

NOTICE OF STUDY SESSION
Solid Waste Rate Increase Report and Recommendation
CITY HALL, Fifth Floor
6801 Delmar Blvd., University City, Missouri 63130
Monday, February 10, 2025
6:00 p.m.

Solid Waste Rate Study Task Force - Recommendation

AGENDA

1. Meeting called to order
2. Changes to Regular Agenda
3. Solid Waste Rate Increase Report and Recommendation
4. Adjournment

The public may also observe via:

Live Stream via YouTube:

<https://www.youtube.com/channel/UCyN1EJ-Q22918E9EZimWoQ>

Posted this 7th day of February, 2025.



Finance Department

6801 Delmar Boulevard, University City, Missouri 63130, Phone: (314) 862-6767, Fax: (314) 863-0921

MEMORANDUM

TO: Gregory Rose, City Manager

FROM: Keith Cole, Director of Finance

DATE: February 10, 2025

SUBJECT: Solid Waste Rate Study Task Force - Recommendation

Background:

In 2018, the City retained MSW Consultants to 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.

On July 8, 2024, MSW Consultants, came to City Hall and presented their findings and recommendations during a Study Session.

As a result of the Solid Waste Rate Study, a proposed resolution was brought forward to the Mayor/Council on the August 12, 2024, Council agenda for their consideration on the creation of a Task Force. Resolution 2024-10 was approved on the establishment of a Solid Waste and Recycling Rate Study Task Force.

The Task Force was made up of the following members: Phil Eastin (Chair), Alice Boon, Cirri Moran, Susan Plassmeyer, Chris Blumenhorst, and Ted Slegesky.

The Task Force had its first meeting, December 17, 2024. MSW Consultants reviewed the final report on the Solid Waste Rate Study with the members and collaboration began.

The Task Force had its second meeting, January 22, 2025. At this meeting, and after further discussion, the members all came to an agreement, and a motion was made and seconded, with unanimous approval, with a recommendation on Option 2 rate increase.

There was a total of 3 rate options to review and analyze. To summarize, the 3 rate options are as follows:

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

Questions, let me know.

Keith

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
Primary Customer Category Rate Increases	15.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Single 90 Gal Refuse & Recycling 1x/wk	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
3+ Unit-Alley Mechanical Dumpsters 2x/wk Refuse & Recycling	67.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Commercial Refuse Dumpsters	31-175% (Varies by size&frequency)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Projected Revenues	\$4,843,737	\$3,805,300	\$3,767,247	\$3,729,574	\$3,692,279	\$3,655,356	\$3,618,802	\$3,582,614	\$3,546,788	\$3,511,320
Rate Revenue	\$3,843,737	\$3,805,300	\$3,767,247	\$3,729,574	\$3,692,279	\$3,655,356	\$3,618,802	\$3,582,614	\$3,546,788	\$3,511,320
Other Financing - Intertund 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
CP 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)	\$887,835	\$67,954	(\$218,665)	(\$183,674)	(\$289,009)	(\$418,304)	(\$725,698)	(\$890,022)	(\$933,928)	(\$1,058,766)
Operating Cash Reserves	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Beginning of Year	\$1,559,965	\$2,447,800	\$2,515,754	\$2,297,089	\$2,113,215	\$1,824,208	\$1,405,903	\$680,005	(\$210,017)	(\$1,143,946)
Expnditures	(\$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	\$4,843,737	\$3,805,300	\$3,767,247	\$3,729,574	\$3,692,279	\$3,655,356	\$3,618,802	\$3,582,614	\$3,546,788	\$3,511,320
End of Year	\$2,447,800	\$2,515,754	\$2,297,089	\$2,113,215	\$1,824,206	\$1,405,903	\$680,005	(\$210,017)	(\$1,143,946)	(\$2,202,732)
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	\$1,883,338	\$1,952,898	\$1,717,347	\$1,516,081	\$1,209,158	\$772,403	\$27,500	(\$82,097)	(\$1,836,188)	(\$2,915,741)
Operating Cash Reserve Level	78%	80%	71%	64%	53%	40%	19%	-6%	-30%	-56%
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%
Single-Family and Two-Family Residential Collection	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
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	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
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)	\$210.93	\$217.26	\$223.78	\$230.49	\$237.40	\$244.52	\$251.86	\$259.42	\$267.20	\$275.22
Two 90 Gal Cart 1x/wk (Twice per Year)	\$325.27	\$335.03	\$345.08	\$355.43	\$366.09	\$377.07	\$388.38	\$400.03	\$412.03	\$424.39
Three 90 Gal Cart 1x/wk (Twice per Year)	\$439.61	\$452.80	\$466.38	\$480.37	\$494.78	\$509.62	\$524.91	\$540.66	\$556.88	\$573.59
Four 90 Gal Cart 1x/wk (Twice per Year)	\$553.96	\$570.58	\$587.70	\$605.33	\$623.49	\$642.19	\$661.46	\$681.30	\$701.74	\$722.79
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%
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Commercial Recycling Containers Collection										
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 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
Primary Customer Category Rate Increases										
Single 90 Gal Refuse & Recycling 1x/wk	8.4%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
3+ Units-Alley Mechanical Dumpsters 2x/wk Refuse & Recycling	37.4%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Commercial Refuse Dumpsters	31-175% (varies by size&frequency)	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Projected Revenues	\$4,519,906	\$3,588,847	\$3,659,194	\$3,730,950	\$3,804,023	\$3,878,590	\$3,954,648	\$4,032,260	\$4,111,451	\$4,192,117
Rate Revenue	\$3,519,906	\$3,588,847	\$3,659,194	\$3,730,950	\$3,804,023	\$3,878,590	\$3,954,648	\$4,032,260	\$4,111,451	\$4,192,117
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)	\$564,004	(\$148,499)	(\$326,718)	(\$182,499)	(\$177,264)	(\$195,070)	(\$390,052)	(\$440,376)	(\$369,266)	(\$377,988)
Operating Cash Reserves										
Beginning of Year	\$1,559,965	\$2,123,969	\$1,975,470	\$1,648,752	\$1,468,253	\$1,288,989	\$1,093,919	\$703,868	\$263,492	(\$105,774)
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	\$4,519,906	\$3,588,847	\$3,659,194	\$3,730,950	\$3,804,023	\$3,878,590	\$3,954,648	\$4,032,260	\$4,111,451	\$4,192,117
End of Year	\$2,123,969	\$1,975,470	\$1,648,752	\$1,468,253	\$1,288,989	\$1,093,919	\$703,868	\$263,492	(\$105,774)	(\$483,762)
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	\$1,559,507	\$1,412,613	\$1,069,010	\$869,119	\$673,941	\$460,420	\$51,363	(\$408,588)	(\$798,016)	(\$1,196,772)
Operating Cash Reserve Level	68%	63%	51%	44%	38%	31%	19%	7%	-3%	-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

