

City of
Chandler

**2021 Solid Waste Rate and Cost of
Service Study**

Final Report / January 31, 2022



January 31, 2022

Ms. Dawn Lang
Deputy City Manager/CFO
175 S. Arizona Ave
Chandler, AZ 85225

Subject: **Solid Waste Rate and Cost of Service Study**

Dear Ms. Lang:

Raftelis Financial Consultants, Inc. ("Raftelis") has completed the 2021 solid waste rate and cost of service study (the "Study") on behalf of the Management Services Department and Solid Waste Service Division (the "Division") of the Public Works and Utilities Department for the City of Chandler (the "City"). The primary purpose of the Study was to:

- Review and validate the City's most recent financial projections developed by staff, including review of the corresponding expenditure and funding needs (the "revenue requirements") in order to confirm the rate revenue sufficiency and required adjustments of the solid waste system (the "system");
- identify the cost of services offered by the City and provide a breakdown of the monthly user fee contribution to funding such services; and
- examine potential effects from changes in operations as requested by City staff.

Following this letter, we have detailed our findings, observations, and recommendations in greater detail for your consideration. We appreciate the opportunity to be of service to the City and the fine cooperation and valuable assistance given to us by staff in the completion of the Study.

Sincerely,

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

Thierry A. Boveri, CGFM
Senior Manager

A handwritten signature in blue ink that reads 'Mark Tuma'.

Mark Tuma
Consultant

Cc:

Tabitha Sauer, Solid Waste Manger; Matt Dunbar, Budget Manager; Helen Parker, Sr. Budget and Research Analyst; John Knudson, Public Works & Utilities Director; and Gregg Capps, Water Resource Manager

CITY OF CHANDLER, ARIZONA

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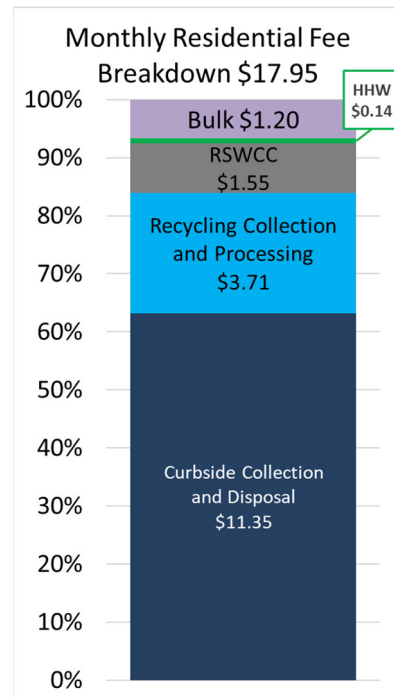
EXECUTIVE SUMMARY

We have presented the results of our analyses, assumptions, and recommendations in this report for your consideration. The following provides an overview of the key findings of the Study:

- The financial projections developed by staff were determined to be reasonable based on a review of recent historical trends and audited financial statements. The baseline financial projections developed by staff were adjusted for: a) an allowance for additional leachate treatment and erosion control costs related to the closed landfill; and b) increased inflation in the cost of landfill disposal contract operations. Based on these changes Raftelis worked with staff to identify the following monthly fee adjustments assuming bi-annual increases of approximately \$1 per month:

Baseline Forecast						
Description	Current	Recommendation Period			Future Identified	
		4/1/22	1/1/24	1/1/26	1/1/28	1/1/30
Rate Adjustment		6.0%	5.0%	5.0%	6.0%	6.0%
Monthly Bill	\$17.95	\$19.03	\$19.98	\$20.98	\$22.24	\$23.57
Bill Change - \$		\$1.08	\$0.95	\$1.00	\$1.26	\$1.33

- Raftelis examined the current cost of service (“COS”) for solid waste operations. Raftelis worked with City staff to determine the allocation of labor and other costs by service type. The following chart provides an overview of the COS breakdown for the City’s current monthly residential service fee. As can be seen the core service of curbside refuse and recycling collection and disposal accounts for approximately \$15 a month with the remainder or approximately \$3 of the monthly service charge going to fund the Recycling and Solid Waste Collection Center (“RSWCC”), Bulk collection, and Household Hazardous Waste (“HHW”) services.
- Raftelis was tasked with examination of the Division’s RSWCC and Bulk collection operational data. Based on an analysis of RSWCC and Bulk collection data Raftelis identified that approximately 17% of households use the Recycling and Solid Waste Collection Center (“RSWCC”) facility for disposal of refuse or green waste at no charge and approximately 20% of households request bulk collection at least one time per year at no charge.



- Raftelis was tasked with examining several potential changes in operations, policies, and practices based on best practices in the region and nationally. Based on discussions with City staff, Raftelis focused on three (3) potential initial policy options (“Initial Policy Options”) aimed at enhancing customer equity by: 1) charging households bringing refuse and green waste to the RSWCC; 2) revising the City’s curbside bulk waste collection from 1 free collection every 6 weeks to a number that supports 95% of users which is currently 1 free collection per year (note City currently charges \$30 for additional curbside bulk collections); and 3) elimination of alleyway collection. Raftelis and City staff presented three (3) Initial Policy Options to

the City Council during two (2) different workshops. After discussion with City Council during these workshops their directive was to amend the Initial Policy Options to include 1) two (2) free drop offs to the RSWCC per year; 2) two (2) free bulk waste curbside collections per year; and 3) continuation of alleyway collection (“Revised Policy Options”) with an increased cost associated with the services to these residents using alleyway service. The following provides an overview of the key considerations for both the Initial Policy Options and Revised Policy Options:

- The City does not charge residents for use of the RSWCC when bringing refuse or green waste. Customers are not charged since customers can dispose of these waste streams through the curbside collection program at no additional cost to the resident. Recognizing that only 17% of households use the RSWCC facility one or more times per year, the Initial Policy Options recommends charging a service fee the City would be targeting cost recovery more precisely to those customers that benefit from the use of the RSWCC and generate additional revenue to reduce the dependence on the monthly service charge to fund such costs. Note that implementation of this policy option could lead to an increase in curbside bulk waste requests and costs to the City and therefore would recommend combination of this policy option with a revised bulk waste policy as discussed in greater detail as follows. The Revised Policy option recommends two (2) free drop-offs per year for each household for loads up to 400lbs. According to the RSWCC statistics approximately 5% of City resident use the RSWCC more than two (2) times per year therefore most City residents will not face a RSWCC service charge. This will reduce the amount of additional revenue to the City from the original recommendation and therefore will have to still be partially subsidized by the monthly service charge. This change could increase the amount of curbside bulk waste request by residents so it is recommended to track usage pattern changes.
- The City offers one (1) free curbside bulk waste collection every 6 weeks. Based on a review of the City’s bulk waste collection data, approximately 20% of customers request service of which only about 6.5% of households request service two (2) or more times per year. The Initial Policy Option recommended revising the City’s policy from one (1) free collection every 6 weeks to one (1) collection every year, the City would meet the needs of approximately 93% of households and targeting cost recovery more precisely to those customers who benefit from additional bulk collection service. The change would generate additional revenue and reduce the burden to the monthly service charge to fund such costs. The Revised Policy Option recommends two (2) free curbside bulk pickups per year. With that the City would charge any household for requesting three (3) or more curbside bulk waste pickups during a year which would only affect 1.5% of total City households. This change will slightly reduce the additional income to the City from the original recommendation and will have to be recovered through the monthly service charge. This change should be aligned with the first option to charge for trash and green waste deliveries to the RSWCC in order to avoid a potential shift in customer behavior from the RSWCC to more bulk collections which would result in an increase in contracted bulk collection cost to the City of \$30 per pick-up.
- The City’s alleyway collection program is offered to approximately 10% of residential households. There are several challenges with the current program including public health and safety issues, inconsistency with curbside recycling which requires residents to place recycling containers at the front of the curb, additional costs charged by the City’s private waste hauler and the additional cost of

the larger containers. The Initial Policy Option recommended the City switch from 300-gallon alleyway carts that are approaching the end of service life to curbside collection with 96-gallon carts. Making the change now would allow the Division to purchase new 96-gallon carts with a current cost of \$59.22 per unit (one per home) versus the more expensive 300-gallon carts with a cost of \$325.00 per unit (1 per 2 homes or \$162.50 per customer) which would reduce operation and maintenance costs. Overall, the elimination of the program would result in a net cost savings to all customers of the system. The Revised Policy Option recommends continuation of the alleyway collection program as it is now. With this option there will be a slight increase to residents that have alley service with an increased charge of \$1.61 for FY2022 to cover the additional cost of service due to the collection contract and higher cost of replacement of carts. This more accurately places the cost of this specialized service with the residents that use this service and reduces the subsidy by the general Solid Waste rate payers.

