

EXHIBIT A



Seattle Public Utilities
2023-2025
Solid Waste Rate Study

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PREFACE - STRATEGIC BUSINESS PLAN COMPARISON

Seattle City Council Resolution 32000, passed May 10, 2021, adopted a six-year Strategic Business Plan (SBP) for Seattle Public Utilities (SPU) which guides utility investments, service levels, and rate paths through 2026. While not a formal rate package, the SBP does give guidance and create accountability for the rate setting process. Table 0-1 compares the overall solid waste increases for 2023-2025 proposed as part of this legislation with those in the SBP.

Table 0-1 Comparison of Overall Solid Waste Weighted Average Rate Increases, 2023-2025

	2023	2024	2025
<i>Strategic Business Plan</i>	2.2%	2.3%	2.1%
Proposed	2.0%	2.3%	2.5%

During this time, there have been changes to the proposed increases on an annual basis, but the total increases during the overall 2023-2025 rate period stay relatively unchanged.

1. EXECUTIVE SUMMARY

Seattle Public Utilities (SPU) provides solid waste services to residences and businesses in the City of Seattle (“City”) through the Solid Waste Fund (SWF). It is supported almost entirely by utility fee revenue. Solid waste customers are either billed by SPU (residential customers) or by collection contractors (commercial customers). Contractors pick up garbage, recyclables, and organics from residences and business and deliver garbage and organics to SPU’s transfer stations and recyclables to a contractor recycling facility in SODO. SPU transfers garbage from the transfer stations to a railhead for transport to a contracted disposal site in Oregon. Organics are either picked up by processing contractors or delivered by SPU to contractor-owned sites. In addition, SPU, through the SWF, oversees the City’s Clean City program, provides conservation programs and outreach, oversees hazardous waste disposal programs in conjunction with King County, and maintains and rehabilitates historic landfill sites.

Rates were last increased by 3.0 percent on April 1, 2020, 2.9 percent on April 1, 2021, and 2.9 percent on April 1, 2022, as part of the previous 2020-2022 Solid Waste Rate Study.

Key elements of the current rate proposal include:

1. **Shifting Demand:** Solid waste demand has undergone a major shift between sectors due to the COVID-19 pandemic, resulting in increased residential demand offset by a significant drop in commercial demand as many businesses closed and their employees shifted to work from home. However, overall revenue projections have stayed relatively stable.
2. **Update to the Utility Discount Program:** Projected expansion of the Utility Discount Program increases enrollment by approximately 2,000 households annually. These enrollment projections were also updated to account for the shift in Seattle’s housing from Single Family to Multi-family.
3. **Completion of Major Capital Facilities:** During this rate period, SPU will commence, build, and enter into service phase two of the South Transfer Station. The impact on rates of higher capital spending is substantially offset by the availability of high cash reserves entering the rate period.
4. **Continued Focus on Protecting Bond Ratings:** Rates continue to be set to the more stringent debt service coverage (DSC) policy adopted in 2015, as well as to meet the guideline of maintaining a year-end operating cash balance equal to 45 days of operating expense. These policies help to protect solid waste bond ratings during a period of significant capital expansion, liquidity contraction, and bond funding. Setting rates to meet these policies in the 2020-2022 Rate Study also contributed to increasing cash reserves.

1.1 Rate Drivers

Changes in Demand Forecast

Customer counts and subscription levels affect revenues, costs, and the required change in rates. The change in the demand forecast for this rate study is a significant driver and reduces the impact on customer bills by \$5 million.

Contracts, Operations and Maintenance, and Taxes

The current inflationary environment is accompanied by higher contract expense. Contract costs are expected to increase with demand as well as keeping in line with the City's inflationary estimates. 2023 contract expenses are expected to be \$130.1 million, a \$7.3 million increase from the prior year. 2023 O&M is expected to be \$53.9 million, with a \$1.7 million increase from 2022 adopted rates. These projections increase the total revenue requirement and put upward pressure on the solid waste rate path. Total taxes are also expected to rise slightly as the result of an anticipated increase to revenues.

Capital Financing

Annual capital financing expense fluctuates considerably, with higher financing expense relative to the prior year in 2023 (\$3.3 million higher), a \$0.8 million decrease in 2024, and a significant increase in 2025 (\$11.2 million higher). These fluctuations are primarily related to changes in CIP spending levels and exclusive use of operating cash to fund expenses for the rate period. The increased use of cash to finance the CIP reflects sufficient cash reserves available to fund the remainder of spending throughout the period (see Other Funding Sources below).

Other Funding Sources

Other funding sources include asset sales, recycling commodity revenue, miscellaneous revenues, Rate Stabilization Fund (RSF) withdrawals, and cash contributions. Cash reserves built up during the prior rate period combined with excess revenues generated by meeting the debt services coverage ratio (DSC) binding constraints will be used to fund capital expense. There are no RSF transactions anticipated during the 2023-2025 period. Recycling commodity revenue has recovered since the 2018 recycling ban, and stable commodity rates are expected to continue throughout the proposed rate study period.

1.2 Rate, Bill, and Financial Performance Impacts

Table 1-1 presents the change in the revenue requirement and the monthly impact of rate increases on typical residential can customers, a selection of dumpster customers, and self-haul customers.

The rate study proposes equal increases across residential and commercial rates of 1.5 percent on April 1, 2023; 2.6 percent on April 1, 2024; and 2.6 percent on April 1, 2025. Transfer station rates are proposed to increase 5.1 percent on April 1, 2023, and to remain at that level throughout the proposed rate period.

Because the weight increase is only in effect for nine months of the year, an increase weighted for the April effective date is used. See Table 1-1.

Table 1-1: Proposed Solid Waste Revenue Requirements and Bill Impacts

	2022 Adopted	2023 Proposed	2024 Proposed	2025 Proposed
Rate Revenue Requirement <i>(\$ millions)</i>	\$233.8	\$238.8	\$246.4	\$254.5
Sample Bills				
Single-Family <i>32 gallon garbage, 96 gallon yard waste, 96 gallon recycling</i>	\$55.55	\$56.40	\$57.85	\$59.35
Multi-Family <i>3 cubic yard detached, 96 gallon food waste, 3 cubic yard recycling, typical of a 30 unit building</i>	\$633	\$649	\$666	\$683
Commercial <i>3 cubic yard detached, optional recycling, typical of a busy coffee shop or medium size restaurant</i>	\$565	\$579	\$594	\$610
Self-Haul, per ton	\$157	\$165	\$165	\$165
Rate Increases				
Weighted Average		2.0%	2.3%	2.5%
April 1, Residential/Commercial		1.5%	2.6%	2.6%
April 1, Transfer Stations		5.1%	0.0%	0.0%

Financial performance of the Solid Waste Fund (SWF) is projected to continue to be steady during the proposed rate period. The proposed rate increases will continue to maintain this financial strength, while also providing the lowest rates possible. Table 1-2 displays the current and projected financial performance for the SWF.

Table 1-2: SWF Financial Policy Performance 2021-2026 (\$ millions)

Policy	Target	2021 Actual	2022 Projected	2023 Proposed	2024 Proposed	2025 Proposed	2026 Estimated
Net Income	Generally Positive	\$34.1	\$17.0	\$12.6	\$9.3	\$5.0	\$3.5
Debt Service	1.7x (w Credit for Taxes)	5.63	4.30	4.04	3.82	3.59	3.60
	1.5x (w/o Credit for Taxes)	3.84	2.36	2.08	1.82	1.56	1.50
Cash Balance Year	Year-End Balance:	\$125.0	\$134.1	\$135.6	\$134.3	\$118.0	\$113.3
	20 days contract expense	\$6.3	\$6.7	\$7.1	\$7.5	\$8.0	\$8.4
	45 days operating expense	\$22.9	\$25.6	\$26.8	\$28.1	\$29.5	\$30.7
Cash Financing of	10% or \$2.5M (\$2003)	\$6.6	\$11.0	\$14.2	\$13.4	\$24.6	\$12.1
	Minimum	\$3.7	\$3.8	\$3.9	\$4.0	\$4.1	\$4.2

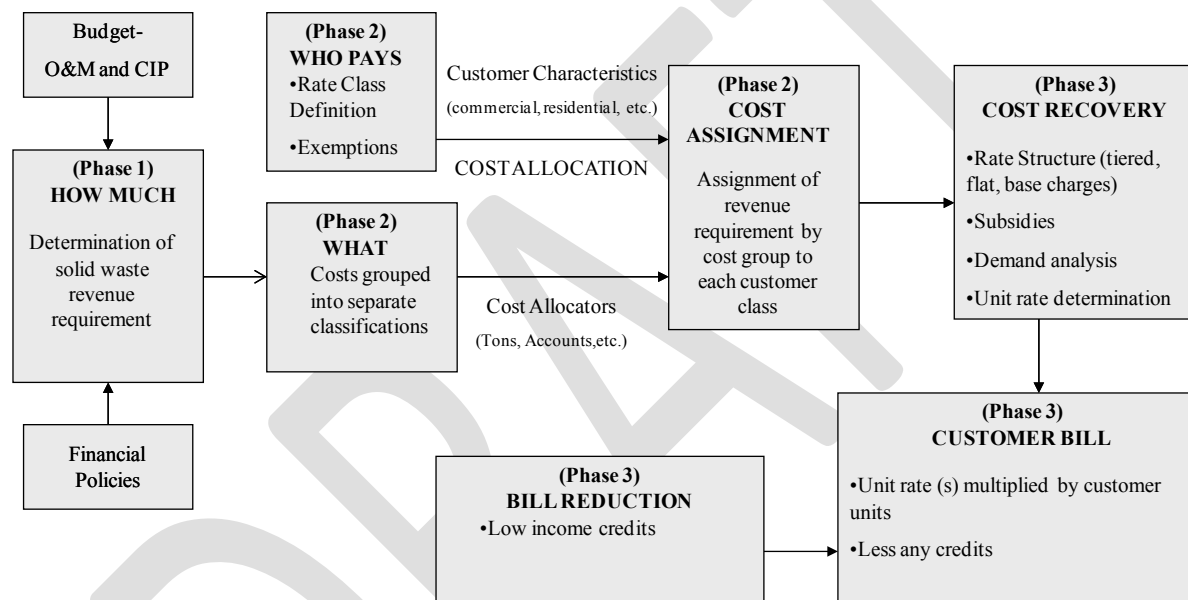
Some totals may not add due to rounding

2. INTRODUCTION

SPU finances the acquisition, operation, and maintenance of Seattle’s solid waste system through the Solid Waste Fund. As an enterprise fund, the SWF functions like a self-supporting business that must generate operating revenues, predominately through user charges (rates), which must be sufficient to cover all operating costs and meet financial policy targets. This document provides a summary of the 2023-2025 Solid Waste Rate Study. It examines the financial and policy issues of the SWF that affect rates. The Solid Waste Comprehensive Plan provides more information about the solid waste system in general.

2.1 Ratemaking Process Overview

The following diagram displays the phases involved in the development of solid waste rates:



Chapter 3 of this document discusses Phase 1 (Revenue Requirement). Chapter 4 addresses Phase 2 (Cost Allocation), while chapters 5 and 6 discuss Demand and Rate Design, which are included in Phase 3.

2.2 Rate Setting Objectives

To set rates, SPU considers multiple factors to help evaluate policy and rate design decisions under consideration.

- **Revenue Requirement:** Solid waste rates should be sufficient to meet the SWF’s revenue requirement.
- **Equity:** Rates should reflect a fair apportionment of the different costs of providing service among groups of customers.
- **Customer Payment of Cost of Service:** Each customer class should generate sufficient revenue to cover both direct and indirect costs of service to the customer class over time.
- **Conservation:** The rate structures should encourage waste reduction and recycling activities.

- **Rate Stability:** Rate levels and structures should be changed in an orderly manner over time.
- **Customer Understanding:** The rate structures should be clear and understandable to the customer.
- **Financial Stability:** Revenue recovery from rates and other revenue sources should ensure financial stability, consistent with financial policies of the City.
- **System and Administrative Costs:** The rate structures should minimize long and short-term administrative costs, including customer service, billing, and contract administration.
- **Rate Impact Mitigation:** Mitigation of the impacts of solid waste rate increases to certain customers based on social or economic factors may be considered and implemented.

2.3 Financial Policy Overview

Financial policies provide a guiding framework for the finances of the solid waste utility. They represent a balance between the competing goals of fiscal conservatism through higher rates today and minimizing these same rates by spreading costs over time to future ratepayers. The direct effect of the policies is to determine the level at which solid waste rates shall be set, given estimated costs and demand, and to define the general manner in which the capital improvement program is to be financed.