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
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

Commercial Refuse Containers Collection	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
One 90 Gal Cart 1x/wk (Twice per Year)	\$210.93	\$210.93	\$210.93	\$210.93	\$210.93	\$210.93	\$210.93	\$210.93	\$210.93	\$210.93
Two 90 Gal Cart 1x/wk (Twice per Year)	\$325.28	\$325.28	\$325.28	\$325.28	\$325.28	\$325.28	\$325.28	\$325.28	\$325.28	\$325.28
Three 90 Gal Cart 1x/wk (Twice per Year)	\$439.63	\$439.63	\$439.63	\$439.63	\$439.63	\$439.63	\$439.63	\$439.63	\$439.63	\$439.63
Four 90 Gal Cart 1x/wk (Twice per Year)	\$553.98	\$553.98	\$553.98	\$553.98	\$553.98	\$553.98	\$553.98	\$553.98	\$553.98	\$553.98
One 2 CY 1x/wk (Twice per Year)	\$543.08	\$543.08	\$543.08	\$543.08	\$543.08	\$543.08	\$543.08	\$543.08	\$543.08	\$543.08
Two 2 CY 1x/wk (Twice per Year)	\$792.05	\$792.05	\$792.05	\$792.05	\$792.05	\$792.05	\$792.05	\$792.05	\$792.05	\$792.05
One 2 CY 2x/wk (Twice per Year)	\$1,086.16	\$1,086.16	\$1,086.16	\$1,086.16	\$1,086.16	\$1,086.16	\$1,086.16	\$1,086.16	\$1,086.16	\$1,086.16
Two 2 CY 2x/wk (Twice per Year)	\$1,584.10	\$1,584.10	\$1,584.10	\$1,584.10	\$1,584.10	\$1,584.10	\$1,584.10	\$1,584.10	\$1,584.10	\$1,584.10
One 3 CY 1x/wk (Twice per Year)	\$618.55	\$618.55	\$618.55	\$618.55	\$618.55	\$618.55	\$618.55	\$618.55	\$618.55	\$618.55
Two 3 CY 1x/wk (Twice per Year)	\$942.99	\$942.99	\$942.99	\$942.99	\$942.99	\$942.99	\$942.99	\$942.99	\$942.99	\$942.99
One 3 CY 2x/wk (Twice per Year)	\$1,237.10	\$1,237.10	\$1,237.10	\$1,237.10	\$1,237.10	\$1,237.10	\$1,237.10	\$1,237.10	\$1,237.10	\$1,237.10
Two 3 CY 2x/wk (Twice per Year)	\$1,885.98	\$1,885.98	\$1,885.98	\$1,885.98	\$1,885.98	\$1,885.98	\$1,885.98	\$1,885.98	\$1,885.98	\$1,885.98
Two 3 CY 3x/wk (Twice per Year)	\$2,828.97	\$2,828.97	\$2,828.97	\$2,828.97	\$2,828.97	\$2,828.97	\$2,828.97	\$2,828.97	\$2,828.97	\$2,828.97
One 4 CY 1x/wk (Twice per Year)	\$694.02	\$694.02	\$694.02	\$694.02	\$694.02	\$694.02	\$694.02	\$694.02	\$694.02	\$694.02
Two 4 CY 1x/wk (Twice per Year)	\$1,093.93	\$1,093.93	\$1,093.93	\$1,093.93	\$1,093.93	\$1,093.93	\$1,093.93	\$1,093.93	\$1,093.93	\$1,093.93
One 4 CY 2x/wk (Twice per Year)	\$1,388.03	\$1,388.03	\$1,388.03	\$1,388.03	\$1,388.03	\$1,388.03	\$1,388.03	\$1,388.03	\$1,388.03	\$1,388.03
Two 4 CY 2x/wk (Twice per Year)	\$2,187.85	\$2,187.85	\$2,187.85	\$2,187.85	\$2,187.85	\$2,187.85	\$2,187.85	\$2,187.85	\$2,187.85	\$2,187.85
One 4 CY 3x/wk (Twice per Year)	\$2,082.05	\$2,082.05	\$2,082.05	\$2,082.05	\$2,082.05	\$2,082.05	\$2,082.05	\$2,082.05	\$2,082.05	\$2,082.05
One 4 CY 4x/wk (Twice per Year)	\$2,776.07	\$2,776.07	\$2,776.07	\$2,776.07	\$2,776.07	\$2,776.07	\$2,776.07	\$2,776.07	\$2,776.07	\$2,776.07
Two 4 CY 4x/wk (Twice per Year)	\$4,375.71	\$4,375.71	\$4,375.71	\$4,375.71	\$4,375.71	\$4,375.71	\$4,375.71	\$4,375.71	\$4,375.71	\$4,375.71
One 4 CY 5x/wk (Twice per Year)	\$3,470.08	\$3,470.08	\$3,470.08	\$3,470.08	\$3,470.08	\$3,470.08	\$3,470.08	\$3,470.08	\$3,470.08	\$3,470.08
Two 4 CY 5x/wk (Twice per Year)	\$5,469.63	\$5,469.63	\$5,469.63	\$5,469.63	\$5,469.63	\$5,469.63	\$5,469.63	\$5,469.63	\$5,469.63	\$5,469.63
One 4 CY 6x/wk (Twice per Year)	\$4,164.10	\$4,164.10	\$4,164.10	\$4,164.10	\$4,164.10	\$4,164.10	\$4,164.10	\$4,164.10	\$4,164.10	\$4,164.10
Two 4 CY 6x/wk (Twice per Year)	\$6,563.56	\$6,563.56	\$6,563.56	\$6,563.56	\$6,563.56	\$6,563.56	\$6,563.56	\$6,563.56	\$6,563.56	\$6,563.56

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
Temporary Container Services	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
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%

