

CITY OF LINCOLN

Solid Waste Rate Study

REPORT / JUNE 22, 2023



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June 22, 2023

Ms. Angela Frost
Environmental Services Manager
City of Lincoln
600 Sixth Street
Lincoln, CA 95648

Subject: **Solid Waste Rate Study Report**

Dear Ms. Frost:

Raftelis is pleased to provide this Solid Waste Rate Study report for the City of Lincoln (City) to address current financial challenges the City is facing and to establish the solid waste rates that are equitable and aligns with Proposition 218.

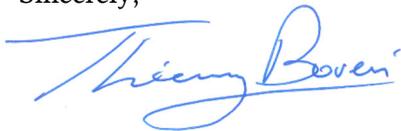
The major objectives of the study include the following:

- Develop a financial plan for the solid waste enterprise to ensure financial sufficiency, meet operation and maintenance costs, ensure sufficient funding for capital replacement and refurbishment (R&R) needs, and improve the financial health of the enterprise
- Develop sound and sufficient reserve fund targets and reserves
- Review the current rate structure for the solid waste enterprise
- Prepare a five-year schedule of rates for solid waste

The report summarizes the key findings and recommendations related to the development of the financial plans for the solid waste enterprise and the development of the updated solid waste rates.

It has been a pleasure working with you and we thank you and the City staff for the support provided during the course of this study.

Sincerely,

A handwritten signature in blue ink that reads 'Thierry Boveri'.

Thierry A. Boveri, CGFM
Vice President

A handwritten signature in blue ink that reads 'Sarah Neely'.

Sarah Neely
Consultant

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1. Executive Summary

1.1. Background

In 2022 the City of Lincoln (City) contracted with Raftelis Financial Consultants (Raftelis) to conduct a Solid Waste Rate Study (Study) including updated ten-year forecast in the financial plans, a cost-of-service analyses, and updated five-year schedule of solid waste rates. This report presents the financial plans, the cost-of-service analyses, and the resulting solid waste rates.

This Executive Summary describes the rate study process, methodology, and recommendations for the City's solid waste rates. The City's last solid waste rate adjustment occurred in 2017. The City wishes to establish fair and equitable rates that:

- Meets the City's solid waste enterprise fiscal needs in terms of operation and maintenance costs, capital replacement and refurbishment (R&R) to maintain operations, reserve goals, and improve the financial health of the enterprise
- Prepare a five-year schedule of solid waste rates that align with Proposition 218.

The City's solid waste department (Department) provides solid waste collection service (Solid Waste Service) to a population of over 50,600 customers in the City through over 20,000 accounts. On an annual basis, the City generates over 34,000 tons. The City has an agreement with Western Placer Waste Management Authority (WPWMA) for the disposal of waste through their materials recovery facility (MRF) and landfill.

1.2. Process

Raftelis developed a solid waste financial plan for the City which set forth the total revenue adjustments needed to meet capital investment, operational expenses, debt service, and reserves during the five-year rate-setting period. Raftelis worked with City staff to refine inputs and provide revenue adjustments scenarios for the City Council's consideration. After developing the financial plans, Raftelis performed cost-of-service analyses to determine the solid waste rates based on the selected financial plan.

Raftelis also assisted the City in presenting the utility and rate setting process at an Open House, two community meetings, and through a live webinar. These outreach events were conducted to inform customers about the levels of service the City provides, the need for revenue adjustments to continue providing these services, and legal rate setting in accordance with California Proposition 218. The City also created and maintained a rate study webpage to keep customers informed on the rate-setting process, including informational videos and key dates.

1.3. Proposed Solid Waste Financial Plan

Raftelis, with the assistance of City staff, conducted a status quo scenario analysis to evaluate whether existing solid waste rates could adequately fund the City's solid waste expenses over the ten-year forecast period (Rate Study Period). The analysis projected annual revenues, operation and maintenance expenses, debt service payments, and capital expenditures through Fiscal Year 2032. Based on the key assumptions of the Study we have determined that the existing rates for solid waste services will not be adequate to generate

sufficient revenues to fund the projected needs of Solid Waste Services. Table 1-1 shows proposed rate revenue adjustments for the Rate Study Period and highlights the initial five-year study recommendation period. Implementation for the proposed and identified rate adjustments were assumed at the outset of each fiscal year, with exception to the initial rate adjustment assumed to be implemented on October 1, 2023. It is recommended that the need for any future identified rate revenue adjustments be reviewed in the Fiscal Year 2027 or in the event of a significant change in conditions during the recommendation period which would necessitate additional rate revenues (i.e., change in regulations, material increase in the cost of contracted disposal, etc.).

Table 1-1: Proposed Solid Waste Revenue Adjustments

Effective Date	Adjustment
October 1, 2023	13.00%
July 1, 2024	13.00%
July 1, 2025	13.00%
July 1, 2026	3.00%
July 1, 2027	3.00%
<i>July 1, 2028</i>	<i>2.50%</i>
<i>July 1, 2029</i>	<i>2.50%</i>
<i>July 1, 2030</i>	<i>2.50%</i>
<i>July 1, 2031</i>	<i>2.50%</i>
<i>July 1, 2032</i>	<i>2.50%</i>

Key factors influencing the need for proposed revenue adjustments include:

- Solid waste rates have not increased since 2017. Meanwhile, the Consumer Price Index (CPI) for the San Francisco area has increased 24 percent between 2017 and 2023.
- As shown in Figure 1-1, the Study indicates a funding deficiency within the initial Fiscal Year 2023 that accounts for approximately 47% of the need to increase rate revenues through the Fiscal Year 2028.
- The remainder of the need to increase rate revenues is to address assumed inflation in operating expenses.
- Addressing the Solid Waste Services funding deficiency and inflation will provide adequate funding for operations, capital funding, and support deposits to reserves in outer years to help maintain compliance with internal minimum cash reserve targets.

Figure 1-1 provides a breakdown of the projected revenue requirements of the Department. As can be seen from the gap analysis, the Department’s current period expenditure exceeds existing revenues, which only grows over time due to inflation in the cost of operations and the increased need for specialized reserves. Status Quo revenue is shown by the green line. Projected revenue is shown by the dotted green line. Annual expenditures are shown by the dark blue columns. The bright blue bar represents transfers, and the purple represents debt.

Figure 1-1: Proposed Solid Waste Financial Plan

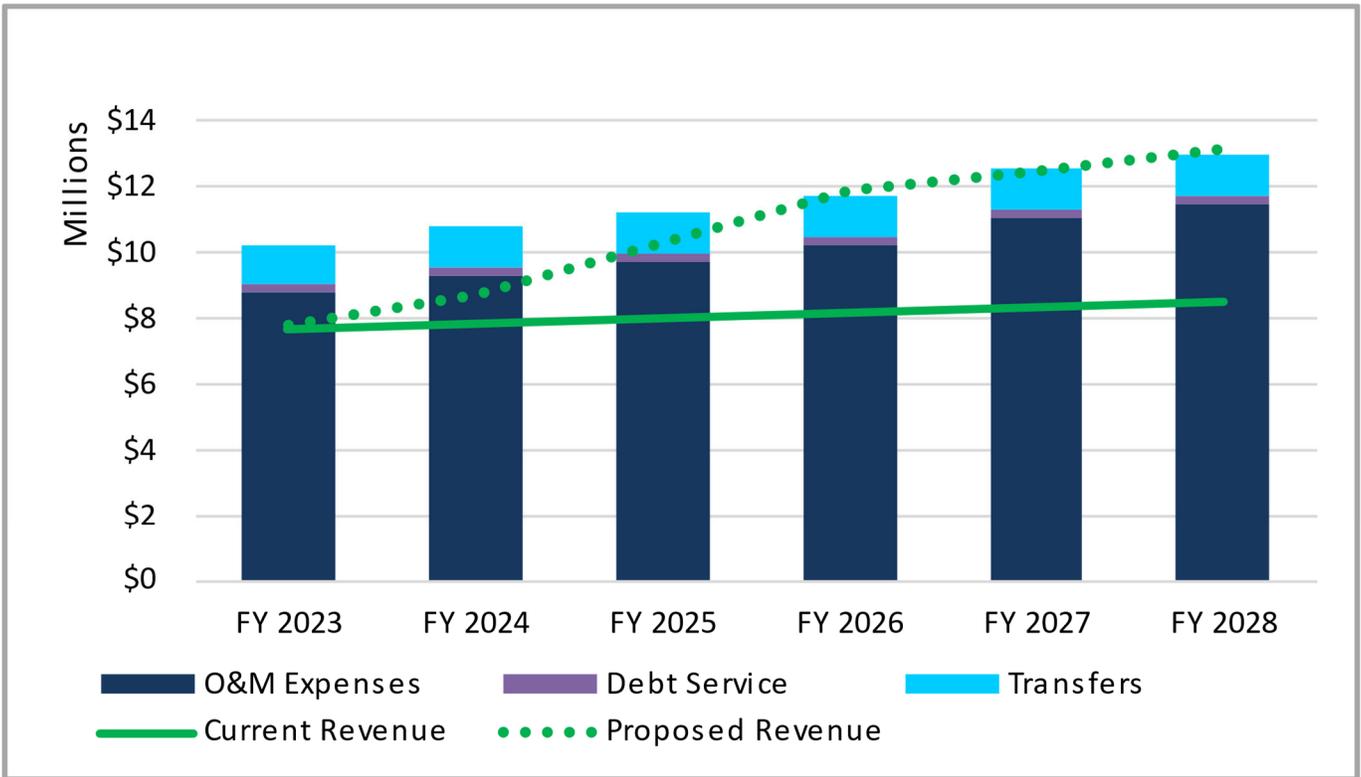


Figure 1-2 shows projected operating and capital ending balances over the Rate Study Period relative to the City’s total reserve targets under the proposed financial plan. Reserves are drawn down in the first three fiscal years to help cover annual operating costs, fund capital improvements, and allow for the phase-in of annual rate revenue adjustments for the benefit of the rate payers. Assuming implementation of the recommended rate revenue adjustments, we have forecasted the City to maintain compliance with minimum operating and capital reserve targets.

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Figure 1-2: Proposed Solid Waste Financial Plan: Cash Reserves

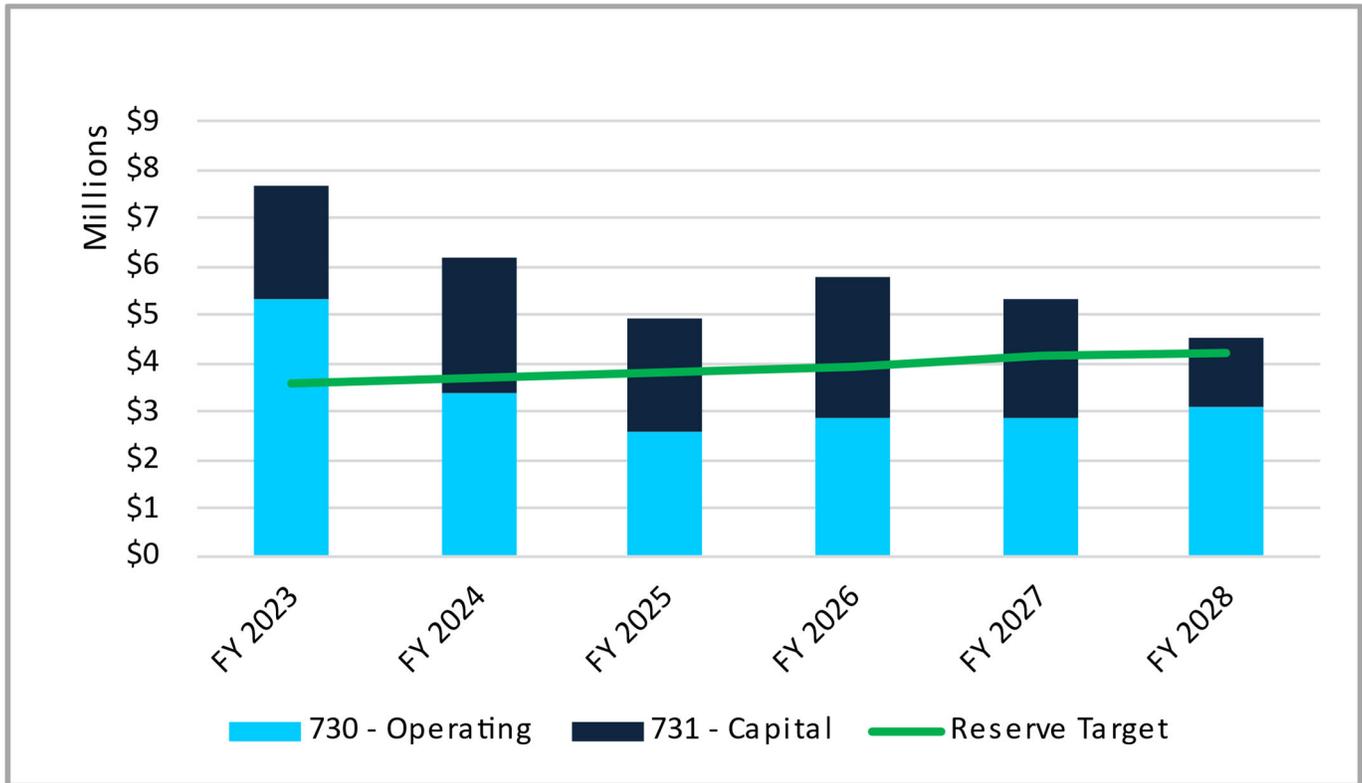
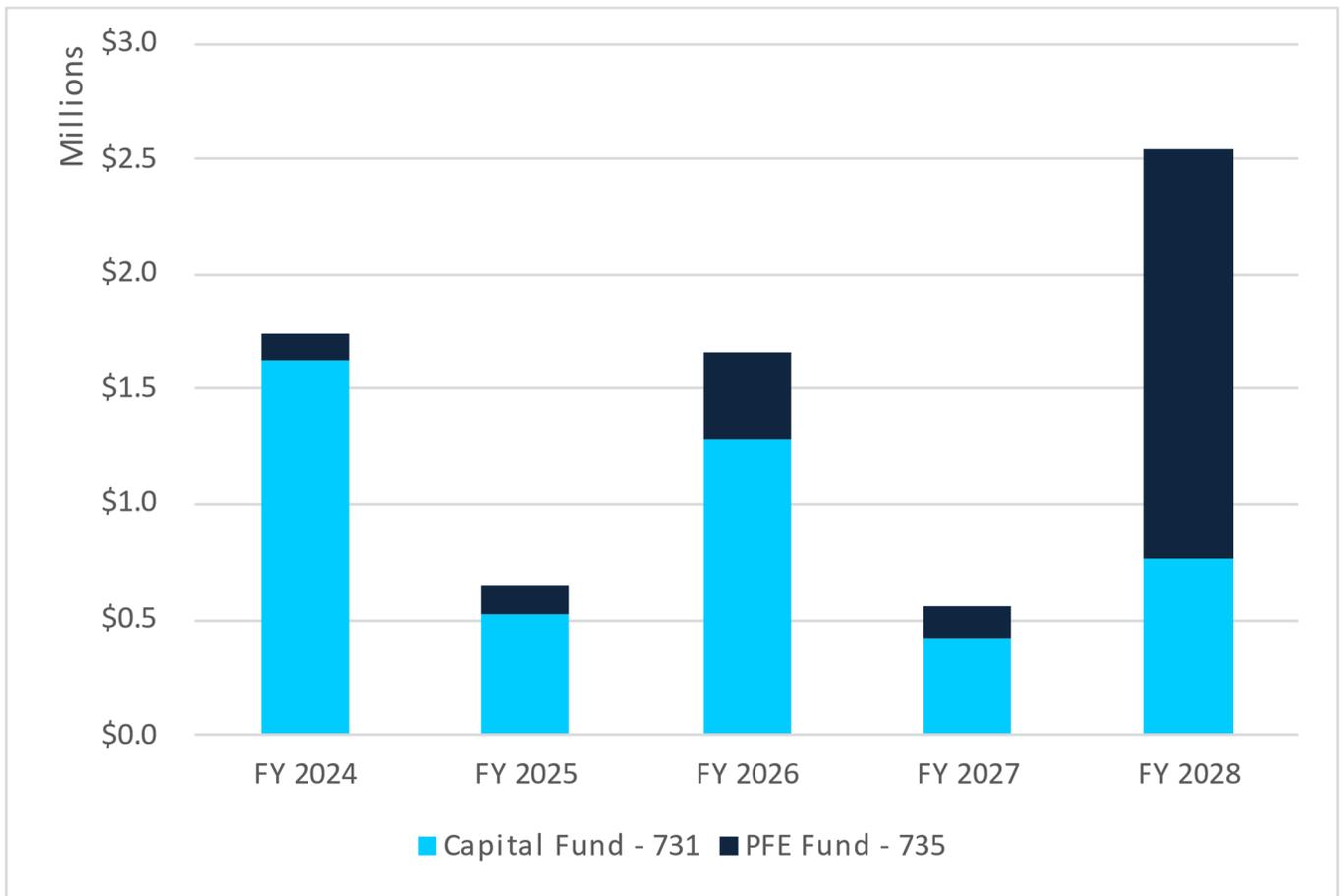


Figure 1-3 shows the proposed capital financing plan over the Rate Study Period. The Study assumes that capital is funded through reserves and future revenues. No debt is assumed in the forecast. The capital improvement plan is primarily composed of fleet related expenses, followed by facility investments and cart purchases. In the Rate Study Period, \$1.9 million of existing PFE reserves were assumed to fund the design, land purchase, and construction of new facilities (recycling center) and equipment for new customers (carts, trucks). Excluding PFE funded capital, the reduction in cash reserves as shown in Figure 1-2 is generally consistent with the timing of capital expenditures as shown in Figure 1-3.

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Figure 1-3: Solid Waste Capital Financing Plan



1.4. Proposed Solid Waste Rates

The proposed five-year solid waste rate schedule was developed based on the cost-of-service allocation and rate design as discussed in greater detail within Section 5.

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Table 1-2 presents a summary of the proposed rates for the Study.

Table 1-2: Proposed Five-Year Solid Waste Rate Schedule

Residential Collection Rates	Current	Proposed				
	2023	2024	2025	2026	2027	2028
Initial 96-Gallon Cart	\$26.00	\$29.36	\$33.17	\$37.46	\$38.58	\$39.73
Each Additional Cart	\$16.11	\$16.38	\$16.68	\$17.03	\$17.12	\$17.21
Non-Residential Cart Collection Rates	Current	Proposed				
	2023	2024	2025	2026	2027	2028
One 96-Gallon Cart	\$31.23	\$32.90	\$34.79	\$36.93	\$37.48	\$38.06
Two 96-Gallon Carts	\$60.17	\$64.08	\$68.49	\$73.47	\$74.77	\$76.11
Three 96-Gallon Carts	\$89.11	\$95.25	\$102.18	\$110.02	\$112.07	\$114.17
Four 96-Gallon Carts	\$118.05	\$126.42	\$135.88	\$146.57	\$149.36	\$152.23
Non-Residential Bin/Compactor Collection Rates	Current	Proposed				
	2023	2024	2025	2026	2027	2028
Commercial Bins						
3-Yard Bin per Pickup	\$34.04	\$39.28	\$45.20	\$51.89	\$53.63	\$55.43
3-Yard Bin per Pickup – Weekend	\$44.17	\$53.83	\$64.74	\$77.08	\$80.29	\$83.61
4-Yard Bin per Pickup	\$44.45	\$51.67	\$59.82	\$69.03	\$71.43	\$73.91
4-Yard Bin per Pickup – Weekend	\$52.17	\$66.70	\$83.11	\$101.66	\$106.49	\$111.47
5-Yard Bin per Pickup	\$54.85	\$64.04	\$74.43	\$86.17	\$89.23	\$92.39
5-Yard Bin per Pickup – Weekend	\$60.17	\$79.56	\$101.47	\$126.23	\$132.69	\$139.34
Commercial Compactors						
2-YD Compactor	\$26.27	\$34.88	\$44.62	\$55.61	\$58.48	\$61.43
3-YD Compactor	\$51.38	\$61.37	\$72.65	\$85.40	\$88.73	\$92.15
3-YD Compactor (Weekend/Afterhours)	\$69.38	\$81.86	\$95.96	\$111.89	\$116.05	\$120.33
4-YD Compactor	\$68.51	\$81.82	\$96.87	\$113.87	\$118.30	\$122.87
6-YD Compactor	\$102.76	\$122.73	\$145.30	\$170.80	\$177.45	\$184.30
6-YD Compactor (Weekend/Afterhours)	\$120.76	\$150.12	\$183.31	\$220.80	\$230.58	\$240.65
20-YD Compactor	n/a	\$453.50	\$537.41	\$587.72	\$600.83	\$614.34
30-YD Compactor	n/a	\$680.26	\$806.12	\$881.57	\$901.25	\$921.52

1.5. Proposed Solid Waste Rate Bill Impacts

The proposed five-year solid waste rate schedule was developed based on the cost-of-service allocation and rate design as discussed in greater detail within Section 5.