- o Assuming implementation of the policy options described above the identified rate revenue adjustments to the monthly fee identified on the prior page could be reduced from the original revenue projections every other year as follows:

Identified Rate Revenue Adjustments						
Description	Current	Recommendation Period			Future Identified	
		4/1/22	1/1/24	1/1/26	1/1/28	1/1/30
Initial Policy Options						
Rate Adjustment		3.0%	3.0%	3.0%	6.0%	6.0%
Monthly Bill	\$17.95	\$18.49	\$19.04	\$19.61	\$20.79	\$22.04
Bill Change - \$		\$0.54	\$0.55	\$0.57	\$1.18	\$1.25
Revised Policy Options						
Rate Adjustment		3.4%	5.0%	5.0%	6.0%	6.0%
Monthly Bill [1]	\$17.95	\$18.57	\$19.50	\$20.48	\$21.71	\$23.01
Bill Change - \$		\$0.62	\$0.93	\$0.98	\$1.23	\$1.30

Footnotes:

[1] The current charge shown above will be increased by \$1.61 for all alleyway collection customers to cover the hauler and carts costs and will be subject to the additional rate adjustments shown above.

The alternative forecast with the Initial Policy Option assumes bi-annual increases of approximately \$0.50 per month through FY26 and approximately \$1.20 per month bi-annually thereafter, while the Revised Policy Option assumes bi-annual increases of approximately \$1.00 per month through FY26 and approximately \$1.25 per month bi-annually thereafter.

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1.0 GENERAL

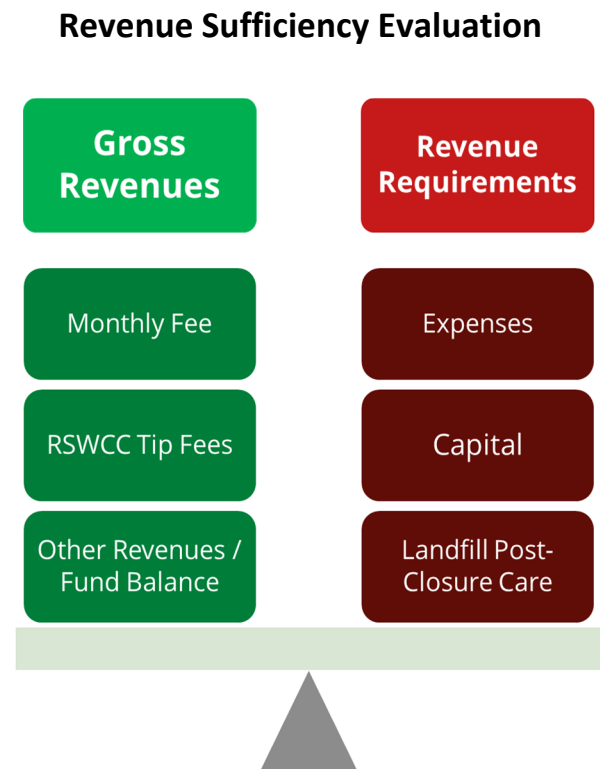
The Division operates and is established as an enterprise fund. According to the Governmental Accounting Standards Board responsible for setting generally accepted account standards for state and local governments:

“Enterprise Funds should be used to account for operations that are financed and operated in a manner similar to private business enterprises – where the intent of the governing body is that costs of providing services to the general public on a continuing basis be financed or recovered primarily through user charges.”

The enterprise fund is set up so that rates are set to sufficiently cover the cost of operations. The City reviews the Division’s service charges annually and these reviews have demonstrated the need to implement several bi-annual 6% rate adjustments to the monthly service charge. The primary changes creating the needed rate increases are: i) industry wide depression of recycling markets; ii) new private collection agreement with Waste Management Inc (“WM”) which provides the City with more certainty of future contracted collection cost increases; and iii) operating data related to the City’s RSWCC. The City customarily performs a Solid Waste Rate Study every five years. As a result, the City engaged Raftelis to validate current financial projections developed by City staff, provide recommendations concerning rate adjustments, perform a cost of service evaluation, and provide recommendations concerning potential policy changes to enhance rate payer equity to promote the financial stability and continuity of operations (“Study”).

1.1 Study Approach

Raftelis was tasked with evaluating the current financial model provided by the City to ensure the projections were reasonable to evaluate the revenue sufficiency of existing charges and provide rate revenue adjustment recommendations. The graphic shown provides an overview of the methodology used to assess the sufficiency of rate revenues whereby gross revenues should balance against identified revenue requirements. The City’s financial projections comprised the Fiscal Years 2021 through 2031 (“Forecast Period”). Analytical procedures relied upon for evaluating the reasonableness of the forecast included: examining customer billing statistics, reviewing historical trends in operating expenses including review of audited financial statements, comparison of budget to actual variances, and reviewing major contractual service provider agreements and invoices. Raftelis specifically reviewed the City’s Waste Management and United Fibers contractor invoices and developed standalone working papers within the financial model for such expenses to validate current projections.



Raftelis additionally performed a variety of benchmarking evaluations including service charge, service level comparisons, evaluation of comparable RSWCC / transfer station facilities in Maricopa County, and detailed cost of service evaluations.


1.2 Operations Overview

The City provides trash, recycling, yard waste, and bulk waste collection services to approximately 77,000 customers primarily comprised of residential households with some non-residential medical, commercial, and school accounts generating approximately 74,000 tons of curbside waste, 3,800 tons of curbside bulk, and 20,300 tons of recyclables per year. In addition, the City operated RSWCC receives about 13,000 tons per year of waste, recyclables, and HHW. The collection and disposal service are managed by the City's Solid Waste Service Division of the Public Works and Utilities Department for the City. The City contracts with private providers for the majority of the solid waste related services including: i) franchised curbside collection service by Waste Management Inc. ("WM"); ii) disposal at the WM Butterfield Landfill located approximately 38 miles from the City center; iii) Contractual curbside recycling processing provided by United Fibers; iv) contracted transportation of waste from the City's RSWCC to the landfill by Otto; and v) contracted transportation and disposal of the City's HHW. The City employs approximately 22 Full Time Equivalents ("FTE") responsible for managing contractual operations and operation of the RSWCC. The RSWCC is open for operation from Thursday through Monday, with Saturday and Sunday being the busiest days of operation. The facility is open from the hours of 8am-4pm with late morning and noon being the busier times of operation.



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Raftelis performed a benchmarking evaluation of the City’s solid waste charges and level of service with neighboring jurisdictions as shown below. As can be seen, the City has some of the lowest charges within the region. The Town of Gilbert and the City of Peoria are the only other municipalities with a lower monthly fee, and it should be noted that both entities reported net income losses within their audited financial statements.

City/Town	Pop.	FY20 Revenue	FY20 Expenses	Contract Collection	Com/ Roll Off Svc	Landfill	Res Monthly Fee (\$)	Same Day				
Chandler	261.2 k	\$16.8 m	\$16.5 m	Y	-	-	\$17.95	-	1/wk	1/wk	1/6wk	-
Gilbert	254.1 k	\$21.9 m ⁽¹⁾	\$22.9 m ⁽¹⁾	-	Y	-	\$14.80	Y	1/wk	1/wk	1/5wk	-
Glendale	252.4 k	\$18.4 m ⁽²⁾	\$17.2 m ⁽²⁾	-	Y	Y	\$21.80	Y	1/wk	1/wk	1/Mo	-
Mesa	518.0 k	\$63.3 m	\$41.7 m	-	Y	-	\$29.34	-	1/wk	1/wk	Apt ⁽³⁾	1/wk
Peoria	176.0 k	\$13.7 m	\$14.1 m	-	Y	-	\$15.29	Y	1/wk	1/wk	Apt ⁽⁴⁾	-
Scottsdale	258.1 k	\$22.2 m	\$22.7 m	-	Y	-	\$21.47	Y	1/wk	1/wk	1/Mo	-
Surprise	141.7 k	\$10.4 m	\$9.1 m	-	Y	-	\$23.40	Y	1/wk	1/wk	Vary ⁽⁵⁾	-
Tempe	195.8 k	\$18.4 m	\$16.9 m	-	Y	-	\$29.57	-	1/wk	1/wk	6/yr	6/yr ⁽⁶⁾

(1) Amounts shown include revenues and expenses for the Town’s residential and commercial solid waste collection services, street sweeping services, and stormwater services.
(2) Does not include landfill revenues or expenses of \$10.1 m in revenues and \$9.9 m in expenses.
(3) Bulk service by appointment and minimum fee of \$25 / load (4’ x 8’ x 4’).
(4) Special haul fee charged at \$50 per 30 min to load and additional \$50 if a tractor is required to load.
(5) Residents are allowed 20 cubic yards of bulk waste, including yard debris, annually. The City charges \$20 / pickup for appliances.
(6) City charges an additional monthly charge for organics collection of \$5.94 per month.

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2.0 FORECAST OF REVENUES

The revenues for the Division are generated exclusively from the charges for solid waste collection and disposal services and investment income from cash reserves. Since most of the system revenues are generated from the monthly residential charges for service, the forecast of revenues is primarily predicated on assumptions of the estimated number of customers receiving service and their demands (i.e., waste disposed) assumed for the Forecast Period.

