



Solid Waste Rate Study Task Force

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MEETING OF THE SOLID WASTE RATE STUDY TASK FORCE

via Video Conference (Zoom)

Tuesday, December 17, 2024

2:00 p.m.

IMPORTANT NOTICE REGARDING PUBLIC ACCESS TO THE SOLID WASTE RATE STUDY TASK FORCE MEETING & PARTICIPATION

Observe and/or Listen to the Meeting (your options to join the meeting are below):

Webinar (Zoom) - via the link below:

<https://us02web.zoom.us/j/87324937390?pwd=Tqx6HZ3SayvQxGBvDaZE2dmEshzxgh.1>

Passcode:831983

Audio Only Call

Or One tap mobile :

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Webinar ID: 873 2493 7390

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Citizen Participation

ALL written comments must be received **no later than Monday, December 16, 2024, at 5:00pm.** Comments may be sent via email to: kcole@ucitymo.org – Attention Keith Cole, Director of Finance. Such comments will be provided to the Task Force Members prior to the meeting. Comments will be made a part of the official record and made accessible to the public online following the meeting.

Please note, when submitting your comments, a **name and address must be provided.** Please also note if your comment is on an agenda item, and a name and address are not provided, then the provided comment will not be recorded in the official record.

AGENDA

SOLID WASTE RATE STUDY TASK FORCE

Public notice is hereby given that a meeting of the Solid Waste Rate Study Task Force will be held at 2:00 p.m. on December 17, 2024, via Zoom, to discuss the matters on the following tentative agenda and such other matters as may be presented at the meeting and determined to be appropriate for discussion at that time.

1. Swearing in of new Task Force Members
2. Call to Order (Roll call)
3. Approval of Agenda
4. Presentation and review of the Solid Waste Rate Study Final Report
5. Additional Comments by Task Force Members and public, if any
6. Next meeting date – To Be Determined
7. Adjournment

Solid Waste Rate Study

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**TASK FORCE
MEETING**

DECEMBER 17, 2024



Introduction

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- Independent Consultants Specializing in the **Municipal Waste Management Sector**
- Wide Knowledge of **National Waste Management Best Practices**
- Industry-Leading **Solid Waste Operational Evaluation & Performance Modeling**
- Specialization in **Solid Waste Utility Cost-of-Service & Rate Analysis**
- *Conducted 2018 Cost of Service Study*



“Materials Management 101”

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**SERVICES, FACILITIES, AND MARKET
DYNAMICS**

Components of Solid Waste Materials Management

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Collection

Processing of
Recyclables

Management/
Administration

Processing of
Compostables

Disposal

Collection Technologies

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REFUSE/GARBAGE



Manual

BULK/BRUSH/YARD WASTE



Manual (method used by U-City)

RECYCLING



Curb-sort Manual



Semi-Automated



Knuckleboom/Grapple



Dual Stream Manual

Collection Technologies - Continued

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University City REFUSE/GARBAGE & RECYCLING



**Automated Sideloader for Single-
& Multi-Family Curbside Carts**



**Automated Sideloader for Multi-
Family/Alley Dumpsters**

Solid Waste Facilities

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Owned & Operated by Others



Material Recovery Facility (MRF)



Household Hazardous Waste (HHW)



Compost Facility



Landfill

Owned & Operated by University City



Transfer Station

Cost of Service Study 2023-2024 Update

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Project Tasks

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- Submitted Data Request and Reviewed Data
- Conducted Benchmarking Research
- Established Financial Cornerstones
 - ✦ Direct Operating Expense
 - ✦ Contracted Disposal
 - ✦ Capital Improvement Plan (CIP)
 - ✦ Vehicle Replacement
- Tested Revenue Sufficiency
- Allocated Full Costs to Functions
- Identified the Full Cost of Service
- Compared Full Cost vs. Revenue with Current Rates
- Designed Rates to Provide Sufficient Cash Flow
- Made Recommendations
- Presented Findings & Recommendations at July 8, 2024 Council Mtg.
- Updated Model According to Feedback Received and FY2025 Budget
- Wrote Report

Trash & Recycling System Cost Centers

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Collection Services:

Curbside Trash

Alley Container Trash

Curbside Recycling

Curbside Yard Waste

Bulky Collection

Commercial Container Trash

Commercial Container Recycling

Recycling Drop-off

Facility Operations:

Transfer Station

Recycling Drop-off (at T.S.)

Management & Administration

(Includes cost of billing)

Other

Leaf Collection

Collection Routes

Type of Service	Mon.	Tue.	Wed.	Thur.	Fri.	Sat.	Wks/Yr	Total
Residential Curbside Refuse Carts - ASL	2.00	2.00	2.50	2.00	2.00		52	10.50
Residential Curbside Recycling Carts - ASL	2.00	2.00	2.50	2.00	2.00		52	10.50
Residential Yard Waste - Rearload	1.00	1.00	1.00	1.00	1.00		52	5.00
Bulk Waste - RL & Grapple 3wks in April & September	3.00	3.00	3.00	3.00	3.00		6	1.73
Special Pickup - Bulk for fee			0.25		0.25		46	0.44
Commercial/Multifamily/1-2 Fam Alley Refuse Dumpsters - Sideload "Mechanical"	2.00	2.00	1.00	2.00	2.00		52	9.00
Commercial/Multifamily Recycling Dumpsters - Sideload "Mechanical"			1.00			0.50	52	1.50
R-O - only special request & drop-off, no "route"	0.25	0.25	0.25	0.25	0.25		52	1.25
Total Weekly Routes	10.25	10.25	11.50	10.25	10.50	0.50		39.92

Challenges Since Last (2018) Study

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- Pandemic
- Flooding in 2022 – loss of trucks
- Transfer Station
 - Compactor Broken
- Recyclables processing fees
- Inflation



Historical Financial Performance

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	Actual 2021	Actual 2022	Actual 2023	Budgeted 2024	Budgeted 2025
Revenue	\$3,063,058	\$3,108,061	\$5,384,180*	\$3,291,200	\$4,560,200**
Expenses	\$3,914,540	\$4,101,817	\$4,081,844	\$4,077,093	\$4,307,735***
Surplus(Deficit)	(\$851,482)	(\$993,756)	\$1,302,336	(\$785,893)	\$252,465

**Includes a \$2,278,261 Transfer In*

***Includes \$500,000 loan from General Fund & \$500,000 loan from Capital Improvement Sales Tax Fund effective 9/1/24*

****Includes \$148,216 work. comp. based on average of last 3 years and \$88,700 Debt Service*

Full Cost

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Cost Center	Annual Revenue Need	Adjusted Annual Revenue Need
Mgmt & Admin	\$940,166	
Collection	\$2,458,358	\$3,559,532
Cart Collection Refuse	\$796,823	\$1,289,594
Cart Collection Recycling	\$509,391	\$677,418
Yard Waste	\$346,041	\$448,861
Bulky Waste	\$187,540	\$263,621
Dumpster Refuse	\$477,385	\$732,905
Dumpster Recycling	\$99,873	\$129,625
Container Maintenance	\$27,872	\$0
Rentals and Additional Collections	\$13,433	\$17,507
Facilities	\$402,803	\$147,777
Transfer Station	\$288,876	\$0
Recycling Drop-Off	\$113,926	\$147,777
Other	\$688,133	\$782,150
Bi-Annual Leaf Collection	\$688,133	\$782,150
Total	\$4,489,459	\$4,489,459

Full Cost Rate (Residential) Building blocks

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Service	Full Cost (Monthly) Per HH/Unit	Full Cost 2/year Rate Per HH/Unit
Refuse 60-Gal Cart, 1x/week	\$8.53	\$51.18
Refuse 90-Gal Cart, 1x/week	\$9.96	\$59.77
Recycling Cart, 1x/week	\$4.75	\$28.50
Alley and 3+ Unit Dumpster Refuse, 2x/week	\$15.31	\$91.88
3+ Unit Dumpster Recycling, 2x/week	\$2.37	\$14.21
Yard Waste	\$2.57	\$15.42
Bulk Waste	\$1.52	\$9.12
Recycling Drop-off	\$0.85	\$5.10
Bi-Annual Leaf Collection	\$4.49	\$26.94

Residential Current vs. Full Cost Rates

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Residential Customer Class & Service Level	Current Rates		Full Cost Rates		
	Monthly Rate	2x/Yr Billing Rate	Monthly Rate	2x/Yr Billing Rate	Percent Change
Single 90 Gal Refuse & Recycling 1x/wk	\$18.35	\$110.10	\$24.14	\$144.85	31.6%
Two Family 90 Gal Refuse & Recycling 1x/wk	\$21.05	\$126.30	\$24.14	\$144.85	14.7%
Single & Two Family 60 Gal Refuse & Recycling-Senior	\$15.55	\$93.30	\$22.71	\$136.26	46.0%
Single 2x/wk Alley Dumpster Refuse & 1x/wk Recycling Cart	\$19.74	\$118.44	\$29.49	\$176.96	49.4%
Two Family 2x/wk Alley Dumpster Refuse & 1x/wk Recycling Cart	\$22.64	\$135.84	\$29.49	\$176.96	30.3%
Single 2x/wk Alley Dumpster Refuse & 1x/wk Recycling Cart-Senior	\$17.09	\$102.54	\$29.49	\$176.96	72.6%
3+ Units - Alley Mechanical Dumpsters 2x/wk - Refuse & Recycling	\$13.10	\$78.60	\$27.11	\$162.68	51.7%
3+ Units - 90 Gal Refuse & Recycling 1x/wk	\$21.05	\$126.30	\$24.14	\$144.85	12.8%

Commercial Refuse 6-Month Rates

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Current Rates – 1 Container

Size (CY)	Frequency					
	1	2	3	4	5	6
2	\$408	\$571	N/A	N/A	N/A	N/A
3	\$442	\$618	N/A	N/A	N/A	N/A
4	\$478	\$670	\$937	\$1,312	\$1,837	\$2,572

Full Cost Rates – 1 Container

Size (CY)	Frequency					
	1	2	3	4	5	6
2	\$334	\$668	N/A	N/A	N/A	N/A
3	\$382	\$764	N/A	N/A	N/A	N/A
4	\$430	\$860	\$1,289	\$1,719	\$2,149	\$2,579

Commercial Refuse 6-Month Rates

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Current Rates – 2 Containers

Size (CY)	Frequency					
	1	2	3	4	5	6
2	\$489	\$685	N/A	N/A	N/A	N/A
3	\$530	\$742	N/A	N/A	N/A	N/A
4	\$574	\$804	N/A	\$1,575	\$2,205	\$3,087

Full Cost Rates – 2 Containers

Size (CY)	Frequency					
	1	2	3	4	5	6
2	\$499	\$998	N/A	N/A	N/A	N/A
3	\$595	\$1,189	N/A	N/A	N/A	N/A
4	\$690	\$1,380	N/A	\$2,761	\$3,451	\$4,141

Commercial Recycling 6-Month Rates

Currently No Rates Charged

Full Cost Rates

Size (CY)	Frequency					
	1	2	3	4	5	6
2	\$584	\$1,169	\$1,753	\$2,338	\$2,922	\$3,506
3	\$655	\$1,311	\$1,966	\$2,622	\$3,277	\$3,932
4	\$726	\$1,453	\$2,179	\$2,906	\$3,632	\$4,358

Commercial Services Revenue Summary

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Service	Current Rates	Full Cost	% Difference
Refuse Carts and Dumpsters	\$54,585	\$62,978	15.4%
Recycling Dumpsters	\$0	\$48,258	N/A
Total Annual Revenue	\$54,585	\$111,236	103.8%

Commercial Rate Considerations

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- 60 commercial refuse accounts, 14 commercial recycling dumpsters
 - Refuse rates are 15.4% deficient overall, and imbalanced rate structure depending on size, service frequency and number of dumpsters per account
 - Recycling service has historically been provided for “free” due to material markets offsetting processing charges. Since market challenges in 2018, processing charges have not offset costs. Recently cost is averaging \$111/ton.

- Rate Direction Received
 - Design cost recovering refuse dumpsters rates incorporating the costs of commercial recycling service

- Other Considerations
 - Privatize commercial sanitation collection
 - Continue subsidizing

Roll-off Rate Considerations

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- 30 roll-off services reported in most recent year
 - Roll-off truck primarily supports the Recycling Drop-off
 - Operator supports various collection services
 - Reported tonnage indicates an average of 4.8 tons/pull

Roll-off Collection	Current Rate	Full Cost Rate	Proposed Rate	% Difference
Refuse 30 CY Roll-Off (10 Business Day Drop and Pull)	\$300.00	\$293.38	\$330.00	10.0%
Refuse 30 CY Roll-Off (Disposal Charge) per Ton	N/A	\$60.17	\$60.17	
<i>Rate if not charging disposal per Ton, avg. 4.8 tons/pull</i>		\$582.19		

- Recommend recovering costs by rates or do not offer roll-off service

Rate Recommendations

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**GUIDANCE RECEIVED FROM CITY STAFF:
Design rates that will eliminate the need for
subsidization by other funds and result in
projected cash flows meeting solid waste fund
reserve targets for at least seven years.**

Three Rate Path Options

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- **Option 1:** One-year rate increase with no Consumer Price Index (CPI) increase
- **Option 2:** One-year rate increase with CPI increases
- **Option 3:** Three-year phased in rate increases with no CPI increases

Single-Family Residential Curbside Rate Options Compared

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		Rate (Billed Twice per Year)					
	Rate Option	2025	2026	2027	2028	2029	2030
1	One-Yr. inc. no CPI	\$127.50	\$127.50	\$127.50	\$127.50	\$127.50	\$127.50
	<i>Percent Change</i>	15.8%	0.0%	0.0%	0.0%	0.0%	0.0%
2	One-Yr. inc. with CPI	\$119.40	\$122.98	\$126.67	\$130.47	\$134.38	\$138.41
	<i>Percent Change</i>	8.4%	3.0%	3.0%	3.0%	3.0%	3.0%
3	Three-Yr. inc. no CPI	\$117.60	\$125.61	\$134.17	\$134.17	\$134.17	\$134.17
	<i>Percent Change</i>	6.8%	6.8%	6.8%	0.0%	0.0%	0.0%

Multi-Family Mechanical Dumpster Rate Options Compared

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		Rate (Billed Twice per Year)					
	Rate Option	2025	2026	2027	2028	2029	2030
1	One-Yr. inc. no CPI	\$132.00	\$132.00	\$132.00	\$132.00	\$132.00	\$132.00
	<i>Percent Change</i>	67.9%	0.0%	0.0%	0.0%	0.0%	0.0%
2	One-Yr. inc. with CPI	\$108.00	\$111.24	\$114.58	\$118.02	\$121.56	\$125.21
	<i>Percent Change</i>	37.4%	3.0%	3.0%	3.0%	3.0%	3.0%
3	Three-Yr. inc. no CPI	\$94.50	\$113.40	\$130.80	\$130.80	\$130.80	\$130.80
	<i>Percent Change</i>	20.2%	20.0%	15.3%	0.0%	0.0%	0.0%

Commercial Dumpster Twice Yearly Rate Recommendation

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- City Guidance: one rate covers full cost of garbage and recycling
- Rate increase in Year 1 (eliminate subsidization)
- Rates assume no additional recycling services requested

Number of Containers	Size	Frequency					
		1	2	3	4	5	6
1	90 Gal	\$168	N/A	N/A	N/A	N/A	N/A
2	90 Gal	\$361	N/A	N/A	N/A	N/A	N/A
3	90 Gal	\$722	N/A	N/A	N/A	N/A	N/A
4	90 Gal	\$1,381	N/A	N/A	N/A	N/A	N/A
1	2 CY	\$534	\$1,068	N/A	N/A	N/A	N/A
1	3 CY	\$610	\$1,219	N/A	N/A	N/A	N/A
1	4 CY	\$685	\$1,370	\$2,055	\$2,740	\$3,425	\$4,110
2	2 CY	\$781	\$1,562	N/A	N/A	N/A	N/A
2	3 CY	\$932	\$1,863	\$2,795	N/A	N/A	N/A
2	4 CY	\$1,083	\$2,165	N/A	\$4,331	\$5,413	\$6,496

Projected Rates and Cash Flow

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EXHIBIT X - Projected Cash Flow - Yr 1 increase and no CPI increases

Rate Option

Option 1

Operating Reserve Target Based on Days (%)