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Table 1-2 presents a summary of the proposed rates for the Study.

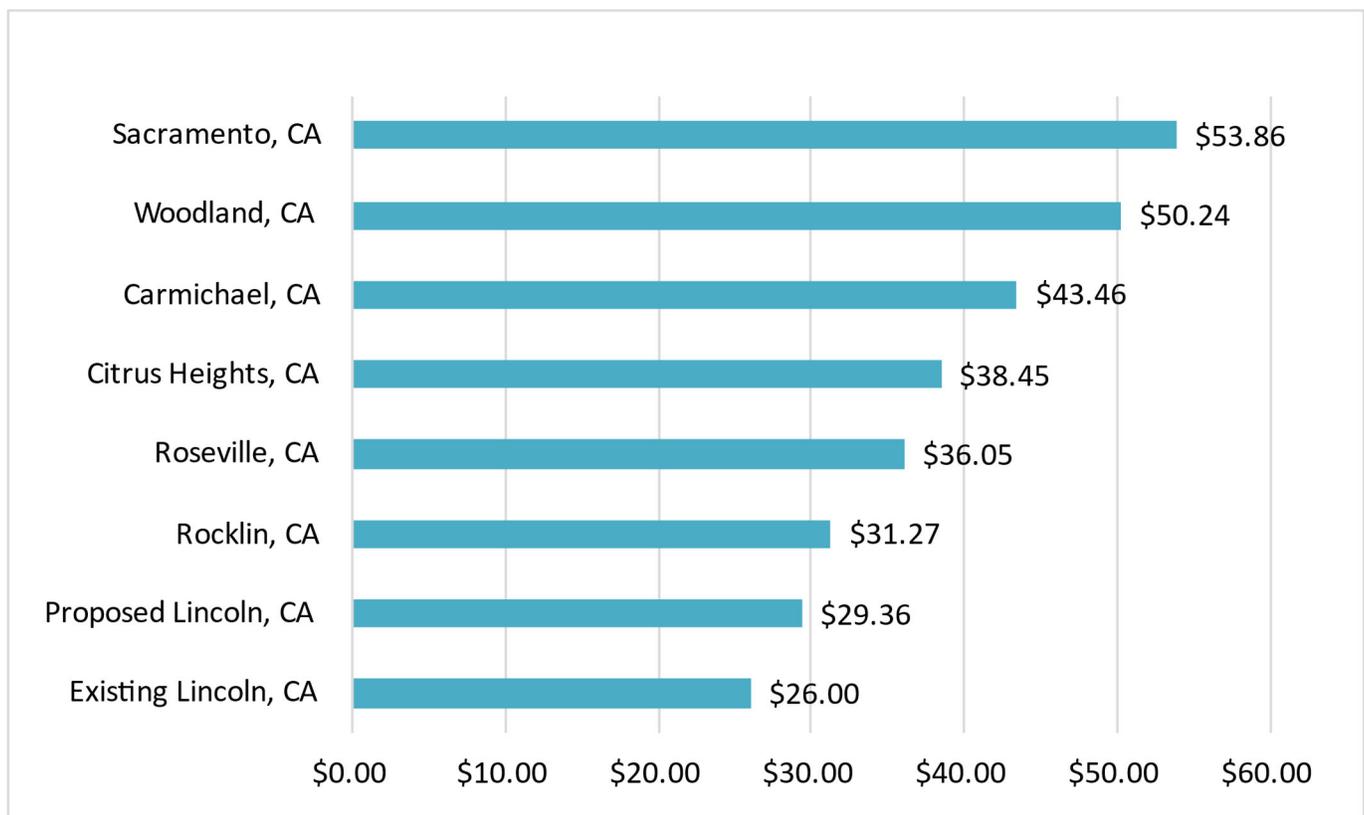
Table 1-3: Proposed Rate Design Transition Adjustments to Existing Rates

	Existing Rate	Calculated Rate FY28	Total Change	FY 2024 Adjustment	FY 2025 Adjustment	FY 2026 Adjustment	FY 2027 Adjustment	FY 2028 Adjustment
Rate Adj				13.0%	13.0%	13.0%	3.0%	3.0%
Rate Phasing Weighting				24.5%	52.2%	83.4%	91.6%	100.0%
Calculations	(a)	(b)	(c)	(d) = (c)* rate phasing weighting				
Total Residential Rate	\$26.00	\$39.73	\$13.73	\$3.36	\$7.17	\$11.46	\$12.58	\$13.73
Additional Cart Fee	\$16.11	\$17.21	\$1.10	\$0.27	\$0.57	\$0.92	\$1.01	\$1.10
Commercial								
1 Cart	\$31.23	\$38.06	\$6.83	\$1.67	\$3.56	\$5.70	\$6.25	\$6.83
2 Cart	\$60.17	\$76.11	\$15.94	\$3.91	\$8.32	\$13.30	\$14.60	\$15.94
3 Cart	\$89.11	\$114.17	\$25.06	\$6.14	\$13.07	\$20.91	\$22.96	\$25.06
4 Cart	\$118.05	\$152.23	\$34.18	\$8.37	\$17.83	\$28.52	\$31.31	\$34.18
3-Yard Bin per Pickup	\$34.04	\$55.43	\$21.39	\$5.24	\$11.16	\$17.85	\$19.59	\$21.39
3-Yard Bin per Pickup – Weekend	\$44.17	\$83.61	\$39.44	\$9.66	\$20.57	\$32.91	\$36.12	\$39.44
4-Yard Bin per Pickup	\$44.45	\$73.91	\$29.46	\$7.22	\$15.37	\$24.58	\$26.98	\$29.46
4-Yard Bin per Pickup – Weekend	\$52.17	\$111.47	\$59.30	\$14.53	\$30.94	\$49.49	\$54.32	\$59.30
5-Yard Bin per Pickup	\$54.85	\$92.39	\$37.54	\$9.19	\$19.58	\$31.32	\$34.38	\$37.54
5-Yard Bin per Pickup – Weekend	\$60.17	\$139.34	\$79.17	\$19.39	\$41.30	\$66.06	\$72.52	\$79.17
2-YD Compactor	\$26.27	\$61.43	\$35.16	\$8.61	\$18.35	\$29.34	\$32.21	\$35.16
3-YD Compactor	\$51.38	\$92.15	\$40.77	\$9.99	\$21.27	\$34.02	\$37.35	\$40.77
3-YD Compactor – Weekend	\$69.38	\$120.33	\$50.95	\$12.48	\$26.58	\$42.51	\$46.67	\$50.95
4-YD Compactor	\$68.51	\$122.87	\$54.36	\$13.31	\$28.36	\$45.36	\$49.79	\$54.36
6-YD Compactor	\$102.76	\$184.30	\$81.54	\$19.97	\$42.54	\$68.04	\$74.69	\$81.54
6-YD Compactor – Weekend	\$120.76	\$240.65	\$119.89	\$29.36	\$62.55	\$100.04	\$109.82	\$119.89
20-YD Compactor	n/a	\$614.34	n/a	n/a	\$83.91	\$134.21	\$147.33	\$160.84
30-YD Compactor	n/a	\$921.52	n/a	n/a	\$125.87	\$201.32	\$221.00	\$241.26

1.6. Monthly Residential Bill Comparison

For the purposes of this analysis, a solid waste fee comparison was prepared with other comparable entities for informational purposes. It should be noted that not all the entities in the comparison operate as an enterprise fund and service may be subsidized by the entities general fund. Figure 7-1 shows a comparison of the residential single-family monthly rates for solid waste collection, including refuse, recycling, and green waste as of Fiscal Year 2023.

Figure 1-4: Monthly Residential Fee Comparison



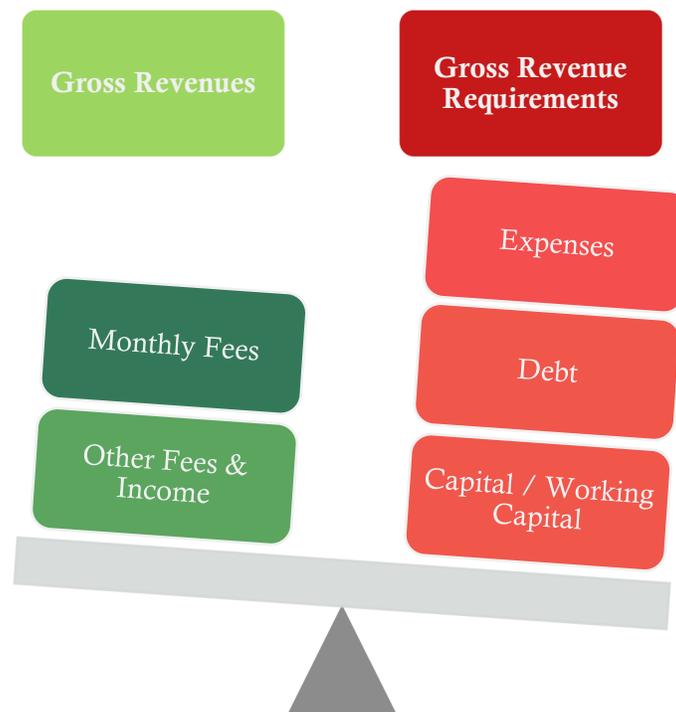
Key observations from the comparison include: i) the City’s monthly charge is the lowest fee surveyed; ii) the City provides comparable levels of service to the other entities with weekly collection and weekly or bi-weekly green waste collection; and iii) while the survey did not assess whether other entities fully funded operations from user fees alone, it should be noted that the City’s operations are funded exclusively from user fees and not subsidized by transfers from the general fund.

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2. Methodology

The foundation of the Study and the primary objective of the solid waste rates are to reasonably recover the cost of providing service, cost of infrastructure investment and compliance with covenants of internal fiscal targets (referred to as the "Revenue Sufficiency" evaluation).

Ensuring adequate cash reserves and appropriate cash flows generally results in a sustainable long-term financial plan that can mitigate the financial and operating risk from unanticipated or sudden events to financial operations (e.g., changes in market conditions affecting operations and recovered materials revenues, reduced growth or tonnages, unanticipated or extraordinary expenses, unfunded mandates, etc.). The identified revenue requirements to be funded from rates are then allocated based on the type and level of service.



In order to assess the sustainability of the City's charges for service Raftelis developed a financial model capable of forecasting solid waste operations over a ten-year Rate Study Period but with the recommended rate revenue adjustment period comprising the Fiscal Years 2024 through 2028. By forecasting operations over this period of time we are able to capture funding requirements that may not be annually occurring, test sensitivity to potential changes in operations or costs, and examine projections of cash reserves and net revenue margins to evaluate compliance with formal and informal fiscal policies. Performing a thorough evaluation of the City's funding requirements allows us to provide sound rate recommendations to help ensure the City has sufficient resources to fund operations and achieve their objectives. The following provides a brief overview of the key activities performed for the Study:

1. An evaluation of the service area requirements for the City was performed. This included a review of recent historical customers served and corresponding waste generation such that: i) a representative forecast of the Department's needs from a financial standpoint could be prepared; and ii) a projection of rate revenues consistent with the projected service area needs could be developed.
2. Raftelis with support of City staff, analyzed a projection of the Net Revenue Requirements from rates, which equates to the expenditure requirements funded from monthly user charges. An illustration of the components that make up the Net Revenue Requirements is summarized below:
 - + Cost of Operation and Maintenance
 - + Debt Service (allocation is paid to General Fund for Corporate Yard and City Hall)
 - + Indirect Cost Allocation and Administration Payments
 - + Capital Funding Requirements
 - + Deposits to Reserves for Policy Compliance and Future Expenditures
 - Other Operating Revenue
 - Interest Income / Transfers from Operating Reserves
 - = Net Revenue Requirements (Funded from Rates)
3. The annual cost of providing solid waste service to City customers was determined by identifying the gross revenue requirements, netting out all other applicable revenues resulting in a net revenue requirement to be funded from the respective fees. The applicable equivalent unit billing determinants as presented within the cost-of-service analysis in section 5 of this report, were used to determine the unit cost of service as presented in Table 5-2. It should be noted that the information reported herein is believed to be accurate to the best of our knowledge and is assumed to be reasonable for the purposes of estimating the cost of service with fee recommendations pursuant to the Proposition 218 Omnibus Implementation Act at Gov. Code 53750. In addition to recommending fees, the intent of providing this information is to help support a general understanding of the City's financial needs to support the Department programs, operations, and services.
4. Based on the identified funding requirements and the cost of service associated with providing service over the Rate Study Period, provide rate recommendations to ensure adequate funding for the City's needs and meet the City's rate goals and objectives.

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3. Key Inputs and Assumptions

Raftelis developed a solid waste financial model in Microsoft Excel to project financial and rate calculations over a 10-year study previously defined as the Rate Study Period. The City’s fiscal year spans from July 1 through June 30. Projections in future years were generally made based on the budgeted Fiscal Year 2023 data using key assumptions outlined below. All assumptions were discussed with and reviewed by City staff. This section will detail all the key assumptions developed in support of the financial plan.

3.1. Current Rates and Operations

Pursuant to City code Chapter 8.04.080 Refuse Service Charges, City council establishes the schedule of fees for solid waste services by resolution. The current fees for service were adopted pursuant to Resolution 2013-216, which included a five-year schedule of rates with the current rates effective as of July 1, 2017. As a result, the City’s solid waste fees have not been adjusted in approximately six (6) years. Pursuant to discussions with City staff, the proposed rates may be adopted by ordinance similar to the City’s other utility services (water and wastewater).

As it relates to residential refused collection service, the City provides residents with weekly collection utilizing a one-bin system for their combined garbage, recycling, and organic waste. The City also provides bi-weekly green waste collection. The monthly rate for residents includes one (1) cart for their household waste (garbage, recycling, and organic waste), and one (1) cart for their green waste. Any additional carts are available for an additional fee. **Error! Reference source not found.** shows the current adopted residential rate schedule developed during the prior rate study.

Table 3-1: Current Residential Solid Waste Rate Structure

Residential Collection Rates	2023
Initial 96-Gallon “One-Bin” Cart ⁽¹⁾	\$26.00
Each Additional “One-Bin” Carts ⁽²⁾	\$16.11
<p>(1) Charge for service includes one bin collection every week and green waste collection every other week.</p> <p>(2) Service reflects charge per cart for one bin service.</p>	

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Along with residential collection service, the City provides curbside collection to its non-residential and commercial customers which varies in the level of service based on demand. Table 3-2 shows the current adopted rates for non-residential and commercial customers.

Table 3-2: Current Non-Residential Solid Waste Rate Structure

Non-Residential Collection Rates	2023
Non-Residential Carts	
One 96-Gallon Cart	\$31.23
Two 96-Gallon Carts	\$60.17
Three 96-Gallon Carts	\$89.11
Four 96-Gallon Carts	\$118.05
One 35-Gallon Organics Cart	\$31.23
Each Additional Organics Cart	\$28.94
Commercial Bins	
3-Yard Bin per Pickup	\$34.04
3-Yard Bin per Pickup - weekend	\$44.17
4-Yard Bin per Pickup	\$44.45
4-Yard Bin per Pickup - weekend	\$52.17
5-Yard Bin per Pickup	\$54.85
5-Yard Bin per Pickup - weekend	\$60.17
3-Yard Bin Monthly Lease	\$27.54
4-Yard Bin Monthly Lease	\$35.37
5-Yard Bin Monthly Lease	\$44.45
Commercial Compactors⁽¹⁾	
2-YD Compactor	\$26.27
3-YD Compactor	\$51.38
3-YD Compactor – Weekend ⁽²⁾	\$69.38
4-YD Compactor	\$68.51
6-YD Compactor	\$102.76
6-YD Compactor – Weekend ⁽²⁾	\$120.76
<p>(1) Commercial Bins and Compactors are charged by pickup. Rates listed were provided by City staff.</p> <p>(2) City charges more for weekend service to recover the additional cost of overtime labor.</p>	

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3.2. Customer Statistics

3.2.1. Customer Accounts

The forecast of solid waste service revenues relied upon a review of recent historical trends in solid waste customer account growth and tonnage statistics. A 2% growth rate was assumed for the forecast. The following table provides a summary of projected trends in solid waste customer billing statistics:

Table 3-3: Projected Customer Statistics

Description	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
Residential Customers						
Initial 96-Gallon “One-Bin” Cart	19,452	19,841	20,238	20,643	21,056	21,477
Each Additional 96-Gallon “One-Bin” Cart	948	967	986	1,006	1,026	1,047
Multi-Family Customers						
Initial 96-Gallon “One-Bin” Cart	15	15	15	15	15	15
Each Additional 96-Gallon “One-Bin” Cart	0	0	0	0	0	0
Commercial Customers						
1 96-Gallon Cart	762	777	793	809	825	842
2 96-Gallon Carts	27	28	29	30	31	32
3 96-Gallon Carts	2	2	2	2	2	2
4 96-Gallon Carts	4	4	4	4	4	4
Organics – Initial 35-Gallon Cart	7	7	7	7	7	7
Organics – Each Additional Cart	6	6	6	6	6	6
3-YD Bin Lease	118	120	122	124	126	129
4-YD Bin Lease	96	98	100	102	104	106
5-YD Bin Lease	4	4	4	4	4	4
3-YD Bin Pickup	128	131	134	137	140	143
4-YD Bin Pickup	5	5	5	5	5	5
5-YD Bin Pickup	99	81	104	105	107	109
Commercial Customers / Pickups						
2-YD Compactor	1	1	1	1	1	1
3-YD Compactor	12	12	12	12	12	12
3-YD Compactor – Saturday	4	4	4	4	4	4
3-YD Compactor – Sunday	4	4	4	4	4	4
4-YD Compactor	1	1	1	1	1	1
4-YD Compactor – Saturday	1	1	1	1	1	1
6-YD Compactor	1	1	1	1	1	1
6-YD Compactor – Saturday	1	1	1	1	1	1

3.2.2. Waste Generation

With respect to waste generation, the City currently collects approximately 34,600 tons of waste per year. The majority of tonnages can be attributed to the residential customer class. The waste is processed and disposed of at the Western Regional Sanitary Landfill and Western Placer Materials Recovery Facility. The City along with other neighboring municipalities are a member of the Western Placer Waste Management Authority (WPWMA). The WPWMA is responsible for helping its member agencies achieve the required solid waste diversion goals set by the State of California, including compliance with organics diversion requirements from S.B. 1383 and A.B. 1826. The table shown below summarizes the City’s tonnage reports by type of waste. Table 3-4 presents the forecast of Solid Waste Service tonnages.

Table 3-4: Projected Waste Generation (units in Tons)

Description	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
Residential Refuse	20,049	20,450	20,858	21,276	21,701	22,135
Commercial Refuse	5,182	5,286	5,392	5,500	5,610	5,722
Recycling	841	858	875	893	911	929
Green Waste	6,344	6,471	6,600	6,732	6,867	7,004
Wood Waste	5	5	5	5	5	5
Commercial Organic	149	152	155	158	161	164
Miscellaneous	<u>1,995</u>	<u>2,035</u>	<u>2,076</u>	<u>2,118</u>	<u>2,160</u>	<u>2,203</u>
Total	34,565	35,257	35,961	36,682	37,415	38,162

3.3. Revenues

Excluding growth related PFE charges, approximately 98% of Solid Waste Service revenues are derived from user fees. To validate the customer statistics, a revenue model based on the application of the customer statistics and the City’s current charges for service was developed. Based on a comparison of the City’s calculated revenues to reported revenues a downward reconciling adjustment of 0.89% was assumed to ensure accuracy of forecasted revenues relied upon in determination of the revenue sufficiency of the existing charges for service.