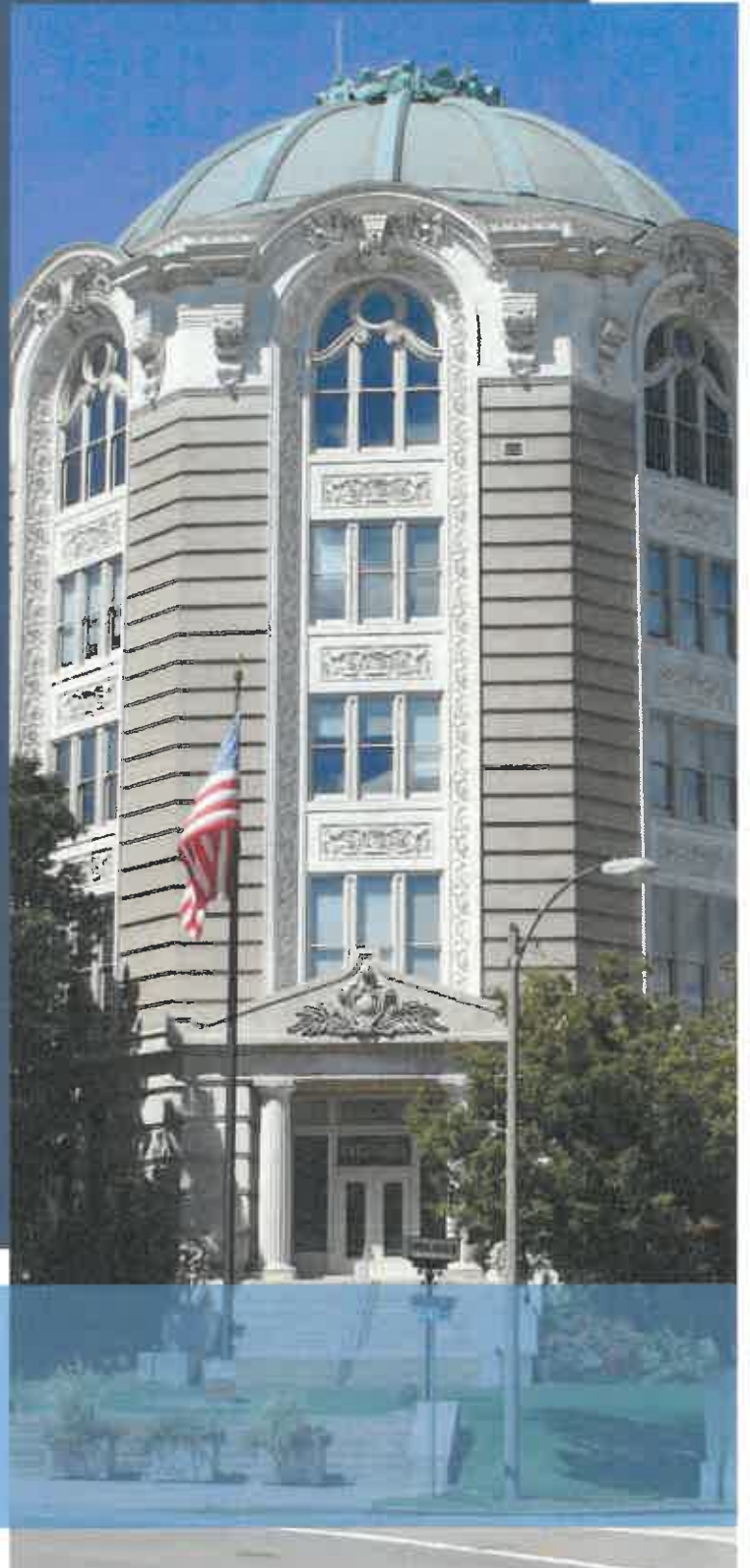
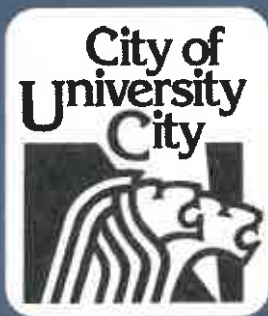
Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Primary Customer Category Rate Increases										
Single 90 Gal Refuse & Recycling 1x/wk	6.8%	6.8%	6.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
3+ Units-Alley Mechanical Dumpsters 2x/wk Refuse & Recycling	20.2%	20.0%	15.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Commercial Refuse Dumpsters	31-175% (varies by size&frequency)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Projected Revenues	\$4,397,996	\$3,653,364	\$3,899,206	\$3,860,252	\$3,821,649	\$3,783,432	\$3,745,598	\$3,708,142	\$3,671,061	\$3,634,350
Rate Revenue	\$3,397,996	\$3,653,364	\$3,899,206	\$3,860,252	\$3,821,649	\$3,783,432	\$3,745,598	\$3,708,142	\$3,671,061	\$3,634,350
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)	\$442,095	(\$83,982)	(\$86,706)	(\$53,197)	(\$159,638)	(\$290,227)	(\$599,102)	(\$764,494)	(\$809,656)	(\$935,756)
Operating Cash Reserves										
Beginning of Year	\$1,559,965	\$2,002,060	\$1,918,078	\$1,831,372	\$1,778,175	\$1,618,537	\$1,328,310	\$729,208	(\$35,286)	(\$844,942)
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	\$4,397,996	\$3,653,364	\$3,899,206	\$3,860,252	\$3,821,649	\$3,783,432	\$3,745,598	\$3,708,142	\$3,671,061	\$3,634,350
End of Year	\$2,002,060	\$1,918,078	\$1,831,372	\$1,778,175	\$1,618,537	\$1,328,310	\$729,208	(\$35,286)	(\$844,942)	(\$1,780,698)
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	\$1,437,597	\$1,355,221	\$1,251,630	\$1,181,041	\$1,003,489	\$694,810	\$76,703	(\$707,366)	(\$1,537,184)	(\$2,493,707)
Operating Cash Reserve Level	64%	61%	57%	54%	47%	38%	20%	-1%	-22%	-45%
Achieves Operating Reserve Target	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	FALSE	FALSE

NOVEMBER 2024

(Rev. Jan 2025)

FINAL REPORT

SOLID WASTE RATE STUDY



Prepared by





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ERRATA

The following minor revision(s) have been updated in this reissued report:

- Rates for commercial accounts using 90-gallon carts have been revised to incorporate appropriate multipliers accounting for lower collection cost per cart when more than one cart is at a single location.
- Commercial dumpster rates have been made consistent among all three rate path options to incorporate sufficient commercial revenue recovery on the first year of all options.
- The revisions above resulted in changes to Table 4-11, and Exhibits 4, 5, 6, 7, 8, and 9. Due to the very small number of commercial accounts, the revised annual revenue in the Cash Flow projections (Exhibits 5, 7, and 9) is insignificant.