2.1 Charges for Service

As mentioned, the majority of revenue derived by the Division is associated with monthly charges for collection service. The following table provides a summary of the primary charges for service with a listing of reported customer accounts by service type.

Chandler Solid Waste Fee - Summary	
Description	Fee(s)
Residential Collection:	
Monthly Solid Waste Disposal	\$17.95
Additional Refuse Container Collection	\$10.00
Special Collection Curbside (one-time)	\$17.50
Containers:	
Solid Waste Containers	\$148.00
Additional Curbside Refuse Container	\$60.00
Additional Recycling Container	No Charge
Bulk Collection:	
Bulk Material Collection – Disposal & Recycling	No Charge
Additional Bulk Material Collection	\$30.00
Recycling Solid Waste Collection Center:	
Refuse and Green Waste per ton	No Charge
Concrete, construction debris per ton	\$50.00
Dirt, gravel, rock per ton	\$50.00
Manure per ton	\$50.00
Multi-Family Disposal per <i>Visit (charged to residents in the City that do not pay the monthly service charge)</i>	\$20.00
City Services (per ton)	\$46.00

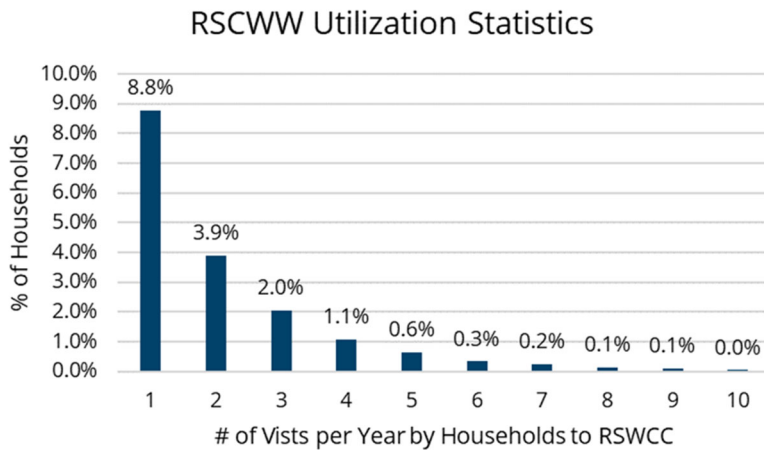
The City's rate structure varies based on the level of service with additional charges for additional carts. To incentivize recycling and landfill waste diversion, the City does not separately charge for recycling collection service which is charged as part of the City's trash collection service fees.

2.2 Customer and Demand Forecast

The forecast of solid waste service revenues relied upon a review of recent historical trends in solid waste customer account growth and tonnage statistics. The City has essentially reached build-out and therefore the forecast assumes minor growth at approximately 0.1% annual growth rate. Due to COVID-19 the City has observed an increase in residential waste generation. The forecast assumes more typical waste generation in future years of the forecast.

RSWCC Statistical Analysis

The following provides additional detail concerning the City’s use of the RSWCC facility.



The following table provides a summary of the annual waste loads with those loads that are presently charged highlighted in green.

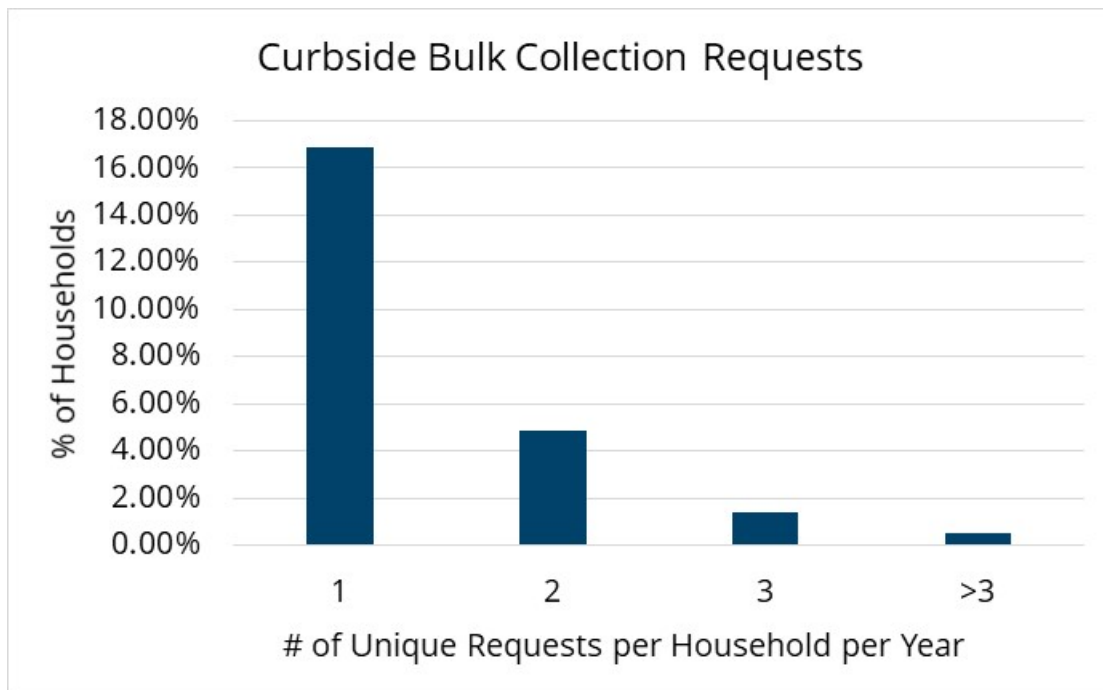
<u>RSWCC 4/1/19-4/1/20</u>	<u>Qty/Loads</u>	<u>Net Wt</u>	<u>Tons</u>
Trash - All	22,753.50	8,846,140	4,423.07
Green Waste	15,163.50	5,801,340	2,900.67
Recycle	20,954	5,777,840	2,888.92
Trash-Construction \$	1,828.25	2,322,540	1,161.27
Trash-Concrete \$	321	796,980	398.49
Dirt \$	138.50	508,000	254
Green Waste-Bags	6,673	507,900	253.95
Trash-Gravel/Rock \$	143.50	416,980	208.49
Recycle-Freon \$	786	300,460	150.23
Trash-Woodwaste \$	198.75	277,620	138.81
Tires - All	1,209	252,120	126.06
Trash-Manure \$	33.50	64,620	32.31
Composter - All	44	23,480	11.74
Other - All	4	3,120	1.56
Totals	70,251		12,950

The following table presents a summary of the RSWCC operational statistics by day of the week and by hour:

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Hour	Tons
Trash - All	1,266.86	524.28	0.00	0.26	644.85	575.44	1,411.38	8am	1,403
Green Waste	881.64	393.53	0.00	0.00	448.22	414.00	1,017.23	9am	1,445
Recycle	846.34	320.63	0.00	0.00	409.76	366.34	945.85	10am	1,722
Trash-Construction \$	311.11	136.03	0.00	0.00	195.84	165.09	353.20	11am	1,926
Trash-Concrete \$	120.08	45.06	0.00	0.00	54.74	52.12	126.49	12pm	1,924
Dirt \$	74.20	27.30	0.00	0.00	26.04	33.73	92.73	1pm	1,759
Trash-Gravel/Rock \$	87.92	12.72	0.00	0.00	25.17	13.20	69.48	2pm	1,738
Recycle-Freon \$	43.24	15.17	0.00	0.00	21.60	20.73	49.49	3pm	1,022
Trash-Woodwaste \$	35.86	15.02	0.00	0.00	26.65	19.05	42.23	4pm	2
Tires - All	31.29	16.13	0.00	0.00	22.58	18.91	37.15		
Trash-Manure \$	20.91	0.21	0.00	0.00	0.00	1.34	9.85		
Composter - All	1.71	1.61	0.00	0.00	3.84	2.08	2.50		
Other - All	0.12	0.02	0.00	0.00	0.65	0.00	0.77		
Totals	3,721.28	1,507.71	0.00	0.26	1,879.94	1,682.03	4,158.35		

Bulk Collection Service Requests

The following provides additional detail concerning the utilization of curbside bulk collection requests by citizens.



2.3 Projected Revenues

The revenue forecast was based on: i) review of historical trends in revenues; ii) Fiscal Year 2021 operating budgets; iii) year-to-date operating results for Fiscal Year 2021; iv) customer and demand forecast as previously discussed; v) assumed implementation of identified rate adjustments to fund the projected revenue requirements; and vi) discussions with City staff.