The indirect effects of the policies are to:

- Shape the financial profile that the SWF presents to lenders and other members of the financial community;
- Establish the SWF's exposure to financial risk; and
- Allocate the SWF's costs between current and future ratepayers.

The current SWF financial policies were adopted by City Council in 2004 by Resolution 30695, except for the debt service coverage without credit for taxes policy which was adopted by Council in 2014 by Resolution 31516. The policies and associated targets are as follows:

Financial Policy Rate Impacts

In any future year, the minimum revenue requirement is the lowest amount of revenue necessary to simultaneously satisfy all financial policies in that year. Typically, rates are set to just meet all financial policies in each year, with the financial target requiring the most revenue defined as the binding constraint. For the current rate study, however, rates are set to keep rate increases relatively smooth over the three-year path. As a result, additional revenue is generated in 2023-2025 which is then used to increase cash financing of the capital program. Debt Service Coverage is projected to become the binding constraint in 2026.

Net Income

SPU targets generally positive net income. Positive net income is a contingency against projection variances and uncertainties regarding revenues. It is also a signal to bond rating agencies that the City is committed to establishing fees that cover costs.

Debt Service Coverage Ratio

A higher debt service coverage ratio (DSC) means that more revenue is available after debt payments are made. This reduces financial risk and provides more flexibility to respond to revenue shortfalls.

The SWF has two coverage targets associated with two calculation methodologies:

- 1.7 times debt service cost in each year, with credit for City taxes
- 1.5 times debt service cost in each year, without credit for City taxes

The second policy was approved in 2014 to preserve the SWF's bond rating as the fund proceeded through its cyclical capital investment cycle. Under this policy, revenue used to pay taxes to the City is not considered available for making debt service payments. Under the bond covenant however, City taxes are subservient to debt payments.

Operating Cash Balance

The base policy is to maintain an operating cash balance of at least 20 days contract expense. The purpose of the cash balance target is to have sufficient cash on hand to pay operating expenses, taking into account the lag between cash disbursements and cash receipts, and to provide a reserve against projection variances. For 2021, the last year with actuals, contract costs for collection, transfer, and processing of solid waste were \$115 million, resulting in a 20 days cash target of \$6.3 million. In 2023 the cash target is projected to be \$7.1 million.

Since 2015 SPU has sought to maintain higher year-end SWF cash balances on a planning basis, equivalent to 45 days of operating expense. The expectation is that this higher cash balance, combined with the more stringent debt service coverage ratio described above, will enable the SWF to better maintain its bond rating and will provide flexibility in the case of financial hardship or major policy changes. Under this unofficial policy, the cash target for 2021 was \$22.9 million. The projected cash target for 2023 is \$26.8 million.

Cash Contribution to the Capital Improvement Program (CIP)

The cash contribution to the CIP policy is the greater of 10 percent of total CIP expenses or \$2.5 million in 2003 dollars (as adopted by Resolution 30695 in 2004). This policy helps to prevent a rapid increase in debt levels and maintains a minimum investment into the system. The target in 2021, the last year with available actual expenditures, was \$3.7 million, the equivalent of \$2.5 million in 2003 dollars. The 2023 target remains at \$2.5 million in 2003 dollars, or \$3.9 million on \$14 million in CIP spending. SPU proposes, however, to increase cash contributions to CIP in order to keep debt levels and revenue required to meet debt service coverage obligations low.

Proposed 2023-2025 rates assume cash contributions to CIP in excess of targeted levels as SPU does not plan to issue additional debt during the rate period. Sufficient cash reserves exist to finance higher levels of CIP with operating cash, enabling the SWF to keep debt levels and revenue required to meet debt service coverage obligations lower.

3. REVENUE REQUIREMENT

The Rates Revenue Requirement is the total amount of revenues which must be recovered in a given year from direct service, or “rates” revenues. Rates revenues, together with other funding sources such as cash reserves and non-rates revenues, are used to pay the cash expenses associated with operating the Solid Waste system and to meet the Solid Waste Fund’s financial policy requirements (see Section 2.3).

Table 3-1 summarizes changes in the different components that make up the SWF rates revenue requirement from 2022 to 2025. The change in the 2023 revenue requirement throughout this section is relative to the planned 2022 revenue requirement from the 2020-2022 rate study and change for 2024 and 2025 reflect changes against the previous year shown in the table.

Table 3-1: Components of the Change in the Solid Waste Revenue Requirement (\$ millions)

	2022		2023		2024		2025	
	Adopted	Proposed	Change	Proposed	Change	Proposed	Change	
Expenditures (\$M)								
Operations & Maintenance (O&M)								
Contracts O&M	122.8	130.1	7.3	137.6	7.5	145.5	7.9	
Other O&M	52.2	53.9	1.7	57.5	3.6	60.9	3.5	
Clean City Expense	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total O&M	175.0	184.0	9.0	195.1	11.1	206.5	11.4	
Taxes	32.5	33.2	0.7	33.8	0.6	34.5	0.8	
Capital Financing								
Cash Financing (Target)	3.8	3.9	0.1	4.0	0.1	4.1	0.1	
Cash Financing (Additional)	7.2	10.4	3.2	9.4	(0.9)	20.5	11.1	
Debt Service	14.6	14.6	(0.0)	14.6	0.0	14.6	0.0	
Total Capital Financing	25.6	28.9	3.3	28.1	(0.8)	39.2	11.2	
Other Financial Policies	9.2	1.6	(7.5)	0.0	(1.6)	0.0	0.0	
Total SWF Funding Requirement	242.2	247.7	5.5	256.9	9.3	280.2	23.3	
Other Funding Sources								
Prior Year Operating Cash	0.0	0.0	0.0	(1.3)	(1.3)	(16.3)	(15.0)	
RSF Deposit (Withdrawal)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Non-Rates Revenue	(8.4)	(8.8)	(0.4)	(9.2)	(0.3)	(9.4)	(0.2)	
Total Other Funding Sources	(8.4)	(8.8)	(0.4)	(10.5)	(1.7)	(25.7)	(15.2)	

Net Rates Revenue Requirement	233.8	238.8	5.0	246.4	7.6	254.5	8.2
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2022 may not match documents included with the 2020-2022 Rate Study or SBP. Categories have been adjusted to be comparable to Proposed rates.

Some totals may not add due to rounding

The **Expenditures** section of Table 3-1 presents the operating fund cash spending components that make up the SWF Funding Requirement. Sometimes the SWF must generate MORE revenue than needed to fund cash expense in order to meet all financial policy targets. The **Other Financial Policies** section of the table presents any additional revenues required to meet policy targets in excess of cash expense. The **Other Funding Sources** section presents non-rates sources of funding which reduce what must be recovered through direct service rates.

Under the current proposal, the SWF rates net revenue requirement rises from \$233.8 million in 2022 to \$238.8 million in 2023, with annual increases of \$5.0 million in 2023, \$7.6 million in 2024, and \$8.2 million in 2025. Expenditure increases are driven primarily by increased contract expense and, to a lesser degree, increased tax expense. 2023 branch O&M, or SPU's expenses for equipment, salaries, etc., is up \$1.7 million from 2022 adopted rates, with additional largely inflationary increases in 2024 and 2025.

There is a slightly negative net impact of changes in capital financing across the rate period. Cash reserves generated in prior years are used to fund capital projects in lieu of issuing new debt, effectively neutralizing the negative impact that increased capital cash financing would have on the rates revenue requirement.

The following sections include more detailed descriptions of the components of change in the rates revenue requirement. While not direct drivers of the revenue requirement, demand, rate discounts, and the timing of rate increases do impact the level of rates. Further discussion of these impacts follows the discussion of revenue requirement components.

3.1 Operations and Maintenance (O&M)

Adopted 2022 rates assumed \$122.8 million in contract O&M. Inflation is expected to be the key driver in contract O&M increases during the proposed rate period.

The Other O&M expenditure requirement includes a portion of administrative expense (i.e., finance, customer service, etc.) that the SWF shares with the other SPU funds and other City departments, as well as direct solid waste operating expense. Other O&M does not include debt service or taxes, which are discussed below.

3.2 Taxes

Table 3-2 presents the projected change in SWF tax expense between 2022 and 2025. SWF tax expenses include state and city taxes on revenues and City tonnage taxes (transfer tax).

Table 3-1: Taxes (\$ millions)

	2022 Adopted	2023 Proposed	2024 Proposed	2025 Proposed
Solid Waste Utility Tax				
Solid Waste Utility Tax	23.4	23.8	24.2	24.7
Tonnage Tax	4.9	5.0	5.1	5.1
Total City Taxes	28.3	28.8	29.2	29.9
State B&O Tax	4.2	4.2	4.4	4.5
Total Taxes	32.5	33.0	33.6	34.4
<i>State Refuse Tax</i>	<i>6.7</i>	<i>6.8</i>	<i>7.0</i>	<i>7.2</i>

Some totals may not add due to rounding

City and state revenue taxes increase with increased revenue. The City's solid waste utility tax rate for the current proposal is planned at 14.2 percent, unchanged since April 1, 2017.

The **tonnage tax** is a City-levied per-ton tax on non-recycling solid waste transferred for disposal in Seattle. SPU pays the tax as both a collector of solid waste and an operator of a transfer station in the City. The tax is also paid by other entities for the non-contract tons they transfer within the City limits. The tax is paid to the City's General Fund. Solid waste rates are set to recover the cost of paying the tonnage taxes to the City.

Since 2005, the SWF has classified **state refuse tax expense** as a payable rather than an expense. As such, these taxes (both the expense and the revenue associated with them) are not included on the SWF income statement included in *Appendix A Statement of Operating Results*. This procedure has no effect on the net income of SWF, as both revenue and expense are reduced equally. However, these taxes are included in Table 3-2 for informational purposes.

3.3 Capital Financing Expense

SWF capital projects are funded through a combination of current cash (from direct service and non-rates revenue) and debt financing (revenue bonds). Under the proposed rates, CIP for the rate period will be cash financed. CIP through 2025 includes completion of the South Recycling Center, the South Park remediation project, and the SWF's shared portion of City-wide IT upgrades. Total planned capital spending for the rate period is \$52 million.

Annual capital financing expense stays steady at around \$14 million in 2023 and 2024 and increases to \$25 million during the time of peak construction in 2026.

Table 3-3 presents capital spending (CIP) and financing assumptions during the rate period and how this financing impacts rates.

Table 3-2: Change in Cash Financing of the CIP (\$ millions)

	2022 Adopted	2023 Proposed	2024 Proposed	2025 Proposed
Total CIP	14.5	14.2	13.4	24.6
<u>Cash Financial Policy Minimums</u>				
\$2.5 million (2003 nominal \$), Or;	3.8	3.9	4.0	4.1
10% of CIP	1.4	1.4	1.3	2.5
Active Financial Policy Minimum	3.8	3.9	4.0	4.1
<u>CIP Financing Breakdown</u>				
Cash Financed	14.5	14.2	13.4	24.6
Debt Financed	-	-	-	-
Cash Financed %	100%	100%	100%	100%
<u>Cash Financing Detail</u>				
Financial Policy Minimum	3.8	3.9	4.0	4.1
Additional Incremental	7.2	10.4	9.4	20.5
Total Cash to CIP	11.0	14.2	13.4	24.6
<u>Debt Service Detail</u>				
Interest	6.7	6.9	6.5	6.1
Principal	7.9	7.8	8.2	8.6
Total Debt Service	14.6	14.6	14.6	14.6
<u>Rate Drivers</u>				
Change in Cash Financing		(0.3)	(0.8)	11.2
Change in Debt Service		(0.8)	0.0	0.0
Total Rate Impact		(1.0)	(0.8)	11.2

Some totals may not add due to rounding

Debt Service

In 2021, SPU refunded the 2011 Bonds for a savings of \$11 million over the remaining 15 years. SPU does not expect to issue additional SWF debt during the proposed rate period, or even in the foreseeable future as capital spending is expected to taper off significantly after completion of the facilities master plan. Therefore, debt service remains nearly flat throughout the rate period. Keeping debt service low by financing as much CIP as possible through cash instead of debt will minimize the amount of revenue the SWF will need to raise in future years to satisfy debt service coverage financial policies.

Cash Financing

As discussed in Chapter 2, the minimum cash contribution to the CIP is the greater of 10 percent of the CIP in a given year or \$2.5 million (in 2003 nominal dollars converted to current nominal dollars). During the proposed rate period, the \$2.5 million target (\$3.9 to \$4.1 million per year in rate period nominal dollars) is the larger of the two targeted amounts, equating to a minimum financial target cash contribution of \$12 million during the proposed rate period.