The rate revenue projections shown below assume that the current Fiscal Year 2023 rates as presented in Table 3-1 and 3-2 are effective throughout the Rate Study Period and, therefore, represent estimated revenues in the absence of any rate increase. This status quo scenario provides a baseline from which Raftelis evaluates the need for revenue adjustments. Table 3-5 presents the revenues under the current rates for Solid Waste Services.

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Table 3-5: Projected Collection Revenues Under Current Rates

Proposed Revenues	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
Residential						
Single-Family Residential	\$5,950,152	\$6,069,024	\$6,190,392	\$6,314,256	\$6,440,616	\$6,569,472
Additional Carts	\$179,594	\$183,267	\$186,940	\$190,614	\$194,480	\$198,346
Multi-Family Residential (4 units or less)	\$4,680	\$4,680	\$4,680	\$4,680	\$4,680	\$4,680
Non-Residential						
One 96-Gallon Carts	\$279,946	\$285,567	\$291,189	\$297,185	\$303,181	\$309,177
Two 96-Gallon Carts	\$18,773	\$19,495	\$20,217	\$20,939	\$21,661	\$22,383
Three 96-Gallon Carts	\$2,139	\$2,139	\$2,139	\$2,139	\$2,139	\$2,139
Four 96-Gallon Carts	\$5,666	\$5,666	\$5,666	\$5,666	\$5,666	\$5,666
3-Yard Bin Monthly Lease	\$38,336	\$38,997	\$39,658	\$40,319	\$40,980	\$41,640
4-Yard Bin Monthly Lease	\$39,897	\$40,746	\$41,595	\$42,444	\$43,293	\$44,142
5-Yard Bin Monthly Lease	\$2,134	\$2,134	\$2,134	\$2,134	\$2,134	\$2,134
3-Yard Bin per Pickup	\$483,776	\$495,384	\$506,992	\$518,599	\$530,207	\$541,815
4-Yard Bin per Pickup	\$26,670	\$26,670	\$26,670	\$26,670	\$26,670	\$26,670
5-Yard Bin per Pickup	\$645,694	\$659,571	\$673,448	\$687,325	\$701,257	\$715,134
2-YD Compactor	\$5,044	\$5,044	\$5,044	\$5,044	\$5,044	\$5,044
3-YD Compactor	\$47,115	\$47,115	\$47,115	\$47,115	\$47,115	\$47,115
3-YD Compactor -Saturday	\$347	\$347	\$347	\$347	\$347	\$347
3-YD Compactor -Sunday	\$12,211	\$12,211	\$12,211	\$12,211	\$12,211	\$12,211
4-YD Compactor	\$3,288	\$3,288	\$3,288	\$3,288	\$3,288	\$3,288
5-YD Sunday	\$2,888	\$2,888	\$2,888	\$2,888	\$2,888	\$2,888
6-YD Compactor	\$9,865	\$9,865	\$9,865	\$9,865	\$9,865	\$9,865
6-YD Compactor - Saturday	\$5,796	\$5,796	\$5,796	\$5,796	\$5,796	\$5,796
Revenue Adjustment ⁽¹⁾	(\$69,470)	(\$70,864)	(\$70,864)	(\$70,864)	(\$70,864)	(\$70,864)
Total Rate Revenue Under Existing Rates	<u>\$7,694,543</u>	<u>\$7,849,031</u>	<u>\$8,007,410</u>	<u>\$8,168,660</u>	<u>\$8,332,654</u>	<u>\$8,499,089</u>

(1) To validate the customer statistics, a revenue model based on the application of the customer statistics and the City’s current charges for service was developed. Based on a comparison of the City’s calculated revenues to reported revenues a downward reconciling adjustment of 0.89% was assumed to ensure accuracy of forecasted revenues relied upon in determination of the revenue sufficiency of the existing charges for service.

3.3.1. Other Revenues

Other Solid Waste Service revenues include penalties and service charges and investment income. Investment income was calculated by taking 1.25% of the average of the beginning and ending cash balances. As mentioned previously these other revenues equate to approximately 2% of gross revenues throughout the Rate Study Period.

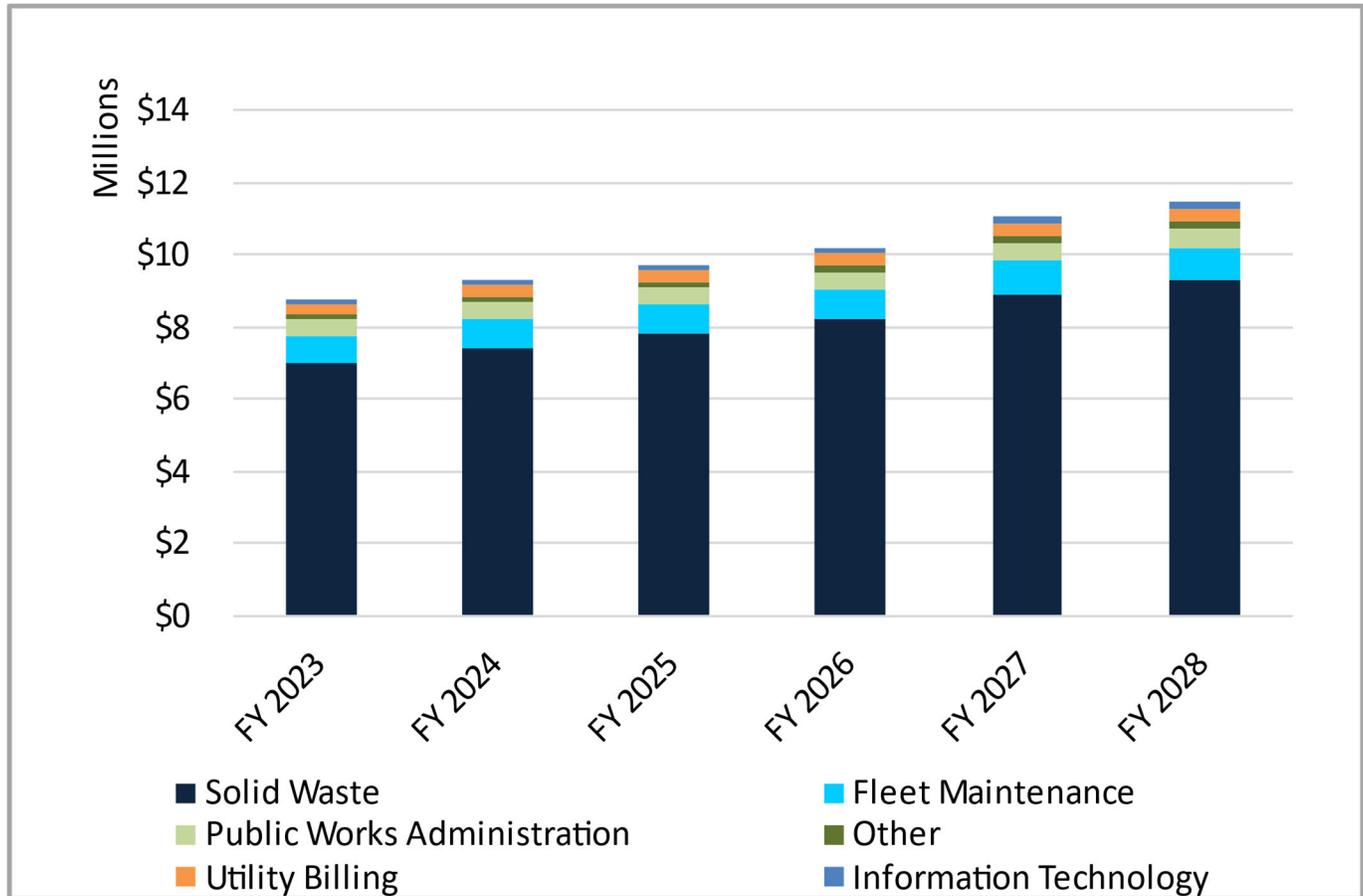
3.4. Expenditures

The expenditures during the Rate Study Period are primarily comprised of operation and maintenance (operating) expenses, capital outlay, and deposits to reserves to maintain adequate balances in compliance with the City’s targeted reserve policy.

3.4.1. Operating Expenses

The forecast of operating expenses was developed based upon: i) a review of the recent trends in historical expenses; ii) the adopted Fiscal Year 2023 budget, iii) assumed growth rates and escalation factors to account for inflation in the costs of operation; and iv) discussions with the City staff. Figure 3-1 shown below presents an overview of the operating expense projections by cost center.

Figure 3-1: Operating Expense Forecast by Budgetary Cost Center



The solid waste cost center is the largest cost center for the Department and is primarily comprised of disposal and personnel costs. Disposal costs represent the single largest funding requirement accounting for 38% of the total operating expenditures of the Department. The disposal fees are calculated for the Department through the waste tonnage reports and tipping fees charged by WPWMA. Tipping fees increased by 8.5% from Fiscal Year 2022 and Fiscal Year 2023, and it is assumed that these tipping fees will continue to increase by 3.5% throughout the Rate Study Period. Table 3-6 details the calculation of the disposal costs for the Rate Study Period.

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Table 3-6: Projected Disposal Costs

	2021	2022	2023	2024	2025	2026	2027	2028
Refuse Disposal Cost per Ton	\$73.00	\$88.00	\$95.50	\$103.75	\$107.38	\$111.14	\$115.03	\$119.06
Refuse Tons	19,140	19,502	20,049	20,450	20,858	21,276	21,701	22,135
Calculated Costs	\$1,397,191	\$1,716,180	\$1,914,686	\$2,121,662	\$2,239,764	\$2,364,579	\$2,496,257	\$2,635,393
Commercial Disposal Cost per Ton	\$73.00	\$88.00	\$95.50	\$103.75	\$107.38	\$111.14	\$115.03	\$119.06
Commercial Tons	4,659	5,080	5,182	5,286	5,392	5,500	5,610	5,722
Calculated Costs	\$340,072	\$447,045	\$494,881	\$548,423	\$578,993	\$611,270	\$645,318	\$681,261
Green Waste Disposal Cost per Ton	\$42.00	\$68.00	\$74.00	\$80.50	\$83.32	\$86.24	\$89.26	\$92.38
Green Waste Tons	6,234	6,220	6,344	6,471	6,600	6,732	6,867	7,004
Calculated Costs	\$261,831	\$422,938	\$469,456	\$520,916	\$549,912	\$580,568	\$612,948	\$647,030
Wood Waste Disposal Cost per Ton	\$40.00	\$55.00	\$55.00	\$56.75	\$58.74	\$60.80	\$62.93	\$65.13
Wood Waste Tons	10	5	5	5	5	5	5	5
Calculated Costs	\$411	\$263	\$275	\$284	\$294	\$304	\$315	\$326
Organics Disposal Cost per Ton	\$46.50	\$68.00	\$74.00	\$80.50	\$83.32	\$86.24	\$89.26	\$92.38
Organics Tons	42	146	149	152	155	158	161	164
Calculated Costs	\$1,946	\$9,939	\$11,026	\$12,236	\$12,915	\$13,626	\$14,371	\$15,150
Miscellaneous Waste Disposal Cost per Ton	\$48.00	\$48.00	\$48.00	\$48.00	\$49.68	\$51.42	\$53.22	\$55.08
Miscellaneous Tons	2,642	1,956	1,995	2,035	2,076	2,118	2,160	2,203
Calculated Costs	\$126,810	\$93,875	\$95,760	\$97,680	\$103,136	\$108,908	\$114,955	\$121,341
Budget Reconciling Adj.	n/a	n/a	\$149,304	\$165,060	\$174,251	\$183,963	\$194,208	\$205,025
Total Calculated Disposal Costs	\$2,128,261	\$2,690,239	\$3,135,388	\$3,466,260	\$3,659,264	\$3,863,217	\$4,078,373	\$4,305,526

The next single greatest expense is personnel, which has a growth rate of 5% per year. Together, the disposal costs and personnel expenses account for approximately \$5.6 million or 64% of total operating expenses. The balance of operating expenses is for maintenance, repayment of indirect services, and other expenses. It should be noted that as vehicles are replaced maintenance costs decline and to validate the maintenance expense forecast, a fleet replacement model was developed. The fleet replacement model assumes an increasing cost curve for maintenance as vehicles age. Based on the timing of fleet replacement maintenance costs were forecasted to fluctuate and overall are projected to be approximately 7% greater than budgeted amounts for the Fiscal Year 2023. In aggregate the total operating expenses for Solid Waste Services are estimated to increase by 5.5% annually.

Table 3-7 shown below presents a forecast of the operating expenses for the Operating Fund 730 and Capital Fund 731 by major category of expense.

Table 3-7: Operating Expense Summary

	2023	2024	2025	2026	2027	2028	Growth Rate
Personnel Expenses	\$2,283,347	\$2,399,585	\$2,521,799	\$2,650,302	\$3,010,173	\$3,163,730	6.7%
Fuel	\$292,459	\$301,233	\$310,270	\$319,578	\$329,165	\$339,040	3.0%
Disposal	\$3,360,388	\$3,566,260	\$3,763,264	\$3,970,337	\$4,188,707	\$4,419,170	5.6%
Maintenance	\$478,503	\$539,910	\$517,125	\$545,686	\$627,300	\$511,713	1.4%
Indirect Cost Allocation	\$770,917	\$809,463	\$841,842	\$867,097	\$893,110	\$919,903	3.6%
Utilities	\$10,000	\$10,350	\$10,712	\$11,087	\$11,475	\$11,877	3.5%
Supplies	\$130,493	\$135,860	\$141,294	\$146,785	\$152,491	\$158,421	4.0%
Professional Services	\$465,179	\$488,438	\$512,742	\$538,133	\$564,786	\$592,764	5.0%
Communications	\$75,764	\$79,553	\$82,736	\$85,217	\$87,774	\$90,407	3.6%
Insurance	\$866,658	\$914,675	\$965,468	\$1,019,205	\$1,147,595	\$1,211,888	6.9%
Other	\$71,968	\$75,567	\$78,590	\$80,948	\$83,377	\$85,878	3.6%
Total Operating Expenses	\$8,805,676	\$9,320,894	\$9,745,842	\$10,234,375	\$11,095,953	\$11,504,791	5.5%

For additional details concerning the projection of operating expenses please reference Appendix C at the end of this report.

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3.4.2. Escalation Factors

The operating expenses as presented in section 3.4.1 relied upon the application of inflation factors to the Fiscal Year 2023 operating expense budget and are presented in the following Table 3-8. To ensure that future costs are reasonably projected, Raftelis worked with City staff to confirm the assumptions.

Table 3-8: Inflationary Assumptions

Description	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
General	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Salary/Benefits	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Benefits	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Solid Waste Personnel	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Solid Waste Personnel Benefits	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
General Fuel	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Material and Supplies	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Utility	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
Professional Services	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Maintenance	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
Non-Inflated	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Indirect Costs	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%

3.4.3. Capital Expenditures

The City has developed a comprehensive Capital Improvement Plan (CIP) over the course of the Rate Study Period. Over the next five (5) years the City has allocated \$9.3 million into capital funding. The following table presents a summary of the planned annual capital spending over the Rate Study Period which is expected to average approximately \$1.5 million annually. The capital needs are primarily for the fleet needs of the Department.

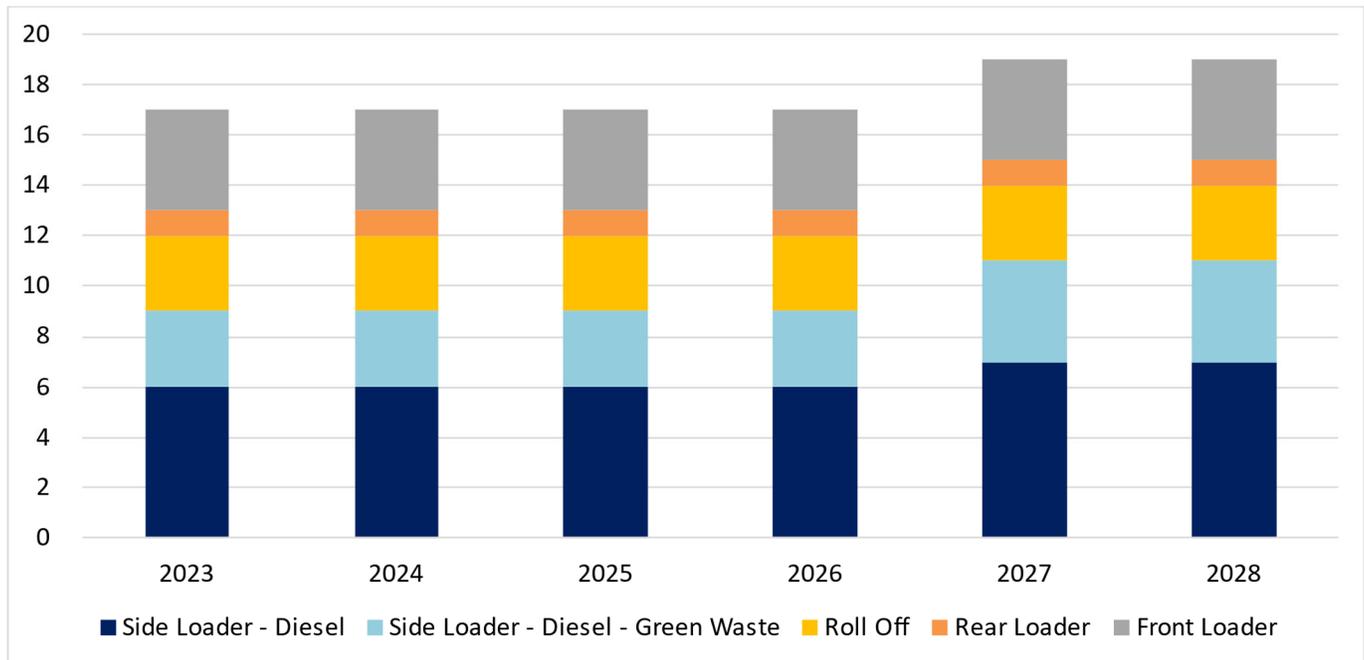
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Table 3-9: Capital Improvement Plan

Description	Funding Source	2023	2024	2025	2026	2027	2028
<u>CIP Costs:</u>							
New Recycle Center Phase 1 (CEQA/Design/Land/Const)	735	\$0	\$0	\$258,250	\$0	\$774,750	\$0
Electrification Strategy	731	\$0	\$131,250	\$130,000	\$0	\$0	\$0
Corp Yard Expansion (CEQA/Design/Const)	731	\$0	\$0	\$0	\$0	\$258,250	\$0
(2) Solid Waste collection truck	731	\$800,000	\$0	\$0	\$0	\$0	\$0
Roll off collection truck	731	\$270,000	\$0	\$0	\$0	\$0	\$0
Side Loader - Diesel	731	\$0	\$0	\$750,053	\$405,767	\$0	\$1,291,366
Side Loader - Diesel - Split Funding - PFE	735	\$0	\$0	\$0	\$0	\$433,321	\$0
Side Loader - Diesel - Green Waste	731	\$385,000	\$376,085	\$377,255	\$0	\$0	\$0
Side Loader - Diesel - Split Funding - PFE	735	\$0	\$0	\$0	\$0	\$433,321	\$0
Roll Off	731	\$0	\$0	\$0	\$0	\$0	\$277,121
Rear Loader	731	\$0	\$0	\$0	\$0	\$0	\$0
Front Loader	731	\$0	\$0	\$0	\$0	\$410,235	\$409,205
Pick-up	731	\$59,499	\$0	\$0	\$0	\$0	\$32,134
FlatBeds	731	\$0	\$0	\$0	\$0	\$74,944	\$0
Equipment	731	\$90,859	\$0	\$0	\$0	\$0	\$0
Cart Purchases (Existing Customers)	731	\$17,454	\$18,030	\$18,625	\$19,239	\$19,874	\$20,530
Cart Purchases (New Customers)	735	\$120,000	\$123,960	\$128,051	\$132,276	\$136,641	\$141,151
Total CIP Costs		\$1,742,812	\$649,324	\$1,662,233	\$557,282	\$2,541,337	\$2,171,505
<u>Funding Sources:</u>							
Capital Fund	731	\$1,605,359	\$507,335	\$1,257,308	\$405,767	\$743,430	\$2,009,825
PFE Fund	735	\$0	\$0	\$258,250	\$0	\$1,641,392	\$0
Capital Fund - Cart	731	\$17,454	\$18,030	\$18,625	\$19,239	\$19,874	\$20,530
PFE Fund - Cart	735	\$120,000	\$123,960	\$128,051	\$132,276	\$136,641	\$141,151
Total Funding Sources		\$1,742,812	\$649,324	\$1,662,233	\$557,282	\$2,541,337	\$2,171,505
<u>CIP Costs by Category:</u>							
Facilities		\$0	\$131,250	\$388,250	\$0	\$1,033,000	\$0
Fleet		\$1,605,359	\$376,085	\$1,127,308	\$405,767	\$1,351,821	\$2,009,825
Carts		\$137,454	\$141,990	\$146,675	\$151,515	\$156,515	\$161,681
Total CIP by Category		\$1,742,813	\$649,325	\$1,662,233	\$557,282	\$2,541,336	\$2,171,506

Fleet comprises 74% of the total CIP expenditure, and the City has planned to purchase additional automatic side loaders for their residential refuse routes and their green waste routes, a roll-off, and a rear loader for their commercial routes. Raftelis worked with City staff to develop a fleet replacement plan generally assuming seven- to 10-year service life for residential side loader, commercial front loader, and commercial roll-offs. Based on the assumed customer growth an additional fleet vehicles and routes were assumed by the Fiscal Year 2027. Funding for vehicles and equipment that serve new customers was assumed from the City’s PFE fund.