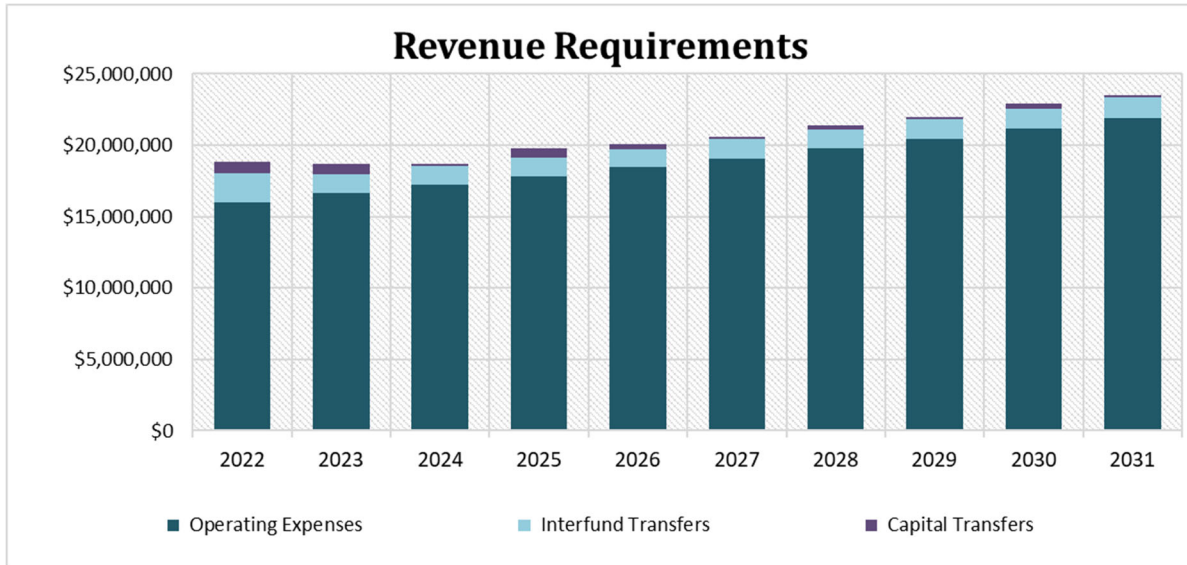
Baseline Projections				
Fiscal Year	Identified Rate Adjustment (1)	Collection Rate Revenues	Other Revenues	Total Revenue
FY 21-22	6.00%	\$16,939,898	\$813,762	\$17,753,660
FY 22-23	0.00%	\$17,708,622	\$834,325	\$18,542,947
FY 23-24	5.00%	\$18,169,489	\$851,377	\$19,020,866
FY 24-25	0.00%	\$18,631,259	\$806,786	\$19,438,045
FY 25-26	5.00%	\$19,116,138	\$825,052	\$19,941,190
FY 26-27	0.00%	\$19,601,967	\$819,478	\$20,421,445
FY 27-28	6.00%	\$20,210,216	\$824,075	\$21,034,291
FY 28-29	0.00%	\$20,819,662	\$828,818	\$21,648,480
FY 29-30	6.00%	\$21,465,696	\$833,713	\$22,299,408
FY 30-31	0.00%	\$22,113,001	\$838,763	\$22,951,764
Compound Annual Growth Rate	2.8%	3.0%	0.3%	2.9%

1 For the Fiscal Year 2021 – 2022 assumes implementation effective April 1, 2022. All other years assume January 1 implementation during the respective fiscal year.

As can be seen from the above table, based on application of the identified rate adjustment and assuming a 0.1% annual growth rate, projected rate revenues are expected to grow by 3% per year. Based on discussions with Division staff other revenues were generally held constant. City staff noted that COVID was not expected to materially affect revenue collections over the near-term of the Forecast Period.

3.0 FORECAST OF EXPENDITURES

The expenditures during the Forecast Period are primarily comprised of operation and maintenance (operating) expenses, capital expenditures, and funding for post closure care. The forecast of operating expenses was developed based upon: i) a review of the recent trends in historical expenses; ii) the adopted Fiscal Year 2022 budget; iii) assumed growth rates / escalation factors of costs based on industry trends in such costs, projections of inflation by the Congressional Budget Office; and iv) discussions with the City staff. The principal operating expenses include contractual operating expenses related to curbside collection and disposal, RSWCC waste transfer, recycling processing, HHW processing, and other minor contractual costs. The chart below presents a forecast of the operating expenses, interfund transfers, and capital expenditures.



The forecast of operating expenses relied upon various escalation factors generally ranging from approximately 2% to 4% per year depending on the assumed costs escalated. On average operating expenses are forecast to increase by approximately 3.6% per year, which is generally consistent with historical trends in the national Bureau of Labor Statistics Trash and Collection Index. The City solid waste enterprise fund is also responsible for funding annual interfund transfers for indirect cost allocations back to the general fund for overhead and management services to the enterprise fund. Based on discussions with City staff the identified capital expenditures were adjusted for additional costs beyond what is currently contemplated within the budget related to leachate improvements and solid erosion mitigation at the closed landfill during the Fiscal Year 2025.

4.0 POLICY OPTIONS

Raftelis examined a number of policy options ranging from curbside Household Hazardous Waste (HHW) to Pay as you Throw (PAYT) programs which allow for differing sized collection cans to be used and fees differing based on needed size. Based on this thorough review of multiple options three (3) policy proposals were determined to meet operational needs, provide equity, and were worth bringing forward to the City Council for policy discussion. The policy proposals are organized into two (2) initial and revised policy options as follows:

Options		Policy Proposal	Description	Fiscal Impacts
Initial Policy Options	Initial #1	1 Charge at RSWCC	Charge customers for delivering any refuse at the RSWCC, not just construction debris, manure, and dirt.	Expected to Generate Add'l Revenue of ~\$550k Annually
	Initial #1	2 Change Bulk Collection Policy	Revise free bulk curbside collection from one (1) collection every 6 weeks to a number that meets the needs of 95% of customers	Expected to Generate Add'l Revenue of ~\$300k Annually
	Initial #2	3 Eliminate Alleyway	Eliminate alleyway collection to reduce system costs, addresses public health and safety, and consistency with recycling.	Reduces collection cost by ~\$100k Annually & Cart Purchase Costs by ~\$20k Annually

Revised Policy Options	Revised #1	1 Revise RSWCC Policy	Revise RSWCC to two (2) free drop-offs per year of up to 400 lbs.	Expected to Generate Add'l Revenue of ~\$250k Annually
	Revised #1	2 Change Bulk Collection Policy	Revise free bulk curbside collection from one (1) collection every 6 weeks to two (2) collections per year.	Expected to Generate Add'l Revenue of ~\$60k Annually
	Revised #2	3 Continuation Alleyway	Continue alleyway collection and add additional rate to multi-family monthly service charge to offset costs.	Expected to Generate Add'l Revenue to offset costs ~\$150K

The following provides an overview of the key considerations for the Initial Policy Options and Revised Policy Options proposal:

- The City does not charge residents for use of the RSWCC when bringing refuse or green waste. Customers are not charged since customers can dispose of these waste streams through the curbside collection program at no additional cost to the resident. Recognizing that only 17% of households use the RSWCC facility one or more times per year, the Initial Policy Options recommends charging a service fee the City would be targeting cost recovery more precisely to those customers that benefit from the use of the RSWCC and generate additional revenue to reduce the dependence on the monthly service charge to fund such costs. Note that implementation of this policy option could lead to an increase in curbside bulk waste requests and costs to the City and therefore would recommend combination of this policy option with a revised bulk waste policy as discussed in greater detail as follows. The Revised Policy option recommends two (2) free drop-offs per year for each household for loads up to 400 lbs. According to the RSWCC statistics approximately 5% of City resident use the RSWCC more than two (2) times per year therefore most City residents will not face a RSWCC service charge. This will reduce the amount of additional revenue to the City and therefore will have to be subsidized by the monthly service charge. This change could help reduce the amount of curbside bulk waste request by residents.
- The City offers one (1) free curbside bulk waste collection every 6 weeks. Based on a review of the City's bulk waste collection data, approximately 20% of customers request service of which only about 6.5% of households request service two (2) or more times per year. The Initial Policy Option recommended revising the City's policy from one (1) free collection every 6 weeks to one (1) collection every year, the City would meet the needs of approximately 93% of households and targeting cost recovery more precisely to those customers who benefit from additional bulk collection service. The change would generate additional revenue and reduce the burden to the monthly service charge to fund such costs. The Revised Policy Option recommends two (2) free curbside bulk pickups per year. With that the City would charge any household for requesting three (3) or more curbside bulk waste pickups during a calendar year which would only affect 1.5% of total City households. This change will slightly reduce the additional income to the City and will have to be recovered through the monthly service charge. This change should be aligned with the first option to charge for trash and green waste deliveries to the RSWCC in order to avoid a potential shift in customer behavior from the RSWCC to