18.0%

Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Projected Revenues	\$4,846,900	\$3,808,431	\$3,770,347	\$3,732,643	\$3,695,317	\$3,658,364	\$3,621,780	\$3,585,562	\$3,549,707	\$3,514,209
Rate Revenue	\$3,846,900	\$3,808,431	\$3,770,347	\$3,732,643	\$3,695,317	\$3,658,364	\$3,621,780	\$3,585,562	\$3,549,707	\$3,514,209
Other Financing - Interfund Loans	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Projected Expenses	\$3,955,902	\$3,737,346	\$3,985,912	\$3,913,448	\$3,981,287	\$4,073,660	\$4,344,700	\$4,472,636	\$4,480,717	\$4,570,106
Operating Expenses	\$3,135,902	\$3,126,979	\$3,220,788	\$3,317,412	\$3,416,934	\$3,519,442	\$3,625,025	\$3,733,776	\$3,845,789	\$3,961,163
CIP and Equipment Replacement	\$731,300	\$503,928	\$658,684	\$489,596	\$457,913	\$447,770	\$613,235	\$632,420	\$528,433	\$503,969
Debt Service	\$88,700	\$106,440	\$106,440	\$106,440	\$106,440	\$106,448	\$106,440	\$106,440	\$106,494	\$104,974
Surplus (Deficit)	\$890,998	\$71,085	(\$215,565)	(\$180,805)	(\$285,971)	(\$415,296)	(\$722,920)	(\$887,074)	(\$931,010)	(\$1,055,896)
Operating Cash Reserves	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Beginning of Year	\$1,559,965	\$2,450,963	\$2,522,048	\$2,306,483	\$2,125,678	\$1,839,707	\$1,424,411	\$701,491	(\$185,583)	(\$1,116,593)
Expenditures	(\$3,955,902)	(\$3,737,346)	(\$3,985,912)	(\$3,913,448)	(\$3,981,287)	(\$4,073,660)	(\$4,344,700)	(\$4,472,636)	(\$4,480,717)	(\$4,570,106)
Revenues	\$4,846,900	\$3,808,431	\$3,770,347	\$3,732,643	\$3,695,317	\$3,658,364	\$3,621,780	\$3,585,562	\$3,549,707	\$3,514,209
End of Year	\$2,450,963	\$2,522,048	\$2,306,483	\$2,125,678	\$1,839,707	\$1,424,411	\$701,491	(\$185,583)	(\$1,116,593)	(\$2,172,489)
Target End of Year	\$564,462	\$562,856	\$579,742	\$597,134	\$615,048	\$633,500	\$652,505	\$672,080	\$692,242	\$713,009
Excess Operating Cash Reserve	\$1,886,501	\$1,959,192	\$1,726,741	\$1,528,544	\$1,224,659	\$790,912	\$48,987	(\$857,663)	(\$1,808,835)	(\$2,885,499)
Operating Cash Reserve Level	78%	81%	72%	64%	54%	40%	19%	-5%	-29%	-55%
Achieves Operating Reserve Target	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	FALSE	FALSE

Exhibit X Projected Rates - Yr 1 Increase then 3% CPI increase per year

Rate Option

Option 2

	% Increase	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Single-Family and Two-Family Residential Collection										
Single 90 Gal Refuse & Recycling 1x/wk	\$119.40	\$122.98	\$126.67	\$130.47	\$134.38	\$138.41	\$142.56	\$146.84	\$151.25	\$155.79
Two Family 90 Gal Refuse & Recycling 1x/wk	\$119.40	\$122.98	\$126.67	\$130.47	\$134.38	\$138.41	\$142.56	\$146.84	\$151.25	\$155.79
Single & Two Family 60 Gal Refuse & Recycling-Senior	\$101.40	\$104.44	\$107.57	\$110.80	\$114.12	\$117.54	\$121.07	\$124.70	\$128.44	\$132.29
Single 2x/wk Alley Dumpster Refuse & 1x/wk Recycling Cart	\$135.00	\$139.05	\$143.22	\$147.52	\$151.95	\$156.51	\$161.21	\$166.05	\$171.03	\$176.16
Two Family 2x/wk Alley Dumpster Refuse & 1x/wk Recycling Cart	\$135.00	\$139.05	\$143.22	\$147.52	\$151.95	\$156.51	\$161.21	\$166.05	\$171.03	\$176.16
Single 2x/wk Alley Dumpster Refuse & 1x/wk Recycling Cart-Senior	\$114.40	\$117.83	\$121.36	\$125.00	\$128.75	\$132.61	\$136.59	\$140.69	\$144.91	\$149.26
2x/yr Bulk Waste (inc. in above rates)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Yard Waste Collection	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Extra Cart (per Cart)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Special Bulk Waste Collection (\$25/Item up to 10 Items/Pickup)	\$30.00	\$30.90	\$31.83	\$32.78	\$33.76	\$34.77	\$35.81	\$36.88	\$37.99	\$39.13
Recycling Drop-off Center Charge (per Month)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	% Increase	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Multi-Family Residential Collection										
3+ Units - Alley Mechanical Dumpsters 2x/wk - Refuse & Recycling	\$108.00	\$111.24	\$114.58	\$118.02	\$121.56	\$125.21	\$128.97	\$132.84	\$136.83	\$140.93
3+ Units - 90 Gal Refuse & Recycling 1x/wk	\$126.30	\$130.09	\$133.99	\$138.01	\$142.15	\$146.41	\$150.80	\$155.32	\$159.98	\$164.78
3+ Units Mechanical Dumpster & Waste Reduction (Twice per Year)	\$75.00	\$77.25	\$79.57	\$81.96	\$84.42	\$86.95	\$89.56	\$92.25	\$95.02	\$97.87

	% Increase	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Commercial Refuse Containers Collection	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
One 90 Gal Cart 1x/wk (Twice per Year)	\$168.00	\$173.04	\$178.23	\$183.58	\$189.09	\$194.76	\$200.60	\$206.62	\$212.82	\$219.20
Two 90 Gal Cart 1x/wk (Twice per Year)	\$359.24	\$370.01	\$381.11	\$392.54	\$404.32	\$416.45	\$428.94	\$441.81	\$455.06	\$468.71
Three 90 Gal Cart 1x/wk (Twice per Year)	\$715.79	\$737.27	\$759.39	\$782.17	\$805.64	\$829.81	\$854.70	\$880.34	\$906.75	\$933.95
Four 90 Gal Cart 1x/wk (Twice per Year)	\$1,365.11	\$1,406.06	\$1,448.24	\$1,491.69	\$1,536.44	\$1,582.53	\$1,630.01	\$1,678.91	\$1,729.28	\$1,781.16
One 2 CY 1x/wk (Twice per Year)	\$540.28	\$556.49	\$573.18	\$590.38	\$608.09	\$626.33	\$645.12	\$664.47	\$684.40	\$704.93
Two 2 CY 1x/wk (Twice per Year)	\$788.55	\$812.21	\$836.58	\$861.68	\$887.53	\$914.16	\$941.58	\$969.83	\$998.92	\$1,028.89
One 2 CY 2x/wk (Twice per Year)	\$1,080.56	\$1,112.98	\$1,146.37	\$1,180.76	\$1,216.18	\$1,252.67	\$1,290.25	\$1,328.96	\$1,368.83	\$1,409.89
Two 2 CY 2x/wk (Twice per Year)	\$1,577.11	\$1,624.42	\$1,673.15	\$1,723.34	\$1,775.04	\$1,828.29	\$1,883.14	\$1,939.63	\$1,997.82	\$2,057.75
One 3 CY 1x/wk (Twice per Year)	\$615.75	\$634.22	\$653.25	\$672.85	\$693.04	\$713.83	\$735.24	\$757.30	\$780.02	\$803.42
Two 3 CY 1x/wk (Twice per Year)	\$939.49	\$967.68	\$996.71	\$1,026.61	\$1,057.41	\$1,089.13	\$1,121.80	\$1,155.45	\$1,190.11	\$1,225.81
One 3 CY 2x/wk (Twice per Year)	\$1,231.50	\$1,268.45	\$1,306.50	\$1,345.70	\$1,386.07	\$1,427.65	\$1,470.48	\$1,514.59	\$1,560.03	\$1,606.83
Two 3 CY 2x/wk (Twice per Year)	\$1,878.98	\$1,935.35	\$1,993.41	\$2,053.21	\$2,114.81	\$2,178.25	\$2,243.60	\$2,310.91	\$2,380.24	\$2,451.65
Two 3 CY 3x/wk (Twice per Year)	\$2,818.48	\$2,903.03	\$2,990.12	\$3,079.82	\$3,172.21	\$3,267.38	\$3,365.40	\$3,466.36	\$3,570.35	\$3,677.46
One 4 CY 1x/wk (Twice per Year)	\$691.22	\$711.96	\$733.32	\$755.32	\$777.98	\$801.32	\$825.36	\$850.12	\$875.62	\$901.89
Two 4 CY 1x/wk (Twice per Year)	\$1,090.43	\$1,123.14	\$1,156.83	\$1,191.53	\$1,227.28	\$1,264.10	\$1,302.02	\$1,341.08	\$1,381.31	\$1,422.75
One 4 CY 2x/wk (Twice per Year)	\$1,382.44	\$1,423.91	\$1,466.63	\$1,510.63	\$1,555.95	\$1,602.63	\$1,650.71	\$1,700.23	\$1,751.24	\$1,803.78
Two 4 CY 2x/wk (Twice per Year)	\$2,180.86	\$2,246.28	\$2,313.67	\$2,383.08	\$2,454.57	\$2,528.21	\$2,604.06	\$2,682.18	\$2,762.65	\$2,845.53
One 4 CY 3x/wk (Twice per Year)	\$2,073.66	\$2,135.87	\$2,199.95	\$2,265.95	\$2,333.93	\$2,403.95	\$2,476.07	\$2,550.35	\$2,626.86	\$2,705.67
One 4 CY 4x/wk (Twice per Year)	\$2,764.88	\$2,847.82	\$2,933.25	\$3,021.25	\$3,111.89	\$3,205.25	\$3,301.41	\$3,400.45	\$3,502.46	\$3,607.53
Two 4 CY 4x/wk (Twice per Year)	\$4,361.72	\$4,492.57	\$4,627.35	\$4,766.17	\$4,909.16	\$5,056.43	\$5,208.12	\$5,364.36	\$5,525.29	\$5,691.05
One 4 CY 5x/wk (Twice per Year)	\$3,456.09	\$3,559.78	\$3,666.57	\$3,776.57	\$3,889.87	\$4,006.57	\$4,126.77	\$4,250.57	\$4,378.09	\$4,509.43
Two 4 CY 5x/wk (Twice per Year)	\$5,452.15	\$5,615.71	\$5,784.18	\$5,957.71	\$6,136.44	\$6,320.53	\$6,510.15	\$6,705.45	\$6,906.61	\$7,113.81
One 4 CY 6x/wk (Twice per Year)	\$4,147.31	\$4,271.73	\$4,399.88	\$4,531.88	\$4,667.84	\$4,807.88	\$4,952.12	\$5,100.68	\$5,253.70	\$5,411.31
Two 4 CY 6x/wk (Twice per Year)	\$6,542.58	\$6,738.85	\$6,941.02	\$7,149.25	\$7,363.73	\$7,584.64	\$7,812.18	\$8,046.55	\$8,287.95	\$8,536.59

	% Increase	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Commercial Recycling Containers Collection	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
2 CY 1x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2 CY 2x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2 CY 3x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2 CY 4x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2 CY 5x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2 CY 6x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3 CY 1x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3 CY 2x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3 CY 3x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3 CY 4x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3 CY 5x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3 CY 6x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4 CY 1x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4 CY 2x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4 CY 3x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4 CY 4x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4 CY 5x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4 CY 6x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	% Increase	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Temporary Container Services	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Refuse 95 Gal Cart - Drop Off (5 Business Days)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Refuse 95 Gal Cart - Drop Off (Additional Rental Period)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Refuse 95 Gal Cart - Drop Off (Extra Empty)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Recycling 90 Gal Cart - Drop Off (5 Business Days)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Recycling 90 Gal Cart - Drop Off (Additional Rental Period)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Recycling 90 Gal Cart - Drop Off (Extra Empty)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Refuse 3 CY Dumpster - Drop Off (10 Business Days)	\$100.00	\$103.00	\$106.09	\$109.27	\$112.55	\$115.93	\$119.41	\$122.99	\$126.68	\$130.48
Refuse 3 CY Dumpster - Drop Off (Additional Rental Period)	\$40.00	\$41.20	\$42.44	\$43.71	\$45.02	\$46.37	\$47.76	\$49.19	\$50.67	\$52.19
Refuse 3 CY Dumpster - Drop Off (Extra Empty)	\$60.00	\$61.80	\$63.65	\$65.56	\$67.53	\$69.56	\$71.65	\$73.80	\$76.01	\$78.29
Recycling Dumpster - Drop Off (10 Business Days)	\$40.00	\$41.20	\$42.44	\$43.71	\$45.02	\$46.37	\$47.76	\$49.19	\$50.67	\$52.19
Recycling Dumpster - Drop Off (Additional Rental Period)	\$10.00	\$10.30	\$10.61	\$10.93	\$11.26	\$11.60	\$11.95	\$12.31	\$12.68	\$13.06
Recycling Dumpster - Drop Off (Extra Empty)	\$30.00	\$30.90	\$31.83	\$32.78	\$33.76	\$34.77	\$35.81	\$36.88	\$37.99	\$39.13
Refuse 30 CY Roll-Off (10 Business Days, includes 1 Pull)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Refuse 30 CY Roll-Off (10 Business Day Drop and Pull)	\$330.00	\$339.90	\$350.10	\$360.60	\$371.42	\$382.56	\$394.04	\$405.86	\$418.04	\$430.58
Refuse 30 CY Roll-Off (Disposal Charge) per Ton	\$60.17	\$61.98	\$63.84	\$65.76	\$67.73	\$69.76	\$71.85	\$74.01	\$76.23	\$78.52
Refuse 30 CY Roll-Off (Additional Rental Period)	\$200.00	\$206.00	\$212.18	\$218.55	\$225.11	\$231.86	\$238.82	\$245.98	\$253.36	\$260.96
Refuse 30 CY Roll-Off (Extra Empty, plus Tonnage Fee)	\$330.00	\$339.90	\$350.10	\$360.60	\$371.42	\$382.56	\$394.04	\$405.86	\$418.04	\$430.58

EXHIBIT X - Projected Cash Flow - Yr 1 increase + 3% CPI increases

Rate Option

Option 2

Operating Reserve Target Based on Days (%)

18.0%

Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Projected Revenues	\$4,521,472	\$3,590,444	\$3,660,822	\$3,732,610	\$3,805,716	\$3,880,317	\$3,956,409	\$4,034,056	\$4,113,282	\$4,193,984
Rate Revenue	\$3,521,472	\$3,590,444	\$3,660,822	\$3,732,610	\$3,805,716	\$3,880,317	\$3,956,409	\$4,034,056	\$4,113,282	\$4,193,984
Other Financing - Interfund Loans	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Projected Expenses	\$3,955,902	\$3,737,346	\$3,985,912	\$3,913,448	\$3,981,287	\$4,073,660	\$4,344,700	\$4,472,636	\$4,480,717	\$4,570,106
Operating Expenses	\$3,135,902	\$3,126,979	\$3,220,788	\$3,317,412	\$3,416,934	\$3,519,442	\$3,625,025	\$3,733,776	\$3,845,789	\$3,961,163
CIP and Equipment Replacement	\$731,300	\$503,928	\$658,684	\$489,596	\$457,913	\$447,770	\$613,235	\$632,420	\$528,433	\$503,969
Debt Service	\$88,700	\$106,440	\$106,440	\$106,440	\$106,440	\$106,448	\$106,440	\$106,440	\$106,494	\$104,974
Surplus (Deficit)	\$565,570	(\$146,903)	(\$325,090)	(\$180,838)	(\$175,571)	(\$193,343)	(\$388,291)	(\$438,581)	(\$367,435)	(\$376,122)
Operating Cash Reserves	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Beginning of Year	\$1,559,965	\$2,125,535	\$1,978,632	\$1,653,543	\$1,472,705	\$1,297,134	\$1,103,791	\$715,500	\$276,919	(\$90,516)
Expenditures	(\$3,955,902)	(\$3,737,346)	(\$3,985,912)	(\$3,913,448)	(\$3,981,287)	(\$4,073,660)	(\$4,344,700)	(\$4,472,636)	(\$4,480,717)	(\$4,570,106)
Revenues	\$4,521,472	\$3,590,444	\$3,660,822	\$3,732,610	\$3,805,716	\$3,880,317	\$3,956,409	\$4,034,056	\$4,113,282	\$4,193,984
End of Year	\$2,125,535	\$1,978,632	\$1,653,543	\$1,472,705	\$1,297,134	\$1,103,791	\$715,500	\$276,919	(\$90,516)	(\$466,637)
Target End of Year	\$564,462	\$562,856	\$579,742	\$597,134	\$615,048	\$633,500	\$652,505	\$672,080	\$692,242	\$713,009
Excess Operating Cash Reserve	\$1,561,073	\$1,415,776	\$1,073,801	\$875,571	\$682,086	\$470,291	\$62,995	(\$395,161)	(\$782,758)	(\$1,179,647)
Operating Cash Reserve Level	68%	63%	51%	44%	38%	31%	20%	7%	-2%	-12%
Achieves Operating Reserve Target	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	FALSE	FALSE

EXHIBIT X - Projected Cash Flow - 3-Yr Phase-in, no CPI increases

Rate Option

Option 3

Operating Reserve Target Based on Days (%)

18.0%

Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Projected Revenues	\$4,399,179	\$3,654,535	\$3,900,365	\$3,861,399	\$3,822,785	\$3,784,557	\$3,746,712	\$3,709,244	\$3,672,152	\$3,635,430
Rate Revenue	\$3,399,179	\$3,654,535	\$3,900,365	\$3,861,399	\$3,822,785	\$3,784,557	\$3,746,712	\$3,709,244	\$3,672,152	\$3,635,430
Other Financing - Interfund Loans	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Projected Expenses	\$3,955,902	\$3,737,346	\$3,985,912	\$3,913,448	\$3,981,287	\$4,073,660	\$4,344,700	\$4,472,636	\$4,480,717	\$4,570,106
Operating Expenses	\$3,135,902	\$3,126,979	\$3,220,788	\$3,317,412	\$3,416,934	\$3,519,442	\$3,625,025	\$3,733,776	\$3,845,789	\$3,961,163
CIP and Equipment Replacement	\$731,300	\$503,928	\$658,684	\$489,596	\$457,913	\$447,770	\$613,235	\$632,420	\$528,433	\$503,969
Debt Service	\$88,700	\$106,440	\$106,440	\$106,440	\$106,440	\$106,448	\$106,440	\$106,440	\$106,494	\$104,974
Surplus (Deficit)	\$443,277	(\$82,811)	(\$85,547)	(\$52,049)	(\$158,502)	(\$289,103)	(\$597,988)	(\$763,392)	(\$808,565)	(\$934,675)
Operating Cash Reserves	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Beginning of Year	\$1,559,965	\$2,003,242	\$1,920,431	\$1,834,884	\$1,782,835	\$1,624,333	\$1,335,230	\$737,241	(\$26,151)	(\$834,715)
Expenditures	(\$3,955,902)	(\$3,737,346)	(\$3,985,912)	(\$3,913,448)	(\$3,981,287)	(\$4,073,660)	(\$4,344,700)	(\$4,472,636)	(\$4,480,717)	(\$4,570,106)
Revenues	\$4,399,179	\$3,654,535	\$3,900,365	\$3,861,399	\$3,822,785	\$3,784,557	\$3,746,712	\$3,709,244	\$3,672,152	\$3,635,430
End of Year	\$2,003,242	\$1,920,431	\$1,834,884	\$1,782,835	\$1,624,333	\$1,335,230	\$737,241	(\$26,151)	(\$834,715)	(\$1,769,390)
Target End of Year	\$564,462	\$562,856	\$579,742	\$597,134	\$615,048	\$633,500	\$652,505	\$672,080	\$692,242	\$713,009
Excess Operating Cash Reserve	\$1,438,780	\$1,357,575	\$1,255,142	\$1,185,701	\$1,009,284	\$701,730	\$84,737	(\$698,230)	(\$1,526,957)	(\$2,482,400)
Operating Cash Reserve Level	64%	61%	57%	54%	48%	38%	20%	-1%	-22%	-45%
Achieves Operating Reserve Target	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	FALSE	FALSE

Thank you

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NOVEMBER 2024

FINAL REPORT

SOLID WASTE
RATE STUDY



Prepared by





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SOLID WASTE RATE STUDY

1. INTRODUCTION

University City, Missouri (City) provides solid waste services for residential properties as well as several non-residential properties. In addition to providing collection of refuse, recyclables and yard wastes, the City conducts spring and fall leaf collection from the streets and owns and operates a transfer station and recycling drop-off center.