Figure 3-2: Major Vehicles by Type



The Solid Waste Services vehicle fleet is subject to the new Advanced Clean Fleets regulations. The Advanced Clean Fleets (ACF) regulation is part of the California Air Resources Board’s (CARB or Board) overall approach to accelerate a large-scale transition to zero-emission medium- and heavy-duty vehicles. State and local government fleets, including city, county, special district, and State agency fleets, are required to ensure 50 percent of vehicle purchases are zero-emission beginning in 2024 and 100 percent of vehicle purchases are zero-emission by 2027. Alternately, State, and local government fleet owners may elect to meet zero emission vehicle (ZEV) targets using the ZEV Milestones Option. State and local government fleets may purchase either zero emission vehicles (ZEVs) or near-ZEVs, or a combination of ZEVs and near-ZEVs, until 2035. Starting in 2035, only ZEVs will meet the requirements. The solid waste fleet qualifies for Milestone Group 3: Sleeper cab tractors and specialty vehicles. The Milestone Group 3 requires the percentage of vehicles that must be zero emission as follows: 10% in 2030, 25% in 2033, 50% in 2036, 75% in 2039 and 100% in 2042 and beyond. Currently pricing on electric garbage trucks are as much as twice the cost of a diesel truck today. This rate study did not include increased electric truck pricing as the City needs to further research options and an electrification strategy moving forward. At a minimum, the City will need to incorporate two zero emission vehicles into the fleet by 2030. An additional \$1M Capital investment supplement may be needed at the end of the ten-year forecast period, but additional funding was not programmed into the five-year rate period. The City plans to explore grant funding opportunities to bridge the funding gap prior to the end of the ten-year forecast study period.

3.4.4. Existing and Proposed Debt Service

The solid waste fund currently pays a portion of general fund debt related to shared facilities. This expense is currently about \$144,000 per year and is anticipated to decrease to about \$71,000 per year by the end of the Rate Study Period. The Study assumes no new debt issued and that all capital will be funded from reserves or future revenues.

3.4.5. Minimum Cash Reserve Targets

Industry best practices recognize the need and benefit of maintaining minimum cash reserves to provide necessary liquidity to fund day to day operations, provide resources in order to appropriate funds for expected capital outlays, and provide a reasonable allowance for unexpected needs. The Government Finance Officers Association (GFOA) recommends that enterprise funds consider establishing reserves by purpose. Pursuant to discussions with City staff the Study assumed the following minimum cash reserve targets by fund and purpose:

- **Operating Fund 730 Reserve Target:** a 90-day operating expense reserve was assumed to provide adequate liquidity for day-to-day operations and provide a reasonable allowance for unexpected costs.
- **Capital Fund 731 Reserve Target:** a minimum reserve equal to the average annual expenditure for the ten-year capital improvement plan was assumed during the Study to ensure adequate funds in order to appropriate for capital outlays for the ensuing fiscal year of the forecast.

Table 3-10 presents the forecast of minimum cash reserve targets assumed for the Study.

Table 3-10: Reserve Targets

\$ in Millions	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
Operating Reserves	\$2.16	\$2.29	\$2.39	\$2.51	\$2.72	\$2.82
Capital Reserves	<u>\$1.41</u>	<u>\$1.41</u>	<u>\$1.41</u>	<u>\$1.41</u>	<u>\$1.41</u>	<u>\$1.41</u>
Total Reserve Target	<u>\$3.57</u>	<u>\$3.70</u>	<u>\$3.80</u>	<u>\$3.92</u>	<u>\$4.13</u>	<u>\$4.23</u>

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4. Solid Waste Financial Plan

This section combines the assumptions previously discussed in the report to determine the overall revenue adjustments and total amount of revenue required from rates. The revenue covers operating and maintenance (O&M), debt service, and capital expenses as well as reserve funding. Revenue adjustments represent the average rate increase for the City as a whole; rate changes for individual customers will depend on the cost-of-service analysis described in the following chapter.

Financial plan assumptions previously discussed in Section 3 were provided by and discussed in detail with City staff. To develop the financial plan, Raftelis projected annual expenses and revenues, modeled reserve balances, and added planned capital expenditures. The City is not anticipating financing any capital improvements. While the solid waste operating fund pays its share of general fund debt for shared facilities, the solid waste enterprise does not have to meet debt coverage ratios associated with this general fund debt.

4.1. Proposed Financial Plan and Revenue Adjustments

The proposed revenue adjustments help ensure adequate revenue to fund operating expenses, capital expenditures, and meet reserve targets. The Financial Plan modelling assumes the first revenue adjustment occurs on October 1, 2023. The proposed revenue adjustments would enable the City to meet operating costs and to execute the CIP shown in Table 3-9 and meet reserve targets. Table 4-1 presents the proposed revenue adjustments for the initial five-year rate-setting period. It is recommended that the need for any future identified rate revenue adjustments be reviewed in the Fiscal Year 2027 or in the event of a significant change in conditions during the recommendation period which would necessitate additional rate revenues (i.e., change in regulations, material increase in the cost of contracted disposal, etc.).

Table 4-1: Proposed Revenue Adjustments

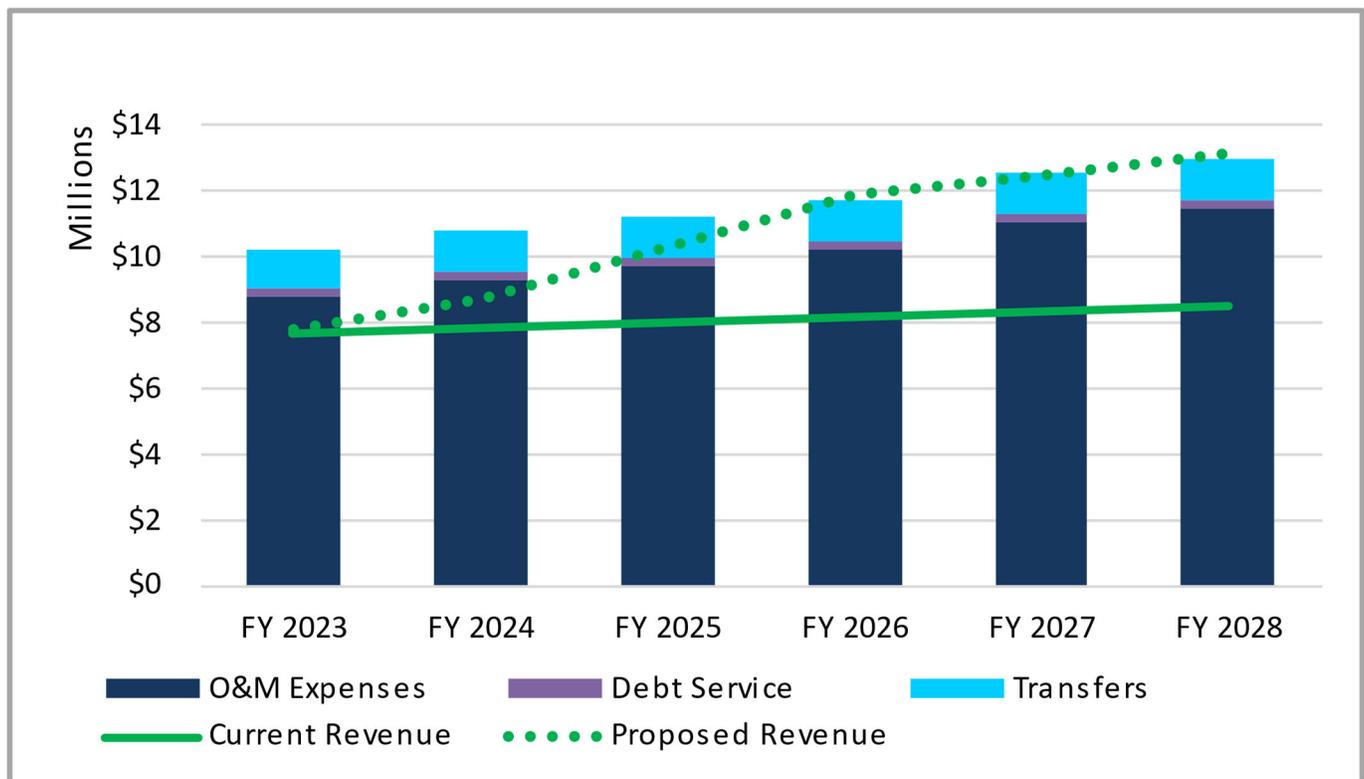
Effective Date	Adjustment
October 1, 2023	13.00%
July 1, 2024	13.00%
July 1, 2025	13.00%
July 1, 2026	3.00%
July 1, 2027	3.00%
<i>July 1, 2028</i>	<i>2.50%</i>
<i>July 1, 2029</i>	<i>2.50%</i>
<i>July 1, 2030</i>	<i>2.50%</i>
<i>July 1, 2031</i>	<i>2.50%</i>
<i>July 1, 2032</i>	<i>2.50%</i>

Appendices A and B present the cash flow detail over the Rate Study Period for the solid waste operating fund, Fund 730 and solid waste capital fund, Fund 731, respectively. The plan presumes that sufficient

transfers from Fund 730 are made each year to meet the annual CIP and the reserve target as later presented in Tables 4-2 and 4-3.

Figure 4-1 shows projected operating and capital ending balances over the Rate Study Period relative to the City’s total reserve targets under the proposed financial plan. Reserves are drawn down in the first three fiscal years to help cover annual operating costs, fund capital improvements, and allow for the phase-in of annual rate revenue adjustments for the benefit of the rate payers. Assuming the implementation of the recommended rate revenue adjustments, we have forecasted the City to maintain compliance with minimum operating and capital reserve targets.

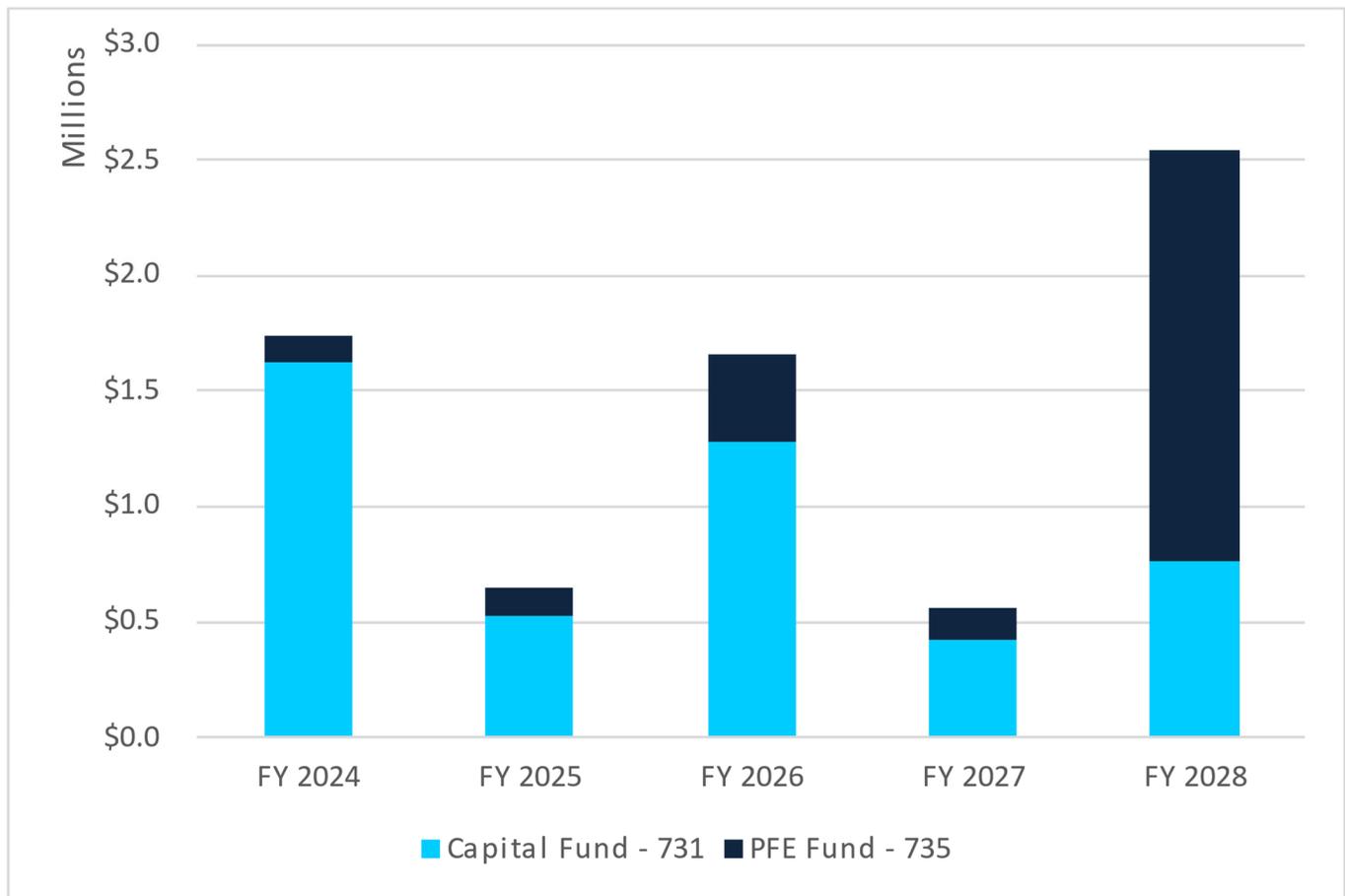
Figure 4-1: Proposed Operating Financial Plan



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Error! Not a valid bookmark self-reference. shows the proposed capital financing plan over the Rate Study Period. The Study assumes that capital is funded through reserves and future revenues. No debt is assumed in the forecast. The capital improvement plan is primarily composed of fleet related expenses, followed by facility investments and cart purchases. In the Rate Study Period, \$1.9 million existing PFE reserves were assumed to fund the construction of new facilities (recycling center) and equipment for new customers (carts, trucks). Excluding PFE funded capital, the reduction in cash reserves as shown in Figure 4-1 is generally consistent with the timing of capital expenditures as shown in Figure 4-2.

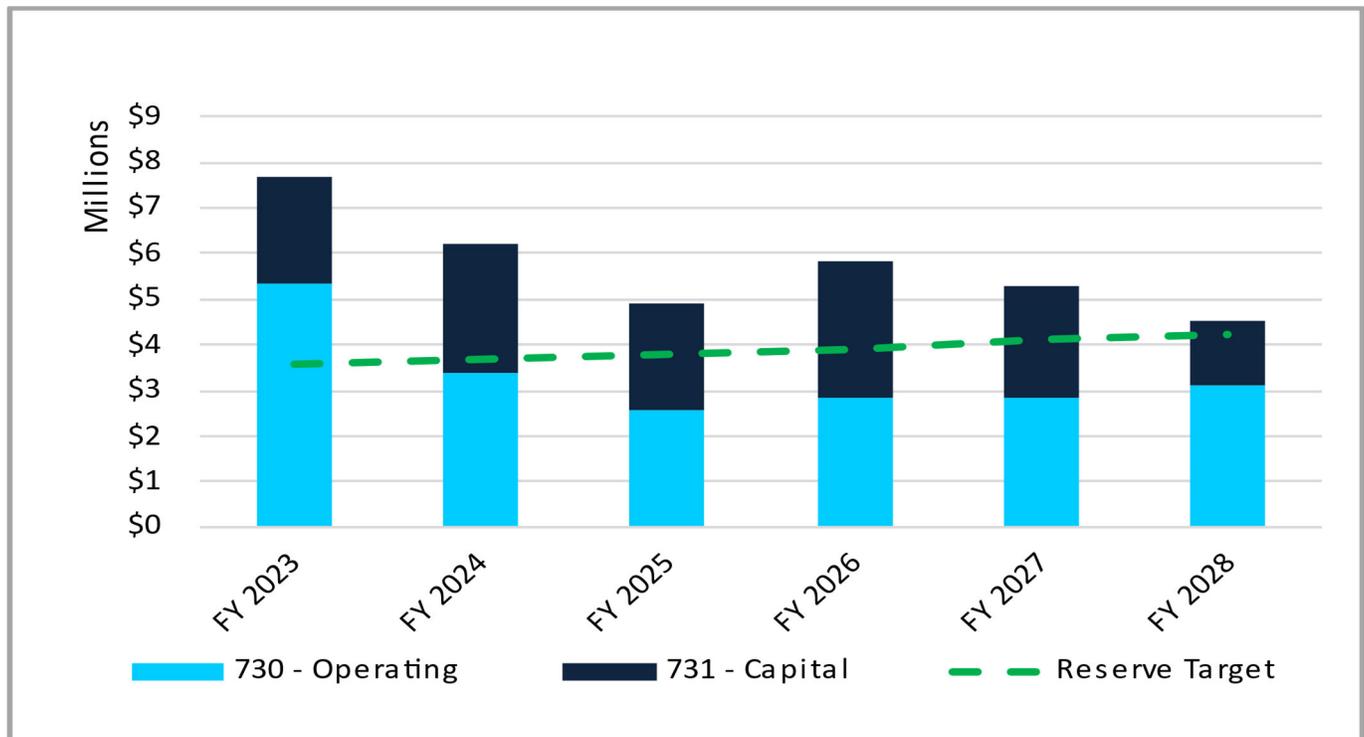
Figure 4-2: Projected Capital Plan and Funding Sources



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Figure 4-3 displays the projected operating and capital ending balances over the Rate Study Period relative to the City’s total reserve targets under the proposed financial plan. Reserves are drawn down in the first three fiscal years to help cover annual operating costs, fund capital improvements, and allow for the phase-in of annual rate revenue adjustments for the benefit of the rate payers. Assuming implementation of the recommended rate revenue adjustments, we have forecasted the City to maintain compliance with minimum operating and capital reserve targets.

Figure 4-3: Projected Cash Reserves



Transfers to and from the operating and capital funds were assumed in order to maintain adequate cash reserves as indicated in Figure 4-2. The following Table 4-2 presents the assumed use of cash to fund operations within the initial years of the forecast and subsequent deposits back to reserves in future years to maintain compliance with reserve targets.

Table 4-2: Operating Fund Deposits

Description	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
Use of Reserves to Fund Operations	\$2,257,717	\$1,873,240	\$788,642	\$-	\$-	\$-
Deposits to Reserves	=	=	=	<u>\$282,632</u>	<u>\$20,088</u>	<u>\$239,696</u>
Net Fund Transfers	(\$2,257,717)	(\$1,873,240)	(\$788,642)	\$282,632	\$20,088	\$239,696

The following Table 4-3 presents the assumed deposits from operating revenues or operating cash reserves to fund projected capital expenditures.

Table 4-3: Capital Fund Deposits

Description	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028
Capital Fund 731 Deposits	\$1,180,000	\$1,180,000	\$1,180,000	\$1,180,000	\$1,180,000	\$1,180,000
Heavy Vehicle Street Fund Deposits(*)	<u>\$0</u>	<u>\$100,000</u>	<u>\$102,000</u>	<u>\$104,040</u>	<u>\$106,121</u>	<u>\$108,243</u>
Total	\$1,180,000	\$1,280,000	\$1,282,000	\$1,284,040	\$1,286,121	\$1,288,243

(*) Note amounts shown reflect anticipated transfers to Public Works Road Fund for costs associated with additional road wear due to heavy vehicles used to provide solid waste services.