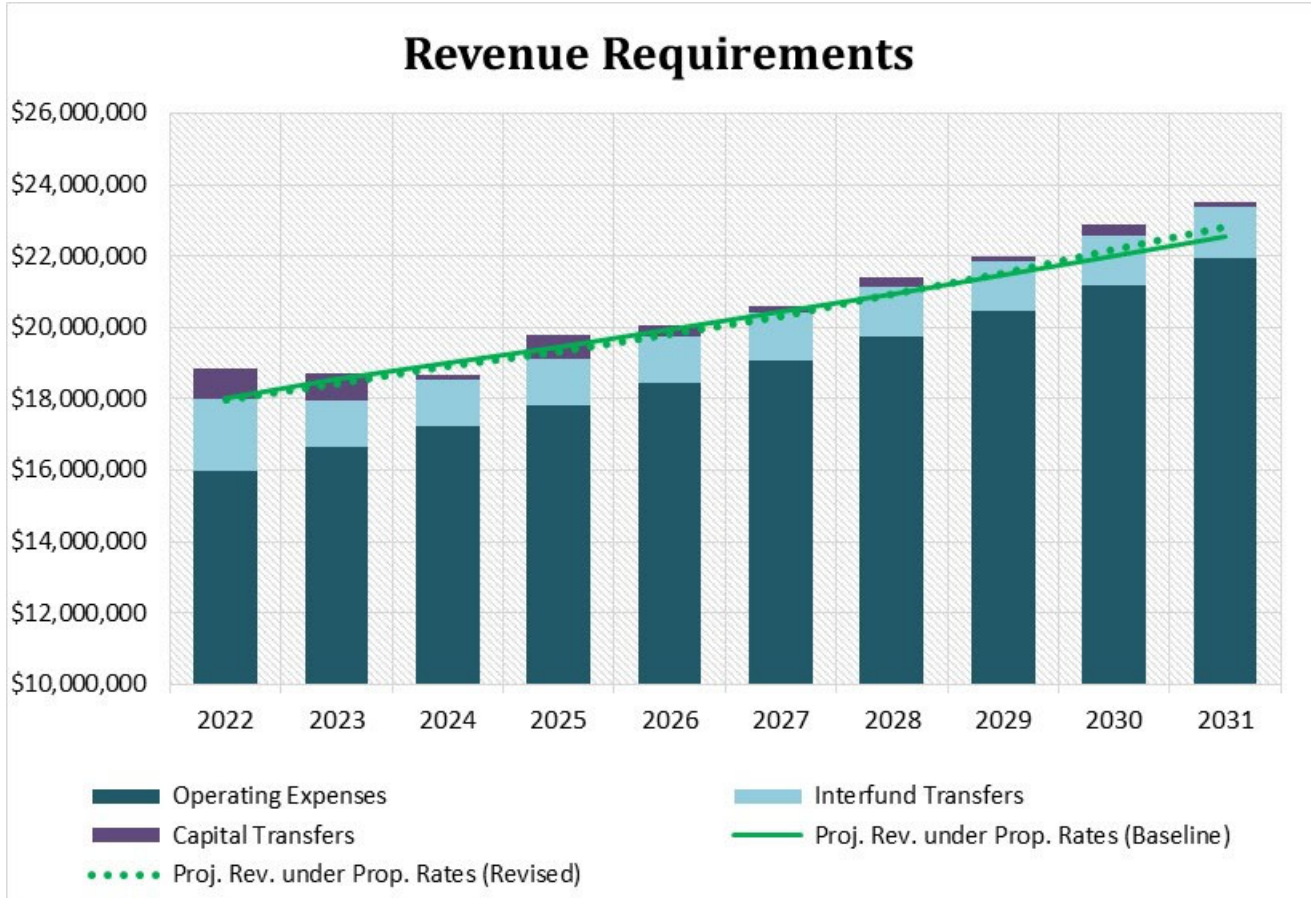
more bulk collections which would result in an increase in contracted bulk collection cost to the City of \$30 per pick-up.

- The City's alleyway collection program is offered to approximately 10% of residential households. There are several challenges with the current program including public health and safety issues, inconsistency with curbside recycling which requires residents to place recycling containers at the front of the curb, additional costs charged by the City's private waste hauler and the additional cost of the larger containers. The Initial Policy Option recommended the City switch from 300-gallon alleyway carts that are approaching the end of service life to curbside collection with 96-gallon carts. Making the change now would allow the Division to purchase new 96-gallon carts with a current cost of \$59.22 per unit (one per home) versus the more expensive 300-gallon carts with a cost of \$325.00 per unit (1 per 2 homes or \$162.50 per customer) which would reduce operation and maintenance costs. Overall, the elimination of the program would result in a net cost savings to all customers of the system. The Revised Policy Option recommends continuation of the alleyway collection program as it is now. With this option there will be a slight increase to the residential alley customer's service charges of approximately \$1.61 for FY2022 to cover the additional cost of service due to the collection contract and replacement of carts.

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5.0 REVENUE SUFFICIENCY AND RATE REVENUE ADJUSTMENTS

Based on the key assumptions of the Study we have determined that the existing rates for trash and recycling services will not be adequate to generate sufficient revenues to fund the projected needs of the system. The following charts provide a breakdown of the projected revenue requirements for the system.

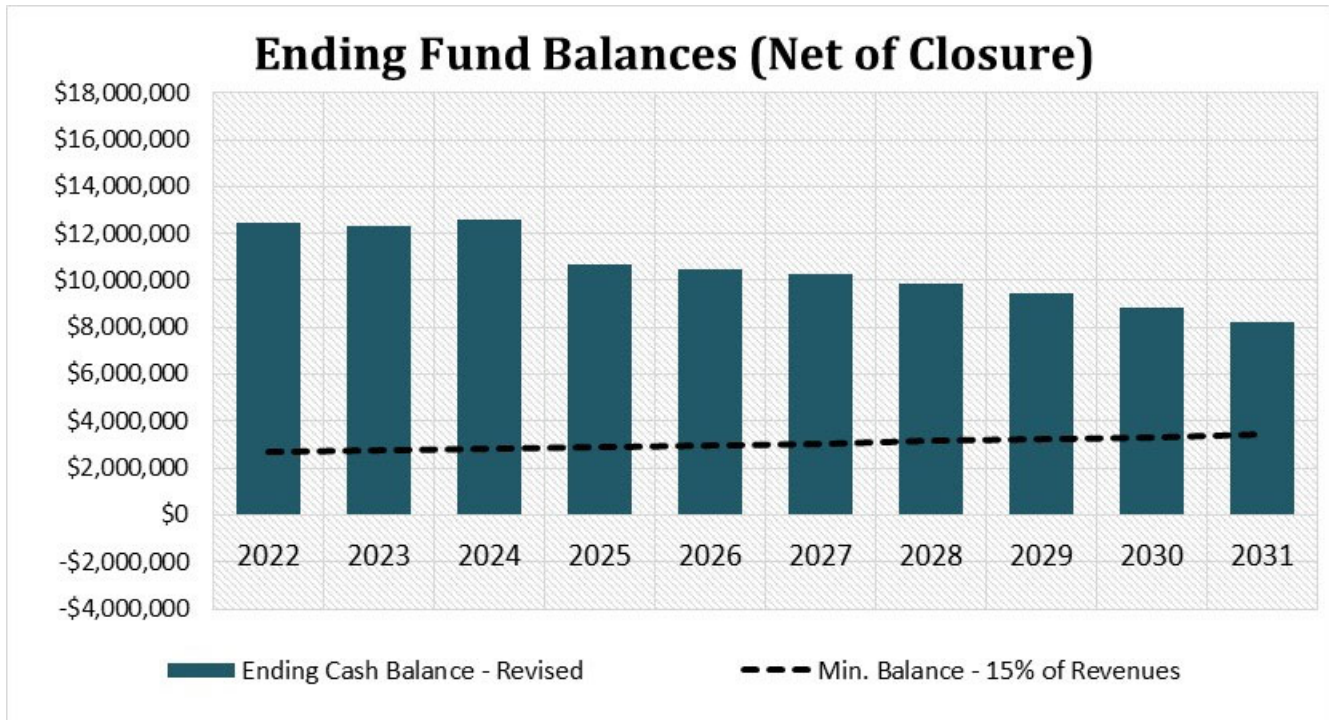


As can be seen from the chart above, the existing revenues are not anticipated to be sufficient to meet the projected expenditure requirements of the system and therefore we have identified the following rate adjustment recommendations over the Forecast Period for the baseline forecast:

Description	Baseline Forecast					
	Current	Recommendation Period			Future Identified	
		4/1/22	1/1/24	1/1/26	1/1/28	1/1/30
Rate Adjustment		6.0%	5.0%	5.0%	6.0%	6.0%
Monthly Bill	\$17.95	\$19.03	\$19.98	\$20.98	\$22.24	\$23.57
Bill Change - \$		\$1.08	\$0.95	\$1.00	\$1.26	\$1.33

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The City has an adopted financial reserve policy requiring the Division to maintain an unassigned fund balance equal to or greater than 15% of budgeted revenues. The following chart provides a summary of projected compliance with the unassigned fund balance target assuming implementation of the previously identified baseline rate adjustments.



As can be seen in the chart above, the Division is expected to maintain adequate cash reserves above the minimum policy reserve requirement. The decline in unassigned fund balances is associated with the planned “soft” draw down of funds closer to the City’s reserve policy target. The excess funds above the reserve requirement are intended to provide the City with an additional allowance for unexpected funding requirements of the system.