In 2018, the City retained MSW Consultants to comprehensively evaluate and estimate a ten-year solid waste system full cost of service and to develop a rate recommendation for the next four fiscal years. At that time, the City had begun incurring recyclables processing tip fees far in excess of any historical fees following marketability challenges brought by China's 2018 waste import ban known as the National Sword Policy. Following that study, the 2020 COVID-19 pandemic brought another set of challenges both in staffing and increased cost of supplies and equipment, and a 2021 operations center flood in which the City lost valuable collection trucks. This study is an update to the 2018 study, as is standard industry best practice.

Solid Waste operates as an enterprise fund, charging user fees through a twice per year billing structure for services provided to residents and businesses. The City has promoted recycling and diversion activities for many years and wants to establish rates to ensure the programs continue. The City experiences an approximate 1 percent decline per year which has been incorporated into projected population and material generation for the study. This report contains the results of the cost-of-service and rate study update.

2. SOLID WASTE SYSTEM OVERVIEW

2.1 COLLECTION

The City provides the following collection services:

- **Residential:** The City collects from its citizens in a variety of service methods including:
 - weekly collection of 90-gallon carts of trash and recycling from the curb from single- and two-family households and some multi-family locations,
 - twice weekly collection of alley dumpsters for trash from single-, two-, and multi-family locations with weekly curbside recycling collections of provided recycling carts,
 - weekly collection of yard waste in biodegradable bags or bundles,
 - street leaf collection for designated weeks in the Spring and Fall, and
 - twice per year bulk waste collection, with additional pickups available for a fee.

Households with at least one resident 65 years of age or older can apply for a senior discount rate if they agree to use a 60-gallon trash cart and do not have more than two people living in the housing unit.

Current customers and rates according to service delivery is provided in Table 2-1.

SOLID WASTE RATE STUDY

Table 2-1 Residential Accounts and Current Rates

Residential Collection	2024 Billing Units	Current Rates	
		Monthly Rate	2x/Yr Billing Rate
Single 90-Gal Refuse & Recycling 1x/wk	8,384	\$18.35	\$110.10
Two Family 90-Gal Refuse & Recycling 1x/wk	8	\$21.05	\$126.30
Single & Two Family 60-Gal Refuse & Recycling 1/wk-Senior	1,396	\$15.55	\$93.30
Single 2x/wk Alley Dumpster Refuse & 1x/wk Recycling Cart	829	\$19.74	\$118.44
Two Family 2x/wk Alley Dumpster Refuse & 1x/wk Recycling Cart	7	\$22.64	\$135.84
Single 2x/wk Alley Dumpster Refuse & 1x/wk Recycling Cart-Senior	125	\$17.09	\$102.54
3+ Units - Alley Mechanical Dumpsters 2x/wk - Refuse & Recycling	2,701	\$13.10	\$78.60
3+ Units - 90-Gal Refuse & Recycling 1x/wk	1,051	\$21.05	\$126.30

- Commercial:** The City offers non-residential customers refuse collection by use of a cart or sideloading dumpster. The City is not the exclusive provider of commercially generated material, so businesses can choose to contract private haulers rather than use the City services. The City currently has 27 commercial customers using 90-gallon carts and 33 commercial accounts using various dumpster sizes and service levels. Current rates for commercial refuse collection are provided in Table 2-2.

Table 2-2 Current Commercial Refuse Twice/Year Rates

Number of Containers	Size	Frequency					
		1	2	3	4	5	6
1	90 Gal	\$126	N/A	N/A	N/A	N/A	N/A
2	90 Gal	\$155	N/A	N/A	N/A	N/A	N/A
3	90 Gal	\$181	N/A	N/A	N/A	N/A	N/A
4	90 Gal	\$217	N/A	N/A	N/A	N/A	N/A
1	2 CY	\$408	\$571	N/A	N/A	N/A	N/A
1	3 CY	\$442	\$618	N/A	N/A	N/A	N/A
1	4 CY	\$478	\$670	\$937	\$1,312	\$1,837	\$2,572
2	2 CY	\$489	\$685	N/A	N/A	N/A	N/A
2	3 CY	\$530	\$742	N/A	N/A	N/A	N/A
2	4 CY	\$574	\$804	N/A	\$1,575	\$2,205	\$3,087

The City currently services 14 commercial recycling dumpsters, primarily in the Loop area. There is no charge for commercial recycling dumpster collection.

- **Temporary Containers:** The City also offers temporary placement and service of carts, dumpsters, and 30 cubic yard roll-off containers for refuse and recycling for various rental periods and service charges. The most recent annual data reflected nominal use of these services.

2.2 FACILITIES

In addition to collections, the solid waste team also operates two facilities in support of materials management:

- **Recycling Drop-off:** The City operates a 24-hour resident and small business recycling drop-off for various source-separated materials. The drop-off is adjacent to the City's operations yard. Pictures are shown in Figure 2-1.

Figure 2-1 Recycling Drop-off



Source-Separated Containers and Textiles



Mixed Fibers

- **Transfer Station:** The City operates a transfer station for transporting its collected refuse to Champ Landfill in Maryland Heights, approximately 26 miles roundtrip. Since undergoing a scale replacement and access road installation several years ago, the transfer station has been closed to third-party deliveries and the associated revenues. The transfer station is shown in Figure 2-2.

Figure 2-2 Transfer Station



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2.3 MATERIALS

A summary of materials collected by service line and the destinations for each is provided in Table 2-3. The column labeled “Projected 2024” contains tonnage estimates based on actual 2023 tonnages and the estimated one percent decline in population.¹

Table 2-3 Materials Collected (Tons)

Program	Facility	Actual 2021	Actual 2022*	Actual 2023	Projected 2024
Residential Curbside Refuse Carts	City Transfer Station then Champ LF	7,672	7,634	8,424	8,340
Residential Curbside Recycling Carts	Republic Services MRF	1,789	1,807	1,761	1,743
Residential Yard Waste**	City Park then St. Louis Composting	1,463	1,463	1,463	1,448
Special Pickup - Bulk for fee	City Transfer Station then Champ LF	725	2,681	691	684
Commercial/Multifamily/1-2 Fam. Alley Refuse Dumpsters	City Transfer Station then Champ LF	3,759	4,683	3,029	3,785
Commercial/Multifamily .Recycling Dumpsters	Republic Services MRF	374	356	402	398
Roll-Off - special request & drop-off, no "route"	City Transfer Station then Champ LF	134	302	146	145
Recycling Drop-off	Various outlets	178	146	206	204
Total		16,094	19,072	16,122	16,747

*Includes flood debris

**Estimated based on truck volume

3. BENCHMARKING

MSW Consultants updated information for benchmarked communities and their respective rates and services. Communities benchmarked in 2018 and updated in 2024 are all other St. Louis metro cities. They are listed in Table 3-1.

¹ U.S. Census QuickFacts, -2.8% population growth between April 2020 and July 2023

Table 3-1 Benchmarked Communities

City	2022 Population Estimate
Florissant	51,506
Saint Peters	58,523
University City	34,355
Ballwin	30,622
Kirkwood	29,279
Clayton	17,130
Brentwood	8,100

Benchmark research key findings include the following:

- Exclusive collection, whether directly or through a contracted hauler, is provided in all the benchmark cities.
- The predominant service method is automated collection of roll carts. Clayton and Brentwood are the exceptions with manual collection of resident-provided containers.
- Single-stream recycling is the program offered by all communities.
- Delivery of collected material to third-party processing and transfer facilities is most common among the benchmarked cities. St. Peters is the only exception; it operates its own MRF, compost facility and transfer station accepting materials from outside haulers.
- Negative growth in population, which reduces the customer base from which to recover costs, is present in all benchmark cities with the exception of St. Peters.
- An increase in rates since the 2018 study was made by all benchmark cities except Ballwin.

Updated program and rate information are found in exhibits located in Appendix A.

4. COST-OF-SERVICE ANALYSIS

4.1 METHODOLOGY

The cost-of-service and rate study process consists of three primary components:

- **Revenue Sufficiency Analysis** – In this step, the existing revenue stream for the solid waste operations is assessed to determine if it can meet the projected financial requirements of the system (including operating expenses, vehicle/equipment replacement, and capital improvements) during the forecast period.
- **Cost-of-Service Analysis** – The second step involves development of suitable methodologies to allocate system revenue requirements to the various customer classes that are responsible for funding the cost of services they are receiving and compiling the number of customers receiving each service.
- **Rate Design** – Finally, solid waste utility best management practices dictate that customer-specific rates and charges must be designed to provide sufficient revenue, as identified in the Revenue Sufficiency Analysis, to recover costs in a manner consistent with the overall solid waste management system policies and goals. The development of rates should, for the most part, be consistent with general rate-making principles as recognized in industry and related literature. In general, rates designed should:
 - generate a stable revenue stream which, when combined with other sources of funds, is sufficient to meet the financial requirements and goals of the city;
 - be easily understood by customers;

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- be easily administered the city; and
- minimize customer impact (i.e., avoid major shocks due to large or frequent changes).

4.2 COST-OF-SERVICE ANALYSIS

The following steps were taken to complete the revenue sufficiency projection and estimate the cost-of-service for the collection system and facility operation.

- **Program Financial Management** - Historical revenue and expenses for the solid waste operation are provided in Table 4-1. As shown, the Solid Waste Fund is regularly operating at a loss without significant transfers in and interdepartmental loans.

Table 4-1 Historical Revenue and Expenses

	Actual 2021	Actual 2022	Actual 2023	Budgeted 2024	Budgeted 2025
Revenue	\$3,063,058	\$3,108,061	\$5,384,180*	\$3,291,200	\$4,560,200**
Expenses	\$3,914,540	\$4,101,817	\$4,081,844	\$4,077,093	\$4,307,735
Surplus/Deficit	-\$851,482	-\$993,756	\$1,302,336	-\$785,893	\$252,465

*Includes Transfer In of \$1,976,494

**Includes Interdepartmental loans of \$1,000,000 made in September 2024

- **Financial Data** - Multiple financial reports were gathered to integrate into the customized cost of service model developed for this project.
 - **Reserve Policy and Beginning Balance** – Table 4-2 displays the estimated operating cash reserve balance as of June 30, 2023, and annual operating reserve target used in the study. The City defined its unrestricted reserve target as the equivalent of 18 percent of annual operating expenses, or approximately \$565,000 for 2025.

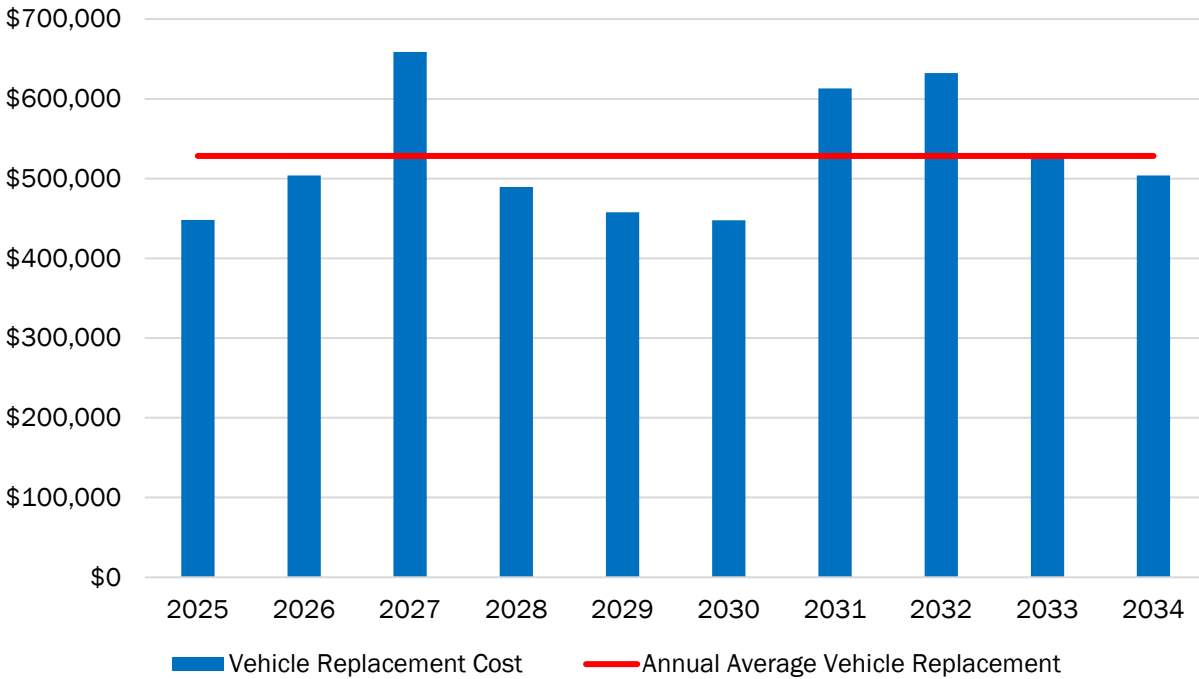
Table 4-2 Estimated Basis of Operating Reserve Starting Balance

Operating Reserves FY24 Beginning of Year	\$1,559,965*
Target Reserve Policy	18%

*Annual Comprehensive Financial Report for year ended June 30, 2023

- **Capital Improvement Plan (CIP):** Capital improvements include new or renovated solid waste facility infrastructure. Only one capital improvement, a \$275,000 replacement for the transfer station compactor in 2025, is planned for the 10-year planning period.
- **Vehicle/Equipment Replacement Plan:** Figure 4-1 summarizes the vehicle/equipment replacement schedule, showing the annual projected replacement capital cost. As shown, the 10-year average vehicle replacement cost is just over \$525,000 annually, although the actual amount of capital needed on an annual basis range from \$450,000 (2025 and 2029) to approximately \$660,000 (2027).

Figure 4-1 Vehicle & Major Equipment Replacement Plan



- **System Net Revenue Requirements** - To determine the dollar amount that must be recouped through rates to cover costs, known as “net revenue requirement,” the following steps are taken:
 - Compile gross revenue requirements as the sum of operating and non-operating expenses, plus average capital improvement and average vehicle replacement.
 - Net out any non-rate revenues, such as recycled material revenues and interest income if applicable.

Table 4-3 provides the projected annual revenue requirement for the operation of solid waste management services and facilities for the projected customer counts and tonnage managed (considered the “test” year). The “test” year incorporates the 10-year average CIP and Equipment Replacement. The Adjusted Annual Revenue Need column reflects allocation of Management and Administration costs, Container Maintenance, and Transfer Station costs across the applicable operating lines of business so that these expenses can be recovered through the appropriate funding mechanism. As shown, the system cost is approximately \$4.5 million.

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Table 4-3 Test Year Annual Revenue Requirement by Service

Cost Center	Annual Revenue Need	Adjusted Annual Revenue Need
Management & Administration	\$940,166	
Collection	\$2,458,563	\$3,559,799
Cart Collection Refuse	\$805,246	\$1,304,340
Cart Collection Recycling	\$507,644	\$675,145
Yard Waste	\$344,591	\$446,974
Bulky Waste	\$186,854	\$262,161
Dumpster Refuse	\$473,592	\$724,832
Dumpster Recycling	\$99,474	\$129,107
Container Maintenance	\$27,872	\$0
Rentals and Additional Collections	\$13,288	\$17,242
Facilities	\$402,598	\$147,511
Transfer Station	\$288,876	\$0
Recycling Drop-Off	\$113,722	\$147,511
Other	\$688,133	\$782,150
Bi-Annual Leaf Collection	\$688,133	\$782,150
Total	\$4,489,459	\$4,489,459

- **System Surplus or Deficit** - As a final step, the allocated system full cost was compared to the revenues generated with the City’s current rate structure. As shown in Table 4-4, the current rates will not generate enough revenue to fund the system. Instead, operating at current rates will result in a deficit of approximately \$1.4 million, or 31 percent.