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5. Solid Waste Cost-of-Service Analysis

As previously described, the process of determining the cost-of-service begins with the allocation of revenue requirements and income and funds from other sources among the residential and commercial class of service. The main difference in costs among the customer classes relate to the frequency of collection, container size, waste generation, and services provided (i.e., residential service receives green waste collection every other week). Additionally, the City relies on different fleet configurations to provide service for residential and commercial service. After costs are allocated by customer class, the equivalent units are then calculated based on the product of the container size and collection frequency, among other considerations, to calculate an equivalent unit cost. The equivalent unit costs are then used to calculate the rates for service based on the size and frequency of collection. In development of the proposed rates, the cost-of-service was calculated for the Fiscal Year 2024 and applied the rate revenue adjustments to determine the proposed rates for the Fiscal Year 2028. The recommended five-year rate plan was developed based on transitioning from the City’s current rates to the calculated Fiscal Year 2028 rates. This section explains the details of the cost-of-service analysis conducted for the City’s solid waste services to customers.

5.1. Allocations of Net Revenue Requirement

A cost-of-service analysis distributes a utility’s revenue requirement (costs) to each customer class. After determining a utility’s revenue requirement, the next step in a cost-of-service analysis is to functionalize its O&M costs among the residential and commercial assuming the following allocation factors as presented in Table 5-1. Appendix F provides details concerning the assumptions in development of the allocation factors.

Table 5-1: Allocations for Residential and Commercial

COS Allocations	Residential	Commercial
Weekly Routes	71.43%	28.57%
FTEs	74.81%	25.19%
Customer Accounts	93.76%	6.24%
Equivalent Billing Units	84.93%	15.07%
Direct Residential	100.00%	0.00%
Direct Commercial	0.00%	100.00%
Refuse Tons	79.46%	20.54%
Composite Expense	79.17%	20.83%

The allocation factors were then applied to the projected revenue requirements of the Department including a detailed allocation of the operating expenses by cost center and object code line item. Table 5-2 presents a summary of this allocation, which is presented in greater detail within Appendix E.

Table 5-2: Allocated Expenses for Residential and Commercial

COS Allocations	2024	Residential	Commercial	Basis/Notes
Personnel Expenses	\$3,314,260	\$2,585,929	\$728,331	# of FTES
Fuel	\$319,691	\$269,009	\$50,682	# of Routes
Disposal	\$3,566,260	\$2,825,736	\$740,524	Tons
Maintenance	\$46,509	\$33,220	\$13,288	# of Routes
Indirect Cost Allocation	\$809,463	\$640,885	\$168,578	Composite allocations
Utilities	\$10,350	\$7,393	\$2,957	# of Routes
Supplies	\$407,092	\$303,367	\$103,725	Varies – Accounts, FTES, EBU, Routes
Professional Services	\$648,015	\$540,621	\$107,394	Varies – Accounts, FTES, EBU, Routes
Communications	\$79,887	\$74,826	\$5,061	Varies – Accounts, Routes, Composite
Other	<u>\$75,567</u>	<u>\$64,065</u>	<u>\$11,502</u>	Composite allocation
Subtotal O&M	\$9,277,094	\$7,345,050	\$1,932,044	Subtotal
Debt Service	\$125,603	\$100,082	\$25,521	Composite allocation
Transfers				
Transfer to 731 -Capital	\$1,180,000	\$1,002,126	\$177,874	# of EBUs
Transfers Out to Street Fund for Heavy Vehicle Impact	<u>\$100,000</u>	<u>\$71,429</u>	<u>\$28,571</u>	# of Routes
Total Funding Requirements	\$10,682,697	\$8,518,686	\$2,164,011	Subtotal
Other Revenues	<u>\$104,173</u>	<u>\$89,622</u>	<u>\$14,551</u>	Varies - Composite allocations, # of accounts
Net Funding Requirements	\$10,578,523	\$8,429,063	\$2,149,460	Subtotal
Use of Cash Reserves	<u>(\$1,709,118)</u>	<u>(\$1,361,841)</u>	<u>(\$347,277)</u>	Composite allocations
Cost Recovery for Rate Design	\$8,869,405	\$7,067,223	\$1,802,183	Subtotal
EBUs ⁽¹⁾	<u>177,037,027</u>	<u>150,350,518</u>	<u>26,686,508</u>	n/a
Cost per EBU (per Gallon per pickup)	<u>\$0.0501</u>	<u>\$0.0470</u>	<u>\$0.0675</u>	n/a

(1) Amounts shown derived from Table 5-5.

5.2. Calculated Equivalent Billing Units (EBUs)

Equivalent billing units (EBU) are necessary to calculate the unit cost for the purpose of calculating the proposed rates. EBUs are developed by customer class and are generally calculated by taking the customers container volume times the frequency of collection. Special adjustments are made for specific rates where service levels are not equivalent such as for additional carts, weekend service, and compactor service. Table 5-3 provides a detailed accounting of the EBUs.

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Table 5-3: Calculated Equivalent Billing Units (EBU)

Description	2024	Annual Tips /Pulls	Gals	Calculated EBU (gal/yr collected)	Weekend Labor 1.5x Adj.	Add'l Cart Factor @ 65%	Compactor 2:1 Disposal Adj.	Adjusted EBUs	Rev Recon Adj.	Adj. EBUs	% EBU Allocation
Calculations	(a)	(b)	(c)	(d)=a*b*c	(e)	(f)	(g)	(h)=d+e+f+g	(i) = (h)*-0.89%	(j)=h+i	(k)=j/sum(j:j)
# of Units											
Residential	19,841	52	96	99,046,272	0	0	0	99,046,272	(885,702)	98,160,570	55.45%
Residential (Add'l Carts)	967	52	96	4,827,264	0	(1,689,542)	0	3,137,722	(28,058)	3,109,663	1.76%
Residential Green Waste	19,841	26	96	49,523,136	0	0	0	49,523,136	(442,851)	49,080,285	27.72%
Commercial											
1 Cart	777	52	96	3,878,784	0	0	0	3,878,784	(34,685)	3,844,099	2.17%
2 Cart	28	52	192	279,552	0	0	0	279,552	(2,500)	277,052	0.16%
3 Cart	2	52	288	29,952	0	0	0	29,952	(268)	29,684	0.02%
4 Cart	4	52	384	79,872	0	0	0	79,872	(714)	79,158	0.04%
3-Yard Bin per Pickup	131	14,212	606	8,611,363	0	0	0	8,611,363	(77,005)	8,534,358	4.82%
4-Yard Bin per Pickup	5	600	808	484,738	0	0	0	484,738	(4,335)	480,403	0.27%
5-Yard Bin per Pickup	97	11,772	1,010	11,888,190	0	0	0	11,888,190	(106,308)	11,781,882	6.66%
2-YD Compactor	1	192	404	77,558	0	0	51,378	128,936	(1,153)	127,783	0.07%
3-YD Compactor	12	917	606	555,630	0	0	368,077	923,707	(8,260)	915,447	0.52%
3-YD Compactor – Saturday	4	5	606	3,030	1,540	0	2,007	6,576	(59)	6,518	0.00%
3-YD Compactor – Sunday	4	176	606	106,642	54,203	0	70,645	231,490	(2,070)	229,420	0.13%
4-YD Compactor	1	48	808	38,779	0	0	25,689	64,468	(576)	63,892	0.04%
6-YD Compactor	1	96	1,212	116,337	0	0	77,067	193,404	(1,729)	191,675	0.11%
6-YD Compactor – Saturday	1	48	1,212	58,169	29,565	0	38,534	126,267	(1,129)	125,138	0.07%
				179,605,268	85,308	(1,689,542)	633,397	178,634,430	(1,597,403)	177,037,027	100.0%

As can be seen from the above table, several adjustments were made to the calculation of the equivalent billing units to recognize differences in the cost of service for residential collection of additional carts for one-bin service, commercial weekend collection, and commercial compactor service. EBUs for additional residential carts were factored in assuming recovery of direct costs. Commercial EBUs were adjusted where applicable for: i) the additional labor costs associated with weekend service; and ii) additional disposal costs associated with compactor service. The factors are calculated and shown in Appendices D and E.

5.3. Rate Design

This section on the rate design will present how we calculate the cost of service rates for the Fiscal Year 2024 and then develop the recommended five-year rate transition plan for the Fiscal Years 2024-2028. The methodology starts with the cost of service for the Fiscal Year 2024, then the rate revenue adjustments are applied to determine the Fiscal Year 2028 rates. The total change in the rates from existing to the proposed Fiscal Year 2028 is then used to develop the transition plan. Table 5-6 presents a recap of the calculated unit cost per EBU for the residential and commercial class as was represented earlier in Table 5-2.

Table 5-4: Calculated Unit Cost per Equivalent Billing Unit (EBU)

	Residential	Commercial
Total Costs to be Recovered	\$7,067,223	\$1,802,183
EBUs	150,350,518	26,686,508
Cost per EBU (Gallon / Frequency)	\$0.047	\$0.068

The unit costs determined in Tables 5-2 and 5-4 are then factored by the level of service (i.e., gallons of container / bin capacity, frequency of collection, services provided) to determine the cost-of-service rate design for the Fiscal Year 2024. Table 5-5 that follows presents the calculation of the Fiscal Year 2024 cost-of-service rate design. As will be presented in subsequent tables the Fiscal year 2024 rates will then be adjusted by the rate revenue adjustments presented in Table 4-1 to determine the Fiscal Year 2028 rates. The overall change in rates from the existing rates to the Fiscal Year 2028 will be used to develop the recommended rate phasing transition plan.

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Table 5-5: Cost-of-Service Rate Calculations for Fiscal Year 2024

Residential Bin Service	EBU Unit Cost	Gallons	Annual Collections	Add'l Cart Factor	Annual Cost per Unit	Monthly Cost Per Unit
	(a)	(b)	(c)	(d)	(e)=(a*b*c*d)	(f) = (e)/12
<u>Residential</u>						
Residential One-Bin Cart	\$0.047	96.00	52	n/a	\$234.65	\$19.55
Residential (Add'l One-Bin Carts)	\$0.047	96.00	52	65%	\$152.45	\$12.70
Residential Green Waste Cart	\$0.047	96.00	26	n/a	\$117.32	\$9.78
Total Residential Rate						\$29.33
Additional Cart Fee						\$12.70
Commercial Bin Service	EBU Unit Cost	Gallons	Annual Collections	Annual Cost per Unit	Monthly Cost Per Unit	
	(a)	(b)	(c)	(d)=(a*b*c)	(e) = (d)/12	
1 Cart	\$0.068	96.00	52	\$337.11	\$28.09	
2 Cart	\$0.068	192.00	52	\$674.23	\$56.19	
3 Cart	\$0.068	288.00	52	\$1,011.35	\$84.28	
4 Cart	\$0.068	384.00	52	\$1,348.47	\$112.37	
Commercial Container Service (per Pull)	EBU Unit Cost	Gallons	Weekend Adj.	Compactor Adj.	Cost per Pull	
	(a)	(b)	(c)	(d)	(e) = a*b*(1+c+d)	
3-Yard Bin per Pickup	\$0.068	605.92	n/a	n/a	\$40.92	
3-Yard Bin per Pickup – Weekend	\$0.068	605.92	51%	n/a	\$61.72	
4-Yard Bin per Pickup	\$0.068	807.90	n/a	n/a	\$54.56	
4-Yard Bin per Pickup – Weekend	\$0.068	807.90	51%	n/a	\$82.29	
5-Yard Bin per Pickup	\$0.068	1,009.87	n/a	n/a	\$68.20	
5-Yard Bin per Pickup – Weekend	\$0.068	1,009.87	51%	n/a	\$102.86	
2-YD Compactor	\$0.068	403.95	n/a	66%	\$45.35	
3-YD Compactor	\$0.068	605.92	n/a	66%	\$68.03	
3-YD Compactor – Weekend	\$0.068	807.90	51%	66%	\$88.82	
4-YD Compactor	\$0.068	807.90	n/a	66%	\$90.70	
6-YD Compactor	\$0.068	1,211.84	n/a	66%	\$136.05	
6-YD Compactor – Weekend	\$0.068	4,039.48	51%	66%	\$177.65	
20-YD Compactor	\$0.068	4,039.48	n/a	66%	\$453.50	
30-YD Compactor	\$0.068	6,059.22	n/a	66%	\$680.26	

Note that based on discussions with City staff the rate adjustments to cost of service will be phased over the recommended five-year rate plan and the calculated rates shown are not the recommended rates for the Fiscal Year 2024. Rate design adjustment factors for residential additional carts, commercial weekend service, and commercial compactor adjustments are presented in Appendix D and Appendix E.

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Table 5-6 takes the cost-of-service rate calculations for the Fiscal Year 2024 and applies the rate revenue adjustments as previously presented in Table 4-2 in order to determine the recommended rates for the Fiscal Year 2028. The calculated Fiscal Year 2028 rates will then be used in order to develop the recommended five-year rate plan that transitions the cost-of-service adjustments and the revenue adjustments.

Table 5-6: Determination of the Fiscal Year 2028 Rate Design

Residential Bin Service	FY24 COS Rates	FY25	FY26	FY27	FY28	Cumulative Rate Adj.	FY28 Rec'd Rates
	(a)	(b)	(c)	(d)	(e)	$(f)=(1+b)*(1+c)*$ $*(1+d)*(1+e)$	$(g)=(a)*(f)$
<u>Residential</u>							
Residential 1 st Cart	\$29.33	13%	13%	3%	3%	1.35	\$39.73
Additional Cart Fee	\$12.70	13%	13%	3%	3%	1.35	\$17.21
<u>Commercial Carts</u>							
1 Cart	\$28.09	13%	13%	3%	3%	1.35	\$38.06
2 Cart	\$56.19	13%	13%	3%	3%	1.35	\$76.11
3 Cart	\$84.28	13%	13%	3%	3%	1.35	\$114.17
4 Cart	\$112.37	13%	13%	3%	3%	1.35	\$152.23
<u>Commercial Bins</u>							
3-Yard Bin per Pickup	\$40.92	13%	13%	3%	3%	1.35	\$55.43
3-Yard Bin per Pickup – Weekend	\$61.72	13%	13%	3%	3%	1.35	\$83.61
4-Yard Bin per Pickup	\$54.56	13%	13%	3%	3%	1.35	\$73.91
4-Yard Bin per Pickup – Weekend	\$82.29	13%	13%	3%	3%	1.35	\$111.47
5-Yard Bin per Pickup	\$68.20	13%	13%	3%	3%	1.35	\$92.39
5-Yard Bin per Pickup – Weekend	\$102.86	13%	13%	3%	3%	1.35	\$139.34
2-YD Compactor	\$45.35	13%	13%	3%	3%	1.35	\$61.43
3-YD Compactor	\$68.03	13%	13%	3%	3%	1.35	\$92.15
3-YD Compactor – Weekend	\$88.82	13%	13%	3%	3%	1.35	\$120.33
4-YD Compactor	\$90.70	13%	13%	3%	3%	1.35	\$122.87
6-YD Compactor	\$136.05	13%	13%	3%	3%	1.35	\$184.30
6-YD Compactor – Weekend	\$177.65	13%	13%	3%	3%	1.35	\$240.65
20-YD Compactor	\$453.50	13%	13%	3%	3%	1.35	\$614.34
30-YD Compactor	\$680.26	13%	13%	3%	3%	1.35	\$921.52

Table 5-7 calculates the total change in the rates required from the existing fees for each of the fiscal years of the recommended rate plan. The total incremental change as shown in column (c) are allocated by Fiscal Year based on the cumulative rate adjustments referred to in the table as the Rate Phasing Weighting to ensure that the calculated rates generate the desired increase in rate revenues, everything else being held constant. The proposed rates as presented in the ensuing Table 5-8 are developed by taking the existing rates plus the rate adjustments by fiscal year as shown in Table 5-7.

Table 5-7: Proposed Rate Design Transition Adjustments to Existing Rates

	Existing Rate	Calculated Rate FY28	Total Change	FY 2024 Adjustment	FY 2025 Adjustment	FY 2026 Adjustment	FY 2027 Adjustment	FY 2028 Adjustment
Rate Adj				13.0%	13.0%	13.0%	3.0%	3.0%
Rate Phasing Weighting				24.5%	52.2%	83.4%	91.6%	100.0%
Calculations	(a)	(b)	(c)	(d) = (c)* rate phasing weighting				
Total Residential Rate	\$26.00	\$39.73	\$13.73	\$3.36	\$7.17	\$11.46	\$12.58	\$13.73
Additional Cart Fee	\$16.11	\$17.21	\$1.10	\$0.27	\$0.57	\$0.92	\$1.01	\$1.10
Commercial								
1 Cart	\$31.23	\$38.06	\$6.83	\$1.67	\$3.56	\$5.70	\$6.25	\$6.83
2 Cart	\$60.17	\$76.11	\$15.94	\$3.91	\$8.32	\$13.30	\$14.60	\$15.94
3 Cart	\$89.11	\$114.17	\$25.06	\$6.14	\$13.07	\$20.91	\$22.96	\$25.06
4 Cart	\$118.05	\$152.23	\$34.18	\$8.37	\$17.83	\$28.52	\$31.31	\$34.18
3-Yard Bin per Pickup	\$34.04	\$55.43	\$21.39	\$5.24	\$11.16	\$17.85	\$19.59	\$21.39
3-Yard Bin per Pickup – Weekend	\$44.17	\$83.61	\$39.44	\$9.66	\$20.57	\$32.91	\$36.12	\$39.44
4-Yard Bin per Pickup	\$44.45	\$73.91	\$29.46	\$7.22	\$15.37	\$24.58	\$26.98	\$29.46
4-Yard Bin per Pickup – Weekend	\$52.17	\$111.47	\$59.30	\$14.53	\$30.94	\$49.49	\$54.32	\$59.30
5-Yard Bin per Pickup	\$54.85	\$92.39	\$37.54	\$9.19	\$19.58	\$31.32	\$34.38	\$37.54
5-Yard Bin per Pickup – Weekend	\$60.17	\$139.34	\$79.17	\$19.39	\$41.30	\$66.06	\$72.52	\$79.17
2-YD Compactor	\$26.27	\$61.43	\$35.16	\$8.61	\$18.35	\$29.34	\$32.21	\$35.16
3-YD Compactor	\$51.38	\$92.15	\$40.77	\$9.99	\$21.27	\$34.02	\$37.35	\$40.77
3-YD Compactor – Weekend	\$69.38	\$120.33	\$50.95	\$12.48	\$26.58	\$42.51	\$46.67	\$50.95
4-YD Compactor	\$68.51	\$122.87	\$54.36	\$13.31	\$28.36	\$45.36	\$49.79	\$54.36
6-YD Compactor	\$102.76	\$184.30	\$81.54	\$19.97	\$42.54	\$68.04	\$74.69	\$81.54
6-YD Compactor – Weekend	\$120.76	\$240.65	\$119.89	\$29.36	\$62.55	\$100.04	\$109.82	\$119.89
20-YD Compactor	n/a	\$614.34	n/a	n/a	\$83.91	\$134.21	\$147.33	\$160.84
30-YD Compactor	n/a	\$921.52	n/a	n/a	\$125.87	\$201.32	\$221.00	\$241.26

Table 5-8 presents the existing and proposed rates based on the rate adjustments as presented in Table 5-7.