ERRATA

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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.

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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.

SOLID WASTE RATE STUDY

- **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.

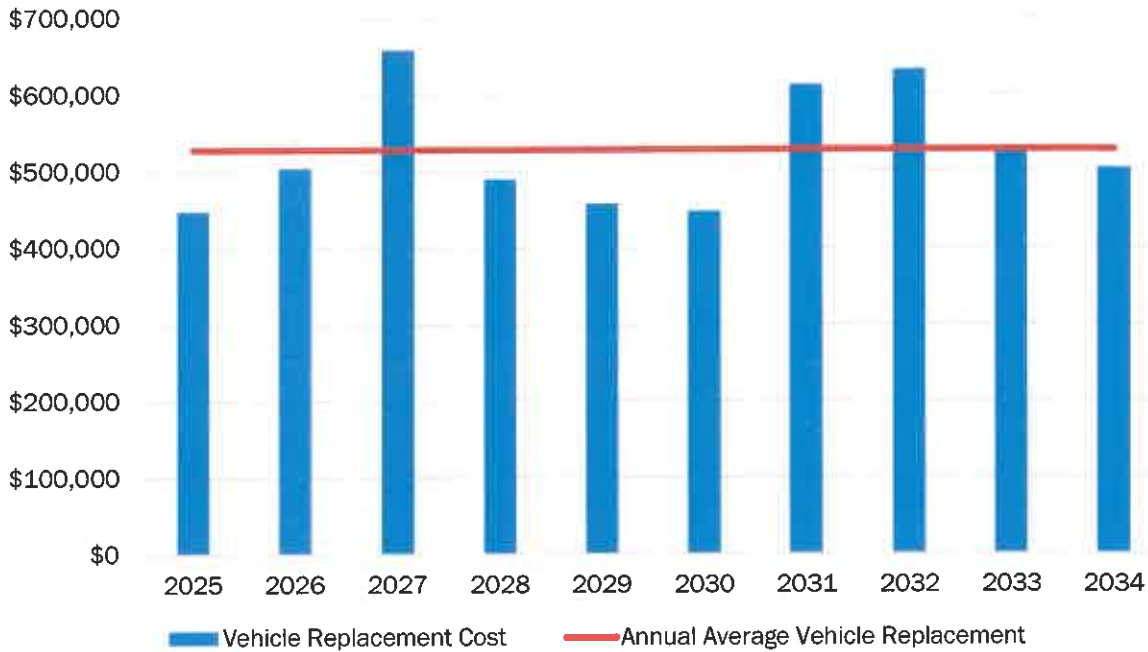
Table 4-2 Estimated Basis of Operating Reserve Starting Balance

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.

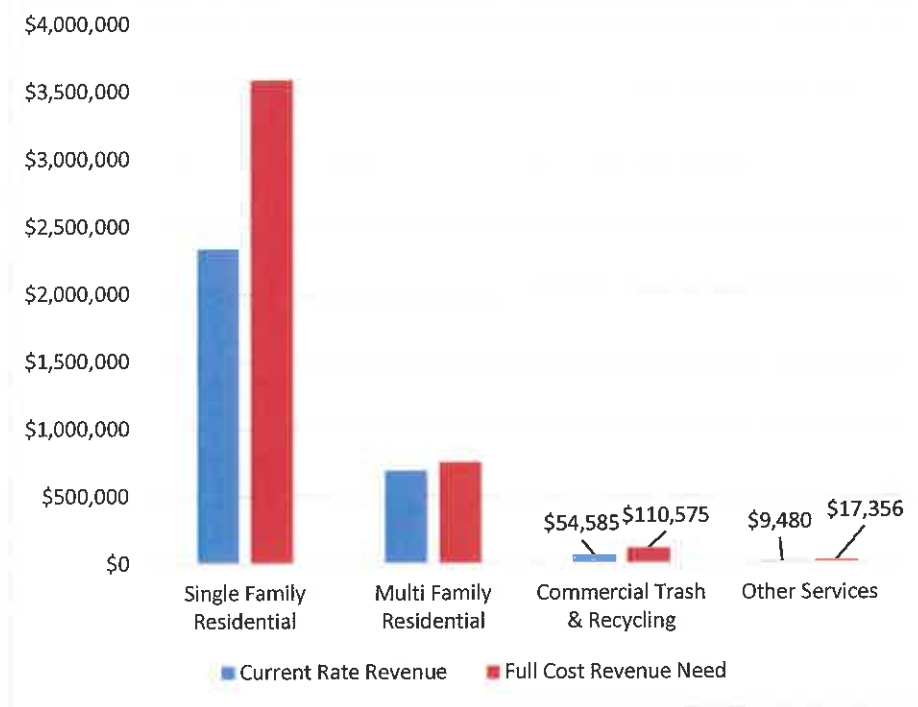
Table 4-4 System Surplus (Deficit)

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

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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.