The SWF is projected to fund its \$52 million in capital expenditures with operating cash between 2023 and 2025. SPU has chosen to not issue additional debt to minimize the need for future rate increases driven by debt service coverage. SWF cash reserves are sufficient to fund this increased capital financing expense due to a 2015-instituted change in the way that the fund calculates debt service coverage (see 3.4 Financial Policies below). Continued strong operating results also contribute to the financial viability of cash financing the CIP during the rate period.

3.4 Financial Policies

The impact of financial policies on the revenue requirement varies depending on which target is binding (see Section 2.3 for further discussion of financial policies and binding constraints). Revenues must be sufficient to cover all cash operating expense AND to meet net income, debt service coverage, cash contribution to CIP and operating cash balance targets. Where the binding constraint is meeting cash targets, rates are set so that revenues will just equal cash expense AND retain minimum operating cash balances. Where the binding constraint is net income or debt service coverage, revenues will be greater than cash expense. This “extra cash” may be used to fund operating cash contributions to the CIP in excess of targeted levels or may be used to increase cash reserves, or some combination of the two.

Debt service coverage has been the binding constraint since 2015, with the adoption of the new 1.5x debt service coverage target. As discussed in Chapter 2, the Solid Waste fund is using additional cash from the proposed rates to fund cash contributions to the CIP, and will continue driving to the binding constraint of meeting DSC in 2026, the end of the Strategic Business Plan period.

Although cash contributions to the CIP are significantly higher than financial policy targets, this incremental expense is not driven by financial policy requirements. Rather all CIP will be paid for by cash instead of another debt issue in an effort to keep the debt service obligation low. Therefore, the higher levels of cash financing during the rate study period are a spending requirement.

3.5 Other Funding Sources

A significant portion of the total solid waste system funding requirement is paid with by other funding sources including operating cash balances, Rate Stabilization Fund withdrawals, and other operating and non-operating non-rates revenues. On aggregate, these non-rates funding sources are expected to decrease by \$3.8M in 2023, increase by \$1.7 million in 2024, and increase by \$15.2 million in 2025.

Following is a discussion of each of the other funding sources.

Prior Year Operating Cash

Revenue generated by rates is used to fund current operating expenses, maintain a cash balance as a safeguard against unexpected expense, and to fund a portion of the current capital program. A rate may be set to increase, hold constant, or decrease the SWF’s operating fund cash balances. Decreasing, or drawing down a cash balance in a given year lowers the rates in that year as that cash does not need to be received through rate revenues. However, just like other funding sources, what affects rates is not the level in any one year, but the year-to-year change in funding from that source.

Table 3-4 presents both how cash is used (drawn down or increased) in each year as well as the year-on-year change in use of cash. Positive changes (generating more cash than the prior year) increase rates. Negative changes (using more cash than in the prior year or generating smaller increases) reduces rates.

Table 3-3: Proposed Changes to Cash Balances (\$ millions)

	2022 Approved	2023 Proposed	Change	2024 Proposed	Change	2025 Proposed	Change
Operating Cash							
Net Cash from Operating Activities	9.1	1.6	(7.5)	(1.3)	(2.9)	(16.3)	(15.0)
Additional Cash from Financial Policies	-	-	-	-	-	-	-
Change in Cash Balance	9.1	1.6	(7.5)	(1.3)	(2.9)	(16.3)	(15.0)
Starting Balance	125.0	134.1		135.6		134.3	
Ending Balance	134.1	135.6		134.3		118.0	

Some totals may not add due to rounding

Stronger than anticipated operating performance during the prior rate study period has resulted in projected cash balances at the beginning of the rate period that are above the minimum policy requirements.

Cash reserves are diverted to financing CIP expense for the proposed rate period, with balances drawn down by \$1.3 million 2024 and \$16.3 million in 2025, reducing the amount of revenue that needs to be recovered through rates.

Rate Stabilization Fund Withdrawals

The 2013-2016 Solid Waste Rate Study established policies around the use of a Rate Stabilization Fund (RSF) for the SWF. The RSF was intended to help provide rate stability during a four-year rate period. RSF

balances rose to \$38.6 million (as of December 2021) on strong fund performance and are projected to end 2022 at approximately the same level. Withdrawals from the RSF are authorized in the event that the SWF would miss a financial target.

The Solid Waste Fund does not anticipate requiring an RSF withdrawal during this rate period to meet financial policies.

Table 3-4: Proposed Changes to the Solid Waste RSF (\$ millions)

	2022	2023	Change	2024	Change	2025	Change
	Approved	Proposed		Proposed		Proposed	
Rate Stabilization Fund							
Starting Balance	38.6	38.7	0.1	38.9	0.1	39.0	0.1
Withdrawal to Fund Financial Policies	-	-	-	-	-	-	-
Interest	0.1	0.1	-	0.1	-	0.1	-
Ending Balance	38.7	38.9	0.1	39.0	0.1	39.2	0.1

Some totals may not add due to rounding

Non-Rate Revenues

Non-rate revenues are current year revenues including recycling commodity revenue, miscellaneous transfer station revenues, reimbursements from King County, the City’s General Fund and Seattle City Light (SCL), operating and capital grants, interest income and other miscellaneous revenues. As presented in Table 3-6 below, non-rates revenues are projected to increase by \$2.7 million in 2023 relative to the assumption for these revenues when 2022 rates were set, and then remain relatively flat during the 2035-2025 rate period, increasing by \$0.3 million in 2024 and \$0.2 million in 2025.

Table 3-5: Solid Waste Non-Rates Revenues (\$ millions)

	2022	2023	2024	2025
	Approved	Proposed	Proposed	Proposed
SPU Sources				
Recycling Commodity		3.8	5.5	5.8
Other Misc.		1.7	1.8	1.8
Investment and Other		0.5	1.5	1.5
City and County				
Grants		0.1	0.1	0.1
Total Non-Rates Revenues		6.1	8.8	9.4
Change		2.7	0.3	0.2

Some totals may not add due to rounding

Recycling Processing Revenues

Recycling processing revenues are paid by the City's recycling processing contractor to SPU based on contract indices for different types of commodities in the recycling stream. Recycling processing expense paid by SPU is reported under contract expense. Recycling processing revenues were significantly affected by China's Blue Sky recycling ban that took effect at the beginning of 2018 but have recovered a significant amount during the current rate period. Recycling processing is currently estimated to generate \$5.5 million in 2023, \$5.8 million in 2024, and \$6.0 million in 2026 as commodity prices continue to recover. This contract will be in effect until 2027 with a City opt-out in 2024.

3.6 Other Factors Impacting Rates

While not direct drivers of the revenue requirement, demand, rate discounts, and the timing of rate increases impact the level of rates.

Demand

Customer counts, tons and subscription levels affect revenues and the required change in rates from year to year. Tonnage decreases reduce costs in some cases, but also reduce the number of units to which the costs are allocated. The exact impact on rates depends on the relative changes in cost and revenue. In the first year of a rate study, changes from prior projections are reflected as major rate drivers. Subsequent years see less drastic change as the new baseline is used. For 2023, the change in the demand forecast from 2020-2022 Rate Study assumptions is the largest deviation, and therefore the most significant rate driver. The 2023 demand components that have varied the most from earlier projections include:

- **Residential:** Reduced container sizes among curbside garbage customers has been more than offset by increased demand for on-site detached service and organics service. Organics service was especially helped by the food waste ban (Ordinance 124582) which became effective in 2015. A shift in work from home due to the COVID-19 pandemic resulted in stronger than expected residential demand.
- **Commercial:** After a strong economic recovery through 2019, commercial demand experienced a severe drop-off in 2020 due to COVID-19. Demand is expected to recover to pre-pandemic levels by 2024, the second year of the current rate period.
- **Self-Haul:** Self-Haul demand experienced a dip in 2020 due to COVID-19 but has since recovered and is projected for steady performance throughout the rate period.

These factors are further explained in detail in Chapter 5, Demand.

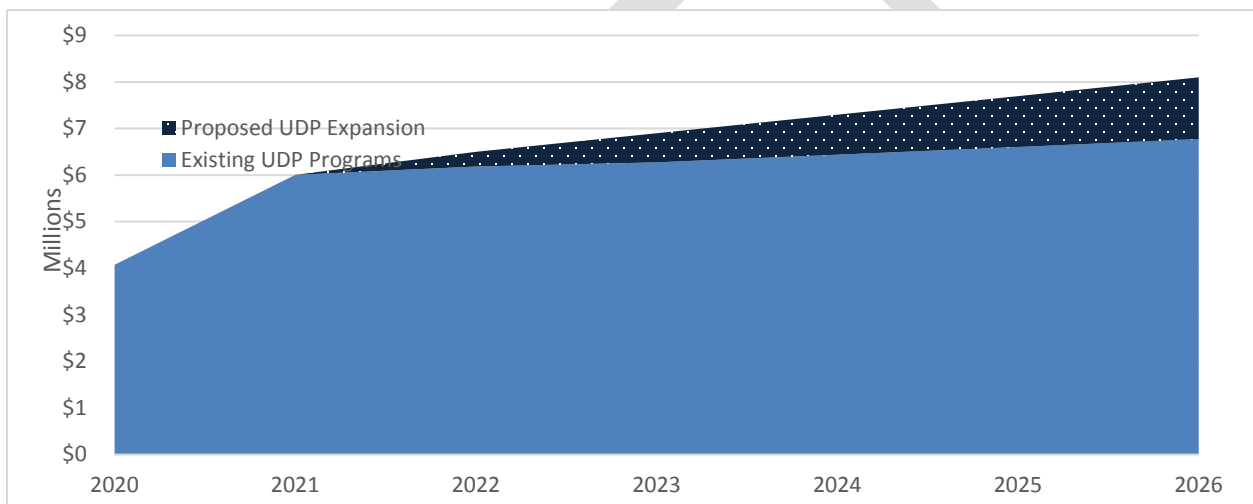
Utility Discount Program (UDP)

Like other demand components, changes in customer participation in the Utility Discount Program do not affect the SWF revenue requirement but do affect the rate increase. Increased participation in the program reduces revenues as more households pay at a discounted rate. The reduction in revenue must be made up through an increase in standard rates.

UDP growth continues to be a rate driver as the program continues to expand. Program enrollment increased dramatically during the COVID-19 pandemic. Enrollment is expected to grow as program awareness increases and the economic impacts of the pandemic continue.

See Figure 3-1 for a breakdown and forecast of existing and proposed additional UDP revenue reductions.

Figure 3-1: Existing and Proposed UDP Revenue Reductions



4. SOLID WASTE COST ALLOCATION

After revenue requirements have been calculated, the cost allocation process assigns them to individual customer classes. This process estimates the true cost of serving different types of customers and provides the foundation for rate design, although actual rates may vary from the assigned cost allocations because of other (often times competing) ratemaking and policy considerations.

The cost allocation process can be broken into three basic steps:

- Group Costs into Cost Centers
- Develop Allocation Factors
- Allocate Costs to Customer Classes and Rates

4.1 Cost Centers

Solid waste costs are divided among various cost centers. All budget activities, as well as current and future budget additions, are assigned to a cost center based on primary function. Costs for contracts, taxes, and bond interest are modeled based on the latest projections for tons, subscriptions, revenues and CIP spending, and are then assigned to cost centers. Table 4-1 shows a list of cost centers.

Table 4-1: Solid Waste Cost Centers by Category

SPU Branch O&M	Contract Expense	Taxes	Non-Rates Revenue	Capital Financing and Other
Residential Billing	Single Family Garbage	Utility Tax	General Fund	Cash to CIP
Transfer Station Billing	Single Family Compost	Tonnage Tax	Investments and Interest	Debt Service
Landfills	Single Family Recycling	State Taxes	Grants	
Waste Reduction (All)	Commercial Garbage		Change in Cash	
Waste Reduction (Residential)	Commercial Compost		Change in RSF	
G&A – General	Commercial Recycling		Recycling Commodity	
G&A - Contract Management	Multi Family Garbage		Other Misc.	
Hauling (All)	Multi Family Compost			
Compost Processing	Multi Family Recycling			
Transfer Station Operations	Long Haul Disposal			
Human Resources	Garbage Processing			
	Recycling Processing			
	Organics Processing			
	Hazardous Waste			
	Management Program			

4.2 Develop and Assign Allocation Factors

Once costs are grouped, each cost center is assigned an allocation factor (See Appendix B for a complete listing of allocation factors for each Cost Center). Allocation factors are multipliers that allocate cost centers into individual customer classes and eventually rates. The basis for allocation differs by cost center, but always seeks to logically assign each rate its fair share of the cost of providing a service based on known data. Costs are allocated using allocation factors which are based on the following:

Tonnage

Many solid waste costs, such as contractor payments for recycling processing or garbage transfer and disposal, are directly related to tons collected or disposed. Costs are allocated based on the tonnage per rate. Tons may also be used to allocate certain other costs even though there is not a direct relationship between the given cost and tons collected or disposed. Specific garbage, organics, or recycling tonnage allocators are used to allocate waste stream specific costs, such as recycling processing.