Table 5-8: Proposed and Recommended Fiscal Year 2024 through 2028 Rate Plan

	Existing Rate	Total Change	Calculated Rate FY24	Calculated Rate FY25	Calculated Rate FY26	Calculated Rate FY27	Calculated Rate FY28
Rate Adj			13.0%	13.0%	13.0%	3.0%	3.0%
Rate Phasing Weighting			24.5%	52.2%	83.4%	91.6%	100.0%
Calculations	(a)	(b)	(c)=(a)+(b)*rate phasing weighting				
Total Residential Rate	\$26.00	\$13.73	\$29.36	\$33.17	\$37.46	\$38.58	\$39.73
Additional Cart Fee	\$16.11	\$1.10	\$16.38	\$16.68	\$17.03	\$17.12	\$17.21
Commercial							
1 Cart	\$31.23	\$6.83	\$32.90	\$34.79	\$36.93	\$37.48	\$38.06
2 Cart	\$60.17	\$15.94	\$64.08	\$68.49	\$73.47	\$74.77	\$76.11
3 Cart	\$89.11	\$25.06	\$95.25	\$102.18	\$110.02	\$112.07	\$114.17
4 Cart	\$118.05	\$34.18	\$126.42	\$135.88	\$146.57	\$149.36	\$152.23
3-Yard Bin per Pickup	\$34.04	\$21.39	\$39.28	\$45.20	\$51.89	\$53.63	\$55.43
3-Yard Bin per Pickup – Weekend	\$44.17	\$39.44	\$53.83	\$64.74	\$77.08	\$80.29	\$83.61
4-Yard Bin per Pickup	\$44.45	\$29.46	\$51.67	\$59.82	\$69.03	\$71.43	\$73.91
4-Yard Bin per Pickup – Weekend	\$52.17	\$59.30	\$66.70	\$83.11	\$101.66	\$106.49	\$111.47
5-Yard Bin per Pickup	\$54.85	\$37.54	\$64.04	\$74.43	\$86.17	\$89.23	\$92.39
5-Yard Bin per Pickup – Weekend	\$60.17	\$79.17	\$79.56	\$101.47	\$126.23	\$132.69	\$139.34
2-YD Compactor	\$26.27	\$35.16	\$34.88	\$44.62	\$55.61	\$58.48	\$61.43
3-YD Compactor	\$51.38	\$40.77	\$61.37	\$72.65	\$85.40	\$88.73	\$92.15
3-YD Compactor – Weekend	\$69.38	\$50.95	\$81.86	\$95.96	\$111.89	\$116.05	\$120.33
4-YD Compactor	\$68.51	\$54.36	\$81.82	\$96.87	\$113.87	\$118.30	\$122.87
6-YD Compactor	\$102.76	\$81.54	\$122.73	\$145.30	\$170.80	\$177.45	\$184.30
6-YD Compactor – Weekend	\$120.76	\$119.89	\$150.12	\$183.31	\$220.80	\$230.58	\$240.65
20-YD Compactor	n/a	n/a	\$453.50	\$537.41	\$587.72	\$600.83	\$614.34
30-YD Compactor	n/a	n/a	\$680.26	\$806.12	\$881.57	\$901.25	\$921.52

6. Proposed Solid Waste Rates and Charges

The City’s solid waste fee is charged monthly for residential and non-residential bin collections. It is important to note that the commercial bins and compactors are charged on a per pick-up basis.

6.1. Proposed 5-Year Solid Waste Rate Schedule

Table 6-1 and Table 6-12 show the proposed 5-year schedule of solid waste rates as previously developed in Section 5.

Table 6-1: Proposed 5-Year Residential Solid Waste Rate Schedule

Residential Collection Rates	2023	2024	2025	2026	2027	2028
1 – Cart	\$26.00	\$29.36	\$33.17	\$37.46	\$38.58	\$39.73
Additional Carts	\$16.11	\$16.38	\$16.68	\$17.03	\$17.12	\$17.21

Table 6-2: Proposed 5-Year Non-Residential Solid Waste Rate Schedule

Non-Residential Collection Rates	2023	2024	2025	2026	2027	2028
Commercial Carts:						
One Cart	\$31.23	\$32.90	\$34.79	\$36.93	\$37.48	\$38.06
Two Cart	\$60.17	\$64.08	\$68.49	\$73.47	\$74.77	\$76.11
Three Cart	\$89.11	\$95.25	\$102.18	\$110.02	\$112.07	\$114.17
Four Cart	\$118.05	\$126.42	\$135.88	\$146.57	\$149.36	\$152.23
Commercial Bins:						
3-Yard Bin per Pickup	\$34.04	\$39.28	\$45.20	\$51.89	\$53.63	\$55.43
3-Yard Bin per Pickup – Weekend	\$44.17	\$53.83	\$64.74	\$77.08	\$80.29	\$83.61
4-Yard Bin per Pickup	\$44.45	\$51.67	\$59.82	\$69.03	\$71.43	\$73.91
4-Yard Bin per Pickup – Weekend	\$52.17	\$66.70	\$83.11	\$101.66	\$106.49	\$111.47
5-Yard Bin per Pickup	\$54.85	\$64.04	\$74.43	\$86.17	\$89.23	\$92.39
5-Yard Bin per Pickup – Weekend	\$60.17	\$79.56	\$101.47	\$126.23	\$132.69	\$139.34
Commercial Compactors:						
2-YD Compactor (Mon-Fri)	\$26.27	\$34.88	\$44.62	\$55.61	\$58.48	\$61.43
3-YD Compactor (Mon-Fri)	\$51.38	\$61.37	\$72.65	\$85.40	\$88.73	\$92.15
3-YD Compactor (Sat-Sun)	\$69.38	\$81.86	\$95.96	\$111.89	\$116.05	\$120.33
4-YD Compactor (Mon-Sat)	\$68.51	\$81.82	\$96.87	\$113.87	\$118.30	\$122.87
6-YD Compactor (Mon-Fri)	\$102.76	\$122.73	\$145.30	\$170.80	\$177.45	\$184.30
6-YD Compactor (Sat-Sun)	\$120.76	\$150.12	\$183.31	\$220.80	\$230.58	\$240.65
20-YD Compactor (Mon-Fri)	n/a	\$453.50	\$537.41	\$587.72	\$600.83	\$614.34
30-YD Compactor (Mon-Fri)	n/a	\$680.26	\$806.12	\$881.57	\$901.25	\$921.52

7. Solid Waste Fee Comparison

7.1. Monthly Residential Bill Comparison

For the purposes of this analysis, a solid waste fee comparison was prepared with other comparable entities for informational purposes. It should be noted that not all the entities in the comparison operate as an enterprise fund and service may be subsidized by the entities general fund. Figure 7-1 shows a comparison of the residential single-family monthly rates for solid waste collection, including refuse, recycling, and green waste as of Fiscal Year 2023.

Figure 7-1: Monthly Residential Fee Comparison



Key observations from the comparison include: i) the City’s monthly charge is the lowest fee surveyed; ii) the City provides comparable levels of service to the other entities with weekly collection and weekly or bi-weekly green waste collection; and iii) while the survey did not assess whether other entities fully funded operations from user fees alone, it should be noted that the City’s operations are funded exclusively from user fees and not subsidized by transfers from the general fund.

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APPENDIX:



Appendix A
City of Lincoln, California
Municipal Utility Rate Study for Solid Waste
Operating Cash Flow - Fund 730

		FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Beginning Cash Reserves		\$ 7,594,417	\$5,331,965	\$3,367,753	\$2,571,792	\$2,846,187	\$2,857,738
Revenues							
Single Family Residential	SFR1Cart	\$5,950,152	\$6,069,024	\$6,190,392	\$6,314,256	\$6,440,616	\$6,569,472
Additional Cart (1)	SFR2Cart	\$179,594	\$183,267	\$186,940	\$190,614	\$194,480	\$198,346
Multi-Family Residential (4 units or less)	MFR1Cart	\$4,680	\$4,680	\$4,680	\$4,680	\$4,680	\$4,680
Non-Residential							
One 90-Gallon Can	COM1Cart	\$279,946	\$285,567	\$291,189	\$297,185	\$303,181	\$309,177
Two 90-Gallon Cans	COM2Cart	\$18,773	\$19,495	\$20,217	\$20,939	\$21,661	\$22,383
Three 90-Gallon Cans	COM3Cart	\$2,139	\$2,139	\$2,139	\$2,139	\$2,139	\$2,139
Four 90-Gallon Cans	COM4Cart	\$5,666	\$5,666	\$5,666	\$5,666	\$5,666	\$5,666
3 - Yard Bin Monthly Lease	COM3YDLease	\$38,336	\$38,997	\$39,658	\$40,319	\$40,980	\$41,640
4 - Yard Bin Monthly Lease	COM4YDLease	\$39,897	\$40,746	\$41,595	\$42,444	\$43,293	\$44,142
5 - Yard Bin Monthly Lease	COM5YDLease	\$2,134	\$2,134	\$2,134	\$2,134	\$2,134	\$2,134
Average Commercial Pick-ups / Account Revenue							
3 - Yard Bin per Pickup	COM3YDBin	\$483,776	\$495,384	\$506,992	\$518,599	\$530,207	\$541,815
4 - Yard Bin per Pickup	COM4YDBin	\$26,670	\$26,670	\$26,670	\$26,670	\$26,670	\$26,670
5 - Yard Bin per Pickup	COM5YDBin	\$645,694	\$659,571	\$673,448	\$687,325	\$701,257	\$715,134
90 Gallon (2 pack)	Com90Comp	\$0	\$0	\$0	\$0	\$0	\$0
2-YD Compactor	Com2Comp	\$5,044	\$5,044	\$5,044	\$5,044	\$5,044	\$5,044
3-YD Compactor	Com3Comp	\$47,115	\$47,115	\$47,115	\$47,115	\$47,115	\$47,115
3-YD Compactor -Saturday	Com3Comp-Sat	\$347	\$347	\$347	\$347	\$347	\$347
3-YD Compactor -Sunday	Com3Comp-Sun	\$12,211	\$12,211	\$12,211	\$12,211	\$12,211	\$12,211
4-YD Compactor	Com4Comp	\$3,288	\$3,288	\$3,288	\$3,288	\$3,288	\$3,288
5-YD Sunday	Com5Comp-Sun	\$2,888	\$2,888	\$2,888	\$2,888	\$2,888	\$2,888
6-YD Compactor	Com6Comp	\$9,865	\$9,865	\$9,865	\$9,865	\$9,865	\$9,865
6-YD Compactor - Saturday	Com6Comp-Sat	\$5,796	\$5,796	\$5,796	\$5,796	\$5,796	\$5,796
Revenue Adjustment		(\$69,470)	(\$70,864)	(\$70,864)	(\$70,864)	(\$70,864)	(\$70,864)
Total Rate Revenue Under Existing / Adopted Rates		\$7,694,543	\$7,849,031	\$8,007,410	\$8,168,660	\$8,332,654	\$8,499,089

Revenue Adjustments

Year	Effective	Month	% Adj.						
FY 2023	12	July	0.0%	\$0	\$0	\$0	\$0	\$0	\$0
FY 2024	9	October	13.0%		\$765,281	\$1,040,963	\$1,061,926	\$1,083,245	\$1,104,882
FY 2025	12	July	13.0%			\$1,176,289	\$1,199,976	\$1,224,067	\$1,248,516
FY 2026	12	July	13.0%				\$1,355,973	\$1,383,196	\$1,410,823
FY 2027	12	July	3.0%					\$360,695	\$367,899
FY 2028	12	July	3.0%						\$378,936

Appendix A
City of Lincoln, California
Municipal Utility Rate Study for Solid Waste
Operating Cash Flow - Fund 730

		FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Subtotal		\$0	\$765,281	\$2,217,252	\$3,617,875	\$4,051,202	\$4,511,057
Total Revenues from Rates		\$7,694,543	\$8,614,312	\$10,224,662	\$11,786,535	\$12,383,857	\$13,010,146
Other Revenues							
Interest Rate		1.25%	1.25%	1.25%	1.25%	1.25%	1.25%
Penalties & Service Charges	38100	\$2,800	\$2,800	\$2,800	\$2,800	\$2,800	\$2,800
Investment Revenue	38500	\$80,790	\$54,373	\$37,122	\$33,862	\$35,650	\$37,164
Recycling Revenue	38910	\$47,000	\$47,000	\$47,000	\$47,000	\$47,000	\$47,000
Subtotal		\$130,590	\$104,173	\$86,922	\$83,662	\$85,450	\$86,964
Total Revenues		\$7,825,133	\$8,718,485	\$10,311,585	\$11,870,198	\$12,469,306	\$13,097,110
O&M Expenses							
City Attorney		\$12,366	\$12,996	\$13,660	\$14,357	\$15,090	\$15,861
Information Technology		117,054	123,003	129,258	135,834	142,749	150,018
Administrative		75	79	82	84	87	90
Finance		51,208	53,768	56,456	59,279	62,243	65,355
Utility Billing		297,150	312,320	327,806	343,590	360,163	377,566
Community Development Administration		22,944	24,104	25,323	26,603	27,948	29,363
Public Works Administration		425,530	447,346	470,292	494,430	519,828	546,550
Engineering		65,091	68,418	71,918	75,598	79,468	83,539
Solid Waste		7,037,708	7,425,499	7,804,245	8,192,140	8,896,290	9,340,970
Fleet Maintenance		734,550	809,561	801,124	844,822	942,404	843,663
Total O&M Expenses		\$8,763,676	\$9,277,094	\$9,700,164	\$10,186,737	\$11,046,270	\$11,452,975
Debt Service			5.9%	4.6%	5.0%	8.4%	3.7%
Existing Debt Service	730	\$143,909	\$125,603	\$125,382	\$125,025	\$125,365	\$125,118
Proposed Debt Service		\$0	\$0	\$0	\$0	\$0	\$0
Total Debt Service		\$143,909	\$125,603	\$125,382	\$125,025	\$125,365	\$125,118
Transfers							
Transfer to 731 -Capital	731	\$1,180,000	\$1,180,000	\$1,180,000	\$1,180,000	\$1,180,000	\$1,180,000
Transfer to 735 -PFE	735	\$0	\$0	\$0	\$0	\$0	\$0
Transfers Out to Street Fund for Heavy Vehicle Impact	2%	\$0	\$100,000	\$102,000	\$104,040	\$106,121	\$108,243

Appendix A
 City of Lincoln, California
 Municipal Utility Rate Study for Solid Waste
 Operating Cash Flow - Fund 730

			FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Subtotal Transfers			\$1,180,000	\$1,280,000	\$1,282,000	\$1,284,040	\$1,286,121	\$1,288,243
Net Cash Flow			(\$2,262,452)	(\$1,964,211)	(\$795,961)	\$274,396	\$11,550	\$230,774
Ending Cash Reserves			\$5,331,965	\$3,367,753	\$2,571,792	\$2,846,187	\$2,857,738	\$3,088,512
Operating Reserve Target	Y	90	\$2,160,906	\$2,287,503	\$2,391,821	\$2,511,798	\$2,723,738	\$2,824,021
Net Above / (Below) Target			\$3,171,059	\$1,080,250	\$179,971	\$334,389	\$134,000	\$264,491
Projected 731 Ending Balance - Above / (Below) Target			\$914,272	\$1,433,447	\$937,982	\$1,546,213	\$1,035,596	\$16,475

Appendix B
City of Lincoln, California
Municipal Utility Rate Study for Solid Waste
Capital Fund Cash Flow - Fund 731

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Beginning Cash Reserves	\$ 2,896,455	\$2,324,272	\$2,843,447	\$2,347,982	\$2,956,213	\$2,445,596
Revenues						
Transfers from 730	\$1,180,000	\$1,180,000	\$1,180,000	\$1,180,000	\$1,180,000	\$1,180,000
Debt Proceeds	\$0	\$0	\$0	\$0	\$0	\$0
Grants and Other Transfers	\$0	\$0	\$0	\$0	\$0	\$0
Total Rate Revenue Under Existing / Adopted Rates	\$1,180,000	\$1,180,000	\$1,180,000	\$1,180,000	\$1,180,000	\$1,180,000
Other Revenues						
Interest Rate	1.25%	1.25%	1.25%	1.25%	1.25%	1.25%
Investment Revenue	\$32,630	\$32,298	\$32,446	\$33,151	\$33,761	\$24,200
Subtotal	\$32,630	\$32,298	\$32,446	\$33,151	\$33,761	\$24,200
Total Revenues	\$1,212,630	\$1,212,298	\$1,212,446	\$1,213,151	\$1,213,761	\$1,204,200
O&M Expenses						
Solid Waste	42,000	43,800	45,678	47,638	49,683	51,816
Total O&M Expenses	\$42,000	\$43,800	\$45,678	\$47,638	\$49,683	\$51,816
CIP Projects						
New Recycle Center Phase 1 (CEQA/Design/Land/Const)	\$0	\$0	\$258,250	\$0	\$774,750	\$0
Electrification Strategy	\$0	\$131,250	\$130,000	\$0	\$0	\$0
Corp Yard Expansion (CEQA/Design/Const)	\$0	\$0	\$0	\$0	\$258,250	\$0
(2) Solid Waste collection truck	\$800,000	\$0	\$0	\$0	\$0	\$0
Roll off collection truck	\$270,000	\$0	\$0	\$0	\$0	\$0
Side Loader - Diesel	\$0	\$0	\$750,053	\$405,767	\$0	\$1,291,366
Side Loader - Diesel - Green Waste	\$385,000	\$376,085	\$377,255	\$0	\$0	\$0
Roll Off	\$0	\$0	\$0	\$0	\$0	\$277,121
Rear Loader	\$0	\$0	\$0	\$0	\$0	\$0
Front Loader	\$0	\$0	\$0	\$0	\$410,235	\$409,205
Pick-up	\$59,499	\$0	\$0	\$0	\$0	\$32,134
FlatBeds	\$0	\$0	\$0	\$0	\$74,944	\$0
Equipment	\$90,859	\$0	\$0	\$0	\$0	\$0
Compactor	\$0	\$0	\$0	\$0	\$0	\$0

Appendix B
City of Lincoln, California
Municipal Utility Rate Study for Solid Waste
Capital Fund Cash Flow - Fund 731

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Street-Sweeper	\$0	\$0	\$0	\$0	\$0	\$0
Cart Purchases (Existing Customers)	\$17,454	\$18,030	\$18,625	\$19,239	\$19,874	\$20,530
Cart Purchases (New Customers)	\$120,000	\$123,960	\$128,051	\$132,276	\$136,641	\$141,151
Total Capital Projects Expense	\$1,742,812	\$649,324	\$1,662,233	\$557,282	\$1,674,695	\$2,171,505
Net Cash Flow	(\$572,183)	\$519,174	(\$495,465)	\$608,231	(\$510,617)	(\$1,019,121)
Ending Cash Reserves	\$2,324,272	\$2,843,447	\$2,347,982	\$2,956,213	\$2,445,596	\$1,426,475
Capital Reserve Target (AVG CIP) <input type="text" value="Y"/>	<input type="text" value="\$1,410,000"/>					
Net Above / (Below) Target	\$914,272	\$1,433,447	\$937,982	\$1,546,213	\$1,035,596	\$16,475

Appendix C
City of Lincoln, California
Municipal Utility Rate Study for Solid Waste
Expense Forecast