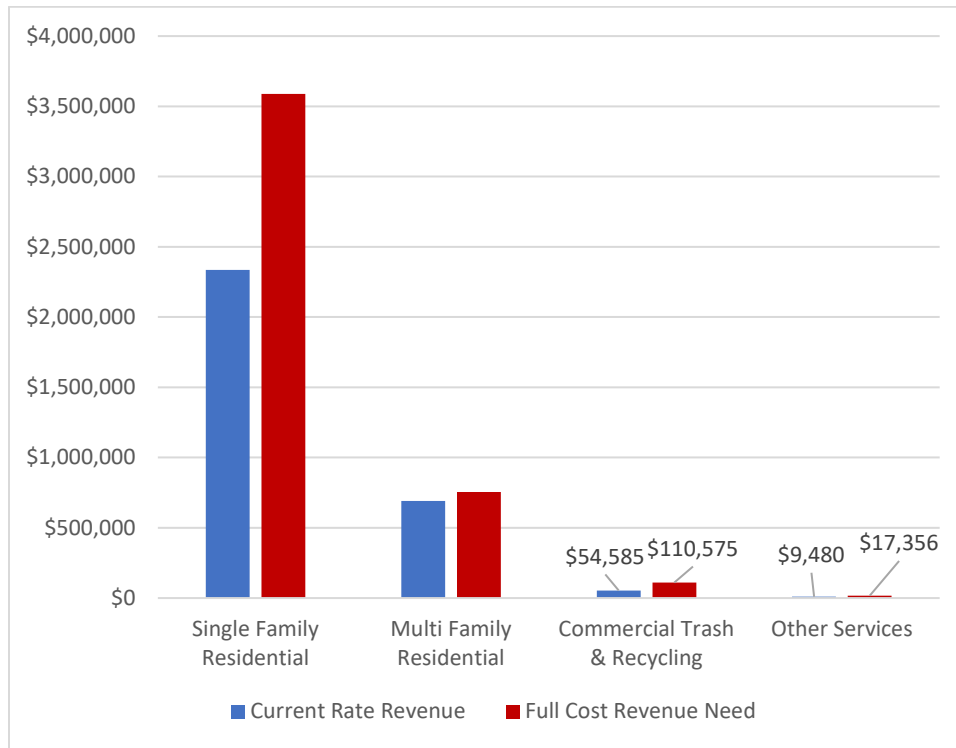
Table 4-4 System Surplus (Deficit)

Item	Dollars	Percent
Revenues at Current Rates	\$3,090,407	69%
Full Cost	\$4,489,459	100%
Surplus (Deficit)	(\$1,399,052)	-31%

A detailed breakdown of revenue sufficiency by service is shown in Figure 4-2. This figure highlights the following findings:

- All services are currently operating at a deficit.
- Residential service (both single- and multi-family) dominates the financial performance of the system. The only way to achieve revenue sufficiency is to adjust residential rates.
- The commercial customer class is a very small portion of the system. Although not shown in the figure, commercial services are out of balance when reviewing how frequently the containers are serviced per week. Further, for several years now, the processing cost of recyclables far exceeded any offsetting revenue received from the processor, and there is no charge to customers for recycling service.

Figure 4-2 Revenue Sufficiency Under Existing Rates



The following section applies the results of this cost-of-service analysis to compare current rates with full-cost rates and to subsequently recommend rate adjustments for consideration by the City.

4.3 FULL COST RATE CALCULATIONS

As previously mentioned, the Transfer Station is used only for City-collected material (not open to the public), so the full cost of operating the Transfer Station has been allocated, proportional to tonnage, back to the trash collection rates. The full cost of operating the Recycling Drop-off has been incorporated into the residential and multi-family full costs.

- Residential Collection** – The City has several combinations of service provisions for the residential customer base. There are 90-gallon carts, 60-gallon carts for seniors, and alley dumpsters servicing the single and two-family billing types for refuse. Residential recycling collection is provided by use of carts except for the 3+ unit mechanical locations where dumpsters are used for both refuse and recycling. Though dumpsters are more efficient to service and cover multiple billing accounts per dumpster, they are serviced twice per week vs. once per week service of the cart. Current rates and full cost rates for the various service combinations are shown in Table 4-5. As shown, some of the current rates are significantly below the cost of providing the service.

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Table 4-5 Full Cost of Residential Services vs. Current Rates

Residential Collection	Current Rates		Full Cost Rates		Percent Change
	Monthly Rate	2x/Yr Billing Rate	Monthly Rate	2x/Yr Billing Rate	
Single 90-Gal Refuse & Recycling 1x/wk	\$18.35	\$110.10	\$24.26	\$145.53	32.2%
Two Family 90-Gal Refuse & Recycling 1x/wk	\$21.05	\$126.30	\$24.26	\$145.53	15.2%
Single & Two Family 60-Gal Refuse & Recycling-Senior	\$15.55	\$93.30	\$22.76	\$136.56	46.4%
Single 2x/wk Alley Dumpster Refuse & 1x/wk Recycling Cart	\$19.74	\$118.44	\$29.29	\$175.76	48.4%
Two Family 2x/wk Alley Dumpster Refuse & 1x/wk Recycling Cart	\$22.64	\$135.84	\$29.29	\$175.76	29.4%
Single 2x/wk Alley Dumpster Refuse & 1x/wk Recycling Cart-Senior	\$17.09	\$102.54	\$29.29	\$175.76	71.4%
3+ Units - Alley Mechanical Dumpsters 2x/wk - Refuse & Recycling	\$13.10	\$78.60	\$26.91	\$161.48	51.3%
3+ Units - 90-Gal Refuse & Recycling 1x/wk	\$21.05	\$126.30	\$24.26	\$145.53	13.2%

- Commercial Collection** – The commercial collection services a relatively small number of accounts as described in section 2.1. The current billing structure is for one to four carts, one or two dumpsters, and according to the dumpster size and service frequency as shown in Table 2-2. Full cost, twice yearly bill rates and the percent difference in current rate vs. full cost rates are shown in Table 4-6 and Table 4-7. As shown, the rates are currently out of balance with lower volume and frequency rates covering costs, but the larger and more frequently served containers are falling below costs to varying extents.

Table 4-6 Commercial Refuse Full Cost Twice Yearly Rates

Number of Containers	Size	Weekly Service Frequency					
		1	2	3	4	5	6
1	90 Gal	\$82	N/A	N/A	N/A	N/A	N/A
2	90 Gal	\$111	N/A	N/A	N/A	N/A	N/A
3	90 Gal	\$141	N/A	N/A	N/A	N/A	N/A
4	90 Gal	\$170	N/A	N/A	N/A	N/A	N/A
1	2 CY	\$338	\$676	N/A	N/A	N/A	N/A
1	3 CY	\$386	\$772	N/A	N/A	N/A	N/A
1	4 CY	\$434	\$867	\$1,301	\$1,734	\$2,168	\$2,601
2	2 CY	\$494	\$988	N/A	N/A	N/A	N/A
2	3 CY	\$590	\$1,179	N/A	N/A	N/A	N/A
2	4 CY	\$685	\$1,370	N/A	\$2,741	\$3,426	\$4,111

Table 4-7 Difference in Commercial Refuse Current and Full Cost Twice Yearly Rates

Number of Containers	Size	Weekly Service Frequency					
		1	2	3	4	5	6
1	90 Gal	35%	N/A	N/A	N/A	N/A	N/A
2	90 Gal	28%	N/A	N/A	N/A	N/A	N/A
3	90 Gal	22%	N/A	N/A	N/A	N/A	N/A
4	90 Gal	21%	N/A	N/A	N/A	N/A	N/A
1	2 CY	17%	-18%	N/A	N/A	N/A	N/A
1	3 CY	13%	-25%	N/A	N/A	N/A	N/A
1	4 CY	9%	-29%	-39%	-32%	-18%	-1%
2	2 CY	-1%	-44%	N/A	N/A	N/A	N/A
2	3 CY	-11%	-59%	N/A	N/A	N/A	N/A
2	4 CY	-19%	-71%	N/A	-74%	-55%	-33%

As described earlier, commercial recycling service is provided at no cost. The full cost of the service is provided in Table 4-8.

Table 4-8 Commercial Recycling Full Cost Twice Yearly Rate

Container Size	Weekly Service Frequency					
	1	2	3	4	5	6
2 CY	\$582	\$1,163	\$1,745	\$2,327	\$2,908	\$3,490
3 CY	\$653	\$1,305	\$1,958	\$2,611	\$3,263	\$3,916
4 CY	\$724	\$1,447	\$2,171	\$2,895	\$3,618	\$4,342

The small customer base and changes in the dynamics of the recycling industry (i.e., net cost rather than neutral cost or net revenue) result in commercial refuse and recycling services collectively operating at approximately 50 percent deficit.

4.4 RATE DESIGN

Finally, specific rates and charges must be designed to provide sufficient revenue, as identified in the revenue sufficiency analysis, to recover costs in a manner consistent with the City’s overall solid waste management system policies and goals.

The City has not increased most of the rates in several years, so revenue sufficiency is significantly deficit. The current circumstance requires subsidization with transfers from the General Fund or other internal funding mechanisms such as loans from other City funds. With this study, the City requested rate options that will eliminate the need for subsidization by other funds and result in projected cash flows meeting Solid Waste Fund reserve targets for at least seven years. MSW Consultants designed the following rate options for consideration:

- **Option 1: One-year rate increase with no CPI increase** – This option includes the highest increase up front to fund operations and meet reserve targets in the projected cash flow for the next seven years.
- **Option 2: One-year rate increase with CPI increases** - This option includes a lower rate increase in year one but includes programmed subsequent 3 percent CPI increases to fund operations and meet reserve targets in the projected cash flow for the next seven years.

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- **Option 3: Three-year rate increase with no CPI increases** – This option includes varying rate increases over a three-year period that fund operations and meet reserve targets in the projected cash flow for the next seven years.

A comparison of the three options for the primary residential curbside customer type (single-family 90-gallon refuse and recycling carts serviced weekly) is shown in Table 4-9. As shown, the rates over the longer period vary depending on the timing of the increases in association with timing of projected cash outlay.

Table 4-9 Single Family Residential Curbside Twice Yearly Rate Options Compared

Rate Option	2025	2026	2027	2028	2029	2030
1 Twice/Year Rate	\$127.50	\$127.50	\$127.50	\$127.50	\$127.50	\$127.50
Percent Change	15.8%	0.0%	0.0%	0.0%	0.0%	0.0%
2 Twice/Year Rate	\$119.40	\$122.98	\$126.67	\$130.47	\$134.38	\$138.41
Percent Change	8.4%	3.0%	3.0%	3.0%	3.0%	3.0%
3 Twice/Year Rate	\$117.60	\$125.61	\$134.17	\$134.17	\$134.17	\$134.17
Percent Change	6.8%	6.8%	6.8%	0.0%	0.0%	0.0%

Similarly, a comparison of the three rate options for the multi-family residential 3+ unit alley mechanical dumpster service type is shown in Table 4-10.

Table 4-10 Multi Family Residential Mechanical Dumpster Twice Yearly Rate Options Compared

Rate Option	2025	2026	2027	2028	2029	2030
1 Twice/Year Rate	\$132.00	\$132.00	\$132.00	\$132.00	\$132.00	\$132.00
Percent Change	67.9%	0.0%	0.0%	0.0%	0.0%	0.0%
2 Twice/Year Rate	\$108.00	\$111.24	\$114.58	\$118.02	\$121.56	\$125.21
Percent Change	37.4%	3.0%	3.0%	3.0%	3.0%	3.0%
3 Twice/Year Rate	\$94.50	\$113.40	\$130.80	\$130.80	\$130.80	\$130.80
Percent Change	20.2%	20.0%	15.3%	0.0%	0.0%	0.0%

Finally, recommended rates for the commercial refuse service is provided in Table 4-11. The City has confirmed it prefers maintaining the rate structure for commercial refuse to cover the combined cost of refuse and recycling. The rates are designed to recover the current full cost of the commercial refuse and recycling services. In some service levels, this results in substantial increases. MSW Consultants recommends commercial rate increases be implemented in year one with no phase-in or lower increase followed by CPI increases so that the City’s general fund and residential rate payers are not subsidizing commercial collections.

Table 4-11 Commercial Mechanical Dumpster Twice Yearly Rate Recommendation

Number of Containers	Size	Frequency					
		1	2	3	4	5	6
1	90 Gal	\$168	N/A	N/A	N/A	N/A	N/A
2	90 Gal	\$361	N/A	N/A	N/A	N/A	N/A
3	90 Gal	\$722	N/A	N/A	N/A	N/A	N/A
4	90 Gal	\$1,381	N/A	N/A	N/A	N/A	N/A
1	2 CY	\$534	\$1,068	N/A	N/A	N/A	N/A
1	3 CY	\$610	\$1,219	N/A	N/A	N/A	N/A
1	4 CY	\$685	\$1,370	\$2,055	\$2,740	\$3,425	\$4,110
2	2 CY	\$781	\$1,562	N/A	N/A	N/A	N/A
2	3 CY	\$932	\$1,863	\$2,795	N/A	N/A	N/A
2	4 CY	\$1,083	\$2,165	N/A	\$4,331	\$5,413	\$6,496

As shown previously in the report, there are several other billing rates based on service container type and frequency. Projected rates for all three options for all rate types are shown in Appendix B.

5. RECOMMENDATIONS

The City should discuss the rate options and decide which of the three rate paths work the best for implementation. MSW Consultants understands the City is establishing a task force to review the study and rate paths and to bring forward a recommendation to the City Council.

It is also recommended that the study be updated every three to five years or following any significant program changes.

6. CONSULTANT OBSERVATIONS

MSW Consultants provides these additional concepts for consideration:

- **Commercial Service Provision:** It is likely that increasing rates to cover the combined service will result in some customer loss. MSW Consultants does not recommend operating commercial services at a loss. The City may want to consider exiting the commercial collection service and focus on the predominant operation of — residential service.
- **Roll-off Rates:** The City already operates the roll-off vehicle needed to provide service for the recycling drop-off containers. If staffing is available, offering a temporary roll-off container service makes sense as long as the rates cover the cost of service. The current pre-pay method restricts the City from more specific tonnage-based billing, but it also protects the City from no-pay write-offs, which is unfortunately common in the roll-off industry as charges for temporary containers are typically invoiced separately and not tied to utility bills. MSW recommends the rate be increased to cover the average service cost or consider discontinuing the service.
- **Transfer Station Tip Fees for Third Party Deliveries:** Similar to the 2018 study, MSW Consultants views the City’s transfer station as a potential asset to serve surrounding communities and provide a revenue source. If re-opening to outside haulers, a tip fee should be set to cover transfer operation as well as the contracted disposal cost. As a first step, the City may wish to have initial conversations with adjacent communities who provide their own collection to gather a level of interest.

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APPENDIX A

Benchmarking Results

Exhibit 1 - Collection and Disposal Overview
Exhibit 2 - Comparative Programmatic Data
Exhibit 3 - Rates

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Exhibit 1 - Collection and Disposal Overview

Service	University City	Kirkwood	Saint Peters	Ballwin	Clayton	Brentwood	Florissant
Single Family Residential Collection							
Refuse	Public	Public	Public	Contract	Contract	Public	Contract
Recycling	Public	Public	Public	Contract	Contract	Public	Contract
Yard Waste	Public	Public	Public	Contract	Contract	Public	Contract
Bulky Waste	Public	Public	Public	Contract	Contract	Public	Contract
Multi-family Collection							
	Up to 4 units-Public; Over 4 units-Open	Open	Public	Open	Contract 3 units or more	4 units or more - Public	Open
Commercial Container Collection	Public & Open	Open	Public	Open	Open	Open	Open
Roll-off Collection by City	Yes	No	Yes	No	No	No	No
Processing and Disposal Facilities Owned							
Landfill	No	No	No	No	No	No	No
Transfer Station	Yes	No	Yes	No	No	No	No
Material Recovery/Recycling Facility	No	No	Yes	No	No	No	No
Compost Facility	No	No	Yes	No	No	No	No

Exhibit 2 - Detailed Comparative Programmatic Information

Comparative Data	University City	Kirkwood	Saint Peters	Ballwin	Clayton	Brentwood	Florissant
Single Family Collection Services							
Refuse							
Frequency	Weekly	Weekly	2x/Week	Weekly	Weekly	Weekly	Weekly
Set-out Requirement	90-gal Carts	65 or 95-gal Carts	90-gal Cart	48, 65, or 95-gal Carts	Resident Provided Containers	Resident Provided Containers	96-gal Cart
Collection Technology	Automated	Automated	Automated	Automated	Manual	Manual	Automated
Recycling							
Frequency	Weekly	Weekly	2x/Week	Weekly	Weekly	Weekly	Weekly
Set-outs Allowed	90-gal Cart	64-gal Cart	Blue Bags, Placed Inside Garbage Cart	35, 65, or 95-gal Carts	32 Gallon Cart With Larger Options	65-gal Cart	96-gal Cart
Single Stream or Dual Stream	Single Stream	Single Stream	Single Stream	Single Stream	Single Stream	Single Stream	Single Stream
Collection Technology	Automated	Automated	Automated	Automated	Manual	Manual	Automated
Yard / Green Waste							
Frequency	Weekly, PAYT (stickers)	Weekly	Weekly	Weekly	Weekly	Weekly	Weekly
Seasonal or Year Round	Year Round	Year Round	Year Round (Except February)	Year Round	Year Round	Year Round	Options
Separate Leaf Collection	Yes	No	Yes	Yes	Yes	Yes	No
Collection Technology	Manual	Manual	Automated	Yard Waste Manual; Leaves Semi-auto (Vacuum)	Manual	Manual	Manual
Bulky Waste							
Scheduled, On-call, or Seasonal	2x per year cleanups; Accepts furniture, mattresses, white goods; On-Call for additional pickups for fee.	On-call	Scheduled 2x a year though must call in for service on bulk item collection day	Quarterly, call-in for service on bulk item collection day; White goods collected at least once a month with appointment	On-call	On-call 1x/month; Rate varies on item	On-call, up to 2 items, 1x/month

