV (4125900)									
Personnel	\$1,131,443	70%							
Non-Personnel	\$62,711	70%							
Charges from Others	\$693,765	70%							
Charges to Others	(\$1,334,188)	70%							
			As All Others	\$0	\$0	\$0	\$791,375	\$791,375	\$791,375
			As All Others	\$0	\$0	\$0	\$43,863	\$43,863	\$43,863
			As All Others	\$0	\$0	\$0	\$485,246	\$485,246	\$485,246
			As All Others	\$0	\$0	\$0	(\$933,183)	(\$933,183)	(\$933,183)
PLANT CONST. SUPPORT (4125910)									
Personnel	\$348,015	100%							
Non-Personnel	\$20,919	100%							
Charges from Others	\$36,628	100%							
Charges to Others	(\$434,501)	100%							
			As Fixed Assets	\$202,013	\$113,662	\$31,720	\$0	\$0	\$347,394
			As Fixed Assets	\$12,143	\$6,832	\$1,907	\$0	\$0	\$20,882
			As Fixed Assets	\$21,262	\$11,963	\$3,338	\$0	\$0	\$36,563
			As Fixed Assets	(\$252,215)	(\$141,908)	(\$39,602)	\$0	\$0	(\$433,726)
Total O&M		\$39,729,048		\$0	\$5,588,631	\$10,536,515	\$6,627,562	\$6,919,304	\$29,672,012
			Reallocation of As All Others	\$0.00	\$1,699,553	\$3,204,250	\$2,015,501	(\$6,919,304)	
Resulting Allocation				\$0	\$7,288,184	\$13,740,765	\$8,643,063	\$0	\$29,672,012



RIVERSIDE WASTEWATER UTILITY
Financial and Rate Model
Tipping Fees

SEPTAGE AND COMMERCIAL WASTE RECEIVING TIPPING FEE CALCULATION

Not Included

		Allocation Basis		PUMPING	FLOW	BOD	TSS	AS ALL OTHER	TOTAL
Revenue Requirements Allocation		Sewer Fund Total	Applicable to Septage/ Comm. Waste	PUMPING	FLOW	BOD	TSS	AS ALL OTHER	TOTAL
FY 2024/25									
Total O&M		\$ 39,729,048	74.7%	\$0	\$7,288,184	\$13,740,765	\$8,643,063	\$0	\$29,672,012
Debt Service (2)		28,137,523	76.0%	\$0	\$9,617,734	\$9,189,728	\$2,564,575	\$0	\$21,372,038
Rate Funded Capital		-	69.9%	\$0	\$0	\$0	\$0	\$0	\$0
Capital Contributions		-	0.0%	\$0	\$0	\$0	\$0	\$0	\$0
Minimum Operating Fund Balance		-	0.0%	\$0	\$0	\$0	\$0	\$0	\$0
Adjustment for Rate Delay		-	0.0%	\$0	\$0	\$0	\$0	\$0	\$0
Equipment Replacement		-	0.0%	\$0	\$0	\$0	\$0	\$0	\$0
Net Cash Flows		5,266,799	69.9%	\$0	\$1,730,498	\$1,509,910	\$443,394	\$0	\$3,683,802
Non-Rate Revenue (3)		(1,824,571)	74.7%	\$0	\$0	\$0	\$0	(\$1,362,698)	(\$1,362,698)
Connection Fees (3)		(1,106,189)	69.9%	\$0	(\$363,458)	(\$317,128)	(\$93,126)	\$0	(\$773,712)
CSD O&M Revenue (3)		(3,369,053)	100.0%	\$0	(\$827,523)	(\$1,560,170)	(\$981,360)	\$0	(\$3,369,053)
Use of Money and Property (3)		(969,567)	69.9%	\$0	(\$318,568)	(\$277,960)	(\$81,624)	\$0	(\$678,152)
Revenue Requirements		\$65,863,990	73.7%	\$0	\$17,126,868	\$22,285,147	\$10,494,921	(\$1,362,698)	\$48,544,238
Reallocation of As All Other					(\$467,645)	(\$608,491)	(\$286,562)	\$1,362,698	
Resulting Allocation					\$16,659,222	\$21,676,656	\$10,208,359		\$48,544,238