Volume

Multi-family and commercial contracts incur cost based on the volume of service subscribed to by customers. For example, fees paid to the Local Hazardous Waste Management Program (LHWMP) are based on the total volume of customers' subscriptions. Detached (Dumpster) customers subscribe to a particular size and collection frequency of dumpster, and contractors charge SPU based on a similar formula. When costs are incurred based on volume, it is used to distribute those costs to individual customer classes.

Customer Counts and Trips

This allocation method is used when the cost of service, such as billing expenses, is related to the number of households or accounts rather than tonnage or another measure of how much service a customer receives. Transfer station billing costs are allocated based on trip counts, since each trip incurs the same cost to billing.

Management Estimates

Some allocations are based on management estimates of time spent serving different customer classes. Such estimates help determine the full cost of service for the class. For example, workload estimates are used to allocate inspection costs and, in conjunction with tons, allocate transfer station costs.

Direct Assignment

Where solid waste costs benefit only one customer class, direct assignment to that class of such costs is appropriate.

Proportional Assignment (Revenue Requirement Shares)

This method assigns costs in proportion to the sum of other allocated costs. The rate proposal uses this allocation method to assign costs such as general and administrative costs.

Revenue

Costs which are incurred based on how much revenue is earned are allocated by total revenue. State taxes are an example.

Ad Hoc

Often no single method is appropriate for allocating costs so a combination of other allocation factors is formulated to best fit the type of costs.

4.3 Customer Classes

Solid waste ratepayers are divided into 4 sectors which are divided into 10 total classes. Cost allocation is done at the class level and aggregated up to the sector level and is presented in the results below at the sector level. See Table 4-2 for a breakdown of these classes. Recycling service is available at no additional charge to all customers.

Table 4-2: Solid Waste Customer Classes

Sector	Class
Residential	Curbside (Single-Family, Can/Cart)
	On-Site (Multi-Family, Detached)
	Recycling (Curbside or On-Site)
Commercial	Non-Dropbox (Can/Cart and Detach)
	Dropbox/Rolloff (On-Demand Large Scale Service)
	Recycling (Limited Service)
Organics	Curbside (Yard waste)
	On-Site (Food waste)
Transfer Stations	Garbage
	Organics

Residential Sector

This customer sector consists of garbage and recycling services for all single-family and multi-family households in the City (Organics service is a separate sector discussed below). This sector is further broken down into the following subgroups for rate-setting purposes: Curbside Can/Cart (Single-Family) and On-Site Detached (Multi-Family).

Single-family residences receive weekly curbside garbage collection and bi-weekly recycling collection. Multi-family buildings are generally serviced using dumpsters and are required to have garbage service of sufficient size and collection frequency to meet the needs of the building.

Commercial Sector

This sector covers all non-residential subscribers to garbage collection services. Businesses may subscribe to can, dumpster, or drop box collection services at SPU's commercial rates. SPU offers limited recycling service to small businesses, but for the most part commercial recycling is not part of the City-provided services.

Organics Sector

SPU offers curbside and on-site organics service. Curbside service is regular, weekly pickup of yard waste containers from single family residences and is the most common organic service offered. Weekly on-site collection for multi-family buildings is offered to handle food waste. Food waste is denser and thus more costly to process by volume, so rates for food waste service are higher than those for yard waste. SPU also offers commercial organics service, but the vast majority of this market is served privately.

Recycling and Disposal Station (Self-Haul) Sector

These customers include residences and businesses that bring garbage and recyclable materials (including yard waste and wood waste) to the City’s Recycling and Disposal Stations.

4.4 Allocation Results

Table 4-3 shows the percentage of the total revenue requirement allocated to each customer sector, by year, using the allocation factors by cost center presented in Table 4-3.

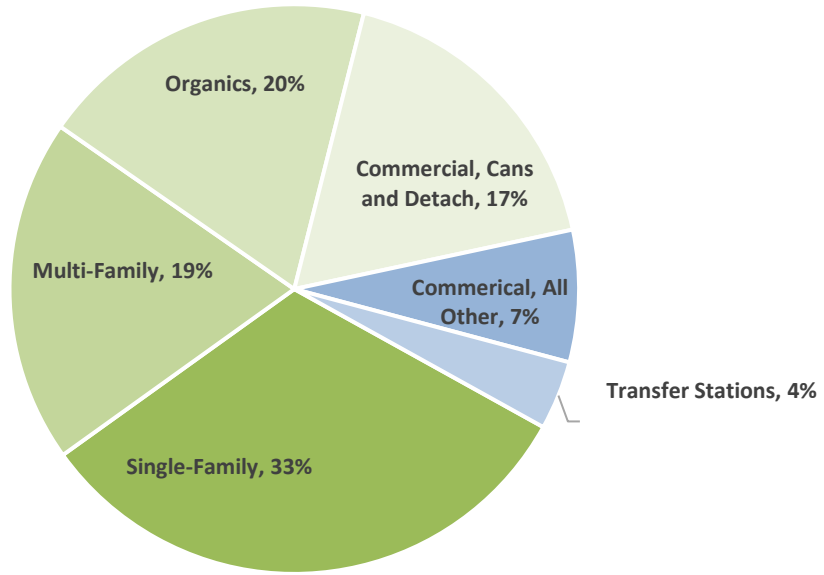
Table 4-3: Cost to Serve Each Customer Sector

Sector/Class	2022	2023	2024	2025
Residential				
<i>Single-Family Curbside Garbage</i>	23.3%	23.1%	22.8%	22.5%
<i> Recycling</i>	8.7%	8.7%	8.9%	9.1%
Single-Family Garbage & Recycling	32.0%	31.8%	31.7%	31.6%
<i>Multi-Family On-Site Garbage</i>	12.3%	11.9%	11.7%	11.5%
<i> Recycling</i>	6.1%	7.4%	7.6%	7.8%
Multi-Family Garbage & Recycling	18.4%	19.3%	19.3%	19.3%
Organics (Single and Multi-Family)	18.2%	18.5%	18.8%	19.0%
Residential Total	68.6%	69.6%	69.8%	70.0%
Commercial				
Cans and Detached	18.7%	17.7%	17.6%	17.5%
Dropbox	8.2%	7.4%	7.4%	7.4%
Commercial Organics	0.4%	1.2%	1.2%	1.3%
Commercial Recycling	<0.1%	0.0%	0.0%	0.0%
Commercial Total	27.3%	26.4%	26.3%	26.2%
Transfer Stations	4.1%	4.0%	4.0%	3.9%

All sectors have a stable allocation of costs throughout the entire rate period which is very similar to that calculated for the 2020-2022 Rate Study.

See Figure 4-1 for a graphical breakdown of Revenue Requirement shares.

Figure 4-1: Allocation of Solid Waste Revenue Requirement (2025)



DRAFT

5. DEMAND

After the revenue requirement is set and those costs have been allocated to specific customer classes, they can be divided by units to get rates. For solid waste, however, units of demand is not a singular number but is instead made up of can subscriptions, account fees, pickup, volume, and tonnage charges, among others. As a result, the demand forecast projects out the demand and resultant revenue for individual rates and rolls them up to the customer class level. Demand also impacts the revenue requirement itself, as demand forecasts form the basis for projected contract expense.

Figure 5-1: Tonnage Forecast

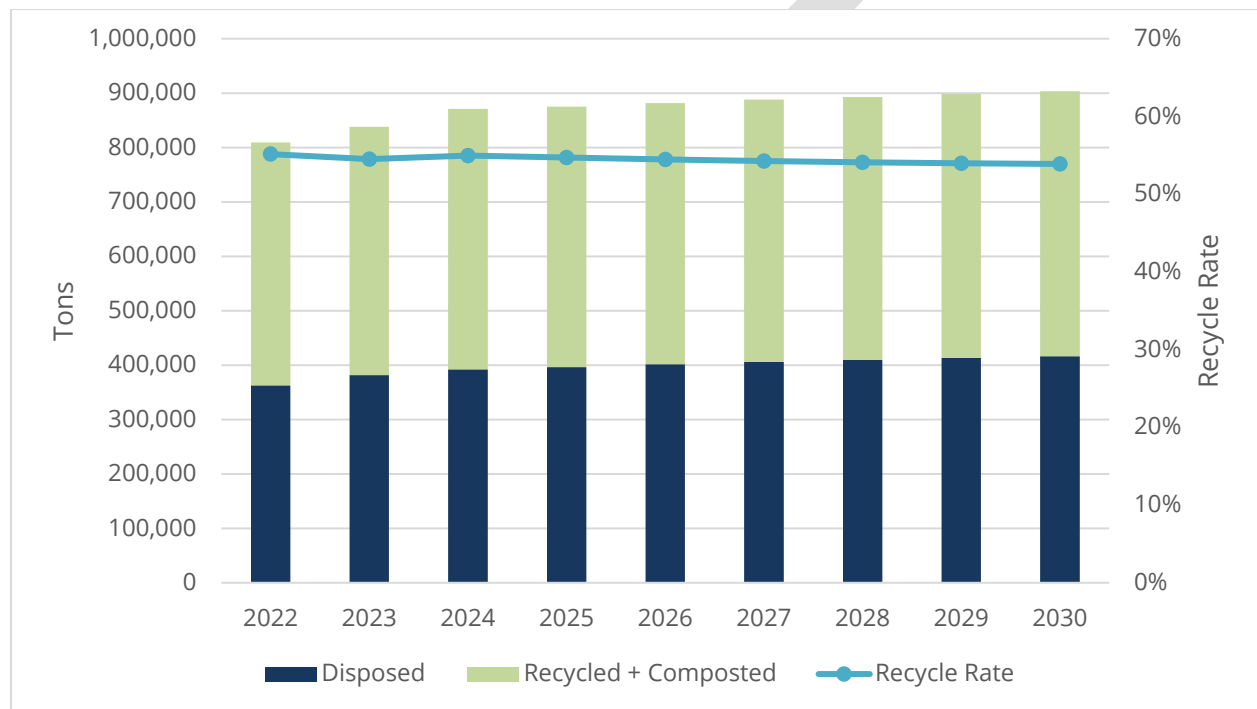
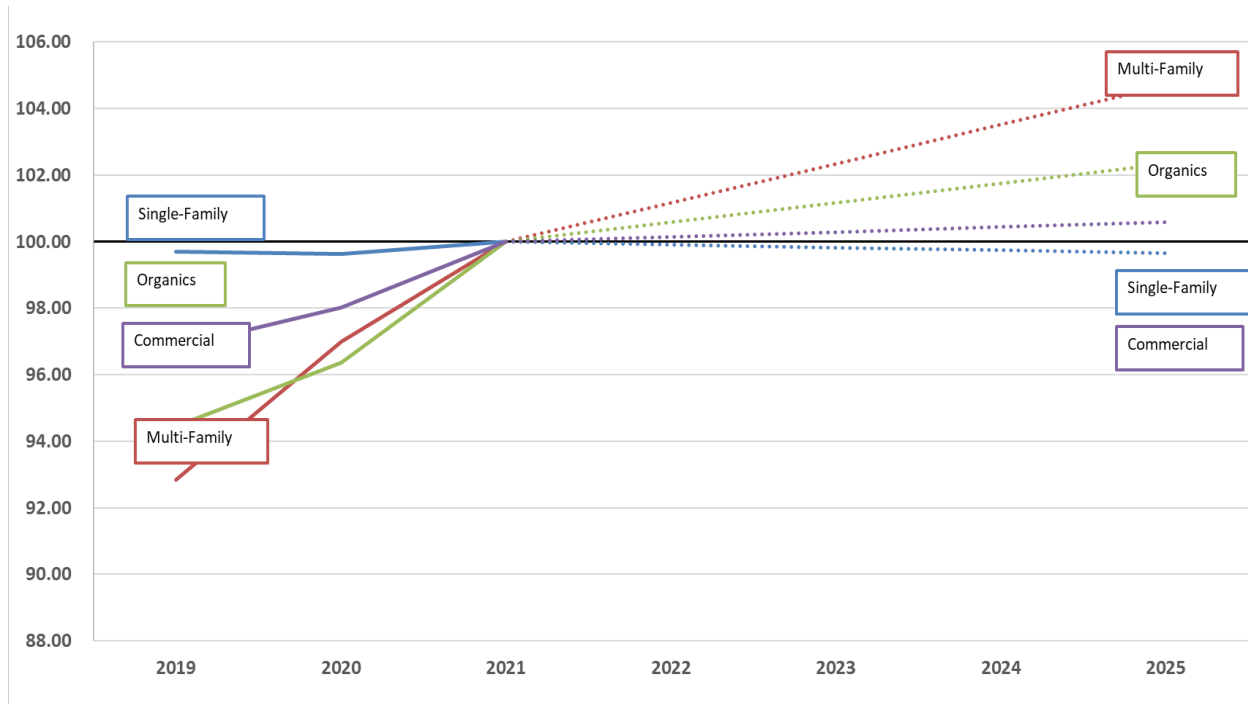


Figure 5-1 shows the current long-term tonnage forecast through 2030 (combined garbage, organics, and recycling). While tonnage is not a driver of revenue, since customers subscribe to solid waste service based on volume, it is an adequate proxy for a general overview of demand. Since 2017, the higher-than-expected tonnages have been a driver behind higher-than-expected revenues and higher-than-expected cash balances in the SWF.