Cost Center Description	Expense Category	Fund #	Escalation Factor	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	
730 OPERATING FUND:										
Solid Waste	Personnel	730	Insurance	Labor	\$168,152	\$176,560	\$185,388	\$194,657	\$204,390	\$214,610
Solid Waste	Indirect	730	Admin Cost Allocation	Indirect	\$770,917	\$809,463	\$841,842	\$867,097	\$893,110	\$919,903
		730								
Total - Solid Waste					\$939,069	\$986,023	\$1,027,230	\$1,061,754	\$1,097,500	\$1,134,513
City Attorney	Personnel	730	Salaries - FT	Labor	\$10,873	\$11,417	\$11,988	\$12,587	\$13,216	\$13,877
City Attorney	Personnel	730	Retirement	Labor	\$362	\$380	\$399	\$419	\$440	\$462
City Attorney	Personnel	730	Workers Comp	Benefits	\$46	\$50	\$54	\$58	\$63	\$68
City Attorney	Personnel	730	OPEB	Benefits	\$380	\$410	\$443	\$478	\$516	\$557
City Attorney	Personnel	730	Med/Den/Life Ins	Labor	\$88	\$92	\$97	\$102	\$107	\$112
City Attorney	Personnel	730	SUI	Labor	\$8	\$8	\$8	\$8	\$8	\$8
City Attorney	Personnel	730	FICA	Labor	\$609	\$639	\$671	\$705	\$740	\$777
Total - City Attorney					\$12,366	\$12,996	\$13,660	\$14,357	\$15,090	\$15,861
Information Technology	Personnel	730	Salaries FT	Labor	\$50,743	\$53,280	\$55,944	\$58,741	\$61,678	\$64,762
Information Technology	Personnel	730	New Positions	Labor	\$17,258	\$18,121	\$19,027	\$19,978	\$20,977	\$22,026
Information Technology	Personnel	730	Retirement	Labor	\$1,776	\$1,865	\$1,958	\$2,056	\$2,159	\$2,267
Information Technology	Personnel	730	Workers Comp	Benefits	\$167	\$180	\$194	\$210	\$227	\$245
Information Technology	Personnel	730	OPEB	Benefits	\$3,067	\$3,312	\$3,577	\$3,863	\$4,172	\$4,506
Information Technology	Personnel	730	Med/Den/Life Ins	Labor	\$5,976	\$6,275	\$6,589	\$6,918	\$7,264	\$7,627
Information Technology	Personnel	730	SUI	Labor	\$137	\$144	\$151	\$159	\$167	\$175
Information Technology	Personnel	730	FICA	Labor	\$3,882	\$4,076	\$4,280	\$4,494	\$4,719	\$4,955
Information Technology	Prof Svc	730	Professional Services	ProfSvc	\$34,048	\$35,750	\$37,538	\$39,415	\$41,386	\$43,455
Total - Information Technology					\$117,054	\$123,003	\$129,258	\$135,834	\$142,749	\$150,018
Administrative	Other	730	Taxes	General	\$75	\$79	\$82	\$84	\$87	\$90
Total -					\$75	\$79	\$82	\$84	\$87	\$90
Finance	Personnel	730	Retiree Medical Insurance	Labor	\$51,208	\$53,768	\$56,456	\$59,279	\$62,243	\$65,355
Total - Finance					\$51,208	\$53,768	\$56,456	\$59,279	\$62,243	\$65,355
Utility Billing	Personnel	730	Salaries - FT	Labor	\$88,474	\$92,898	\$97,543	\$102,420	\$107,541	\$112,918
Utility Billing	Personnel	730	Retirement	Labor	\$7,067	\$7,420	\$7,791	\$8,181	\$8,590	\$9,020
Utility Billing	Personnel	730	PERS Unfunded	Labor	\$20,969	\$22,017	\$23,118	\$24,274	\$25,488	\$26,762
Utility Billing	Personnel	730	Workers Comp	Benefits	\$372	\$402	\$434	\$469	\$507	\$548
Utility Billing	Personnel	730	OPEB	Benefits	\$10,123	\$10,933	\$11,808	\$12,753	\$13,773	\$14,875
Utility Billing	Personnel	730	Med/Den/Life Ins	Labor	\$15,911	\$16,707	\$17,542	\$18,419	\$19,340	\$20,307
Utility Billing	Personnel	730	SUI	Labor	\$280	\$294	\$309	\$324	\$340	\$357
Utility Billing	Personnel	730	FICA	Labor	\$6,768	\$7,106	\$7,461	\$7,834	\$8,226	\$8,637
Utility Billing	Other	730	Credit Card Fees	General	\$43,000	\$45,150	\$46,956	\$48,365	\$49,816	\$51,310
Utility Billing	Supplies	730	Materials & Supplies	Supplies	\$267	\$278	\$289	\$301	\$313	\$326
Utility Billing	Communication	730	Communications	General	\$500	\$525	\$546	\$562	\$579	\$596
Utility Billing	Prof Svc	730	Professional Services	ProfSvc	\$102,419	\$107,540	\$112,917	\$118,563	\$124,491	\$130,716
Utility Billing	Prof Svc	730	Training/Travel/Conf/Mtgs	General	\$1,000	\$1,050	\$1,092	\$1,125	\$1,159	\$1,194
Total - Utility Billing					\$297,150	\$312,320	\$327,806	\$343,590	\$360,163	\$377,566

Cost Center Description	Expense Category	Fund #	Escalation Factor	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	
Community Development Administration	Personnel	730	Salaries - FT	Labor	\$18,000	\$18,900	\$19,845	\$20,837	\$21,879	\$22,973
Community Development Administration	Personnel	730	Retirement	Labor	\$1,001	\$1,051	\$1,104	\$1,159	\$1,217	\$1,278
Community Development Administration	Personnel	730	Workers Comp	Benefits	\$410	\$443	\$478	\$516	\$557	\$602
Community Development Administration	Personnel	730	Med/Den/Life Ins	Labor	\$2,354	\$2,472	\$2,596	\$2,726	\$2,862	\$3,005
Community Development Administration	Personnel	730	SUI	Labor	\$16	\$17	\$18	\$19	\$20	\$21
Community Development Administration	Personnel	730	FICA	Labor	\$1,163	\$1,221	\$1,282	\$1,346	\$1,413	\$1,484
Total - Community Development Administration					\$22,944	\$24,104	\$25,323	\$26,603	\$27,948	\$29,363
Public Works Administration	Personnel	730	Salaries - FT	Labor	\$228,443	\$239,865	\$251,858	\$264,451	\$277,674	\$291,558
Public Works Administration	Personnel	730	Retirement	Labor	\$14,890	\$15,635	\$16,417	\$17,238	\$18,100	\$19,005
Public Works Administration	Personnel	730	PERS Unfunded	Labor	\$12,957	\$13,605	\$14,285	\$14,999	\$15,749	\$16,536
Public Works Administration	Personnel	730	Workers Comp	Benefits	\$3,219	\$3,477	\$3,755	\$4,055	\$4,379	\$4,729
Public Works Administration	Personnel	730	OPEB	Benefits	\$14,734	\$15,913	\$17,186	\$18,561	\$20,046	\$21,650
Public Works Administration	Personnel	730	Med/Den/Life Ins	Labor	\$36,541	\$38,368	\$40,286	\$42,300	\$44,415	\$46,636
Public Works Administration	Personnel	730	SUI	Labor	\$441	\$463	\$486	\$510	\$536	\$563
Public Works Administration	Personnel	730	FICA	Labor	\$16,941	\$17,788	\$18,677	\$19,611	\$20,592	\$21,622
Public Works Administration	Communication	730	Communications	General	\$164	\$172	\$179	\$184	\$190	\$196
Public Works Administration	Prof SVC	730	PW Work Order System	ProfSvc	\$74,400	\$78,120	\$82,026	\$86,127	\$90,433	\$94,955
Public Works Administration	Prof SVC	730	Professional Services	ProfSvc	\$22,800	\$23,940	\$25,137	\$26,394	\$27,714	\$29,100
Total - Public Works Administration					\$425,530	\$447,346	\$470,292	\$494,430	\$519,828	\$546,550
Engineering	Personnel	730	Salaries - FT	Labor	\$31,006	\$32,556	\$34,184	\$35,893	\$37,688	\$39,572
Engineering	Personnel	730	New Positions	Labor	\$2,754	\$2,892	\$3,037	\$3,189	\$3,348	\$3,515
Engineering	Personnel	730	Retirement	Labor	\$1,386	\$1,455	\$1,528	\$1,604	\$1,684	\$1,768
Engineering	Personnel	730	PERS Unfunded	Labor	\$349	\$366	\$384	\$403	\$423	\$444
Engineering	Personnel	730	Workers Comp	Benefits	\$508	\$549	\$593	\$640	\$691	\$746
Engineering	Personnel	730	OPEB	Benefits	\$1,898	\$2,050	\$2,214	\$2,391	\$2,582	\$2,789
Engineering	Personnel	730	Med/Den/Life Ins	Labor	\$4,770	\$5,009	\$5,259	\$5,522	\$5,798	\$6,088
Engineering	Personnel	730	SUI	Labor	\$48	\$50	\$53	\$56	\$59	\$62
Engineering	Personnel	730	FICA	Labor	\$2,372	\$2,491	\$2,616	\$2,747	\$2,884	\$3,028
Engineering	Prof SVC	730	Professional Services	ProfSvc	\$20,000	\$21,000	\$22,050	\$23,153	\$24,311	\$25,527
Total - Engineering					\$65,091	\$68,418	\$71,918	\$75,598	\$79,468	\$83,539
Solid Waste	Personnel	730	Salaries - FT	SWPersonnel	\$997,557	\$1,047,435	\$1,099,807	\$1,154,797	\$1,356,886	\$1,424,730
Solid Waste	Personnel	730	New Positions	SWPersonnel	\$87,771	\$92,160	\$96,768	\$101,606	\$119,387	\$125,356
Solid Waste	Personnel	730	Salaries - PT	SWPersonnel	\$56,486	\$59,310	\$62,276	\$65,390	\$76,833	\$80,675
Solid Waste	Personnel	730	Salaries - OT	SWPersonnel	\$60,000	\$63,000	\$66,150	\$69,458	\$81,613	\$85,694
Solid Waste	Personnel	730	Retirement	SWPersonnel	\$76,746	\$80,583	\$84,612	\$88,843	\$104,391	\$109,611
Solid Waste	Personnel	730	PERS Unfunded	SWPersonnel	\$220,631	\$231,663	\$243,246	\$255,408	\$300,104	\$315,109
Solid Waste	Personnel	730	Workers Comp	SWPersonnelB	\$49,604	\$53,572	\$57,858	\$62,487	\$75,297	\$81,321
Solid Waste	Personnel	730	OPEB	SWPersonnelB	\$113,880	\$122,990	\$132,829	\$143,455	\$172,863	\$186,692
Solid Waste	Personnel	730	Med/Den/Life Ins	SWPersonnel	\$285,972	\$300,271	\$315,285	\$331,049	\$388,983	\$408,432
Solid Waste	Personnel	730	SUI	SWPersonnel	\$3,780	\$3,969	\$4,167	\$4,375	\$5,141	\$5,398
Solid Waste	Personnel	730	FICA	SWPersonnel	\$80,634	\$84,666	\$88,899	\$93,344	\$109,679	\$115,163
Solid Waste	Supplies	730	Materials & Supplies	Supplies	\$85,500	\$88,920	\$92,477	\$96,176	\$100,023	\$104,024
Solid Waste	Fuel	730	Fuel & Oil	Fuel	\$292,459	\$301,233	\$310,270	\$319,578	\$329,165	\$339,040
Solid Waste	Supplies	730	Uniforms & Clothing	General	\$14,726	\$15,462	\$16,080	\$16,562	\$17,059	\$17,571
Solid Waste	Communication	730	Advertising	General	\$67,250	\$70,613	\$73,438	\$75,641	\$77,910	\$80,247
Solid Waste	Communication	730	Communications	General	\$7,850	\$8,243	\$8,573	\$8,830	\$9,095	\$9,368
Solid Waste	Utilities	730	Utilities	Utility	\$10,000	\$10,350	\$10,712	\$11,087	\$11,475	\$11,877
Solid Waste	Prof SVC	730	Professional Services	ProfSvc	\$188,199	\$197,609	\$207,489	\$217,863	\$228,756	\$240,194
Solid Waste	Prof SVC	730	Membership/Dues	General	\$1,013	\$1,064	\$1,107	\$1,140	\$1,174	\$1,209
Solid Waste	Prof SVC	730	Training/Travel/Conf/Mtgs	General	\$9,300	\$9,765	\$10,156	\$10,461	\$10,775	\$11,098
Solid Waste	Other	730	Regulatory Fees	General	\$28,893	\$30,338	\$31,552	\$32,499	\$33,474	\$34,478
Solid Waste	Disposal	730	Disposal Fees	Calculated	\$3,135,388	\$3,466,260	\$3,659,264	\$3,863,217	\$4,078,373	\$4,305,526

Cost Center Description	Expense Category	Fund #	Escalation Factor	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	
Solid Waste	Disposal	730	SW Routing Software	General	\$225,000	\$100,000	\$104,000	\$107,120	\$110,334	\$113,644
Total - Solid Waste					\$6,098,639	\$6,439,476	\$6,777,015	\$7,130,386	\$7,798,790	\$8,206,457
Fleet Maintenance	Personnel	730	Salaries - FT	Labor	\$145,335	\$152,602	\$160,232	\$168,244	\$176,656	\$185,489
Fleet Maintenance	Personnel	730	Salaries On Call	Labor	\$4,000	\$4,200	\$4,410	\$4,631	\$4,863	\$5,106
Fleet Maintenance	Personnel	730	Salaries OT	Labor	\$500	\$525	\$551	\$579	\$608	\$638
Fleet Maintenance	Personnel	730	Retirement	Labor	\$15,759	\$16,547	\$17,374	\$18,243	\$19,155	\$20,113
Fleet Maintenance	Personnel	730	PERS unfunded	Labor	\$31,281	\$32,845	\$34,487	\$36,211	\$38,022	\$39,923
Fleet Maintenance	Personnel	730	Workers Comp	Benefits	\$14,272	\$15,414	\$16,647	\$17,979	\$19,417	\$20,970
Fleet Maintenance	Personnel	730	OPEB	Benefits	\$12,451	\$13,447	\$14,523	\$15,685	\$16,940	\$18,295
Fleet Maintenance	Personnel	730	Med/Den/Life Ins	Labor	\$20,987	\$22,036	\$23,138	\$24,295	\$25,510	\$26,786
Fleet Maintenance	Personnel	730	SUI	Labor	\$344	\$361	\$379	\$398	\$418	\$439
Fleet Maintenance	Personnel	730	FICA	Labor	\$11,118	\$11,674	\$12,258	\$12,871	\$13,515	\$14,191
Fleet Maintenance	Maintenance	730	Materials & Supplies	Supplies	\$289,150	\$300,716	\$312,745	\$325,255	\$338,265	\$351,796
Fleet Maintenance	Maintenance	730	Fuel	Fuel	\$17,920	\$18,458	\$19,012	\$19,582	\$20,169	\$20,774
Fleet Maintenance	Maintenance	730	Uniforms & Clothing	General	\$1,634	\$1,716	\$1,785	\$1,839	\$1,894	\$1,951
Fleet Maintenance	Maintenance	730	Communications	General	\$318	\$334	\$347	\$357	\$368	\$379
Fleet Maintenance	Maintenance	730	Equipment Maintenance	Maintenance	\$5,503	\$6,053	\$6,658	\$7,324	\$8,056	\$8,862
Fleet Maintenance	Maintenance	730	Professional Services	Profsvc	\$153,770	\$161,459	\$169,532	\$178,009	\$186,909	\$196,254
Fleet Maintenance	Maintenance	730	Membership/Dues	General	\$4,408	\$4,628	\$4,813	\$4,957	\$5,106	\$5,259
Fleet Maintenance	Maintenance	730	Training/Travel/Conf/Mtgs	General	\$5,800	\$6,090	\$6,334	\$6,524	\$6,720	\$6,922
Fleet Maintenance	Maintenance	730	Raftelis Incremental Maintenance	Calculated	\$0	\$40,456	(\$4,101)	\$1,839	\$59,813	(\$80,484)
Total - Fleet Maintenance					\$734,550	\$809,561	\$801,124	\$844,822	\$942,404	\$843,663
Subtotal Fund 730 Operating					\$8,763,676	\$9,277,094	\$9,700,164	\$10,186,737	\$11,046,270	\$11,452,975
731 CAPITAL FUND:										
Solid Waste	Supplies	731	Materials & Supplies	Supplies	\$30,000	\$31,200	\$32,448	\$33,746	\$35,096	\$36,500
Solid Waste	Prof SVc	731	Professional Services	Profsvc	\$12,000	\$12,600	\$13,230	\$13,892	\$14,587	\$15,316
Total - Solid Waste					\$42,000	\$43,800	\$45,678	\$47,638	\$49,683	\$51,816
Subtotal Fund 731 Capital					\$42,000	\$43,800	\$45,678	\$47,638	\$49,683	\$51,816
Total Budgeted Expenses					\$8,805,676	\$9,320,894	\$9,745,842	\$10,234,375	\$11,095,953	\$11,504,791

Appendix D
City of Lincoln, California
Municipal Utility Rate Study for Solid Waste
Equivalent Billing Unit (EBU) Determination

Class	2024	Annual Tips per Cart	Capacity (gal)	Calculated EBU (gal/yr collected)	Weekend Labor 1.5x Adj.	Add'l Cart Factor	Compactor 2:1 Disposal Adj.	Adjusted EBUs	Rev Recon Adj. (0.9%)	Adj. EBUS	
Residential											
Res	# Units										
Res	Residential	19,841	52.0	96.0	99,046,272	0	0	99,046,272	(885,702)	98,160,570	
Res	Residential (Add'l Carts)	967	52.0	96.0	4,827,264	0	(1,689,542)	3,137,722	(28,058)	3,109,663	
Res	Residential Green Waste	19,841	26.0	96.0	49,523,136	0	0	49,523,136	(442,851)	49,080,285	
Commercial											
Com	1 Cart	777	52.0	96.0	3,878,784	0	0	3,878,784	(34,685)	3,844,099	
Com	2 Cart	28	52.0	192.0	279,552	0	0	279,552	(2,500)	277,052	
Com	3 Cart	2	52.0	288.0	29,952	0	0	29,952	(268)	29,684	
Com	4 Cart	4	52.0	384.0	79,872	0	0	79,872	(714)	79,158	
Annual Pulls for All Accounts											
Com	3 - Yard Bin per Pickup	131	14,212	606	8,611,363	0	0	8,611,363	(77,005)	8,534,358	
Com	4 - Yard Bin per Pickup	5	600	808	484,738	0	0	484,738	(4,335)	480,403	
Com	5 - Yard Bin per Pickup	97	11,772	1,010	11,888,190	0	0	11,888,190	(106,308)	11,781,882	
Com	2-YD Compactor	1	192.0	404	77,558	0	0	51,378	(1,153)	127,783	
Com	3-YD Compactor	12	917.0	606	555,630	0	0	368,077	(8,260)	915,447	
Com	3-YD Compactor -Saturday	4	5.0	606	3,030	1,540	0	2,007	6,576	(59)	
Com	3-YD Compactor -Sunday	4	176.0	606	106,642	54,203	0	70,645	231,490	(2,070)	
Com	4-YD Compactor	1	48.0	808	38,779	0	0	25,689	64,468	(576)	
Com	4-YD Compactor - Saturday	1	0.0	808	0	0	0	0	0	0	
Com	5-YD Compactor - Saturday	13	0.0	1,010	0	0	0	0	0	0	
Com	5-YD Compactor - Sunday	4	0.0	1,010	0	0	0	0	0	0	
Com	6-YD Compactor	1	96.0	1,212	116,337	0	0	77,067	193,404	(1,729)	
Com	6-YD Compactor - Saturday	1	48.0	1,212	58,169	29,565	0	38,534	126,267	(1,129)	
				4,039							
					179,605,268	85,308	(1,689,542)	633,397	178,634,430	(1,597,403)	177,037,027

Footnotes:

[1] Factoring for the weekend surcharge was developed based on the weight of labor costs as a % of total cost calculated at 34% by taking the commercial allocated labor costs as shown in Table 5-2 and Appendix E, and dividing it by the total net funding requirements for the Fiscal Year 2024 pursuant to Table 5-2. The factor was calculated by taking the allocable labor costs and adjusting them by the increase in labor costs for overtime at 150%. The resultant factor is used to gross up the EBUS representing how charges for weekend or overtime service result in a greater EBU factor and resultant rate design.

Commercial Weekend Surcharge Determination

Allocable Commercial Labor Costs	\$728,331
Total Commercial Costs	\$2,149,458
Labor Costs as % of Total Cost	34%
Labor Cost Markup	150%
Surcharge	<u>51%</u>

[2] Factoring for the compactor disposal surcharge was developed based on the weight of disposal costs as a % of total cost calculated at 33% by taking the commercial allocated disposal costs as shown in Table 5-2 and Appendix F, and dividing it by the total net funding requirements for the Fiscal Year 2024 pursuant to Table 5-2. The factor was calculated by taking the allocable disposal costs and adjusting them by the increase in disposal costs for compactors at 200%. The resultant factor is used to gross up the disposal cost representing how charges for compactor service result in a greater EBU factor and resultant rate design.

Compactor Disposal Cost Surcharge

Allocable Commercial Labor Costs	\$711,953		
Total Commercial Costs	\$2,149,458		
Disposal Costs as % of Total Cost	33%		
Disposal Compaction Ratio	200% <= per EPA waste conversion compaction relationships -> uncompact 250-300 / compacted 400-700	Compacted 550	Uncompact 275
Surcharge	<u>66%</u>		

[3] Factoring for the residential additional cart surcharge was developed based on a review of the direct operating costs related to the Solid Waste and Fleet Maintenance cost centers as a percent of total costs and was derived from Appendix E.