Assuming implementation of the initial policy options previously described the identified rate revenue adjustments to the monthly fee could be reduced as follows:

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Identified Rate Revenue Adjustments

Description	Current	Recommendation Period			Future Identified	
		4/1/22	1/1/24	1/1/26	1/1/28	1/1/30
Initial Policy Options						
Rate Adjustment		3.0%	3.0%	3.0%	6.0%	6.0%
Monthly Bill	\$17.95	\$18.49	\$19.04	\$19.61	\$20.79	\$22.04
Bill Change - \$		\$0.54	\$0.55	\$0.57	\$1.18	\$1.25
Revised Policy Options						
Rate Adjustment		3.4%	5.0%	5.0%	6.0%	6.0%
Monthly Bill [1]	\$17.95	\$18.57	\$19.50	\$20.48	\$21.71	\$23.01
Bill Change - \$		\$0.62	\$0.93	\$0.98	\$1.23	\$1.30

Footnotes:

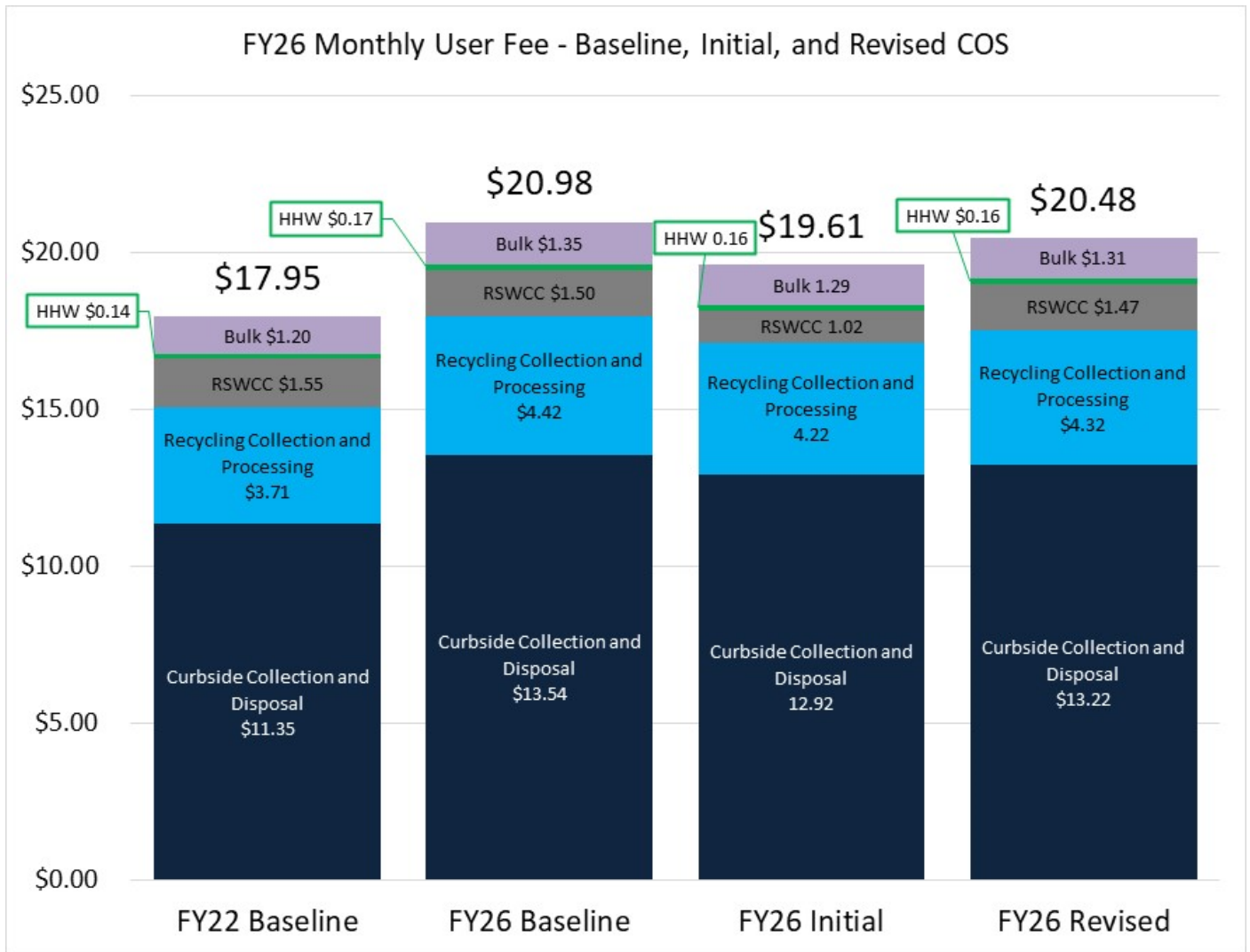
[1] The current charge shown above will be increased by \$1.61 for all alleyway collection customers to cover the hauler and carts costs and will be subject to the additional rate adjustments shown above.

The alternative forecast with the Initial Policy Option assumes bi-annual increases of approximately \$0.50 per month through FY26 and approximately \$1.20 per month bi-annually thereafter, while the Revised Policy Option assumes bi-annual increases of approximately \$1.00 per month through FY26 and approximately \$1.25 per month bi-annually thereafter.

6.0 COST OF SERVICE

Raftelis was tasked with identifying the cost of service associated with the primary activities of solid waste service and identifying what portion of the monthly service charges cover such costs. While the City generates revenues from investment income, container fees, tip fees, and the sale of recovered recyclables, the City’s primary source of solid waste revenue is generated from monthly collection charges. The monthly collection charged to customers can be allocated into four categories: curbside collection and disposal, recycling collection and processing, the recycling solid waste collection center, and bulk waste. The monthly collection fee breakdown chart as exhibited herein is based on a review of the City’s detailed operating expenses net of any allocable other miscellaneous revenues. The following chart presents the summary of the cost-of-service allocations under current conditions for FY 2021-22 and projections through FY 2025-26 with and without the identified policy options ⁽¹⁻³⁾.

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- (1) "Baseline" assumes 1) the City does not charge residents for use of the RSWCC when bringing refuse or green waste; 2) the City offers one (1) free curbside bulk waste collection every 6 weeks; 3) The City's alleyway collection program is offered to approximately 10% of residential households
- (2) "Initial Policy Options" was aimed at enhancing customer equity by: 1) charging households bringing refuse and green waste to the RSWCC; 2) revising the City's curbside bulk waste collection from 1 free collection every 6 weeks to a number that supports 95% of users which is currently 1 free collection per year (note City currently charges \$30 for additional curbside bulk collections); and 3) elimination of alleyway collection.
- (3) "Revised Policy Options" assumes 1) two (2) free drop offs to the RSWCC per year; 2) two 2 free bulk waste curbside collections per year; and 3) continuation of alleyway collection with an increased cost associated with the services to these residents using alleyway service.

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7.0 CONCLUSIONS

Based on the findings of this evaluation, which should be read in its entirety, we offer the following thoughts for the City’s consideration:

- Due to rising costs of operation the City should consider increasing the Division’s solid waste system collection charges for service as follows:

Identified Rate Revenue Adjustments						
Description	Current	Recommendation Period			Future Identified	
		4/1/22	1/1/24	1/1/26	1/1/28	1/1/30
Baseline						
Rate Adjustment		6.0%	5.0%	5.0%	6.0%	6.0%
Monthly Bill	\$17.95	\$19.03	\$19.98	\$20.98	\$22.24	\$23.57
Bill Change - \$		\$1.08	\$0.95	\$1.00	\$1.26	\$1.33
Initial Policy Options						
Rate Adjustment		3.0%	3.0%	3.0%	6.0%	6.0%
Monthly Bill	\$17.95	\$18.49	\$19.04	\$19.61	\$20.79	\$22.04
Bill Change - \$		\$0.54	\$0.55	\$0.57	\$1.18	\$1.25
Revised Policy Options						
Rate Adjustment		3.4%	5.0%	5.0%	6.0%	6.0%
Monthly Bill [1]	\$17.95	\$18.57	\$19.50	\$20.48	\$21.71	\$23.01
Bill Change - \$		\$0.62	\$0.93	\$0.98	\$1.23	\$1.30

Footnotes:

[1] The current charge shown above will be increased by \$1.61 for all alleyway collection customers to cover the collection contract and carts costs and will be subject to the additional rate adjustments shown above.

- The initial analysis proposed three (3) Policy Options for the City’s consideration and the Revised Policy Options were provided per directive from City Council. These options are intended to increase rate payer equity by adjusting charges more in line with the benefits of the services. With direction from City Council the recommended Revised Policy Options include: 1) 2 (two) free drop-offs per household to bring refuse and green waste to the RSWCC of up to 400lbs; 2) revising the City’s curbside bulk waste collection from 1 free collection every 6 weeks to 2 free collections per year (note City currently charges \$30 for additional curbside bulk collections); and 3) the continuation of alleyway collection and charge alleyway customers an additional \$1.61 on their current bill to recover associated costs. The revised policy changes are outlined in detail on page 10 and would allow for a reduction in the needed rate increase for monthly services from 6% in FY 2021-22 to 3.4%. This reduction in the need to increase monthly service fees would allow for those using the services provided through the RSWCC and Bulk Collection programs to cover more of the associated costs incurred in their behalf.