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Table 4-11 Commercial Mechanical Dumpster Twice Yearly Rate Recommendation

Number of Containers	Size	Frequency					
		1	2	3	4	5	6
1	90 Gal	\$211	N/A	N/A	N/A	N/A	N/A
2	90 Gal	\$325	N/A	N/A	N/A	N/A	N/A
3	90 Gal	\$440	N/A	N/A	N/A	N/A	N/A
4	90 Gal	\$554	N/A	N/A	N/A	N/A	N/A
1	2 CY	\$540	\$1,081	N/A	N/A	N/A	N/A
1	3 CY	\$616	\$1,232	N/A	N/A	N/A	N/A
1	4 CY	\$691	\$1,382	\$2,074	\$2,765	\$3,456	\$4,147
2	2 CY	\$789	\$1,577	N/A	N/A	N/A	N/A
2	3 CY	\$939	\$1,879	\$2,818	N/A	N/A	N/A
2	4 CY	\$1,090	\$2,181	N/A	\$4,362	\$5,452	\$6,543

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	Kirtwood	Saint Peters	Baldwin	Clayton	Brentwood	Pleasant
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

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 5 - Projected Cash Flow - Yr 1 Increase and no CPI Increases

Rate Option											
Option 1											
Operating Reserve Target Based on Days (%)											
38.2%											
Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
Primary Customer Category Rate Increases											
Single 90 Gal Refuse & Recycling 1x/wk	15.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
3+ Units-Alley Mechanical Dumpsters 2x/wk Refuse & Recycling	67.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Commercial Refuse Dumpsters	31-175% (varies by size&frequency)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Projected Revenues	\$4,843,737	\$3,805,300	\$3,767,247	\$3,729,574	\$3,692,279	\$3,655,356	\$3,618,802	\$3,582,614	\$3,546,788	\$3,511,320	
Rate Revenue	\$3,843,737	\$3,805,300	\$3,767,247	\$3,729,574	\$3,692,279	\$3,655,356	\$3,618,802	\$3,582,614	\$3,546,788	\$3,511,320	
Other Financing - Interfund Loans	\$1,000,000	\$0	\$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)	\$887,835	\$67,954	(\$218,665)	(\$183,874)	(\$289,009)	(\$418,304)	(\$726,898)	(\$890,022)	(\$933,926)	(\$1,058,786)	
Operating Cash Reserves	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	
Beginning of Year	\$1,559,965	\$2,447,800	\$2,515,754	\$2,297,089	\$2,113,215	\$1,824,206	\$1,405,903	\$880,006	(\$210,017)	(\$1,143,946)	
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	\$4,843,737	\$3,805,300	\$3,767,247	\$3,729,574	\$3,692,279	\$3,655,356	\$3,618,802	\$3,582,614	\$3,546,788	\$3,511,320	
End of Year	\$2,447,800	\$2,515,754	\$2,297,089	\$2,113,215	\$1,824,206	\$1,405,903	\$880,005	(\$210,017)	(\$1,143,946)	(\$2,202,732)	
Target End of Year	\$564,462	\$562,656	\$579,742	\$597,134	\$615,046	\$633,500	\$652,505	\$672,080	\$692,242	\$713,009	
Excess Operating Cash Reserve	\$1,883,338	\$1,952,898	\$1,717,347	\$1,516,081	\$1,209,158	\$772,403	\$27,500	(\$882,097)	(\$1,836,188)	(\$2,915,741)	
Operating Cash Reserve Level	78%	80%	71%	64%	53%	40%	19%	-6%	-30%	-56%	
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)	\$210.93	\$217.26	\$223.78	\$230.49	\$237.40	\$244.52	\$251.86	\$259.42	\$267.20	\$275.22
Two 90 Gal Cart 1x/wk (Twice per Year)	\$325.27	\$335.03	\$345.08	\$355.43	\$366.09	\$377.07	\$388.38	\$400.03	\$412.03	\$424.39
Three 90 Gal Cart 1x/wk (Twice per Year)	\$439.61	\$452.80	\$466.38	\$480.37	\$494.78	\$509.62	\$524.91	\$540.66	\$556.88	\$573.59
Four 90 Gal Cart 1x/wk (Twice per Year)	\$553.96	\$570.58	\$587.70	\$605.33	\$623.49	\$642.19	\$661.46	\$681.30	\$701.74	\$722.79
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
Temporary Container Services	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
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

Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Rate Option										
Option 2										
Operating Reserve Target Based on Days (%)										
	18.0%									
Primary Customer Category Rate Increases										
Single 90 Gal Refuse & Recycling 1x/wk	8.4%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
3+ Units-Alley Mechanical Dumpsters 2x/wk Refuse & Recycling	37.4%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Commercial Refuse Dumpsters	31-175% (varies by size&frequency)	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Projected Revenues	\$4,519,906	\$3,588,847	\$3,659,194	\$3,730,950	\$3,804,023	\$3,878,590	\$3,954,648	\$4,032,260	\$4,111,451	\$4,192,117
Rate Revenue	\$3,519,906	\$3,588,847	\$3,659,194	\$3,730,950	\$3,804,023	\$3,878,590	\$3,954,648	\$4,032,260	\$4,111,451	\$4,192,117
Other Financing - Interfund Loans	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Projected Expenses	\$3,955,902	\$3,737,346	\$3,965,912	\$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
Cap 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)	\$564,004	(\$148,499)	(\$326,718)	(\$182,499)	(\$177,264)	(\$196,070)	(\$390,052)	(\$440,376)	(\$389,266)	(\$377,986)
Operating Cash Reserves	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Beginning of Year	\$1,559,985	\$2,123,989	\$1,975,470	\$1,648,752	\$1,468,253	\$1,288,989	\$1,093,919	\$703,868	\$263,492	(\$105,774)
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	\$4,519,906	\$3,588,847	\$3,659,194	\$3,730,950	\$3,804,023	\$3,878,590	\$3,954,648	\$4,032,260	\$4,111,451	\$4,192,117
End of Year	\$2,123,989	\$1,975,470	\$1,648,752	\$1,468,253	\$1,288,989	\$1,093,919	\$703,868	\$263,492	(\$105,774)	(\$483,762)
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	\$1,559,507	\$1,412,613	\$1,069,010	\$869,119	\$673,941	\$460,420	\$51,363	(\$408,588)	(\$798,016)	(\$1,196,772)
Operating Cash Reserve Level	68%	63%	51%	44%	38%	31%	19%	7%	-3%	-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

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
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

Commercial Refuse Containers Collection	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
One 90 Gal Cart 1x/wk (Twice per Year)	\$210.93	\$210.93	\$210.93	\$210.93	\$210.93	\$210.93	\$210.93	\$210.93	\$210.93	\$210.93
Two 90 Gal Cart 1x/wk (Twice per Year)	\$325.28	\$325.28	\$325.28	\$325.28	\$325.28	\$325.28	\$325.28	\$325.28	\$325.28	\$325.28
Three 90 Gal Cart 1x/wk (Twice per Year)	\$439.63	\$439.63	\$439.63	\$439.63	\$439.63	\$439.63	\$439.63	\$439.63	\$439.63	\$439.63
Four 90 Gal Cart 1x/wk (Twice per Year)	\$553.98	\$553.98	\$553.98	\$553.98	\$553.98	\$553.98	\$553.98	\$553.98	\$553.98	\$553.98