Additional Cart Adjustments / Factor of Original Cost	65%
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Appendix E

City of Lincoln, California

Municipal Utility Rate Study for Solid Waste

Residential and Commercial Cost of Service Allocations

Cost Center Description	Expense Category	Description	Allocation Factor	COS Design Input FY 2024	Residential	Commercial
O&M Expenses						
Solid Waste Enterprise Fund						
Solid Waste	Personnel	OPEB Liability Expense	CompExp	\$0	\$0	\$0
Solid Waste	Personnel	Retirement	CompExp	\$0	\$0	\$0
Solid Waste	Other	Bad Debt Expense	CompExp	\$0	\$0	\$0
Solid Waste	Personnel	Insurance NCCSIF Pool Expense	CompExp	\$0	\$0	\$0
Solid Waste	Personnel	Insurance	CompExp	\$176,560	\$139,790	\$36,770
Solid Waste	Other	Misc. Expense	CompExp	\$0	\$0	\$0
Solid Waste	Indirect	Admin Cost Allocation	CompExp	\$809,463	\$640,885	\$168,578
Solid Waste	Indirect	Depreciation Expense	Eliminate	\$0	\$0	\$0
Solid Waste	Other	Transfer Out - Debt Service	Eliminate	\$0	\$0	\$0
Total - Solid Waste				\$986,023	\$780,674	\$205,349
City Attorney						
City Attorney	Personnel	Salaries - FT	CompCOS	\$11,417	\$9,097	\$2,320
City Attorney	Personnel	Compensated Absences	CompCOS	\$0	\$0	\$0
City Attorney	Personnel	Retirement	CompCOS	\$380	\$303	\$77
City Attorney	Personnel	Workers Comp	CompCOS	\$50	\$40	\$10
City Attorney	Personnel	OPEB	CompCOS	\$410	\$327	\$83
City Attorney	Personnel	Med/Den/Life Ins	CompCOS	\$92	\$73	\$19
City Attorney	Personnel	SUI	CompCOS	\$8	\$6	\$2
City Attorney	Personnel	FICA	CompCOS	\$639	\$509	\$130
City Attorney	Communication	Communications	CompCOS	\$0	\$0	\$0
Total - City Attorney				\$12,996	\$10,355	\$2,641
Information Technology						
Information Technology	Personnel	Salaries FT	FTEs	\$53,280	\$39,860	\$13,420
Information Technology	Personnel	New Positions	FTEs	\$18,121	\$13,557	\$4,564
Information Technology	Personnel	Salaries PT	FTEs	\$0	\$0	\$0
Information Technology	Personnel	Salaries - OT	FTEs	\$0	\$0	\$0
Information Technology	Personnel	Retirement	FTEs	\$1,865	\$1,395	\$470
Information Technology	Personnel	PERS unfunded	FTEs	\$0	\$0	\$0
Information Technology	Personnel	Workers Comp	FTEs	\$180	\$135	\$45
Information Technology	Personnel	OPEB	FTEs	\$3,312	\$2,478	\$834
Information Technology	Personnel	Med/Den/Life Ins	FTEs	\$6,275	\$4,694	\$1,581
Information Technology	Personnel	SUI	FTEs	\$144	\$108	\$36
Information Technology	Personnel	FICA	FTEs	\$4,076	\$3,049	\$1,027
Information Technology	Prof SVC	Professional Services	FTEs	\$35,750	\$26,745	\$9,005
Total - Information Technology				\$123,003	\$92,021	\$30,982
Administrative						
Administrative	Other	Taxes	CompCOS	\$79	\$63	\$16
Total - Administrative				\$79	\$63	\$16
Finance						
Finance	Personnel	Retiree Medical Insurance	CompCOS	\$53,768	\$42,843	\$10,925
Finance	Prof SVC	Professional Services	CompCOS	\$0	\$0	\$0
Total - Finance				\$53,768	\$42,843	\$10,925
Utility Billing						
Utility Billing	Personnel	Salaries - FT	Accounts	\$92,898	\$87,099	\$5,799
Utility Billing	Personnel	Salaries - FT	Accounts	\$0	\$0	\$0
Utility Billing	Personnel	Salaries - OT	Accounts	\$0	\$0	\$0
Utility Billing	Personnel	Compensated Absences	Accounts	\$0	\$0	\$0
Utility Billing	Personnel	Retirement	Accounts	\$7,420	\$6,957	\$463
Utility Billing	Personnel	Retirement	Accounts	\$0	\$0	\$0
Utility Billing	Personnel	PERS Unfunded	Accounts	\$22,017	\$20,643	\$1,374
Utility Billing	Personnel	Workers Comp	Accounts	\$402	\$377	\$25
Utility Billing	Personnel	Workers Comp	Accounts	\$0	\$0	\$0
Utility Billing	Personnel	OPEB	Accounts	\$10,933	\$10,251	\$682
Utility Billing	Personnel	Med/Den/Life Ins	Accounts	\$16,707	\$15,664	\$1,043
Utility Billing	Personnel	Med/Den/Life Ins	Accounts	\$0	\$0	\$0
Utility Billing	Personnel	SUI	Accounts	\$294	\$276	\$18
Utility Billing	Personnel	FICA	Accounts	\$7,106	\$6,662	\$444
Utility Billing	Personnel	FICA	Accounts	\$0	\$0	\$0
Utility Billing	Other	Credit Card Fees	Accounts	\$45,150	\$42,332	\$2,818
Utility Billing	Supplies	Materials & Supplies	Accounts	\$278	\$261	\$17
Utility Billing	Communication	Communications	Accounts	\$525	\$492	\$33
Utility Billing	Prof SVC	Professional Services	Accounts	\$107,540	\$100,827	\$6,713
Utility Billing	Prof SVC	Training/Travel/Conf/Mtgs	Accounts	\$1,050	\$984	\$66
Total - Utility Billing				\$312,320	\$292,825	\$19,495
Community Development Administration						
Community Development Administration	Personnel	Salaries - FT	Accounts	\$18,900	\$17,720	\$1,180

Appendix E

City of Lincoln, California

Municipal Utility Rate Study for Solid Waste

Residential and Commercial Cost of Service Allocations

Cost Center Description	Expense Category	Description	Allocation Factor	COS Design Input FY 2024	Residential	Commercial
Community Development Administration	Personnel	Retirement	Accounts	\$1,051	\$985	\$66
Community Development Administration	Personnel	Workers Comp	Accounts	\$443	\$415	\$28
Community Development Administration	Personnel	Med/Den/Life Ins	Accounts	\$2,472	\$2,318	\$154
Community Development Administration	Personnel	SUI	Accounts	\$17	\$16	\$1
Community Development Administration	Personnel	FICA	Accounts	\$1,221	\$1,145	\$76
Total - Community Development Administration				\$24,104	\$22,599	\$1,505
Public Works Administration						
Public Works Administration	Personnel	Salaries - FT	Accounts	\$239,865	\$224,893	\$14,972
Public Works Administration	Personnel	Salaries - PT	Accounts	\$0	\$0	\$0
Public Works Administration	Personnel	Salaries - PT	Accounts	\$0	\$0	\$0
Public Works Administration	Personnel	Salaries - OT	Accounts	\$0	\$0	\$0
Public Works Administration	Personnel	Compensated Absences	Accounts	\$0	\$0	\$0
Public Works Administration	Personnel	Retirement	Accounts	\$15,635	\$14,659	\$976
Public Works Administration	Personnel	Retirement	Accounts	\$0	\$0	\$0
Public Works Administration	Personnel	PERS Unfunded	Accounts	\$13,605	\$12,756	\$849
Public Works Administration	Personnel	Workers Comp	Accounts	\$3,477	\$3,260	\$217
Public Works Administration	Personnel	Workers Comp	Accounts	\$0	\$0	\$0
Public Works Administration	Personnel	OPEB	Accounts	\$15,913	\$14,920	\$993
Public Works Administration	Personnel	Med/Den/Life Ins	Accounts	\$38,368	\$35,973	\$2,395
Public Works Administration	Personnel	SUI	Accounts	\$463	\$434	\$29
Public Works Administration	Personnel	FICA	Accounts	\$17,788	\$16,678	\$1,110
Public Works Administration	Personnel	FICA	Accounts	\$0	\$0	\$0
Public Works Administration	Communication	Communications	Accounts	\$172	\$161	\$11
Public Works Administration	Prof SVC	PW Work Order System	Accounts	\$78,120	\$73,244	\$4,876
Public Works Administration	Prof SVC	Professional Services	Accounts	\$23,940	\$22,446	\$1,494
Total - Public Works Administration				\$447,346	\$419,423	\$27,923
Engineering						
Engineering	Personnel	Salaries - FT	EBU	\$32,556	\$27,649	\$4,907
Engineering	Personnel	New Positions	EBU	\$2,892	\$2,456	\$436
Engineering	Personnel	Salaries - FT	EBU	\$0	\$0	\$0
Engineering	Personnel	Compensated Absences	EBU	\$0	\$0	\$0
Engineering	Personnel	Retirement	EBU	\$1,455	\$1,236	\$219
Engineering	Personnel	Retirement	EBU	\$0	\$0	\$0
Engineering	Personnel	PERS Unfunded	EBU	\$366	\$311	\$55
Engineering	Personnel	Workers Comp	EBU	\$549	\$466	\$83
Engineering	Personnel	Workers Comp	EBU	\$0	\$0	\$0
Engineering	Personnel	OPEB	EBU	\$2,050	\$1,741	\$309
Engineering	Personnel	Med/Den/Life Ins	EBU	\$5,009	\$4,254	\$755
Engineering	Personnel	Med/Den/Life Ins	EBU	\$0	\$0	\$0
Engineering	Personnel	SUI	EBU	\$50	\$42	\$8
Engineering	Personnel	FICA	EBU	\$2,491	\$2,116	\$375
Engineering	Personnel	FICA	EBU	\$0	\$0	\$0
Engineering	Prof SVC	Professional Services	EBU	\$21,000	\$17,834	\$3,166
Total - Engineering				\$68,418	\$58,105	\$10,313
Solid Waste						
Solid Waste	Personnel	Salaries - FT	FTEs	\$1,047,435	\$783,605	\$263,830
Solid Waste	Personnel	Salaries - FT	FTEs	\$0	\$0	\$0
Solid Waste	Personnel	New Positions	FTEs	\$92,160	\$68,947	\$23,213
Solid Waste	Personnel	Salaries - PT	FTEs	\$59,310	\$44,371	\$14,939
Solid Waste	Personnel	Salaries - OT	FTEs	\$63,000	\$47,131	\$15,869
Solid Waste	Personnel	Compensated Absences	FTEs	\$0	\$0	\$0
Solid Waste	Personnel	Retirement	FTEs	\$80,583	\$60,286	\$20,297
Solid Waste	Personnel	Retirement	FTEs	\$0	\$0	\$0
Solid Waste	Personnel	PERS Unfunded	FTEs	\$231,663	\$173,311	\$58,352
Solid Waste	Personnel	Workers Comp	FTEs	\$53,572	\$40,078	\$13,494
Solid Waste	Personnel	Workers Comp	FTEs	\$0	\$0	\$0
Solid Waste	Personnel	OPEB	FTEs	\$122,990	\$92,011	\$30,979
Solid Waste	Personnel	Med/Den/Life Ins	FTEs	\$300,271	\$224,638	\$75,633
Solid Waste	Personnel	Med/Den/Life Ins	FTEs	\$0	\$0	\$0
Solid Waste	Personnel	SUI	FTEs	\$3,969	\$2,969	\$1,000
Solid Waste	Personnel	FICA	FTEs	\$84,666	\$63,340	\$21,326
Solid Waste	Personnel	FICA	FTEs	\$0	\$0	\$0
Solid Waste	Supplies	Materials & Supplies	EBU	\$88,920	\$75,516	\$13,404
Solid Waste	Fuel	Fuel & Oil	EBU	\$301,233	\$255,825	\$45,408
Solid Waste	Supplies	Uniforms & Clothing	FTEs	\$15,462	\$11,567	\$3,895
Solid Waste	Communication	Advertising	Accounts	\$70,613	\$66,205	\$4,408
Solid Waste	Communication	Advertising	Accounts	\$0	\$0	\$0
Solid Waste	Communication	Communications	Accounts	\$8,243	\$7,728	\$515
Solid Waste	Utilities	Utilities	Routes	\$10,350	\$7,393	\$2,957
Solid Waste	Prof SVC	Professional Services	EBU	\$197,609	\$167,821	\$29,788
Solid Waste	Prof SVC	Professional Services	Routes	\$0	\$0	\$0
Solid Waste	Prof SVC	Membership/Dues	Routes	\$1,064	\$760	\$304

Appendix E
City of Lincoln, California
Municipal Utility Rate Study for Solid Waste
Residential and Commercial Cost of Service Allocations

Cost Center Description	Expense Category	Description	Allocation Factor	COS Design Input FY 2024	Residential	Commercial
Solid Waste	Prof SVC	Training/Travel/Conf/Mtgs	Routes	\$9,765	\$6,975	\$2,790
Solid Waste	Other	Regulatory Fees	Routes	\$30,338	\$21,670	\$8,668
Solid Waste	Disposal	Disposal Fees	Refuse Tons	\$3,466,260	\$2,754,307	\$711,953
Solid Waste	Disposal	SW Routing Software	Routes	\$100,000	\$71,429	\$28,571
Solid Waste	Supplies	Equipment	Routes	\$0	\$0	\$0
Total - Solid Waste				\$6,439,476	\$5,047,885	\$1,391,591
Fleet Maintenance						
Fleet Maintenance	Personnel	Salaries - FT	Routes	\$152,602	\$109,001	\$43,601
Fleet Maintenance	Personnel	Salaries - FT	Routes	\$0	\$0	\$0
Fleet Maintenance	Personnel	Salaries On Call	Routes	\$4,200	\$3,000	\$1,200
Fleet Maintenance	Personnel	Salaries OT	Routes	\$525	\$375	\$150
Fleet Maintenance	Personnel	Retirement	Routes	\$16,547	\$11,819	\$4,728
Fleet Maintenance	Personnel	Retirement	Routes	\$0	\$0	\$0
Fleet Maintenance	Personnel	PERS unfunded	Routes	\$32,845	\$23,461	\$9,384
Fleet Maintenance	Personnel	Workers Comp	Routes	\$15,414	\$11,010	\$4,404
Fleet Maintenance	Personnel	Workers Comp	Routes	\$0	\$0	\$0
Fleet Maintenance	Personnel	OPEB	Routes	\$13,447	\$9,605	\$3,842
Fleet Maintenance	Personnel	Med/Den/Life Ins	Routes	\$22,036	\$15,740	\$6,296
Fleet Maintenance	Personnel	Med/Den/Life Ins	Routes	\$0	\$0	\$0
Fleet Maintenance	Personnel	SUI	Routes	\$361	\$258	\$103
Fleet Maintenance	Personnel	FICA	Routes	\$11,674	\$8,339	\$3,335
Fleet Maintenance	Personnel	FICA	Routes	\$0	\$0	\$0
Fleet Maintenance	Supplies	Materials & Supplies	Routes	\$300,716	\$214,797	\$85,919
Fleet Maintenance	Fuel	Fuel	Routes	\$18,458	\$13,184	\$5,274
Fleet Maintenance	Supplies	Uniforms & Clothing	Routes	\$1,716	\$1,226	\$490
Fleet Maintenance	Communication	Communications	Routes	\$334	\$239	\$95
Fleet Maintenance	Maintenance	Equipment Maintenance	Routes	\$6,053	\$4,324	\$1,729
Fleet Maintenance	Maintenance	Building Main	Routes	\$0	\$0	\$0
Fleet Maintenance	Prof SVC	Professional Services	Routes	\$161,459	\$115,328	\$46,131
Fleet Maintenance	Prof SVC	Membership/Dues	Routes	\$4,628	\$3,306	\$1,322
Fleet Maintenance	Prof SVC	Training/Travel/Conf/Mtgs	Routes	\$6,090	\$4,350	\$1,740
Fleet Maintenance	Maintenance	Raftelis Incremental Maintenance	Routes	\$40,456	\$28,897	\$11,559
Total - Fleet Maintenance				\$809,561	\$578,258	\$231,303
Subtotal Fund 730 Operating				\$9,277,094	\$7,345,051	\$1,932,043
Debt Service						
		Existing Debt Service	CompCOS	\$125,603	\$100,082	\$25,521
		Proposed Debt Service	CompCOS	\$0	\$0	\$0
Total Debt Service				\$125,603	\$100,082	\$25,521
Transfers						
		Transfer to 731 -Capital	EBU	\$1,180,000	\$1,002,127	\$177,873
		Transfer to 735 -PFE	735	\$0	\$0	\$0
		Transfers Out to Street Fund for Heavy Vehicle Impact	Routes	\$100,000	\$71,429	\$28,571
Subtotal Transfers				\$1,280,000	\$1,073,556	\$206,444
Total Funding Requirements				\$10,682,697	\$8,518,688	\$2,164,009
Other Revenues						
		Interest Rate		1.25%	0.00%	0.00%
		Grant Revenue	CompCOS	\$0	\$0	\$0
		Grant Revenue	CompCOS	\$0	\$0	\$0
		Plan Check	CompCOS	\$0	\$0	\$0
		Penalties & Service Charges	CompCOS	\$2,800	\$2,231	\$569
		Investment Revenue	CompCOS	\$54,373	\$43,325	\$11,048
		Unrealized Gain/Loss on Invest	CompCOS	\$0	\$0	\$0
		Gain/(Loss) on sale of asset	CompCOS	\$0	\$0	\$0
		Recycling Revenue	Accounts	\$47,000	\$44,066	\$2,934
		Other Revenue	CompCOS	\$0	\$0	\$0
		Misc Reimbursements	CompCOS	\$0	\$0	\$0
Subtotal				\$104,173	\$89,622	\$14,551
Net Funding Requirements				\$10,578,523	\$8,429,065	\$2,149,458
Use of Cash Reserves				CompCOS	(\$1,709,118)	(\$347,277)
Cost Recovery for Rate Design				\$8,869,405	\$7,067,225	\$1,802,181
					79.68%	20.32%

Appendix E
 City of Lincoln, California
 Municipal Utility Rate Study for Solid Waste
 Residential and Commercial Cost of Service Allocations

Cost Center Description	Expense Category	Description	Allocation Factor	COS Design Input FY 2024	Residential	Commercial
		EBUs		177,037,027	150,350,518	26,686,508
		Cost per EBU (Gallon / Frequency)		\$0.0501	\$0.0470	\$0.0675
Additional Residential Cart Factor:						
		Direct Costs / Solid Waste + Maintenance			\$5,626,143	
		Total Costs			\$8,518,688	
		Calculated %			66.0%	
		Recognized / Rounded %			65.0%	
Weekend Surcharge Commercial Labor Factor:						
		Total Commercial Labor Costs				\$728,331
		Commercial Net Funding Requirement				\$2,149,458
		Labor as % of Total Cost				33.9%
Commercial Compactor Surcharge Factor:						
		Commercial Disposal Costs				\$711,953
		Net Funding Requirements				\$2,149,458
		Disposal as % of Total Cost				33.1%

Appedix F
City of Lincoln, California
Municipal Utility Rate Study for Solid Waste
COS Allocation Factor Determination

Description	Allocation Factor	FY 2024	Residential	Commercial
Allocation Factors				
Weekly Routes	Routes	<u>Total</u>	71.43%	28.57%
MSW Routes		9.00	6.00	3.00
Green Waste		2.00	2.00	0.00
Organics Routes (run 1 out of 5 days a week)		0.20	<u>0.00</u>	0.20
Total		11.20	8.00	3.20
FTEs	FTEs	<u>Total</u>	74.81%	25.19%
MSW Routes		9.00	6.00	3.00
Green Waste Routes		2.00	2.00	0.00
Organics Routes		0.20	0.00	0.20
Misc. Programs - Backfill Route		2.80	2.09	0.71
Misc. Programs - Can / Bin Deliveries		1.00	0.94	0.06
Misc. Programs - Recycling		1.00	0.94	0.06
Supervisor		1.00	<u>0.75</u>	<u>0.25</u>
Total		17.00	12.72	4.28
Customer Accounts	Accounts		93.76%	6.24%
Statistics		21,179	19,857	1,322
Equivalent Billing Units	EBU		84.93%	15.07%
EBUs per WkP		177,037,027	150,350,518	26,686,508
Direct Residential	D-Res		100.00%	0.00%
Direct Commercial	D-Com		0.00%	100.00%
Refuse Tonnage	Refuse Tons		79.46%	20.54%
Residential and Commercial Tons		25,736	20,450	5,286
Composite Expense	CompExp		79.17%	20.83%
Net Funding Requirements		9,277,094	7,345,051	1,932,043