Exhibit 3 - Rates

Rate Structure	University City	Kirkwood	Saint Peters	Ballwin	Clayton	Brentwood	Florissant
Rates during the 2018 study	\$110.10 (\$18.35/mo.)	\$20.50	\$24.25	\$21.66	\$27.07	"Offered at no charge to residents"	\$15.50
Single Family Trash Pickup Rate Structure: Price of first cart/can/bag	\$110.10 (\$18.35/mo.)	\$27.23	\$26.16 +\$30 Activation Fee	\$21.66	\$53.19	"Offered at no charge to residents"	\$16.45
Billing Frequency	Every 6 Months	Monthly	Every 2 Months	Every 3 Months	Monthly	N/A - Included in Taxes	Monthly (user pays hauler directly)
Single Family Recycling Rate Structure	Included in Trash Fee	Included in Trash Fee	Included in Trash Fee	Included in Trash Fee	Included in Trash Fee	"Offered at no charge to residents"	Included in Trash Fee
Single Family Yard Waste Rate Structure	PAYT per bag (\$1.50/sticker)	PAYT per YW bag - \$12.27 per pack of 5. Also can purchase stickers for bags at \$2.00 per sticker	Included in Trash Fee	Included in Trash Fee	Included in Trash Fee		\$8.35 or \$8.70/mo depending on if service is collected year round or provided in 3 month increments
Single Family Bulky Waste Rate Structure	Spring & fall "cleanups" included in above billing, additional pickups can be arranged for a fee	Free 2x per year \$25 per major appliance, large furniture item, tire or truck hopper load	Included in above billing, with a \$50 fee for off-schedule collection	Scheduled 2 items per month for free. Additional \$50 per pick-up load	\$11.00 per Bulk collection, \$28.00 per collection of white good	Pricing varies depending on item collected: see city website	\$15 per item over 60 lbs, \$20 per white good

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APPENDIX B

Rate Options Projected Cash Flows

- Exhibit 4 – Option 1 Projected Rates
- Exhibit 5 – Option 1 Projected Cash Flow
- Exhibit 6 – Option 2 Projected Rates
- Exhibit 7 - Option 2 Projected Cash Flow
- Exhibit 8 - Option 3 Projected Rates
- Exhibit 9 - Option 3 Projected Cash Flow

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Exhibit 4 - Projected Rates - Yr 1 increase and no CPI increases

Rate Option

Option 1

	% Increase	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Single-Family and Two-Family Residential Collection	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Single 90 Gal Refuse & Recycling 1x/wk	\$127.50	\$127.50	\$127.50	\$127.50	\$127.50	\$127.50	\$127.50	\$127.50	\$127.50	\$127.50
Two Family 90 Gal Refuse & Recycling 1x/wk	\$127.50	\$127.50	\$127.50	\$127.50	\$127.50	\$127.50	\$127.50	\$127.50	\$127.50	\$127.50
Single & Two Family 60 Gal Refuse & Recycling-Senior	\$108.60	\$108.60	\$108.60	\$108.60	\$108.60	\$108.60	\$108.60	\$108.60	\$108.60	\$108.60
Single 2x/wk Alley Dumpster Refuse & 1x/wk Recycling Cart	\$153.00	\$153.00	\$153.00	\$153.00	\$153.00	\$153.00	\$153.00	\$153.00	\$153.00	\$153.00
Two Family 2x/wk Alley Dumpster Refuse & 1x/wk Recycling Cart	\$153.00	\$153.00	\$153.00	\$153.00	\$153.00	\$153.00	\$153.00	\$153.00	\$153.00	\$153.00
Single 2x/wk Alley Dumpster Refuse & 1x/wk Recycling Cart-Senior	\$130.05	\$130.05	\$130.05	\$130.05	\$130.05	\$130.05	\$130.05	\$130.05	\$130.05	\$130.05
2x/yr Bulk Waste (inc. in above rates)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Yard Waste Collection	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Extra Cart (per Cart)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Special Bulk Waste Collection (\$25/Item up to 10 Items/Pickup)	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00
Recycling Drop-off Center Charge (per Month)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	% Increase	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Multi-Family Residential Collection	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
3+ Units - Alley Mechanical Dumpsters 2x/wk - Refuse & Recycling	\$132.00	\$132.00	\$132.00	\$132.00	\$132.00	\$132.00	\$132.00	\$132.00	\$132.00	\$132.00
3+ Units - 90 Gal Refuse & Recycling 1x/wk	\$127.50	\$127.50	\$127.50	\$127.50	\$127.50	\$127.50	\$127.50	\$127.50	\$127.50	\$127.50
3+ Units Waste Reduction (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

	% Increase	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Commercial Refuse Containers Collection	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
One 90 Gal Cart 1x/wk (Twice per Year)	\$210.00	\$210.00	\$210.00	\$210.00	\$210.00	\$210.00	\$210.00	\$210.00	\$210.00	\$210.00
Two 90 Gal Cart 1x/wk (Twice per Year)	\$449.05	\$449.05	\$449.05	\$449.05	\$449.05	\$449.05	\$449.05	\$449.05	\$449.05	\$449.05
Three 90 Gal Cart 1x/wk (Twice per Year)	\$894.74	\$894.74	\$894.74	\$894.74	\$894.74	\$894.74	\$894.74	\$894.74	\$894.74	\$894.74
Four 90 Gal Cart 1x/wk (Twice per Year)	\$1,706.39	\$1,706.39	\$1,706.39	\$1,706.39	\$1,706.39	\$1,706.39	\$1,706.39	\$1,706.39	\$1,706.39	\$1,706.39
One 2 CY 1x/wk (Twice per Year)	\$540.28	\$540.28	\$540.28	\$540.28	\$540.28	\$540.28	\$540.28	\$540.28	\$540.28	\$540.28
Two 2 CY 1x/wk (Twice per Year)	\$788.55	\$788.55	\$788.55	\$788.55	\$788.55	\$788.55	\$788.55	\$788.55	\$788.55	\$788.55
One 2 CY 2x/wk (Twice per Year)	\$1,080.56	\$1,080.56	\$1,080.56	\$1,080.56	\$1,080.56	\$1,080.56	\$1,080.56	\$1,080.56	\$1,080.56	\$1,080.56
Two 2 CY 2x/wk (Twice per Year)	\$1,577.11	\$1,577.11	\$1,577.11	\$1,577.11	\$1,577.11	\$1,577.11	\$1,577.11	\$1,577.11	\$1,577.11	\$1,577.11
One 3 CY 1x/wk (Twice per Year)	\$615.75	\$615.75	\$615.75	\$615.75	\$615.75	\$615.75	\$615.75	\$615.75	\$615.75	\$615.75
Two 3 CY 1x/wk (Twice per Year)	\$939.49	\$939.49	\$939.49	\$939.49	\$939.49	\$939.49	\$939.49	\$939.49	\$939.49	\$939.49
One 3 CY 2x/wk (Twice per Year)	\$1,231.50	\$1,231.50	\$1,231.50	\$1,231.50	\$1,231.50	\$1,231.50	\$1,231.50	\$1,231.50	\$1,231.50	\$1,231.50
Two 3 CY 2x/wk (Twice per Year)	\$1,878.98	\$1,878.98	\$1,878.98	\$1,878.98	\$1,878.98	\$1,878.98	\$1,878.98	\$1,878.98	\$1,878.98	\$1,878.98
Two 3 CY 3x/wk (Twice per Year)	\$2,818.48	\$2,818.48	\$2,818.48	\$2,818.48	\$2,818.48	\$2,818.48	\$2,818.48	\$2,818.48	\$2,818.48	\$2,818.48
One 4 CY 1x/wk (Twice per Year)	\$691.22	\$691.22	\$691.22	\$691.22	\$691.22	\$691.22	\$691.22	\$691.22	\$691.22	\$691.22
Two 4 CY 1x/wk (Twice per Year)	\$1,090.43	\$1,090.43	\$1,090.43	\$1,090.43	\$1,090.43	\$1,090.43	\$1,090.43	\$1,090.43	\$1,090.43	\$1,090.43
One 4 CY 2x/wk (Twice per Year)	\$1,382.44	\$1,382.44	\$1,382.44	\$1,382.44	\$1,382.44	\$1,382.44	\$1,382.44	\$1,382.44	\$1,382.44	\$1,382.44
Two 4 CY 2x/wk (Twice per Year)	\$2,180.86	\$2,180.86	\$2,180.86	\$2,180.86	\$2,180.86	\$2,180.86	\$2,180.86	\$2,180.86	\$2,180.86	\$2,180.86
One 4 CY 3x/wk (Twice per Year)	\$2,073.66	\$2,073.66	\$2,073.66	\$2,073.66	\$2,073.66	\$2,073.66	\$2,073.66	\$2,073.66	\$2,073.66	\$2,073.66
One 4 CY 4x/wk (Twice per Year)	\$2,764.88	\$2,764.88	\$2,764.88	\$2,764.88	\$2,764.88	\$2,764.88	\$2,764.88	\$2,764.88	\$2,764.88	\$2,764.88
Two 4 CY 4x/wk (Twice per Year)	\$4,361.72	\$4,361.72	\$4,361.72	\$4,361.72	\$4,361.72	\$4,361.72	\$4,361.72	\$4,361.72	\$4,361.72	\$4,361.72
One 4 CY 5x/wk (Twice per Year)	\$3,456.09	\$3,456.09	\$3,456.09	\$3,456.09	\$3,456.09	\$3,456.09	\$3,456.09	\$3,456.09	\$3,456.09	\$3,456.09
Two 4 CY 5x/wk (Twice per Year)	\$5,452.15	\$5,452.15	\$5,452.15	\$5,452.15	\$5,452.15	\$5,452.15	\$5,452.15	\$5,452.15	\$5,452.15	\$5,452.15
One 4 CY 6x/wk (Twice per Year)	\$4,147.31	\$4,147.31	\$4,147.31	\$4,147.31	\$4,147.31	\$4,147.31	\$4,147.31	\$4,147.31	\$4,147.31	\$4,147.31
Two 4 CY 6x/wk (Twice per Year)	\$6,542.58	\$6,542.58	\$6,542.58	\$6,542.58	\$6,542.58	\$6,542.58	\$6,542.58	\$6,542.58	\$6,542.58	\$6,542.58

	% Increase	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Commercial Recycling Containers Collection	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
2 CY 1x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2 CY 2x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2 CY 3x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2 CY 4x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2 CY 5x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2 CY 6x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3 CY 1x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3 CY 2x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3 CY 3x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3 CY 4x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3 CY 5x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3 CY 6x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4 CY 1x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4 CY 2x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4 CY 3x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4 CY 4x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4 CY 5x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4 CY 6x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	% Increase	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Temporary Container Services	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Refuse 95 Gal Cart - Drop Off (5 Business Days)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Refuse 95 Gal Cart - Drop Off (Additional Rental Period)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Refuse 95 Gal Cart - Drop Off (Extra Empty)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Recycling 90 Gal Cart - Drop Off (5 Business Days)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Recycling 90 Gal Cart - Drop Off (Additional Rental Period)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Recycling 90 Gal Cart - Drop Off (Extra Empty)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Refuse 3 CY Dumpster - Drop Off (10 Business Days)	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00
Refuse 3 CY Dumpster - Drop Off (Additional Rental Period)	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00
Refuse 3 CY Dumpster - Drop Off (Extra Empty)	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00
Recycling Dumpster - Drop Off (10 Business Days)	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00
Recycling Dumpster - Drop Off (Additional Rental Period)	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00
Recycling Dumpster - Drop Off (Extra Empty)	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00
Refuse 30 CY Roll-Off (10 Business Days, includes 1 Pull)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Refuse 30 CY Roll-Off (10 Business Day Drop and Pull)	\$330.00	\$330.00	\$330.00	\$330.00	\$330.00	\$330.00	\$330.00	\$330.00	\$330.00	\$330.00
Refuse 30 CY Roll-Off (Disposal Charge) per Ton	\$60.17	\$60.17	\$60.17	\$60.17	\$60.17	\$60.17	\$60.17	\$60.17	\$60.17	\$60.17
Refuse 30 CY Roll-Off (Additional Rental Period)	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00
Refuse 30 CY Roll-Off (Extra Empty, plus Tonnage Fee)	\$330.00	\$330.00	\$330.00	\$330.00	\$330.00	\$330.00	\$330.00	\$330.00	\$330.00	\$330.00

EXHIBIT 5 - Projected Cash Flow - Yr 1 increase and no CPI increases Rate Option

Option 1

Operating Reserve Target Based on Days (%)

18.0%

Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Projected Revenues	\$4,846,900	\$3,808,431	\$3,770,347	\$3,732,643	\$3,695,317	\$3,658,364	\$3,621,780	\$3,585,562	\$3,549,707	\$3,514,209
Rate Revenue	\$3,846,900	\$3,808,431	\$3,770,347	\$3,732,643	\$3,695,317	\$3,658,364	\$3,621,780	\$3,585,562	\$3,549,707	\$3,514,209
Other Financing - Interfund Loans	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Projected Expenses	\$3,955,902	\$3,737,346	\$3,985,912	\$3,913,448	\$3,981,287	\$4,073,660	\$4,344,700	\$4,472,636	\$4,480,717	\$4,570,106
Operating Expenses	\$3,135,902	\$3,126,979	\$3,220,788	\$3,317,412	\$3,416,934	\$3,519,442	\$3,625,025	\$3,733,776	\$3,845,789	\$3,961,163
CIP and Equipment Replacement	\$731,300	\$503,928	\$658,684	\$489,596	\$457,913	\$447,770	\$613,235	\$632,420	\$528,433	\$503,969
Debt Service	\$88,700	\$106,440	\$106,440	\$106,440	\$106,440	\$106,448	\$106,440	\$106,440	\$106,494	\$104,974
Surplus (Deficit)	\$890,998	\$71,085	(\$215,565)	(\$180,805)	(\$285,971)	(\$415,296)	(\$722,920)	(\$887,074)	(\$931,010)	(\$1,055,896)
Operating Cash Reserves	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Beginning of Year	\$1,559,965	\$2,450,963	\$2,522,048	\$2,306,483	\$2,125,678	\$1,839,707	\$1,424,411	\$701,491	(\$185,583)	(\$1,116,593)
Expenditures	(\$3,955,902)	(\$3,737,346)	(\$3,985,912)	(\$3,913,448)	(\$3,981,287)	(\$4,073,660)	(\$4,344,700)	(\$4,472,636)	(\$4,480,717)	(\$4,570,106)
Revenues	\$4,846,900	\$3,808,431	\$3,770,347	\$3,732,643	\$3,695,317	\$3,658,364	\$3,621,780	\$3,585,562	\$3,549,707	\$3,514,209
End of Year	\$2,450,963	\$2,522,048	\$2,306,483	\$2,125,678	\$1,839,707	\$1,424,411	\$701,491	(\$185,583)	(\$1,116,593)	(\$2,172,489)
Target End of Year	\$564,462	\$562,856	\$579,742	\$597,134	\$615,048	\$633,500	\$652,505	\$672,080	\$692,242	\$713,009
Excess Operating Cash Reserve	\$1,886,501	\$1,959,192	\$1,726,741	\$1,528,544	\$1,224,659	\$790,912	\$48,987	(\$857,663)	(\$1,808,835)	(\$2,885,499)
Operating Cash Reserve Level	78%	81%	72%	64%	54%	40%	19%	-5%	-29%	-55%
Achieves Operating Reserve Target	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	FALSE	FALSE

Exhibit 6 - Projected Rates - Yr 1 Increase then 3% CPI increase per year

Rate Option

Option 2

	% Increase	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Single-Family and Two-Family Residential Collection										
Single 90 Gal Refuse & Recycling 1x/wk	\$119.40	\$122.98	\$126.67	\$130.47	\$134.38	\$138.41	\$142.56	\$146.84	\$151.25	\$155.79
Two Family 90 Gal Refuse & Recycling 1x/wk	\$119.40	\$122.98	\$126.67	\$130.47	\$134.38	\$138.41	\$142.56	\$146.84	\$151.25	\$155.79
Single & Two Family 60 Gal Refuse & Recycling-Senior	\$101.40	\$104.44	\$107.57	\$110.80	\$114.12	\$117.54	\$121.07	\$124.70	\$128.44	\$132.29
Single 2x/wk Alley Dumpster Refuse & 1x/wk Recycling Cart	\$135.00	\$139.05	\$143.22	\$147.52	\$151.95	\$156.51	\$161.21	\$166.05	\$171.03	\$176.16
Two Family 2x/wk Alley Dumpster Refuse & 1x/wk Recycling Cart	\$135.00	\$139.05	\$143.22	\$147.52	\$151.95	\$156.51	\$161.21	\$166.05	\$171.03	\$176.16
Single 2x/wk Alley Dumpster Refuse & 1x/wk Recycling Cart-Senior	\$114.40	\$117.83	\$121.36	\$125.00	\$128.75	\$132.61	\$136.59	\$140.69	\$144.91	\$149.26
2x/yr Bulk Waste (inc. in above rates)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Yard Waste Collection	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Extra Cart (per Cart)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Special Bulk Waste Collection (\$25/Item up to 10 Items/Pickup)	\$30.00	\$30.90	\$31.83	\$32.78	\$33.76	\$34.77	\$35.81	\$36.88	\$37.99	\$39.13
Recycling Drop-off Center Charge (per Month)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	% Increase	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Multi-Family Residential Collection										
3+ Units - Alley Mechanical Dumpsters 2x/wk - Refuse & Recycling	\$108.00	\$111.24	\$114.58	\$118.02	\$121.56	\$125.21	\$128.97	\$132.84	\$136.83	\$140.93
3+ Units - 90 Gal Refuse & Recycling 1x/wk	\$126.30	\$130.09	\$133.99	\$138.01	\$142.15	\$146.41	\$150.80	\$155.32	\$159.98	\$164.78
3+ Units Mechanical Dumpster & Waste Reduction (Twice per Year)	\$75.00	\$77.25	\$79.57	\$81.96	\$84.42	\$86.95	\$89.56	\$92.25	\$95.02	\$97.87