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Attached to this report we have included the following several appendices providing detail concerning the financial projections and rate recommendations from the study:

Appendix A – Management Decision Support Dashboard

Appendix B – Baseline Cashflow Projections

Appendix C – Adjusted Cashflow Projections with Initial Policy Options

Appendix D – Adjusted Cashflow Projections with Revised Policy Options

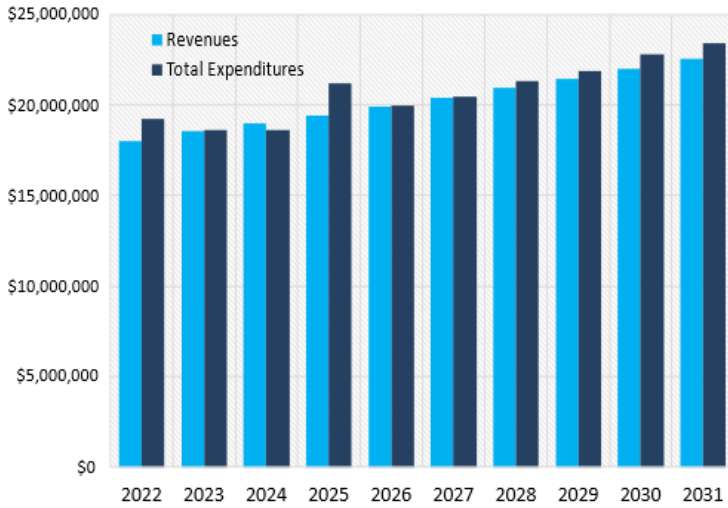
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APPENDIX A – MANAGEMENT DECISION SUPPORT DASHBOARD

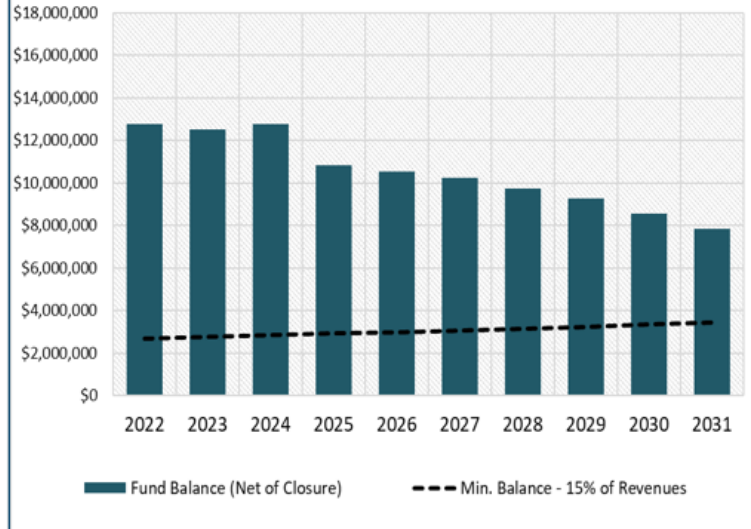
BASELINE

	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 30-31
Rate Revenue Adj. Input (Effective 1/1)	0.0%	6.0%	0.0%	5.0%	0.0%	5.0%	0.0%	6.0%	0.0%	6.0%	0.0%
Effective Months	6	3	6	6	6	6	6	6	6	6	6
Monthly Bill (Across Board Application)	\$17.95	\$18.03	\$18.03	\$19.98	\$19.98	\$20.98	\$20.98	\$22.24	\$22.24	\$23.67	\$23.67
Change - \$		\$1.08	\$0.00	\$0.95	\$0.00	\$1.00	\$0.00	\$1.26	\$0.00	\$1.33	\$0.00

Projected Revenues & Requirements



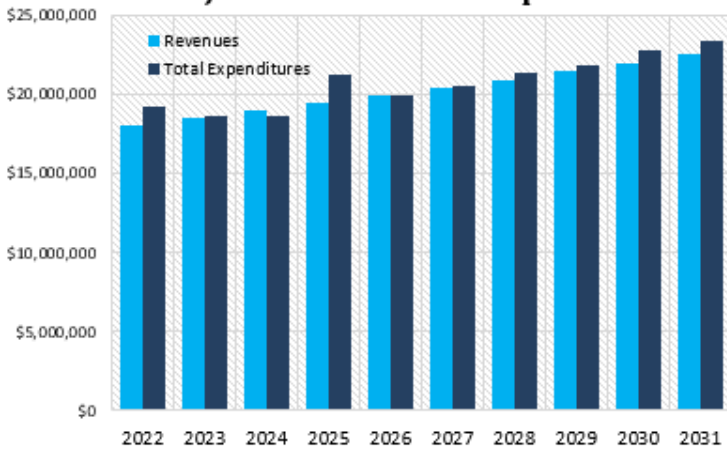
Ending Fund Balances



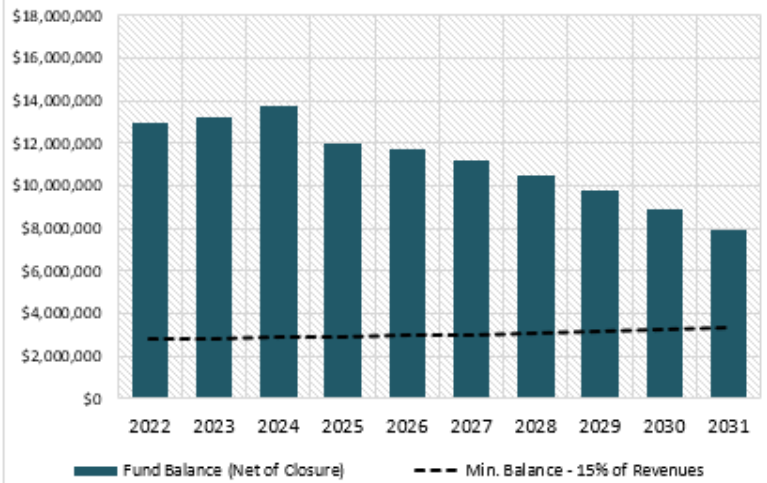
INITIAL POLICY OPTIONS

	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 30-31
Rate Revenue Adj. Input (Effective 1/1)	0.0%	3.0%	0.0%	3.0%	0.0%	3.0%	0.0%	6.0%	0.0%	6.0%	0.0%
Effective Months	6	3	6	6	6	6	6	6	6	6	6
Monthly Bill (Across Board Application)	\$17.95	\$18.49	\$18.49	\$19.04	\$19.04	\$19.61	\$19.61	\$20.79	\$20.79	\$22.04	\$22.04
Change - \$		\$0.54	\$0.00	\$0.55	\$0.00	\$0.57	\$0.00	\$1.18	\$0.00	\$1.25	\$0.00

Projected Revenues & Requirements

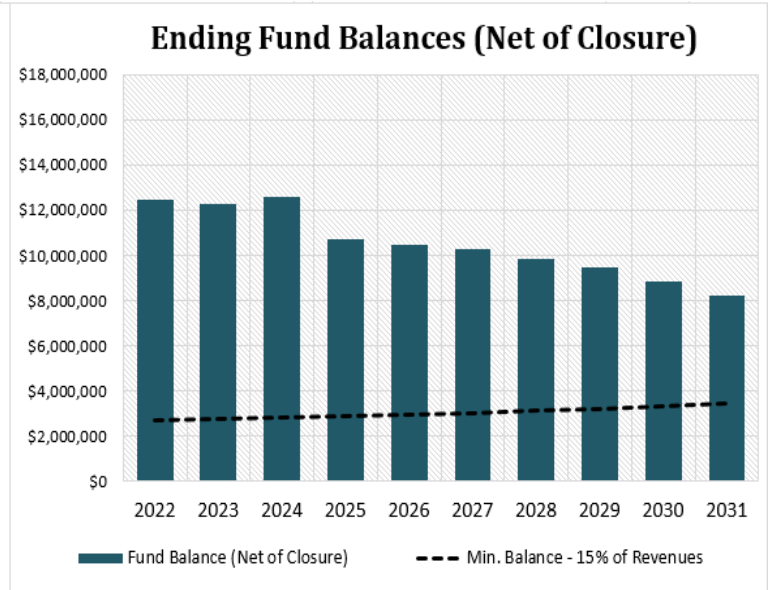
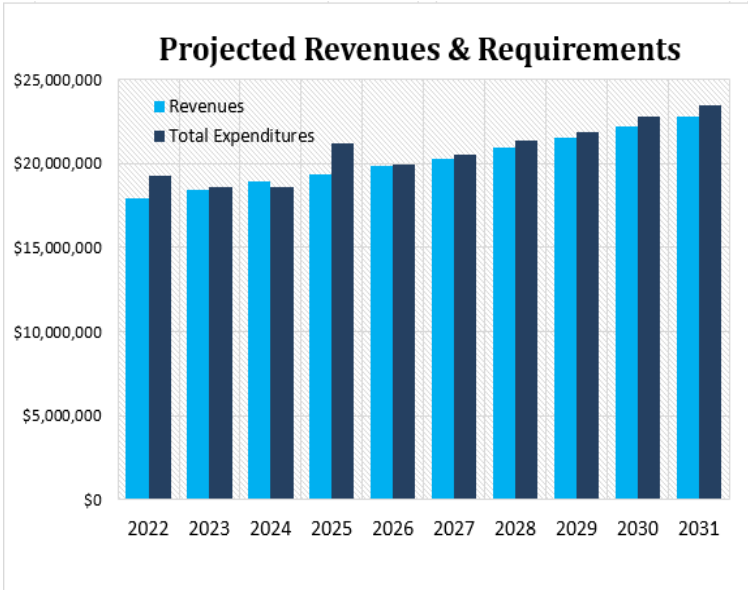