Long-term, tonnage growth is expected to correspond to population growth. Total tonnage is expected to rise 12 percent from 2022-2030 as population grows, with the growth of recycling/organics increasing at a faster rate than garbage.

Figure 5-2: Normalized Solid Waste Volume Index (2021 = 100) by Customer Sector



While overall tonnage is expected to increase slightly during the rate period, there are significant differences among the individual components. Single-family garbage is projected to decline due to conservation and waste reduction with a 0.8 percent reduction in average residential can sizes. Commercial volume has experienced an uptick after pandemic lows but is projected to remain flat as construction activity slows and recovery is gradual. Multi-family volume is expected to increase by five percent and organics by over two percent. While increased organics volumes appear to offset volume declines in the single-family and commercial sectors, it is not an offset in terms of revenue as organics rates per volume are lower than those for garbage by design to encourage diversion. Furthermore, part of the volume decline for these two sectors is diversion to recycling, which is free to the customer. See Table 5-1 for a full breakdown of projected volume and tonnage changes.

As noted in the introduction to this Section, solid waste “demand” encompasses multiple factors. Table 5-1 below presents changes in demand for each customer sector for the primary variables of demand.

Table 5-1: Projected Solid Waste Demand Changes 2022-2025

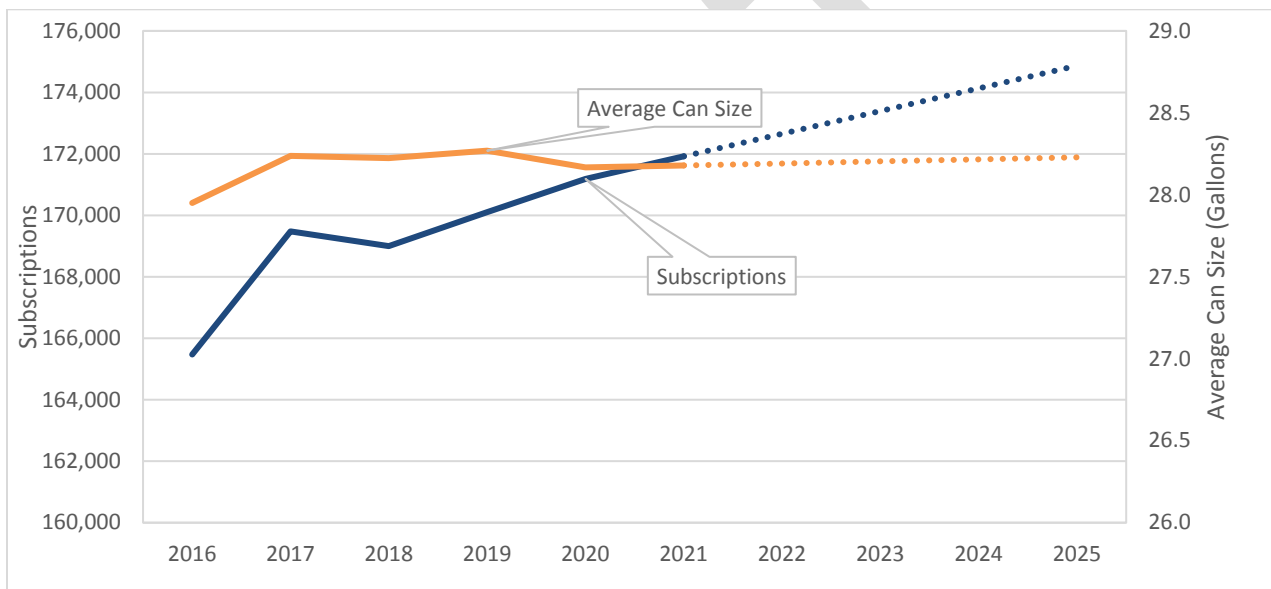
Sector	Customer Count	Volume	Tonnage
Residential Curbside (Single-Family)	1.3%	-0.3%	-0.3%
Residential On-Site (Multi-Family)	3.5%	1.5%	3.6%
Commercial	1.8%	0.4%	3.5%
Organics	4.3%	1.7%	5.6%

A more in-depth explanation of each of these demand sectors follows.

5.1 Residential Curbside (Single-Family)

Single-Family and multi-family buildings are served by regular weekly curbside can or cart collection. Starting in 2014, subscription counts increased for single-family, driven mainly by growth in the region. In 2017, SPU transitioned to a new billing system, which modified the way subscriptions were counted for certain premises. This change led to an increase in number of subscriptions. Service counts slightly declined in 2018 and are projected to stay relatively flat during the proposed rate period. Can sizes have been stable since 2013 and are projected to stay the same through 2022. During the 6-year period from 2013 to 2018 there was a 1.5 percent increase in service counts (adjusted for the billing system change) and a 0.9 percent increase in can sizes. These trends have been consistent with the exception of 2014 which saw a decrease in service counts.

Figure 5-3: Historic and Projected Changes to Curbside Residential Demand



The long-term trend is expected stay relatively flat, with the increase in subscription counts from economic growth being offset by infill development, conservation, and diversion. Infill development both reduces the number of subscriptions by replacing single-family homes with multi-family buildings, and apartments and condominiums also produce less waste than single-family homes. Both factors lower the average can size demanded by customers. Conservation and diversion also decrease can sizes by decreasing the amount of waste produced by all customers, single or multi-family, or diverting it to organics or recycling. Infill development, conservation, and diversion, particularly to organics, are expected to continue to reduce demand for curbside garbage services.

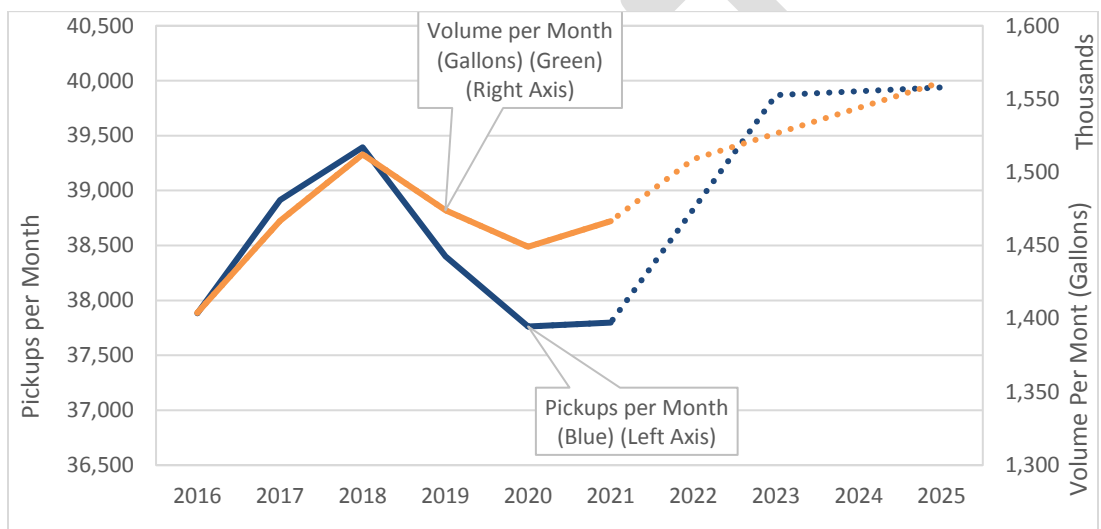
5.2 Residential On-Site (Multi-Family)

Most multi-family buildings in Seattle subscribe to on-site detached (dumpster) service. Detached service customers are charged based on the frequency of pickup and the size of the container according to the following formula:

$$\text{Monthly Rate} = \text{Trip Rate} * \text{Pickups per Month} + \text{Volume Rate} * (\text{Pickups Per Month} * \text{Volume of Container})$$

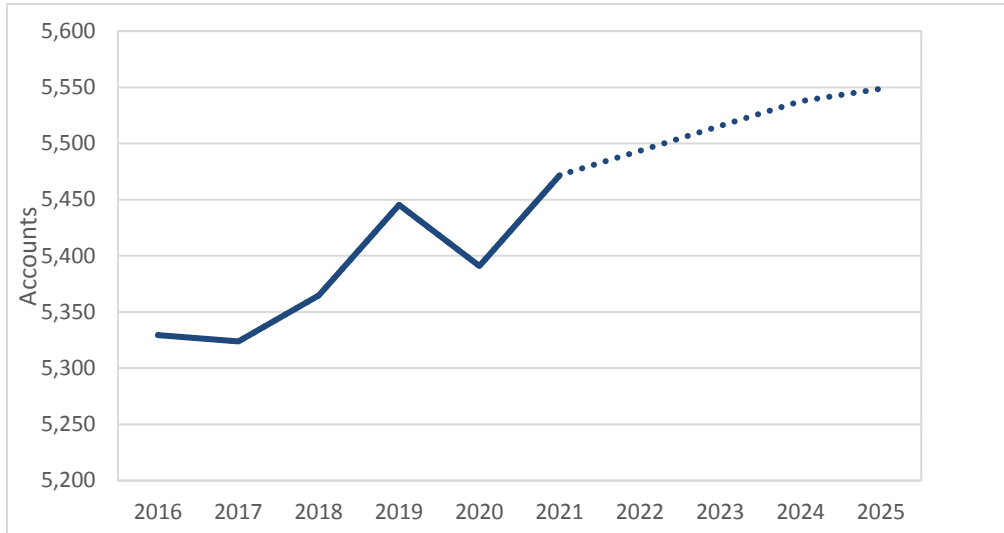
The Trip and Volume Rates are set through this rate study. The demand items to track and forecast are pickups per month and volume demanded. Growth is expected in both categories as construction of multi-family buildings within the City continues to create demand.

Figure 5-4: Historic and Projected Changes to On-Site Residential Demand



The final component of on-site demand is the number of accounts paying the monthly account fee. The account fee generates roughly six percent of total on-site revenue. Accounts are expected to increase slightly, following the historical trend.

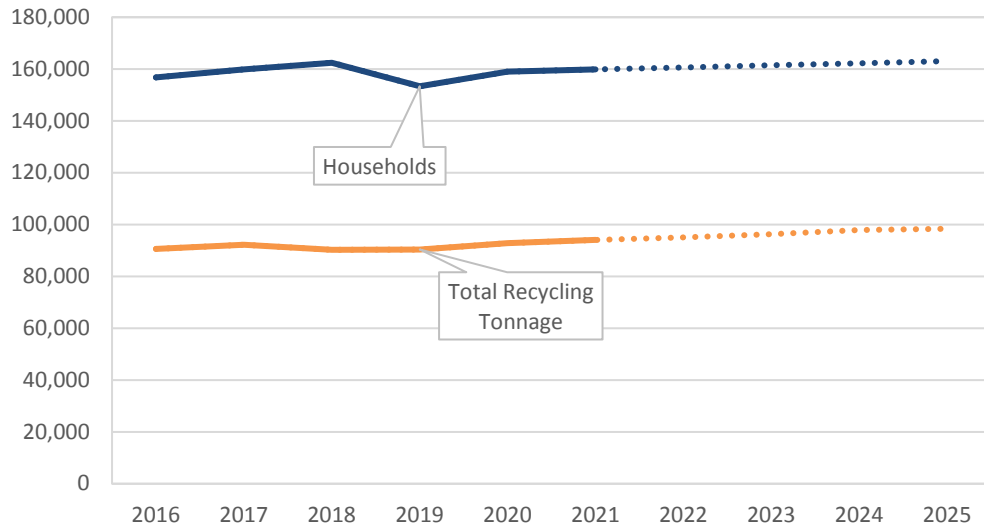
Figure 5-5: Historic and Projected Residential On-Site Accounts



5.3 Recycling

SPU offers bi-weekly curbside recycling pickup for curbside can customers and on-site variable frequency pickup for on-site customers. For the most part, can sizes are set – all curbside customers receive a 96-gallon cart, and all on-site customers receive a recycling cart or detached service that has a total volume of 50 percent of their subscribed garbage volume. Larger volume services are also available. Limited recycling service is also available to small businesses, though small business recycling amounts to less than half a percent of total recycling tonnage. All recycling services are included at no cost with accompanying garbage service.