	% Increase	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Commercial Refuse Containers Collection	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
One 90 Gal Cart 1x/wk (Twice per Year)	\$168.00	\$173.04	\$178.23	\$183.58	\$189.09	\$194.76	\$200.60	\$206.62	\$212.82	\$219.20
Two 90 Gal Cart 1x/wk (Twice per Year)	\$359.24	\$370.01	\$381.11	\$392.54	\$404.32	\$416.45	\$428.94	\$441.81	\$455.06	\$468.71
Three 90 Gal Cart 1x/wk (Twice per Year)	\$715.79	\$737.27	\$759.39	\$782.17	\$805.64	\$829.81	\$854.70	\$880.34	\$906.75	\$933.95
Four 90 Gal Cart 1x/wk (Twice per Year)	\$1,365.11	\$1,406.06	\$1,448.24	\$1,491.69	\$1,536.44	\$1,582.53	\$1,630.01	\$1,678.91	\$1,729.28	\$1,781.16
One 2 CY 1x/wk (Twice per Year)	\$540.28	\$556.49	\$573.18	\$590.38	\$608.09	\$626.33	\$645.12	\$664.47	\$684.40	\$704.93
Two 2 CY 1x/wk (Twice per Year)	\$788.55	\$812.21	\$836.58	\$861.68	\$887.53	\$914.16	\$941.58	\$969.83	\$998.92	\$1,028.89
One 2 CY 2x/wk (Twice per Year)	\$1,080.56	\$1,112.98	\$1,146.37	\$1,180.76	\$1,216.18	\$1,252.67	\$1,290.25	\$1,328.96	\$1,368.83	\$1,409.89
Two 2 CY 2x/wk (Twice per Year)	\$1,577.11	\$1,624.42	\$1,673.15	\$1,723.34	\$1,775.04	\$1,828.29	\$1,883.14	\$1,939.63	\$1,997.82	\$2,057.75
One 3 CY 1x/wk (Twice per Year)	\$615.75	\$634.22	\$653.25	\$672.85	\$693.04	\$713.83	\$735.24	\$757.30	\$780.02	\$803.42
Two 3 CY 1x/wk (Twice per Year)	\$939.49	\$967.68	\$996.71	\$1,026.61	\$1,057.41	\$1,089.13	\$1,121.80	\$1,155.45	\$1,190.11	\$1,225.81
One 3 CY 2x/wk (Twice per Year)	\$1,231.50	\$1,268.45	\$1,306.50	\$1,345.70	\$1,386.07	\$1,427.65	\$1,470.48	\$1,514.59	\$1,560.03	\$1,606.83
Two 3 CY 2x/wk (Twice per Year)	\$1,878.98	\$1,935.35	\$1,993.41	\$2,053.21	\$2,114.81	\$2,178.25	\$2,243.60	\$2,310.91	\$2,380.24	\$2,451.65
Two 3 CY 3x/wk (Twice per Year)	\$2,818.48	\$2,903.03	\$2,990.12	\$3,079.82	\$3,172.21	\$3,267.38	\$3,365.40	\$3,466.36	\$3,570.35	\$3,677.46
One 4 CY 1x/wk (Twice per Year)	\$691.22	\$711.96	\$733.32	\$755.32	\$777.98	\$801.32	\$825.36	\$850.12	\$875.62	\$901.89
Two 4 CY 1x/wk (Twice per Year)	\$1,090.43	\$1,123.14	\$1,156.83	\$1,191.53	\$1,227.28	\$1,264.10	\$1,302.02	\$1,341.08	\$1,381.31	\$1,422.75
One 4 CY 2x/wk (Twice per Year)	\$1,382.44	\$1,423.91	\$1,466.63	\$1,510.63	\$1,555.95	\$1,602.63	\$1,650.71	\$1,700.23	\$1,751.24	\$1,803.78
Two 4 CY 2x/wk (Twice per Year)	\$2,180.86	\$2,246.28	\$2,313.67	\$2,383.08	\$2,454.57	\$2,528.21	\$2,604.06	\$2,682.18	\$2,762.65	\$2,845.53
One 4 CY 3x/wk (Twice per Year)	\$2,073.66	\$2,135.87	\$2,199.95	\$2,265.95	\$2,333.93	\$2,403.95	\$2,476.07	\$2,550.35	\$2,626.86	\$2,705.67
One 4 CY 4x/wk (Twice per Year)	\$2,764.88	\$2,847.82	\$2,933.25	\$3,021.25	\$3,111.89	\$3,205.25	\$3,301.41	\$3,400.45	\$3,502.46	\$3,607.53
Two 4 CY 4x/wk (Twice per Year)	\$4,361.72	\$4,492.57	\$4,627.35	\$4,766.17	\$4,909.16	\$5,056.43	\$5,208.12	\$5,364.36	\$5,525.29	\$5,691.05
One 4 CY 5x/wk (Twice per Year)	\$3,456.09	\$3,559.78	\$3,666.57	\$3,776.57	\$3,889.87	\$4,006.57	\$4,126.77	\$4,250.57	\$4,378.09	\$4,509.43
Two 4 CY 5x/wk (Twice per Year)	\$5,452.15	\$5,615.71	\$5,784.18	\$5,957.71	\$6,136.44	\$6,320.53	\$6,510.15	\$6,705.45	\$6,906.61	\$7,113.81
One 4 CY 6x/wk (Twice per Year)	\$4,147.31	\$4,271.73	\$4,399.88	\$4,531.88	\$4,667.84	\$4,807.88	\$4,952.12	\$5,100.68	\$5,253.70	\$5,411.31
Two 4 CY 6x/wk (Twice per Year)	\$6,542.58	\$6,738.85	\$6,941.02	\$7,149.25	\$7,363.73	\$7,584.64	\$7,812.18	\$8,046.55	\$8,287.95	\$8,536.59

	% Increase	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Commercial Recycling Containers Collection	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
2 CY 1x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2 CY 2x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2 CY 3x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2 CY 4x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2 CY 5x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2 CY 6x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3 CY 1x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3 CY 2x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3 CY 3x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3 CY 4x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3 CY 5x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3 CY 6x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4 CY 1x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4 CY 2x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4 CY 3x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4 CY 4x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4 CY 5x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4 CY 6x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	% Increase	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Temporary Container Services	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Refuse 95 Gal Cart - Drop Off (5 Business Days)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Refuse 95 Gal Cart - Drop Off (Additional Rental Period)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Refuse 95 Gal Cart - Drop Off (Extra Empty)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Recycling 90 Gal Cart - Drop Off (5 Business Days)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Recycling 90 Gal Cart - Drop Off (Additional Rental Period)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Recycling 90 Gal Cart - Drop Off (Extra Empty)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Refuse 3 CY Dumpster - Drop Off (10 Business Days)	\$100.00	\$103.00	\$106.09	\$109.27	\$112.55	\$115.93	\$119.41	\$122.99	\$126.68	\$130.48
Refuse 3 CY Dumpster - Drop Off (Additional Rental Period)	\$40.00	\$41.20	\$42.44	\$43.71	\$45.02	\$46.37	\$47.76	\$49.19	\$50.67	\$52.19
Refuse 3 CY Dumpster - Drop Off (Extra Empty)	\$60.00	\$61.80	\$63.65	\$65.56	\$67.53	\$69.56	\$71.65	\$73.80	\$76.01	\$78.29
Recycling Dumpster - Drop Off (10 Business Days)	\$40.00	\$41.20	\$42.44	\$43.71	\$45.02	\$46.37	\$47.76	\$49.19	\$50.67	\$52.19
Recycling Dumpster - Drop Off (Additional Rental Period)	\$10.00	\$10.30	\$10.61	\$10.93	\$11.26	\$11.60	\$11.95	\$12.31	\$12.68	\$13.06
Recycling Dumpster - Drop Off (Extra Empty)	\$30.00	\$30.90	\$31.83	\$32.78	\$33.76	\$34.77	\$35.81	\$36.88	\$37.99	\$39.13
Refuse 30 CY Roll-Off (10 Business Days, includes 1 Pull)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Refuse 30 CY Roll-Off (10 Business Day Drop and Pull)	\$330.00	\$339.90	\$350.10	\$360.60	\$371.42	\$382.56	\$394.04	\$405.86	\$418.04	\$430.58
Refuse 30 CY Roll-Off (Disposal Charge) per Ton	\$60.17	\$61.98	\$63.84	\$65.76	\$67.73	\$69.76	\$71.85	\$74.01	\$76.23	\$78.52
Refuse 30 CY Roll-Off (Additional Rental Period)	\$200.00	\$206.00	\$212.18	\$218.55	\$225.11	\$231.86	\$238.82	\$245.98	\$253.36	\$260.96
Refuse 30 CY Roll-Off (Extra Empty, plus Tonnage Fee)	\$330.00	\$339.90	\$350.10	\$360.60	\$371.42	\$382.56	\$394.04	\$405.86	\$418.04	\$430.58

EXHIBIT 7 - Projected Cash Flow - Yr 1 increase + 3% CPI increases Rate Option

Option 2

Operating Reserve Target Based on Days (%)

18.0%

Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Projected Revenues	\$4,521,472	\$3,590,444	\$3,660,822	\$3,732,610	\$3,805,716	\$3,880,317	\$3,956,409	\$4,034,056	\$4,113,282	\$4,193,984
Rate Revenue	\$3,521,472	\$3,590,444	\$3,660,822	\$3,732,610	\$3,805,716	\$3,880,317	\$3,956,409	\$4,034,056	\$4,113,282	\$4,193,984
Other Financing - Interfund Loans	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Projected Expenses	\$3,955,902	\$3,737,346	\$3,985,912	\$3,913,448	\$3,981,287	\$4,073,660	\$4,344,700	\$4,472,636	\$4,480,717	\$4,570,106
Operating Expenses	\$3,135,902	\$3,126,979	\$3,220,788	\$3,317,412	\$3,416,934	\$3,519,442	\$3,625,025	\$3,733,776	\$3,845,789	\$3,961,163
CIP and Equipment Replacement	\$731,300	\$503,928	\$658,684	\$489,596	\$457,913	\$447,770	\$613,235	\$632,420	\$528,433	\$503,969
Debt Service	\$88,700	\$106,440	\$106,440	\$106,440	\$106,440	\$106,448	\$106,440	\$106,440	\$106,494	\$104,974
Surplus (Deficit)	\$565,570	(\$146,903)	(\$325,090)	(\$180,838)	(\$175,571)	(\$193,343)	(\$388,291)	(\$438,581)	(\$367,435)	(\$376,122)
Operating Cash Reserves	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Beginning of Year	\$1,559,965	\$2,125,535	\$1,978,632	\$1,653,543	\$1,472,705	\$1,297,134	\$1,103,791	\$715,500	\$276,919	(\$90,516)
Expenditures	(\$3,955,902)	(\$3,737,346)	(\$3,985,912)	(\$3,913,448)	(\$3,981,287)	(\$4,073,660)	(\$4,344,700)	(\$4,472,636)	(\$4,480,717)	(\$4,570,106)
Revenues	\$4,521,472	\$3,590,444	\$3,660,822	\$3,732,610	\$3,805,716	\$3,880,317	\$3,956,409	\$4,034,056	\$4,113,282	\$4,193,984
End of Year	\$2,125,535	\$1,978,632	\$1,653,543	\$1,472,705	\$1,297,134	\$1,103,791	\$715,500	\$276,919	(\$90,516)	(\$466,637)
Target End of Year	\$564,462	\$562,856	\$579,742	\$597,134	\$615,048	\$633,500	\$652,505	\$672,080	\$692,242	\$713,009
Excess Operating Cash Reserve	\$1,561,073	\$1,415,776	\$1,073,801	\$875,571	\$682,086	\$470,291	\$62,995	(\$395,161)	(\$782,758)	(\$1,179,647)
Operating Cash Reserve Level	68%	63%	51%	44%	38%	31%	20%	7%	-2%	-12%
Achieves Operating Reserve Target	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	FALSE	FALSE

Exhibit 8 - Projected Rates - 3-Yr Phase-in, no CPI increases

Rate Option

Option 3

	% Increase									
Single-Family and Two-Family Residential Collection	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Single 90 Gal Refuse & Recycling 1x/wk	\$117.60	\$125.61	\$134.17	\$134.17	\$134.17	\$134.17	\$134.17	\$134.17	\$134.17	\$134.17
Two Family 90 Gal Refuse & Recycling 1x/wk	\$117.60	\$125.61	\$134.17	\$134.17	\$134.17	\$134.17	\$134.17	\$134.17	\$134.17	\$134.17
Single & Two Family 60 Gal Refuse & Recycling-Senior	\$99.60	\$106.77	\$114.04	\$114.04	\$114.04	\$114.04	\$114.04	\$114.04	\$114.04	\$114.04
Single 2x/wk Alley Dumpster Refuse & 1x/wk Recycling Cart	\$127.50	\$136.68	\$145.99	\$145.99	\$145.99	\$145.99	\$145.99	\$145.99	\$145.99	\$145.99
Two Family 2x/wk Alley Dumpster Refuse & 1x/wk Recycling Cart	\$127.50	\$136.68	\$145.99	\$145.99	\$145.99	\$145.99	\$145.99	\$145.99	\$145.99	\$145.99
Single 2x/wk Alley Dumpster Refuse & 1x/wk Recycling Cart-Senior	\$108.04	\$116.18	\$124.09	\$124.09	\$124.09	\$124.09	\$124.09	\$124.09	\$124.09	\$124.09
2x/yr Bulk Waste (inc. in above rates)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Yard Waste Collection	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Extra Cart (per Cart)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Special Bulk Waste Collection (\$25/Item up to 10 Items/Pickup)	\$30.00	\$31.00	\$32.00	\$32.00	\$32.00	\$32.00	\$32.00	\$32.00	\$32.00	\$32.00
Recycling Drop-off Center Charge (per Month)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

	% Increase									
Multi-Family Residential Collection	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
3+ Units - Alley Mechanical Dumpsters 2x/wk - Refuse & Recycling	\$94.50	\$113.40	\$130.80	\$130.80	\$130.80	\$130.80	\$130.80	\$130.80	\$130.80	\$130.80
3+ Units - 90 Gal Refuse & Recycling 1x/wk	\$126.30	\$135.00	\$141.00	\$141.00	\$141.00	\$141.00	\$141.00	\$141.00	\$141.00	\$141.00
3+ Units Mechanical Dumpster & Waste Reduction (Twice per Year)	\$75.00	\$78.00	\$81.00	\$81.00	\$81.00	\$81.00	\$81.00	\$81.00	\$81.00	\$81.00