One 2 CY 1x/wk (Twice per Year)	\$543.08	\$543.08	\$543.08	\$543.08	\$543.08	\$543.08	\$543.08	\$543.08	\$543.08	\$543.08
Two 2 CY 1x/wk (Twice per Year)	\$792.05	\$792.05	\$792.05	\$792.05	\$792.05	\$792.05	\$792.05	\$792.05	\$792.05	\$792.05
One 2 CY 2x/wk (Twice per Year)	\$1,086.16	\$1,086.16	\$1,086.16	\$1,086.16	\$1,086.16	\$1,086.16	\$1,086.16	\$1,086.16	\$1,086.16	\$1,086.16
Two 2 CY 2x/wk (Twice per Year)	\$1,584.10	\$1,584.10	\$1,584.10	\$1,584.10	\$1,584.10	\$1,584.10	\$1,584.10	\$1,584.10	\$1,584.10	\$1,584.10
One 3 CY 1x/wk (Twice per Year)	\$618.55	\$618.55	\$618.55	\$618.55	\$618.55	\$618.55	\$618.55	\$618.55	\$618.55	\$618.55
Two 3 CY 1x/wk (Twice per Year)	\$942.99	\$942.99	\$942.99	\$942.99	\$942.99	\$942.99	\$942.99	\$942.99	\$942.99	\$942.99
One 3 CY 2x/wk (Twice per Year)	\$1,237.10	\$1,237.10	\$1,237.10	\$1,237.10	\$1,237.10	\$1,237.10	\$1,237.10	\$1,237.10	\$1,237.10	\$1,237.10
Two 3 CY 2x/wk (Twice per Year)	\$1,885.98	\$1,885.98	\$1,885.98	\$1,885.98	\$1,885.98	\$1,885.98	\$1,885.98	\$1,885.98	\$1,885.98	\$1,885.98
Two 3 CY 3x/wk (Twice per Year)	\$2,828.97	\$2,828.97	\$2,828.97	\$2,828.97	\$2,828.97	\$2,828.97	\$2,828.97	\$2,828.97	\$2,828.97	\$2,828.97
One 4 CY 1x/wk (Twice per Year)	\$694.02	\$694.02	\$694.02	\$694.02	\$694.02	\$694.02	\$694.02	\$694.02	\$694.02	\$694.02
Two 4 CY 1x/wk (Twice per Year)	\$1,093.93	\$1,093.93	\$1,093.93	\$1,093.93	\$1,093.93	\$1,093.93	\$1,093.93	\$1,093.93	\$1,093.93	\$1,093.93
One 4 CY 2x/wk (Twice per Year)	\$1,388.03	\$1,388.03	\$1,388.03	\$1,388.03	\$1,388.03	\$1,388.03	\$1,388.03	\$1,388.03	\$1,388.03	\$1,388.03
Two 4 CY 2x/wk (Twice per Year)	\$2,187.85	\$2,187.85	\$2,187.85	\$2,187.85	\$2,187.85	\$2,187.85	\$2,187.85	\$2,187.85	\$2,187.85	\$2,187.85
One 4 CY 3x/wk (Twice per Year)	\$2,082.05	\$2,082.05	\$2,082.05	\$2,082.05	\$2,082.05	\$2,082.05	\$2,082.05	\$2,082.05	\$2,082.05	\$2,082.05
One 4 CY 4x/wk (Twice per Year)	\$2,776.07	\$2,776.07	\$2,776.07	\$2,776.07	\$2,776.07	\$2,776.07	\$2,776.07	\$2,776.07	\$2,776.07	\$2,776.07
Two 4 CY 4x/wk (Twice per Year)	\$4,375.71	\$4,375.71	\$4,375.71	\$4,375.71	\$4,375.71	\$4,375.71	\$4,375.71	\$4,375.71	\$4,375.71	\$4,375.71
One 4 CY 5x/wk (Twice per Year)	\$3,470.08	\$3,470.08	\$3,470.08	\$3,470.08	\$3,470.08	\$3,470.08	\$3,470.08	\$3,470.08	\$3,470.08	\$3,470.08
Two 4 CY 5x/wk (Twice per Year)	\$5,469.63	\$5,469.63	\$5,469.63	\$5,469.63	\$5,469.63	\$5,469.63	\$5,469.63	\$5,469.63	\$5,469.63	\$5,469.63
One 4 CY 6x/wk (Twice per Year)	\$4,164.10	\$4,164.10	\$4,164.10	\$4,164.10	\$4,164.10	\$4,164.10	\$4,164.10	\$4,164.10	\$4,164.10	\$4,164.10
Two 4 CY 6x/wk (Twice per Year)	\$6,563.56	\$6,563.56	\$6,563.56	\$6,563.56	\$6,563.56	\$6,563.56	\$6,563.56	\$6,563.56	\$6,563.56	\$6,563.56