Figure 5-6: Total Recycling Households and Tonnage



Because there is less customer choice regarding container sizes, recycling is a relatively steady cost center. Customer counts are largely unchanged, and tonnage increases coming out of the recession have been slow and steady.

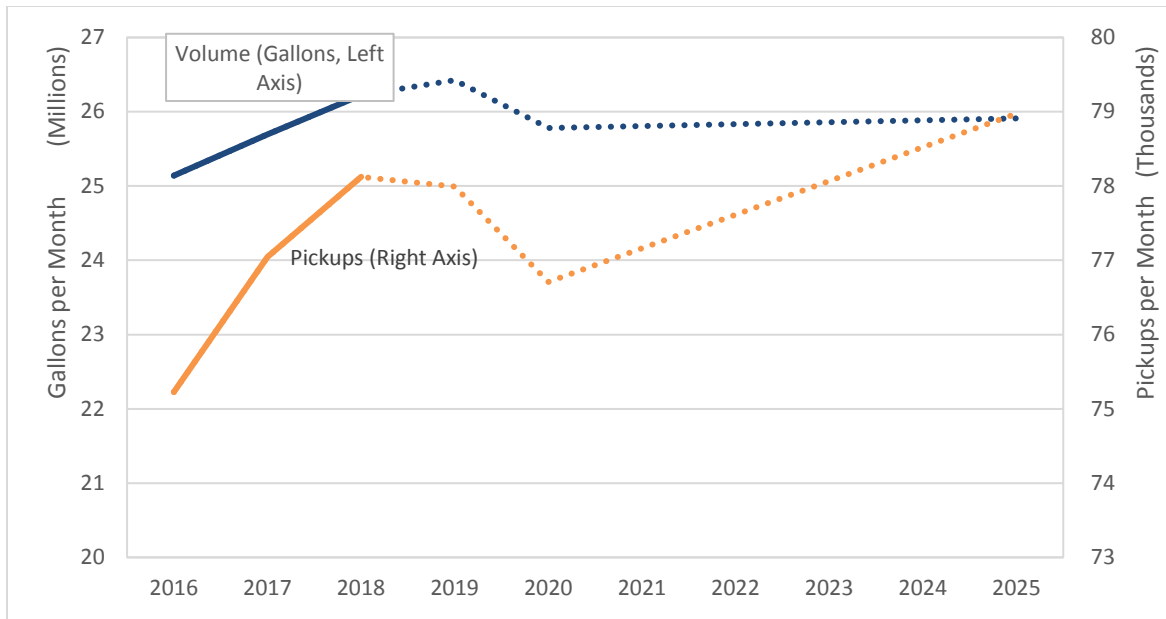
5.4 Commercial

Commercial customers subscribe to one or more options from three types of services: can, detached (dumpsters), or dropbox. Garbage can customers may subscribe to service of any frequency with a charge per pickup based on can size. Detached customers subscribe to service with a charge based on a pickup and volume rate:

$$\text{Monthly Rate} = (\text{Trip Rate} * \text{Pickups per Month}) + (\text{Volume Rate} * \text{Pickups Per Month} * \text{Volume of Container})$$

Lastly, dropbox customers pay an on-demand pickup rate and a tonnage rate.

Figure 5-7: Historic and Projected Commercial Volume and Pickups



Commercial demand is highly correlated to regional economic performance, within the larger long-term context of conservation and diversion. Commercial tonnage has gone through at least three cyclical increases and decreases over the last 25 years within a long-term decline trend. During the pandemic, tonnage fell from 140,000 tons in 2018 to 110,000 tons in 2020. As the economy has recovered, commercial tonnage has somewhat recovered, and commercial volume and pickup subscriptions have increased as well. However, a long-term trend of conservation and diversion is still projected to be the dominant theme in the commercial sector.

Commercial Recycling and Organics

SPU provides limited recycling and organics services to small business. Most recycling and organics services are provided by independent third-party companies. SPU services are offered as a courtesy.

With the implementation of the food waste ban in 2015, commercial organics subscription volumes increased 70 percent 2014 to 2016. Despite this growth, commercial organics is less than one percent of total organics tonnage and will continue to remain a service offered as a courtesy by SPU, with the intention that this industry remains largely in the realm of the private sector. Commercial organics is included under “On-Site Food Waste” in the organics section below.

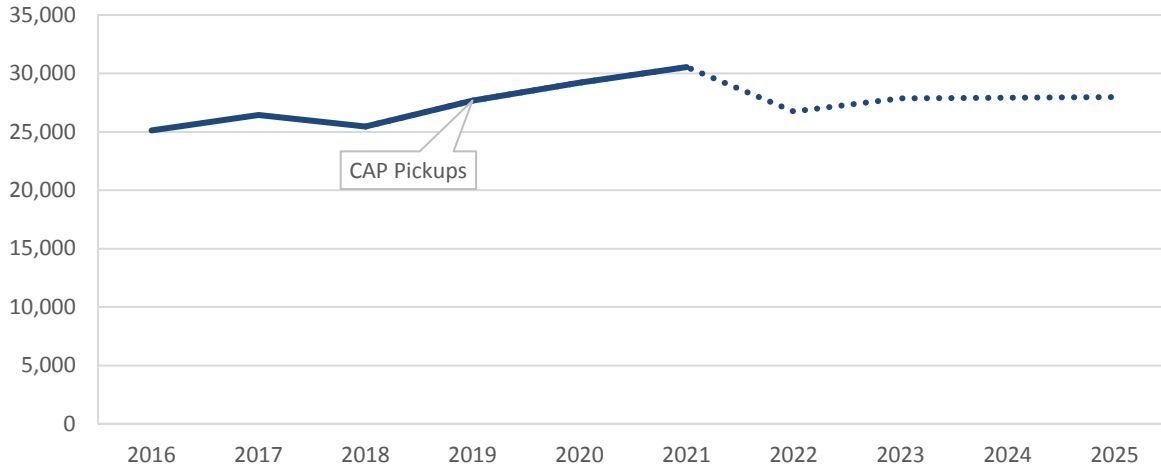
Small businesses in Seattle can also subscribe to limited recycling service, though like organics, this service is largely also private sector. The demand for this service is included under residential recycling. Total commercial recycling tonnage is less than half a percent of total recycling tonnage.

Clear Alleys Program (CAP)

In certain designated areas within the city of Seattle, residents and business are not allowed to keep solid waste containers within the public right-of-way. For customers in these areas who do not have indoor locations for containers, the CAP program offers pre-paid bag service with multiple pickups per day. SPU is not assuming an expansion of CAP-designated areas, only changes in demand for current CAP customers. The CAP program is a small portion of SPU’s services, and provides less than \$200,000 in

revenue per year. SPU is projecting a slow decline in CAP demand, mirroring the general commercial trend.

Figure 5-8: CAP Pickups



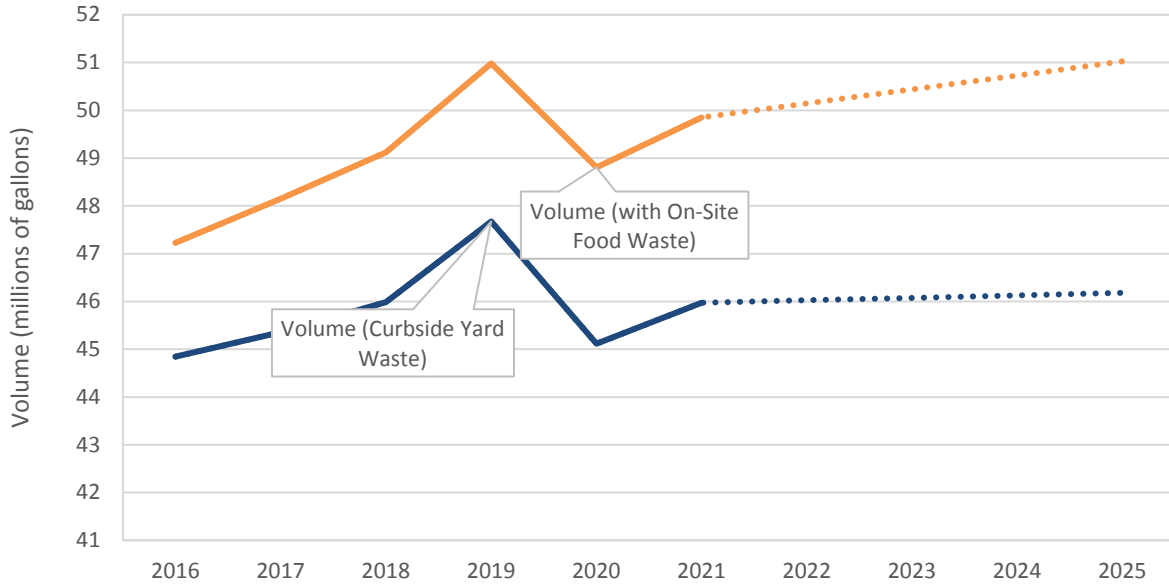
Argo Direct

SPU allows for the delivery of solid waste from third parties directly to the railroad for transport to landfill in Oregon. Usage of this program has declined by more than 60 percent since 2009 and SPU projects 6,000 tons per year (compared to 250,000 total tons) or less delivered to the railhead.

5.5 Organics

Residential curbside and on-site customers subscribe to either curbside or on-site service. Generally, curbside garbage customers subscribe to curbside yard waste service. On-site customers generally subscribe to on-site food waste service. Food waste-specific service is charged at a higher rate because food waste tends to be denser than branches and clippings from yard waste which account for the bulk of curbside customer volumes. Some small commercial customers also subscribe to on-site food waste pickup, and their demand is included in the on-site numbers below but makes up less than one percent of the total.

Figure 5-9: Monthly Organics Volume in Gallons



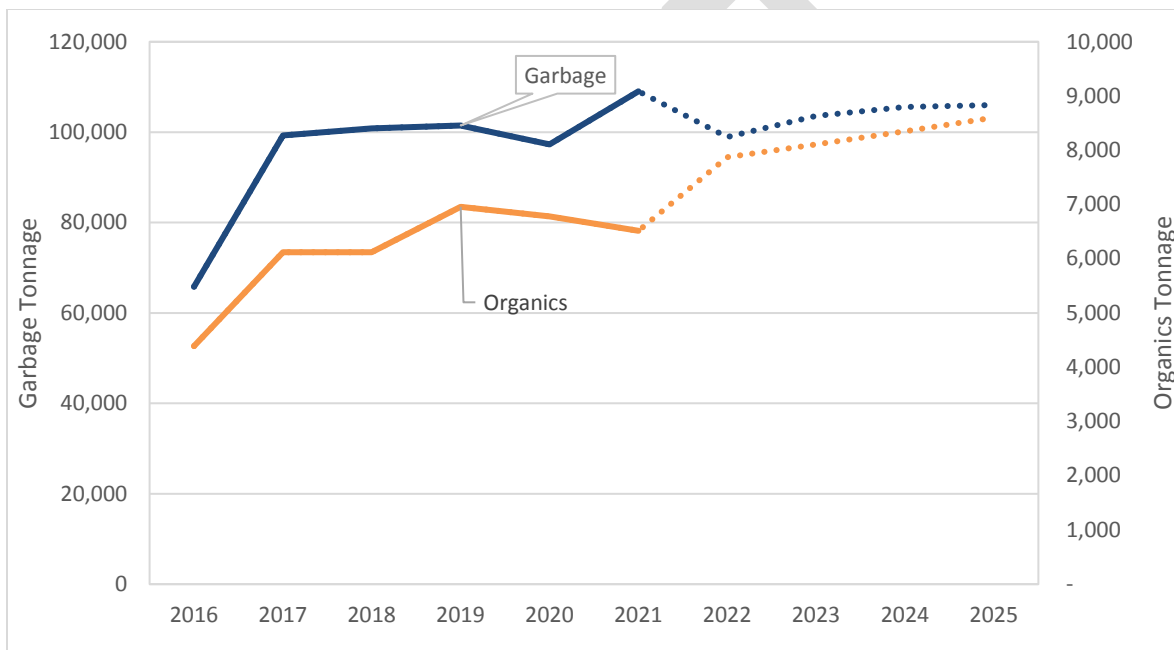
Weekly curbside volume has been declining as customers switch to smaller containers and single-family homes are replaced with multi-family development. These trends are expected to continue, especially as newer homes with smaller yards reduce the need for large yard waste containers. On-site food waste demand has increased with the expansion of multi-family housing and the increased adoption of in-home diversion of food waste away from the garbage. A large increase in organics tonnage was seen following the implementation of the food waste ban in 2015, though there was not an accompanying increase in subscriptions or subscription revenue because food waste tends to be small and dense. Regardless, on-site volume is expected to continue to increase throughout the rate study period.