% Increase

Commercial Refuse Containers Collection	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
One 90 Gal Cart 1x/wk (Twice per Year)	\$168.00	\$168.00	\$168.00	\$168.00	\$168.00	\$168.00	\$168.00	\$168.00	\$168.00	\$168.00
Two 90 Gal Cart 1x/wk (Twice per Year)	\$359.24	\$359.24	\$359.24	\$359.24	\$359.24	\$359.24	\$359.24	\$359.24	\$359.24	\$359.24
Three 90 Gal Cart 1x/wk (Twice per Year)	\$715.79	\$715.79	\$715.79	\$715.79	\$715.79	\$715.79	\$715.79	\$715.79	\$715.79	\$715.79
Four 90 Gal Cart 1x/wk (Twice per Year)	\$1,365.11	\$1,365.11	\$1,365.11	\$1,365.11	\$1,365.11	\$1,365.11	\$1,365.11	\$1,365.11	\$1,365.11	\$1,365.11
One 2 CY 1x/wk (Twice per Year)	\$540.28	\$540.28	\$540.28	\$540.28	\$540.28	\$540.28	\$540.28	\$540.28	\$540.28	\$540.28
Two 2 CY 1x/wk (Twice per Year)	\$788.55	\$788.55	\$788.55	\$788.55	\$788.55	\$788.55	\$788.55	\$788.55	\$788.55	\$788.55
One 2 CY 2x/wk (Twice per Year)	\$1,080.56	\$1,080.56	\$1,080.56	\$1,080.56	\$1,080.56	\$1,080.56	\$1,080.56	\$1,080.56	\$1,080.56	\$1,080.56
Two 2 CY 2x/wk (Twice per Year)	\$1,577.11	\$1,577.11	\$1,577.11	\$1,577.11	\$1,577.11	\$1,577.11	\$1,577.11	\$1,577.11	\$1,577.11	\$1,577.11
One 3 CY 1x/wk (Twice per Year)	\$615.75	\$615.75	\$615.75	\$615.75	\$615.75	\$615.75	\$615.75	\$615.75	\$615.75	\$615.75
Two 3 CY 1x/wk (Twice per Year)	\$939.49	\$939.49	\$939.49	\$939.49	\$939.49	\$939.49	\$939.49	\$939.49	\$939.49	\$939.49
One 3 CY 2x/wk (Twice per Year)	\$1,231.50	\$1,231.50	\$1,231.50	\$1,231.50	\$1,231.50	\$1,231.50	\$1,231.50	\$1,231.50	\$1,231.50	\$1,231.50
Two 3 CY 2x/wk (Twice per Year)	\$1,878.98	\$1,878.98	\$1,878.98	\$1,878.98	\$1,878.98	\$1,878.98	\$1,878.98	\$1,878.98	\$1,878.98	\$1,878.98
Two 3 CY 3x/wk (Twice per Year)	\$2,818.48	\$2,818.48	\$2,818.48	\$2,818.48	\$2,818.48	\$2,818.48	\$2,818.48	\$2,818.48	\$2,818.48	\$2,818.48
One 4 CY 1x/wk (Twice per Year)	\$691.22	\$691.22	\$691.22	\$691.22	\$691.22	\$691.22	\$691.22	\$691.22	\$691.22	\$691.22
Two 4 CY 1x/wk (Twice per Year)	\$1,090.43	\$1,090.43	\$1,090.43	\$1,090.43	\$1,090.43	\$1,090.43	\$1,090.43	\$1,090.43	\$1,090.43	\$1,090.43
One 4 CY 2x/wk (Twice per Year)	\$1,382.44	\$1,382.44	\$1,382.44	\$1,382.44	\$1,382.44	\$1,382.44	\$1,382.44	\$1,382.44	\$1,382.44	\$1,382.44
Two 4 CY 2x/wk (Twice per Year)	\$2,180.86	\$2,180.86	\$2,180.86	\$2,180.86	\$2,180.86	\$2,180.86	\$2,180.86	\$2,180.86	\$2,180.86	\$2,180.86
One 4 CY 3x/wk (Twice per Year)	\$2,073.66	\$2,073.66	\$2,073.66	\$2,073.66	\$2,073.66	\$2,073.66	\$2,073.66	\$2,073.66	\$2,073.66	\$2,073.66
One 4 CY 4x/wk (Twice per Year)	\$2,764.88	\$2,764.88	\$2,764.88	\$2,764.88	\$2,764.88	\$2,764.88	\$2,764.88	\$2,764.88	\$2,764.88	\$2,764.88
Two 4 CY 4x/wk (Twice per Year)	\$4,361.72	\$4,361.72	\$4,361.72	\$4,361.72	\$4,361.72	\$4,361.72	\$4,361.72	\$4,361.72	\$4,361.72	\$4,361.72
One 4 CY 5x/wk (Twice per Year)	\$3,456.09	\$3,456.09	\$3,456.09	\$3,456.09	\$3,456.09	\$3,456.09	\$3,456.09	\$3,456.09	\$3,456.09	\$3,456.09
Two 4 CY 5x/wk (Twice per Year)	\$5,452.15	\$5,452.15	\$5,452.15	\$5,452.15	\$5,452.15	\$5,452.15	\$5,452.15	\$5,452.15	\$5,452.15	\$5,452.15
One 4 CY 6x/wk (Twice per Year)	\$4,147.31	\$4,147.31	\$4,147.31	\$4,147.31	\$4,147.31	\$4,147.31	\$4,147.31	\$4,147.31	\$4,147.31	\$4,147.31
Two 4 CY 6x/wk (Twice per Year)	\$6,542.58	\$6,542.58	\$6,542.58	\$6,542.58	\$6,542.58	\$6,542.58	\$6,542.58	\$6,542.58	\$6,542.58	\$6,542.58

% Increase

Commercial Recycling Containers Collection	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
2 CY 1x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2 CY 2x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2 CY 3x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2 CY 4x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2 CY 5x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
2 CY 6x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3 CY 1x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3 CY 2x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3 CY 3x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3 CY 4x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3 CY 5x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
3 CY 6x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4 CY 1x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4 CY 2x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4 CY 3x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4 CY 4x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4 CY 5x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
4 CY 6x/wk (Twice per Year)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

% Increase

Temporary Container Services	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Refuse 95 Gal Cart - Drop Off (5 Business Days)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Refuse 95 Gal Cart - Drop Off (Additional Rental Period)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Refuse 95 Gal Cart - Drop Off (Extra Empty)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Recycling 90 Gal Cart - Drop Off (5 Business Days)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Recycling 90 Gal Cart - Drop Off (Additional Rental Period)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Recycling 90 Gal Cart - Drop Off (Extra Empty)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Refuse 3 CY Dumpster - Drop Off (10 Business Days)	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00
Refuse 3 CY Dumpster - Drop Off (Additional Rental Period)	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00
Refuse 3 CY Dumpster - Drop Off (Extra Empty)	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00
Recycling Dumpster - Drop Off (10 Business Days)	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00
Recycling Dumpster - Drop Off (Additional Rental Period)	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00
Recycling Dumpster - Drop Off (Extra Empty)	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00	\$30.00
Refuse 30 CY Roll-Off (10 Business Days, includes 1 Pull)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Refuse 30 CY Roll-Off (10 Business Day Drop and Pull)	\$330.00	\$330.00	\$330.00	\$330.00	\$330.00	\$330.00	\$330.00	\$330.00	\$330.00	\$330.00
Refuse 30 CY Roll-Off (Disposal Charge) per Ton	\$60.17	\$60.17	\$60.17	\$60.17	\$60.17	\$60.17	\$60.17	\$60.17	\$60.17	\$60.17
Refuse 30 CY Roll-Off (Additional Rental Period)	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00	\$200.00
Refuse 30 CY Roll-Off (Extra Empty, plus Tonnage Fee)	\$330.00	\$330.00	\$330.00	\$330.00	\$330.00	\$330.00	\$330.00	\$330.00	\$330.00	\$330.00

EXHIBIT 9 - Projected Cash Flow - 3-Yr Phase-in, no CPI increases

Rate Option

Option 3

Operating Reserve Target Based on Days (%)

18.0%

Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Projected Revenues	\$4,399,179	\$3,654,535	\$3,900,365	\$3,861,399	\$3,822,785	\$3,784,557	\$3,746,712	\$3,709,244	\$3,672,152	\$3,635,430
Rate Revenue	\$3,399,179	\$3,654,535	\$3,900,365	\$3,861,399	\$3,822,785	\$3,784,557	\$3,746,712	\$3,709,244	\$3,672,152	\$3,635,430
Other Financing - Interfund Loans	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Projected Expenses	\$3,955,902	\$3,737,346	\$3,985,912	\$3,913,448	\$3,981,287	\$4,073,660	\$4,344,700	\$4,472,636	\$4,480,717	\$4,570,106
Operating Expenses	\$3,135,902	\$3,126,979	\$3,220,788	\$3,317,412	\$3,416,934	\$3,519,442	\$3,625,025	\$3,733,776	\$3,845,789	\$3,961,163
CIP and Equipment Replacement	\$731,300	\$503,928	\$658,684	\$489,596	\$457,913	\$447,770	\$613,235	\$632,420	\$528,433	\$503,969
Debt Service	\$88,700	\$106,440	\$106,440	\$106,440	\$106,440	\$106,448	\$106,440	\$106,440	\$106,494	\$104,974
Surplus (Deficit)	\$443,277	(\$82,811)	(\$85,547)	(\$52,049)	(\$158,502)	(\$289,103)	(\$597,988)	(\$763,392)	(\$808,565)	(\$934,675)
Operating Cash Reserves	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Beginning of Year	\$1,559,965	\$2,003,242	\$1,920,431	\$1,834,884	\$1,782,835	\$1,624,333	\$1,335,230	\$737,241	(\$26,151)	(\$834,715)
Expenditures	(\$3,955,902)	(\$3,737,346)	(\$3,985,912)	(\$3,913,448)	(\$3,981,287)	(\$4,073,660)	(\$4,344,700)	(\$4,472,636)	(\$4,480,717)	(\$4,570,106)
Revenues	\$4,399,179	\$3,654,535	\$3,900,365	\$3,861,399	\$3,822,785	\$3,784,557	\$3,746,712	\$3,709,244	\$3,672,152	\$3,635,430
End of Year	\$2,003,242	\$1,920,431	\$1,834,884	\$1,782,835	\$1,624,333	\$1,335,230	\$737,241	(\$26,151)	(\$834,715)	(\$1,769,390)
Target End of Year	\$564,462	\$562,856	\$579,742	\$597,134	\$615,048	\$633,500	\$652,505	\$672,080	\$692,242	\$713,009
Excess Operating Cash Reserve	\$1,438,780	\$1,357,575	\$1,255,142	\$1,185,701	\$1,009,284	\$701,730	\$84,737	(\$698,230)	(\$1,526,957)	(\$2,482,400)
Operating Cash Reserve Level	64%	61%	57%	54%	48%	38%	20%	-1%	-22%	-45%
Achieves Operating Reserve Target	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	FALSE	FALSE





11875 High Tech Avenue
Suite 150, Orlando, FL 32817
800-679-9220 | mswconsultants.com

NOTICE OF STUDY SESSION
Solid Waste Rate Study
CITY HALL, Fifth Floor
6801 Delmar Blvd., University City, Missouri 63130
Monday, July 8, 2024
5:30 p.m.

AGENDA

1. Meeting called to order
2. Solid Waste Rate Study
3. Adjournment

The public may also observe via:

Live Stream via YouTube:

https://www.youtube.com/channel/UCyN1EJ_-Q22918E9EZimWoQ

Posted 5th day of July, 2024.

LaRette Reese

City Clerk, MRCC

Solid Waste Rate Study

1

FINDINGS & RECOMMENDATIONS

PRESENTED TO CITY COUNCIL

JULY 08, 2024



Project Tasks

2

- Data Request and Review
- Benchmarking Research
- Financial Cornerstones
 - ✦ Direct Operating Expense
 - ✦ Contracted Disposal
 - ✦ CIP
 - ✦ Vehicle Replacement
- Revenue Sufficiency
- Cost Allocation Functions
- Full Cost vs. Current Rates
- Rate Design
- Recommendations

Trash & Recycling System Cost Centers

3

Collection Services:

Curbside Trash

Alley Container Trash

Curbside Recycling

Curbside Yard Waste

Bulky Collection

Commercial Container Trash

Commercial Container Recycling

Recycling Drop-off

Facility Operations:

Transfer Station

Recycling Drop-off (at T.S.)

Management & Administration

(Includes cost of billing)

Collection Routes

4

Type of Service	Mon.	Tue.	Wed.	Thur.	Fri.	Sat.	Wks/Yr	Total
Residential Curbside Refuse Carts - ASL	2.00	2.00	2.50	2.00	2.00		52	10.50
Residential Curbside Recycling Carts - ASL	2.00	2.00	2.50	2.00	2.00		52	10.50
Residential Yard Waste - Rearload	1.00	1.00	1.00	1.00	1.00		52	5.00
Bulk Waste - RL & Grapple 3wks in April & September	3.00	3.00	3.00	3.00	3.00		6	1.73
Special Pickup - Bulk for fee			0.25		0.25		46	0.44
Commercial/Multifamily/1-2 Fam Alley Refuse Dumpsters - Sideload "Mechanical"	2.00	2.00	1.00	2.00	2.00		52	9.00
Commercial/Multifamily .Recycling Dumpsters - Sideload "Mechanical"			1.00			0.50	52	1.50
R-O - only special request & drop-off, no "route"	0.25	0.25	0.25	0.25	0.25		52	1.25
Total Weekly Routes	10.25	10.25	11.50	10.25	10.50	0.50		39.92

Challenges Since Last (2018) Study

5

- Pandemic
- Flooding in 2022 – loss of trucks
- Transfer Station
 - Compactor **on last leg**
- Recyclables processing fees



Financial Data Overview

6

Historical Financial Performance

7

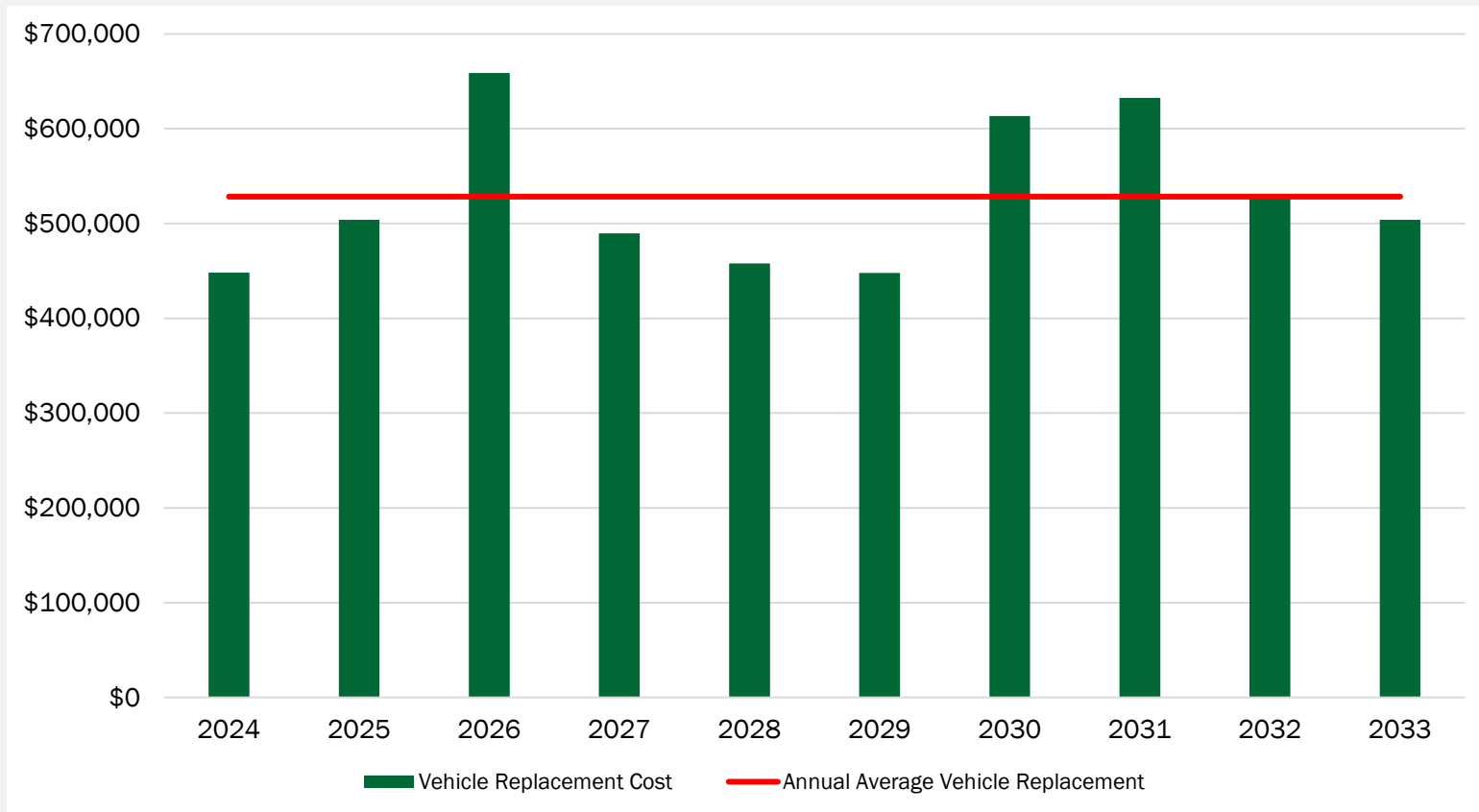
	Actual 2021	Actual 2022	Actual 2023	Budgeted 2024
Revenue	\$3,063,058	\$3,108,061	\$5,384,180*	\$3,291,200
Expenses**	\$3,914,540	\$4,101,817	\$4,081,844	\$3,656,887
Surplus(Deficit)	(\$851,482)	(\$993,756)	\$1,302,336	(\$365,687)

**Includes a \$2,278,261 Transfer In*

***2021-2023 included \$400-\$500,000/year Leaf Collection, 2024 does not*

Vehicle/Equipment Replacement

8



Estimated current replacement value = \$5.3 million

Aged Fleet and Equipment

9

Type	Typical Life Expectancy	Daily Use Vehicles	Avg. Age of Daily Use Units	Spares
Automated Sideloader (Carts)	8	5	6.4	2
Automated Sideloader (Dumpsters)	8	3	14.0	1
Roll Off Truck	10	1	9.0	
Transfer Trailers	15	3	14.7	
Road Tractors	12	2	12.5	1
Rear Loader	9	4	14.0	

Capital Improvement Project/Plan (CIP)