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
Temporary Container Services	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
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

Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Primary Customer Category Rate Increases										
Single 90 Gal Refuse & Recycling 1x/wk	6.8%	6.8%	6.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
3+ Units-Alley Mechanical Dumpsters 2x/wk Refuse & Recycling	20.2%	20.0%	15.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Commercial Refuse Dumpsters	31-175% (varies by size&frequency)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Projected Revenues	\$4,397,996	\$3,853,364	\$3,899,206	\$3,860,252	\$3,821,649	\$3,783,432	\$3,745,598	\$3,708,142	\$3,671,061	\$3,634,350
Rate Revenue	\$3,397,996	\$3,653,364	\$3,899,206	\$3,860,252	\$3,821,649	\$3,783,432	\$3,745,598	\$3,708,142	\$3,671,061	\$3,634,350
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
Cap 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)	\$442,096	(\$83,982)	(\$86,706)	(\$53,197)	(\$159,638)	(\$290,227)	(\$599,102)	(\$764,494)	(\$809,656)	(\$935,756)
Operating Cash Reserves	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Beginning of Year	\$1,569,985	\$2,002,060	\$1,918,078	\$1,831,372	\$1,778,175	\$1,618,537	\$1,328,310	\$729,208	(\$35,288)	(\$844,942)
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	\$4,397,996	\$3,653,364	\$3,899,206	\$3,860,252	\$3,821,649	\$3,783,432	\$3,745,598	\$3,708,142	\$3,671,061	\$3,634,350
End of Year	\$2,002,060	\$1,918,078	\$1,831,372	\$1,778,175	\$1,618,537	\$1,328,310	\$729,208	(\$35,288)	(\$844,942)	(\$1,780,698)
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	\$1,437,597	\$1,355,221	\$1,251,630	\$1,181,041	\$1,003,489	\$694,810	\$76,703	(\$707,366)	(\$1,537,184)	(\$2,493,707)
Operating Cash Reserve Level	64%	61%	57%	54%	47%	38%	20%	-1%	-22%	-45%
Achieves Operating Reserve Target	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	FALSE	FALSE

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