5.6 Self-Haul

Self-Haul demand is measured in tonnage. Customers at transfer stations currently pay \$157 per ton for garbage and \$119 for organics. There is a 0.2 ton minimum charge. All vehicles visiting the transfer station are weighed and charged for their tonnage. Self-Haul rates are proposed to increase in 2023 for the rate study period.

The reopening of the North Transfer Station at the end of 2016 saw a recovery in tonnage numbers for the utility. Transfer stations saw a slight dip with COVID-19 closures but recovered quickly after reopening. For the rate study period, transfer station tonnages are projected to dip slightly due to recessionary factors and then have flat/slightly increasing growth.

Figure 5-10: Historic and Projected Self-Haul Tonnage



6. RATE DESIGN

Rate design is the last step in the rate-setting process in which the structure and level of the rates for each of the different services and service levels are determined.

Rate design is the point at which non-cost considerations such as rate gradualism, encouraging waste reduction, low-income rate assistance, and other policy issues are factored into the rates. In some cases, these considerations result in deviations from setting rates at their cost of service.

6.1 Rate Design Strategy

The rate study proposes equal increases across residential and commercial rates of 1.5 percent on April 1, 2023; 2.6 percent on April 1, 2024; and 2.6 percent on April 1, 2025. Transfer station rates are proposed to increase 5.1 percent on April 1, 2023 and to remain at that level throughout the proposed rate period.

The following rates would remain unchanged throughout the proposed rate period:

- Zero Can/Vacancy rate: The rate paid for vacant units with no service, and a small number of legacy customers with no garbage service
- Bulky Item Pickups: \$30 charge for appliance pickups, \$20 charge for electronics, and an \$8 additional fee for items with CFCs.
- New Account Charge: \$10 fee assessed on new accounts.

6.2 Residential Curbside (Single-Family) Garbage Rates

The rates charged by SPU for residential garbage can service vary with the garbage service levels to which the customer subscribes. Currently, SPU's variable can rates are structured so that customers' bills increase with the amount of garbage service to which they subscribe. Both single-family and multi-family dwellings can subscribe to variable can service though this service is sometimes synonymous with single-family, while on-site service (See Section 5.3) is synonymous with multi-family.

In addition to covering the cost of garbage collection, transfer, and disposal, residential can rates cover recycling collection and processing costs, part of compost collection and processing costs, and low-income rate assistance. Can rates are shown in Table 6-1. Increasing rates for larger cans provide important price signals to encourage customers to recycle, reduce waste and minimize their can size. A typical single-family customer is reported as a 32-gallon garbage can (and a 96-gallon yard waste cart).

Table 6-1: Residential Curbside (Single-Family) Rates

	2022 Adopted	2023 Proposed	2024 Proposed	2025 Proposed
Extras	\$13.05	\$13.25	\$13.60	\$13.95
Garbage Can/Cart Size				
12 Gallon (Micro)	\$26.45	\$26.85	\$27.55	\$28.25
20 Gallon (Mini)	\$32.40	\$32.90	\$33.75	\$34.65
32 Gallon (Standard)	\$42.15	\$42.80	\$43.90	\$45.05
64 Gallon	\$84.20	\$85.45	\$87.65	\$89.95
96 Gallon	\$126.40	\$128.30	\$131.65	\$135.05

6.3 Residential On-Site (Multi-Family) Garbage Rates

Residential detachable container service is available to apartment buildings with five or more residential units. Detachable rates reflect SPU’s contract payment structure and include a flat monthly account fee, a trip rate charged for each container pick-up, and a volume rate (a trip rate that varies with container size):

$$\text{Monthly Rate} = \text{Pickups per Month} * (\text{Trip Rate} + \text{Volume Rate} * \text{Container Size})$$

Dumpster rate components are designed to further encourage dumpster customers to recycle, reduce waste and minimize the number of collections per week and the number of containers. Proposed rates are below:

Table 6-2: Residential On-Site (Multi-Family) Rates

	2022 Adopted	2023 Proposed	2024 Proposed	2025 Proposed
Monthly Account Fee	\$46.35	\$47.05	\$48.25	\$49.50
<u>Detached Rate Components</u>				
Pickup Rate	\$34.70	\$35.20	\$36.10	\$37.05
Uncompacted Volume Rate	\$26.75	\$27.15	\$27.85	\$28.55
Compacted Volume Rate	\$54.30	\$55.10	\$56.55	\$58.00

Compacted rates are higher than un-compacted rates because a compacted container can hold up to five times the garbage of an un-compacted container. Based on SPU data, compacted containers weigh 2.03 times regular containers, on average. Therefore, the volume rate for compacted dumpsters is charged at 2.03 times that of uncompacted container rates.

6.4 Commercial Rates

Commercial rates include container and drop box service for both garbage and organics. Individual rate components may vary from what allocated costs dictate in an effort to further encourage dumpster customers to recycle, reduce waste and minimize the number of collections and containers. Commercial customer rate changes are identical to those for residential customers.

Can

Can service rates are shown in Table 6-3 for weekly pickup, though customers may subscribe to any frequency of pickup which is logistically feasible.

Table 6-3: Commercial Can Rates

	2022 Adopted	2023 Proposed	2024 Proposed	2025 Proposed
On-Site Cans (Weekly Pickup)				

20-Gallon	\$39.19	\$39.75	\$40.80	\$41.85
32-Gallon	\$56.94	\$57.80	\$59.30	\$60.85
64-Gallon	\$111.71	\$113.40	\$116.35	\$119.40
96-Gallon	\$131.20	\$133.15	\$136.60	\$140.15

Detached (Dumpsters)

Detached services include uncompacted and compacted service. The contents of the container are tipped into the collection vehicle and customers are charged for each tip (pick up), regardless of the amount of waste within the container. The formula for commercial detachable rates is the same as for residential customers:

$$\text{Monthly Rate} = \text{Trip Rate} * \text{Pickups per Month} + \text{Volume Rate} * (\text{Pickups Per Month} * \text{Container Size})$$

Table 6-4: Commercial Detached Rates

	2022	2023	2024	2025
	Adopted	Proposed	Proposed	Proposed
Monthly Account Fee	\$31.20	\$31.65	\$32.45	\$33.30
Detached Rates				
Pickup Rate	\$20.30	\$20.60	\$21.15	\$21.70
Uncompacted Volume Rate	\$34.35	\$34.85	\$35.75	\$36.70
Compacted Volume Rate	\$69.75	\$70.80	\$72.65	\$74.55

Drop Box/Rolloff

Drop box service customers are delivered a roll-off container that is then picked up and transferred for disposal through one of the transfer stations. Customers are charged for the delivery of the container, the pick-up of the container, a rental/account fee, and a per ton (disposal) fee for its content. The disposal fee is intended to cover SPU's cost of transfer and disposal, taxes on the tons disposed, and a portion of SPU's administrative costs. Proposed drop box fees can be found in Table 6-5.

Table 6-5: Dropbox Detached Rates

	2022	2023	2024	2025
	Adopted	Proposed	Proposed	Proposed
Monthly Account Fee	\$133.45	\$135.45	\$138.95	\$142.55
Pickup Rate	\$257.65	\$261.50	\$268.30	\$275.30
Tonnage Rate	\$219.76	\$223.05	\$228.85	\$234.80

6.5 Organics Rates

Organics service is divided into curbside and on-site rates. Curbside rates are generally for single-family yard waste customers, while on-site rates are for multi-family and commercial food waste customers. On-site food waste rates are based on commercial garbage can rates, but a 32 percent discount is offered for organics. Detached service is also available at the same pickup and volume rate as detached commercial garbage, but again with a 32 percent discount.

Table 6-6: Organics Rates

	2022	2023	2024	2025
	Adopted	Proposed	Proposed	Proposed
Curbside Yard Waste Weekly (Single-Family)				
20-Gallon (Mini)	\$7.00	\$7.10	\$7.30	\$7.50
32-Gallon	\$10.50	\$10.65	\$10.95	\$11.25
96-Gallon (Standard)	\$13.40	\$13.60	\$13.95	\$14.30
On-Site Food Waste Cans (Multi-Family, Commercial)				
32-Gallon	\$38.72	\$39.30	\$40.30	\$41.35
64-Gallon	\$75.97	\$77.10	\$79.10	\$81.15
96-Gallon	\$89.22	\$90.55	\$92.90	\$95.30

6.6 Transfer Station Rates

Transfer station rate increases are included in the rate proposal. Minimum fee vehicles are charged the 0.20 ton minimum while Per Ton vehicles are weighed and charged for their tonnage.

Table 6-7: Transfer Station Rates

	2022	2023	2024	2025
	Adopted	Proposed	Proposed	Proposed
Garbage				
Minimum	\$33	\$35	\$35	\$35
Per Ton	\$157	\$165	\$165	\$165
Organics				
Minimum	\$23	\$24	\$24	\$24
Per Ton	\$119	\$125	\$125	\$125

6.7 Other Rates

Other rates include ancillary charges including cleaning, locking and unlocking, and secured building entry fees, among others. This category also includes rates which only apply to specific customers such as railhead disposal fees or CAP.

All other rates will increase the same as other rates. Ancillary charges are roughly 3.2 percent of residential garbage revenue and 1.2 percent of commercial revenue, or about \$2.1 million in 2021. A full list of ancillary rates is located in Appendix E Rate Tables.

Railhead Disposal (Argo Direct) Fee

Non-contract commercial waste is brought by private transfer stations to the railhead in south Seattle, where it is placed on a train and taken to the landfill in Arlington, Oregon. Railhead tonnage is not a significant source of revenue and makes up less than one percent of SPU’s total tonnage. There is a 25-ton minimum charge.

Table 6-8: Railhead Disposal (Argo Direct) Fee

	2022	2023	2024	2025
	Adopted	Proposed	Proposed	Proposed
Railhead Rate per Ton	\$140.55	\$142.70	\$146.45	\$150.30
Minimum	\$3,513.75	\$3,567.50	\$3,661.25	\$3,757.50

Clear Alley Program (CAP) Bag Rates

Starting in 2009, residential and commercial customers located within areas designated by SPU, and whose containers were located in the right-of-way, were required to subscribe to a pre-paid bag service in lieu of container service. Rates for the service are designed so that customers pay a bill equivalent to detached service customers on a volume basis.

Table 6-9: Clear Alley Program (CAP) Bag Rates

	2022	2023	2024	2025
	Adopted	Proposed	Proposed	Proposed
Garbage Bag Size				
15-Gallon	\$5.55	\$5.65	\$5.80	\$5.95
30-Gallon	\$7.90	\$8.00	\$8.20	\$8.40
Organics Bag Size				
15-Gallon	\$3.75	\$3.80	\$3.90	\$4.00
30-Gallon	\$5.40	\$5.50	\$5.65	\$5.80

7. UTILITY DISCOUNT PROGRAM

Qualified low-income customers receive a 50 percent discount on their solid waste bill or a fixed credit on their Seattle City Light bill (if they do not receive an SPU bill directly). For can customers, the fixed credit is equal to 50 percent of the typical solid waste customer’s bill (i.e., 50 percent of the single can rate plus food and yard waste; for apartment dwellers the fixed credit is equal to 50 percent of the average dumpster bill per household). This approach is consistent with the other City utilities.

There is no discount on extra garbage or food and yard waste charges for qualified low-income customers. Extra garbage or food and yard waste is billed at full rates. Low-income rate credits can be found in Table 7-1.