10

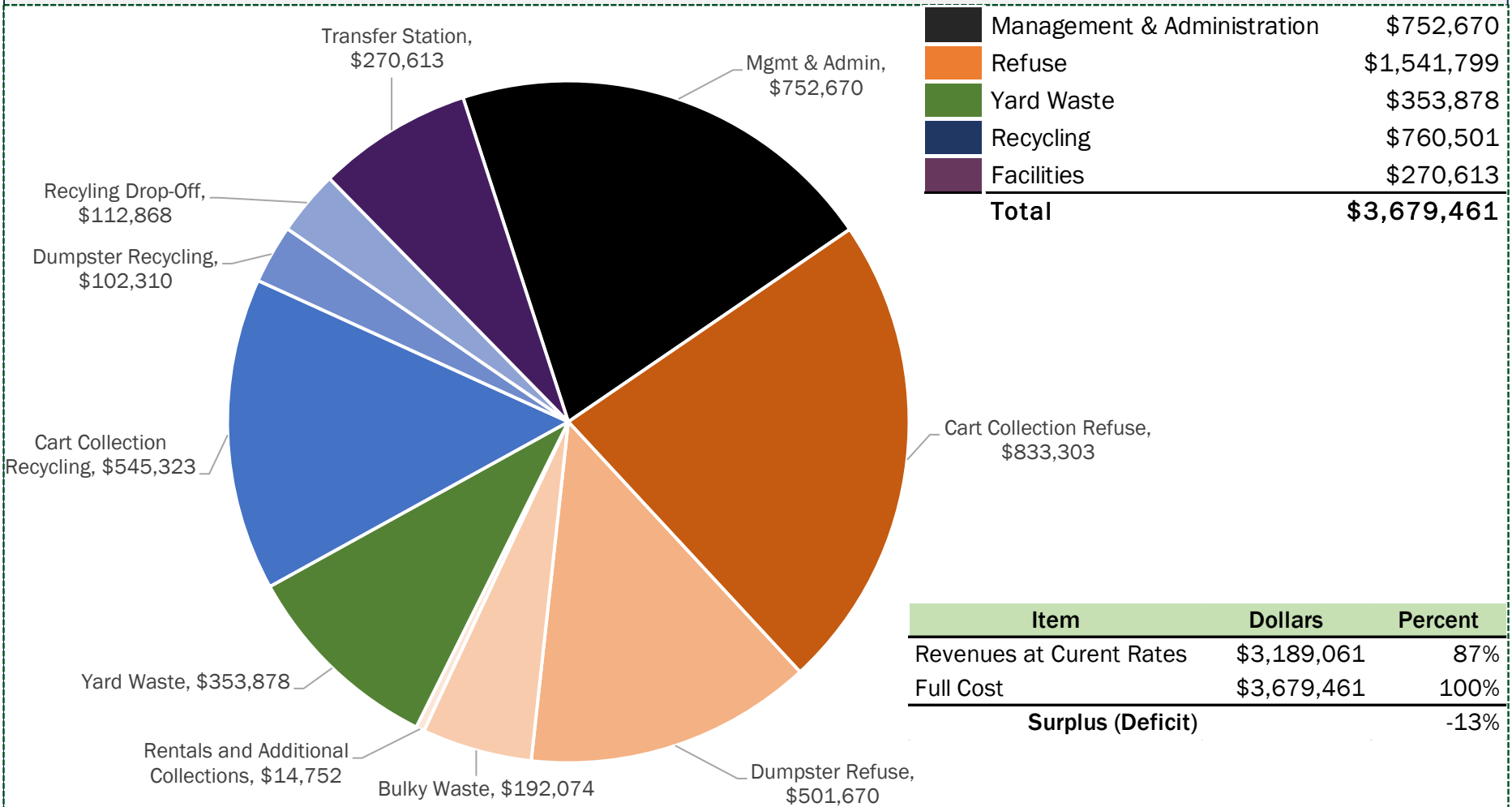
Item	Cost	Year
Transfer Station Compactor-Replacement	\$275,000	2025

Including 3% CPI per year, this is a 10-Year Average Rate Impact = \$29,175

Cash outlay is in Year 1

Test Year Full Cost

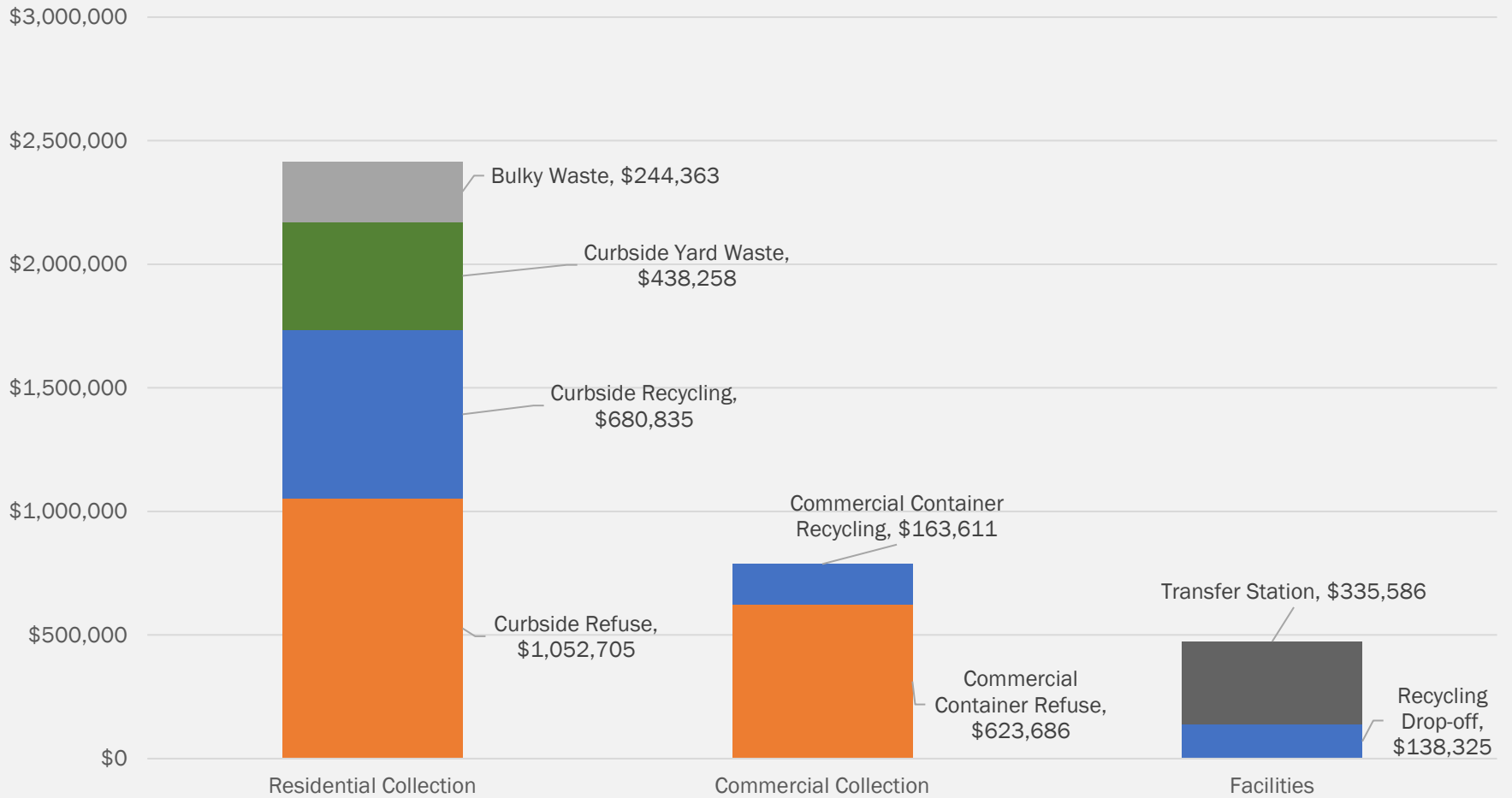
11



Management & Administration	\$752,670
Refuse	\$1,541,799
Yard Waste	\$353,878
Recycling	\$760,501
Facilities	\$270,613
Total	\$3,679,461

Item	Dollars	Percent
Revenues at Curent Rates	\$3,189,061	87%
Full Cost	\$3,679,461	100%
Surplus (Deficit)		-13%

Allocated Full Costs by Service Sector



MSW format 2024 Full Cost

13

Cost Center	Annual Revenue Need	Adjusted Annual Revenue Need
Mgmt & Admin	\$752,670	
Collection	\$2,543,310	\$3,537,421
Cart Collection Refuse	\$819,636	\$1,264,461
Cart Collection Recycling	\$533,071	\$686,271
Yard Waste	\$353,878	\$445,345
Bulky Waste	\$192,074	\$260,222
Dumpster Refuse	\$501,075	\$733,935
Dumpster Recycling	\$102,254	\$128,754
Container Maintenance	\$26,569	\$0
Rentals and Additional Collections	\$14,752	\$18,433
Facilities	\$383,481	\$142,041
Transfer Station	\$270,613	\$0
Recycling Drop-Off	\$112,868	\$142,041
Total	\$3,679,461	\$3,679,461

Tonnage Overview

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Material	Destination Facility	Tons	Disposal Cost/Ton	Disposal Cost
Residential Refuse	City Transfer Station then Champ LF	7,978	\$60.17	\$480,036
Commercial Refuse	City Transfer Station then Champ LF	3,785	\$60.17	\$227,743
Residential Recycling	Republic Services MRF	1,743	\$111.00**	\$193,516
Commercial Recycling	Republic Services MRF	402	\$111.00**	\$44,622
Yard Waste	City Park then St. Louis Composting	1,448*	\$40.06	\$67,000
Bulk Waste	City Transfer Station then Champ LF	684	\$60.17	\$41,162
Subtotal		16,040		\$1,054,080
<i>Transfer Station</i>		<i>12,447</i>	<i>\$26.83</i>	<i>\$334,003</i>
Total				\$1,388,083

*Tons estimated based on volume

**Average Net per Ton recent 6 months

Full Cost Rate (Residential) Building blocks

15

Service	Full Cost (Monthly) Per HH/Unit	Full Cost 2/year Rate Per HH/Unit
Refuse 60-Gal Cart, 1x/week	\$8.36	\$50.16
Refuse 90-Gal Cart, 1x/week	\$9.79	\$58.75
Recycling Cart, 1x/week	\$3.45	\$20.70
Alley and 3+ Unit Dumpster Refuse, 2x/week	\$15.34	\$92.01
3+ Unit Dumpster Recycling, 2x/week	\$2.35	\$14.12
Yard Waste (collection cost to pass by weekly)	\$2.17	\$13.02
Bulk Waste	\$1.26	\$7.56
Recycling Drop-off	\$0.69	\$4.14

Residential Full Cost Rates

16

Residential Collection	2024 Billing Units	Current Rates		Full Cost Rates		Percent Change
		Monthly Rate	2x/Yr Billing Rate	Monthly Rate	2x/Yr Billing Rate	
Single 90 Gal Refuse & Recycling 1x/wk	8,384	\$18.35	\$110.10	\$19.09	\$114.55	4.0%
Two Family 90 Gal Refuse & Recycling 1x/wk	8	\$21.05	\$126.30	\$19.09	\$114.55	-9.3%
Single & Two Family 60 Gal Refuse & Recycling-Senior	1,396	\$15.55	\$93.30	\$17.66	\$105.96	13.6%
Single 2x/wk Alley Dumpster Refuse & 1x/wk Recycling Cart	829	\$19.74	\$118.44	\$23.82	\$142.89	20.6%
Two Family 2x/wk Alley Dumpster Refuse & 1x/wk Recycling Cart	7	\$22.64	\$135.84	\$23.82	\$142.89	5.2%
Single 2x/wk Alley Dumpster Refuse & 1x/wk Recycling Cart-Senior	125	\$17.09	\$102.54	\$23.82	\$142.89	39.4%
3+ Units - Alley Mechanical Dumpsters 2x/wk - Refuse & Recycling	2,701	\$13.10	\$78.60	\$21.36	\$128.15	38.7%
3+ Units - 90 Gal Refuse & Recycling 1x/wk	1,051	\$21.05	\$126.30	\$19.09	\$114.55	-10.3%

Commercial Refuse 6-Month Rates

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Current Rates

Size	Frequency					
	1	2	3	4	5	6
2	\$408	\$571	N/A	N/A	N/A	N/A
3	\$442	\$618	N/A	N/A	N/A	N/A
4	\$478	\$670	\$937	\$1,312	\$1,837	\$2,572
Annual Revenue					\$54,585	

Full Cost Rates

Size	Frequency					
	1	2	3	4	5	6
2	\$342	\$685	N/A	N/A	N/A	N/A
3	\$390	\$780	N/A	N/A	N/A	N/A
4	\$438	\$876	\$1,314	\$1,752	\$2,190	\$2,628
Annual Revenue Need					\$64,080	

Commercial Recycling 6-Month Rates

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Currently No Rates Charged

Full Cost Rates

Size	Frequency					
	1	2	3	4	5	6
2	\$580	\$1,160	\$1,740	\$2,319	\$2,899	\$3,479
3	\$651	\$1,302	\$1,953	\$2,603	\$3,254	\$3,905
4	\$722	\$1,444	\$2,166	\$2,887	\$3,609	\$4,331
Annual Revenue Need						\$47,950

Cost of Service Findings

19

- Total allocated full cost is up from \$3,466,090 (with Leaf Collection in 2018) to \$3,679,461 (without Leaf Collection)
- Residential collection, whether from curbside or dumpster, is the predominant service line from which to recover revenue.
- Commercial garbage rates are out of balance (varying revenue shortage based on size and frequency).
- Commercial recycling has historically been fully subsidized by commercial garbage collection or other budgetary transfers.
- Roll-off has a very small customer base, flat rate includes placement and one service. Reported tonnage indicates 4.8 tons per service and the minimally used service is a money loser.

Rate Design

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Residential Rates

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- **One- and Two-Family Collections**

- Current Two-Family rates are higher than One-Family rates. Recommending these be the same since each family receives the same services and each account is billed for two families.
- Proposed Rate Path
 - ✦ 8.5% increase in year 1 with the exception of equilibrating the two-family rate charged per family to be the same per family as the one-family rate

Residential Rates cont.

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- **3+ unit Multi-family mechanical dumpsters**
 - Deficit: 63% for the 2x/week collection
 - Proposed Rate Path
 - ✦ 40% increase per unit is still less than the full cost and less than all one- and two-family rates (except senior rates)

- **3+ unit Multi-family 90-Gal cart**
 - Cost is similar to the curbside cart customers, though reasonably would be somewhat less since emptying multiple carts at the same stop (exact numbers per account not available for review)
 - Proposed Rate Path
 - ✦ Align with the one- and two-family rate (slight reduction in current rate)

Recommended Residential Rate Path

Residential Collection	Current Rates		Proposed Rates		Percent Change
	Monthly Rate	2x/Yr Billing Rate	Monthly Rate	2x/Yr Billing Rate	
Single 90 Gal Refuse & Recycling 1x/wk	\$18.35	\$110.10	\$19.91	\$119.46	8.5%
Two Family 90 Gal Refuse & Recycling 1x/wk	\$21.05	\$126.30	\$19.91	\$119.46	-5.4%
Single & Two Family 60 Gal Refuse & Recycling - Senior	\$15.55	\$93.30	\$16.87	\$101.23	8.5%
Single 2x/wk Alley Dumpster Refuse & 1x/wk Recycling Cart	\$19.74	\$118.44	\$21.42	\$128.51	8.5%
Two Family 2x/wk Alley Dumpster Refuse & 1x/wk Recycling Cart	\$22.64	\$135.84	\$21.42	\$128.51	-5.4%
Single 2x/wk Alley Dumpster Refuse & 1x/wk Recycling Cart - Senior	\$17.09	\$102.54	\$18.54	\$111.26	8.5%
3+ Units - Alley Mechanical Dumpsters 2x/wk - Refuse & Recycling	\$13.10	\$78.60	\$18.34	\$110.04	40.0%
3+ Units - 90 Gal Refuse & Recycling 1x/wk	\$21.05	\$126.30	\$19.91	\$119.46	-5.4%

Note: 3% CPI escalations are recommended in year 3 and 4 and CPI escalations require an ordinance change

Other Residential Rate Considerations

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- **Drop-off Recycling at the Transfer Station is recovered through all residential rates**
- **Yard Waste sticker program**
 - Cost of running collection truck through all neighborhoods has been incorporated into the full cost of all residential collection services
 - Disposal cost is recovered through the Sticker sales. Recommend a 6.7% increase to \$1.60 per sticker
- **CPI escalation in years 3 and 4 would be required in addition to the proposed rate increases to maintain the reserve requirement during the a 5-year Cash Flow**

Residential Rates – Benchmarked Communities

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Rate Structure	University City (Public)	Kirkwood (Public)	Saint Peters (Public)	Ballwin (Contract)	Clayton (Contract)	Brentwood (Public)	Florissant (Contract)
2018 Rates	\$110.10 (\$18.35/mo.)	\$20.50	\$24.25	\$21.66	\$27.07	"Offered at no charge to residents"	\$15.50
Single Family Trash Pickup Rate Structure: Price of first cart/can/bag	\$110.10 (\$18.35/mo.)	\$27.23	\$26.16 +\$30 Activation Fee	\$21.66	\$53.19	"Offered at no charge to residents"	\$16.45
Frequency Billed	Every 6 Months	Monthly	Every 2 Months	Every 3 Months	Monthly	N/A - Included in Taxes	Monthly

Commercial Rate Considerations

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- **60 commercial refuse accounts, 14 commercial recycling dumpsters**
 - Refuse rates are 17.4% deficient overall, and imbalanced rate structure depending on size, service frequency and number of dumpsters per account
 - Recycling service has historically been provided for “free” due to material markets offsetting processing charges. Since market challenges in 2018, processing charges have not offset costs. Recently cost averaging \$111/ton.

- **Options**
 - Continue service and increase rates
 - ✦ Proposed 10%-68% refuse dumpster increase, varying depending on size, frequency and number of dumpsters
 - ✦ Establish commercial recycling rates at 80% of refuse rate
 - ✦ In addition to Year 1 rate increases, 3% CPI increase in year 3 and 4
 - Privatize commercial sanitation collection
 - Continue subsidizing

Roll-off Rate Considerations

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- **30 roll-off services reported in most recent year**
 - Roll-off truck primarily supports the Recycling Drop-off
 - Operator supports various collection services
 - Reported tonnage indicates an average of 4.8 tons/pull

Roll-off Collection	Current Rate	Full Cost Rate	Proposed Rate	% Different
Refuse 30 CY Roll-Off (10 Business Day Drop and Pull)	\$300.00	\$327.36	\$330.00	10.0%
Refuse 30 CY Roll-Off (Disposal Charge) per Ton	N/A	\$60.17	\$60.17	
<i>Rate if not charging disposal per Ton, avg. 4.8 tons/pull</i>		\$616.18		

- **Recommend recovering costs by rates or do not offer roll-off service**

Summary

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- **Solid waste services are critical for maintaining a healthy standard of living.**
- **Rising costs of labor, equipment & fuel the past few years result in full costs being more than current rate revenue.**
- **Rate increases are required to maintain the financial health of the enterprise for the future.**

Thank you

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