Table 7-1: Proposed UDP Rates and Credits

Customer Type	2022 Adopted	2023 Proposed	2024 Proposed	2025 Proposed
Seattle Public Utilities Discounts				
SPU Customer Discount	50% Discount	50% Discount	50% Discount	50% Discount
Seattle City Light Credits				
Multi-Family Can Customer	\$21.10	\$21.40	\$21.95	\$22.50
Multi-Family Detached Customer	\$17.20	\$17.45	\$17.90	\$18.35
Organics	\$6.80	\$6.90	\$7.10	\$7.30

Utility Low Income Emergency Assistance Program

The Emergency Assistance Program offers eligible low-income customers facing shut off due to delinquent bills an emergency credit of 50 percent off their past-due combined bill, up to a maximum credit of \$477 (in 2022) for wastewater, water, and solid waste bills combined. They are eligible to receive this credit once per calendar year or twice per calendar year if children under the age of 18 live in the household. In 2012 the eligibility requirements were changed from 120 percent of the federal poverty level to 70 percent of state median income leading to increased usage of this service. Annual solid waste charges to this program do not exceed \$200,000 and are not a significant expense to the SWF.

APPENDIX A STATEMENT OF OPERATING RESULTS

The Statement of Operating Results shows all components of the debt service coverage calculations. It does not display non-cash expenses.

Statement of Operating Results (\$ Millions)

	2021	2022	2023	2024	2025	2026
	Actual	Projected	Proposed	Proposed	Proposed	Estimated
Operating Revenue						
Direct Service	151.2	153.4	157.2	161.8	167.0	172.0
Commercial	61.8	63.8	65.1	66.8	68.6	72.0
Other	25.2	23.2	23.6	24.2	24.5	25.8
RSF Withdrawals (Deposits)	-	-	-	-	-	-
Total Operating Revenue	238.3	240.5	245.8	252.8	260.1	269.8
Operating Expenses						
Contracts	111.4	122.8	130.1	137.6	145.5	152.7
Branch O&M	40.6	52.2	53.9	56.5	58.9	61.3
Taxes	31.3	32.5	33.2	33.8	34.5	35.4
Total Operating Expenses	183.3	207.5	217.2	227.8	239.0	249.4
Net Operating Income	55.0	33.0	28.7	24.9	21.1	20.4
Adjustments	30.5	29.9	30.5	30.9	31.6	32.3
Revenue Available for Debt Service						
With Credit for Taxes	85.4	62.9	59.1	55.8	52.7	52.7
Without Credit for Taxes	58.3	34.6	30.4	26.6	22.8	22.0
Annual Debt Service	15.2	14.6	14.6	14.6	14.6	14.6
Debt Service Coverage						
With Credit for Taxes (Target = 1.7)	5.63	4.30	4.04	3.82	3.59	3.60
Without Credit for Taxes (Target = 1.5)	3.84	2.36	2.08	1.82	1.56	1.50

Some totals may not add due to rounding

APPENDIX B STATEMENT OF CASH FLOW

	2021	2022	2023	2024	2025	2026
	Actual	Projected	Proposed	Proposed	Proposed	Estimated
Starting Balance	93.6	125.0	134.1	135.6	134.3	118.0
Additions to Cash						
Operating Revenues	238.3	240.5	245.8	252.8	260.1	269.8
Non-Operating Revenues	1.9	1.6	1.7	1.7	1.7	1.6
Grants	1.5	0.1	0.1	0.1	0.1	0.1
Total Additions to Cash	241.7	242.2	247.7	254.6	261.9	271.5
Deductions from Cash						
Contracts	115.0	122.8	130.1	137.6	145.5	152.7
Branch O&M	38.7	52.2	53.9	56.5	58.9	61.3
Cash Contributions to CIP	6.6	11.0	14.2	13.4	24.6	12.1
Taxes	32.0	32.5	33.2	33.8	34.5	35.4
Debt Service	15.3	14.6	14.6	14.6	14.6	14.6
Adjustments	2.7	-	-	-	-	-
Total Deductions from Cash	210.3	233.1	246.1	255.9	278.2	276.1
Ending Cash Balance	125.0	134.1	135.6	134.3	118.0	113.3

Some totals may not add due to rounding

APPENDIX C COST ALLOCATION

This appendix contains a list of cost centers, budgeted costs for 2023, and an allocation to general customer classes. Some totals may not add due to rounding; table is in thousands of dollars.

Cost Center	Allocation Method	Residential	Commercial	Transfer Station	Total
SPU Branch O&M		23%	22%	31%	23%
Billing	Customer Counts and Trips	5,503	0	0	5,503
Environmental	Garbage Tonnage	626	825	365	1,815
G&A - Contract Management	Management Estimates	4,080	1,360	0	5,440
Transfer Stations - Hauling (All)	Tonnage	316	220	75	611
Transfer Stations - Operations	Tonnage	6,248	4,354	1,475	12,078
G&A - General	Tonnage	19,441	6,423	1,004	26,868
HR	Proportional Assignment	1,251	413	65	1,729
Contract Expense		57%	49%	38%	54%
N000156 Single Family Garbage	Direct Assignment	17,936	-	-	17,936
N000159 Single Family Recycling	Direct Assignment	13,465	-	-	13,465
N000157 Single Family Compost	Direct Assignment	21,311	103	-	21,414
N000156 Multi Family Garbage	Direct Assignment	6,803	-	-	6,803
N000159 Multi Family Recycling	Direct Assignment	11,696	-	-	11,696
N000157 Multi Family Compost	Direct Assignment	675	-	-	676
N000156 Commercial Garbage	Direct Assignment	-	19,350	-	19,350
N000157 Commercial Compost	Direct Assignment	-	1,431	-	1,431
N000159 Commercial Recycling	Direct Assignment	-	59	-	59
N050501 Long-Haul Disposal	Tonnage	5,899	7,773	3,440	17,113
N050107 Garbage Transfer/Processing	Tonnage	-	-	-	-
N050107 Recycling	Tonnage	8,875	-	-	8,875
N050107 Compost	Tonnage	4,722	315	229	5,266
N050201 LHWMP	Volume	3,913	2,134	-	6,047
Taxes		13%	17%	13%	14%
City Utility Tax	Ad-hoc	16,650	7,136	0	23,786
City Tonnage Tax	Tonnage	1,713	2,257	999	4,969
State B&O Tax	Revenue	2,887	1,237	275	4,399
		7%	12%	18%	9%

CIP, Financial Policies, and Non-Rates Revenues	Ad-hoc	12,307	7,626	1,695	21,628
Solid Waste Fund Total	Total in Dollars	166,318	63,018	9,621	238,958
	Class Share of SWF Total	70%	26%	4%	100%

Some totals may not add due to rounding

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APPENDIX D DEMAND ANALYSIS

The following is an overview of the demand projection for the major demand categories. Actuals may not match those published elsewhere by SPU.

Customer Class	Rate	2021	2022	2023	2024	2025	2026
		Actual	Projected	Proposed	Proposed	Proposed	Estimated
Residential Curbside Can Pickups	0 Can	651	441	452	463	475	487
	12 Gallon	25,328	26,220	27,112	28,006	28,899	29,791
	20 Gallon	52,567	53,482	54,398	55,316	56,232	57,148
	32 Gallon	81,250	79,940	78,630	77,317	76,007	74,697
	64 Gallon	8,585	8,810	9,035	9,261	9,486	9,711
	96 Gallon	3,541	3,764	3,987	4,210	4,433	4,656
	Total		171,920	172,657	173,614	174,574	175,532
Residential On-Site Detach	Accounts	5,472	5,494	5,516	5,538	5,549	5,549
	Pickups	37,798	37,833	37,868	37,904	37,939	37,974
	Volume (Cubic Yards)	88,621	89,658	90,695	91,735	92,773	93,810
Commercial Garbage	Accounts	7,937	7,907	7,877	7,847	7,817	7,787
	Pickups	77,163	77,616	78,068	78,522	78,974	79,426
	Volume (Cubic Yards)	101,777	101,924	102,072	102,220	102,367	102,515
	Dropbox Tonnage	3,869	3,822	3,774	3,726	3,679	3,631
Organics Yardwaste Pickups	13 Gallon	37,911	38,612	39,312	40,014	40,715	41,415
	32 Gallon	31,023	33,033	35,043	37,058	39,068	41,078
	96 Gallon	94,634	94,070	93,506	92,941	92,377	91,813
	Total	163,569	165,715	167,861	170,013	172,160	174,306
Organics Food waste Pickups	Pickups	2,158	2,157	2,156	2,155	2,154	2,153
	Volume (Cubic Yards)	13,622	14,465	15,308	16,153	16,996	17,839
Transfer Station Tonnage	Garbage	109,040	98,918	103,616	105,585	106,018	107,014
	Organics	8,799	7,873	8,109	8,353	8,603	8,861

Summary Ex A - 2023-2025 Solid Waste Rate Study
V2

System-wide Tonnage	Garbage	354,952	360,753	367,126	374,710	378,137	382,586
	Organics	112,272	114,616	116,893	119,213	120,384	121,991
	Recycling	94,089	95,093	96,230	97,924	98,373	99,018

Some totals may not add due to rounding

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APPENDIX E RATE TABLES

Most solid waste rates are rounded to the nearest nickel.

Customer	Rate	2022	2023	2024	2025
		Adopted	Proposed	Proposed	Proposed
Residential Curbside Can	0 Can	6.85	6.85	6.85	6.85
	12 Gallon	26.45	26.85	27.55	28.25
	20 Gallon	32.40	32.90	33.75	34.65
	32 Gallon	42.15	42.80	43.90	45.05
	64 Gallon	84.20	85.45	87.65	89.95
	96 Gallon	126.40	128.30	131.65	135.05
	Extras	13.05	13.25	13.60	13.95
Residential On-Site Detached	Account Fee	46.35	47.05	48.25	49.50
	Pickup Charge	34.70	35.20	36.10	37.05
	Uncompacted Volume	26.75	27.15	27.85	28.55
	Compacted Volume	54.30	55.10	56.55	58.00
Yard Waste	13 Gallon	7.00	7.10	7.30	7.50
	32 Gallon	10.50	10.65	10.95	11.25
	96 Gallon	13.40	13.60	13.95	14.30
	Extras	6.75	6.85	7.05	7.25
Commercial Cans	20 Gallon	39.19	39.84	40.92	42.00
	32 Gallon	56.94	57.81	59.32	60.84
	64 Gallon	111.71	113.45	116.48	119.51
	96 Gallon	131.20	133.15	136.61	140.08
Commercial Detached	Account Fee	31.20	31.65	32.45	33.30
	Pickup Rate	20.30	20.60	21.15	21.70
	Uncompacted Volume	34.35	34.85	35.75	36.70
	Compacted Volume	69.75	70.80	72.65	74.55
Commercial Dropbox	Account Fee	133.45	135.45	138.95	142.55
	Pickup Rate	257.65	261.50	268.30	275.30

	Tonnage Rate	219.75	223.05	228.85	234.80
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Clear Alley Rates	15 Gallon Garbage Bag	5.55	5.65	5.80	5.95
	30 Gallon Garbage Bag	7.90	8.00	8.20	8.40
	15 Gallon Organics Bag	3.75	3.80	3.90	4.00
	30 Gallon Organics Bag	5.40	5.50	5.65	5.80
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Ancillary Rates	Can/Cart Delivery	32.35	32.85	33.70	34.60
	Dumpster Delivery	38.85	39.45	40.50	41.55
	Small Roll-off Delivery	51.65	52.40	53.75	55.15
	Large Roll-off Delivery	80.95	82.15	84.30	86.50
	Can/Cart Rollout/Reposition	3.30	3.35	3.45	3.55
	Detach Rollout/Reposition	9.55	9.70	9.95	10.20
	Enter Secure Building	6.50	6.60	6.75	6.95
	Dumpster Cleaning	48.55	49.30	50.60	51.90
	Roll-off Cleaning	64.65	65.60	67.30	69.05
	Can/Cart Cleaning	12.90	13.10	13.45	13.80
	Connect/Disconnect	54.95	55.75	57.20	58.70
	Dry Run	113.20	114.90	117.90	120.95
	Truck, Hourly Special	291.10	295.45	303.15	311.05
	Swamper, Hourly Special	96.90	98.35	100.90	103.50
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Misc., Bulky, Etc.	Garbage Curbside Extra	13.05	13.25	13.60	13.95
	Organics Curbside Extra	6.75	6.85	7.05	7.25
	CFCs Charge	8.00	8.00	8.00	8.00
	Electronics	20.00	20.00	20.00	20.00
	Bulky Item/Appliance	30.00	30.00	30.00	30.00
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Transfer Station Rates	Garbage, per Ton	157.00	165.00	165.00	165.00
	Garbage, Minimum Charge	33.00	35.00	35.00	35.00
	Organics, per Ton	119.00	125.00	125.00	125.00
	Organics, Minimum Charge	21.50	24.00	24.00	24.00
	Vehicle Tires	13.00	15.00	15.00	15.00
	Large Appliances	30.00	32.00	32.00	32.00