Ending Fund Balances (Net of Closure)



RECOMMENDED REVISED POLICY OPTIONS (Council Directed)

	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 30-31
Rate Revenue Adj. Input (Effective 1/1)	0.0%	3.4%	0.0%	5.0%	0.0%	5.0%	0.0%	6.0%	0.0%	6.0%	0.0%
Effective Months	6	3	6	6	6	6	6	6	6	6	6
Monthly Bill (Across Board Application)	\$17.95	\$18.57	\$18.57	\$19.50	\$19.50	\$20.48	\$20.48	\$21.71	\$21.71	\$23.01	\$23.01
Change - \$		\$0.62	\$0.00	\$0.93	\$0.00	\$0.98	\$0.00	\$1.23	\$0.00	\$1.30	\$0.00



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APPENDIX B – BASELINE CASHFLOW PROJECTONS

City of Chandler - ADJUSTED WITH POLICY OPTIONS
 Solid Waste Operating Fund (625) - Solid Waste & Recycling
 SOLID WASTE OPERATING FUND

	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 30-31
RESOURCES										
Available Balance	18,081,833									
Reserve Goal (15.0% of operating revenues)	(2,556,540)	(23,223)	(60,920)	(43,421)	(43,575)	(44,895)	(42,811)	(85,376)	(85,544)	(90,676)
Interest Earnings	272,000	250,000	250,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
Container Fees	48,960	67,320	67,320	55,000	55,000	30,600	30,600	30,600	30,600	30,600
Other Solid Waste Fees (4738,4741, 4731, 4739,4491)	370,722	383,697	397,127	411,026	425,412	440,301	440,742	441,182	441,624	442,065
Recycling Revenue	100,000	103,500	107,123	110,872	114,752	118,769	122,926	127,228	131,681	136,290
Administrative Service Charges a/c 4455	22,080	29,808	29,808	29,808	29,808	29,808	29,808	29,808	29,808	29,808
Garbage & Refuse Charges	16,672,879	16,814,724	17,207,429	17,483,006	17,759,117	18,043,529	18,328,492	18,897,225	19,467,077	20,071,141
Growth Factor %	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%
Growth Factor	16,673	17,190	17,207	17,741	17,759	18,310	18,328	19,448	19,467	20,656
Rate increase %	3.0%	0.0%	3.0%	0.0%	3.0%	0.0%	6.0%	0.0%	6.0%	0.0%
Effective Months	3	6	6	6	6	6	6	6	6	6
Rate increase	125,172	375,515	258,370	258,370	266,653	266,653	550,405	550,405	584,596	584,596
Additional Programs										
Implement a Pay as You Throw Program	-	-	-	-	-	-	-	-	-	-
Initiate a Curbside Household Hazardous Waste Program	-	-	-	-	-	-	-	-	-	-
Replacement of Alleyway Carts	-	-	-	-	-	-	-	-	-	-
Charging per Ton or Per Visit at RSWCC	527,687	527,687	535,602	543,518	551,433	559,823	575,654	593,412	609,243	629,017
Potential Additional Tonnage at RSWCC	-	-	-	-	-	-	-	-	-	-
Implement a Charge for Bulky Waste	301,949	301,949	306,478	311,008	315,537	320,338	329,396	339,558	348,617	359,932
Total Revenues	18,458,122	18,871,390	19,176,464	19,420,428	19,735,551	20,028,131	20,626,351	21,228,867	21,862,713	22,504,105
TOTAL RESOURCES	33,983,414	18,848,167	19,115,543	19,377,006	19,691,976	19,983,236	20,583,540	21,143,491	21,777,169	22,413,429
OPERATIONS REQUIREMENTS										
Personnel Costs	1,088,832	1,174,135	1,232,842	1,294,484	1,359,208	1,427,168	1,498,527	1,573,453	1,652,126	1,734,732
Operations & Maintenance	436,008	408,113	427,791	448,355	469,849	492,318	515,809	540,373	566,060	592,927
Solid Waste Operations Overage (Recycling/WM)	-	-	-	-	-	-	-	-	-	-
Operations & Maintenance - WM Contract 3.5% Inflation	8,442,386	8,737,870	9,043,695	9,360,224	9,687,832	10,026,906	10,377,848	10,741,073	11,117,010	11,506,106
Operations & Maintenance - United Fibers Contract	1,198,000	1,239,930	1,283,328	1,328,244	1,374,733	1,422,848	1,472,648	1,524,191	1,577,537	1,632,751
Operations & Maintenance - Disposal Contract No Inflation	2,364,321	2,421,065	2,479,170	2,538,670	2,599,598	2,661,989	2,725,877	2,791,298	2,858,289	2,926,888
Ongoing Decision Package - Waste Mgmt Contract with Inflation of 3.5%	418,000	432,630	447,772	463,444	479,665	496,453	513,829	531,813	550,426	569,691
Ongoing Decision Package - United Fibers Recycling Contract with Inflation of 3.5%	160,000	165,800	171,396	177,395	183,604	190,030	196,681	203,565	210,689	218,064
Ongoing Decision Package - Disposal Contract no Inflation	277,000	283,648	290,456	297,426	304,565	311,874	319,359	327,024	334,872	342,909
Ongoing Decision Package - Alley Containers with Inflation of 5%	55,400	58,170	61,079	64,132	67,339	70,706	74,241	77,953	81,851	85,944
Total Cost Center Operations & Maintenance	14,439,947	14,921,160	15,437,527	15,972,375	16,526,392	17,100,293	17,694,819	18,310,741	18,948,861	19,610,010
RSWCC Expenses	1,624,829	1,812,659	1,881,360	1,952,925	2,027,482	2,106,073	2,187,983	2,273,363	2,362,367	2,455,160
Interfund Transfers and Other Expenses										
1290	73,800	73,800	73,800	73,800	73,800	73,800	73,800	73,800	73,800	73,800
1290 - Operating Encumbrances (5922)	750,000	-	-	-	-	-	-	-	-	-
Bad Debt Expense (22%)	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000
Indirect Cost Allocation	1,014,258	1,014,258	1,014,258	1,014,258	1,014,258	1,036,977	1,060,206	1,083,954	1,108,235	1,133,059
Environmental Position - Fund 738	-	-	-	-	-	-	-	-	-	-
Transfers to Funds 736 - Safety Analyst Position	12,963	13,611	14,292	15,006	15,006	15,757	16,544	17,372	18,240	19,152
Transfers to Funds 403	64,531	84,786	84,786	84,786	85,233	85,233	85,233	85,233	85,233	85,233
Additional Programs										
Implement a Pay as You Throw Program	-	-	-	-	-	-	-	-	-	-
Initiate a Curbside Household Hazardous Waste Program	-	-	-	-	-	-	-	-	-	-
Replacement of Alleyway Carts	(101,965)	(105,533)	(109,227)	(113,050)	(117,007)	(121,102)	(125,341)	(129,728)	(134,268)	(138,967)
Charging per Ton or Per Visit at RSWCC	-	-	-	-	-	-	-	-	-	-
Potential Additional Tonnage at RSWCC	-	-	-	-	-	-	-	-	-	-
Implement a Charge for Bulky Waste	-	-	-	-	-	-	-	-	-	-
Operations & Maintenance Subtotal	17,998,363	17,934,741	18,516,796	19,120,101	19,745,165	20,417,030	21,113,244	21,834,735	22,582,468	23,357,448
CIP REQUIREMENTS - CASHFLOW										
Solid Waste Services Facility Improvements	240,000	-	-	105,000	-	105,000	-	105,000	-	105,000
Paseo Vista Landfill	155,000	105,000	80,000	2,010,000	255,000	-	255,000	-	255,000	-
RMS Software	-	650,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
IT Oversight Committee	173,450	-	-	-	-	-	-	-	-	-
WiFi Access Points	51,816	-	17,272	-	-	-	-	-	-	-
Fleet Management	-	-	-	-	-	-	-	-	-	-
Y/E Estimate for CIP Projects	-	-	-	-	-	-	-	-	-	-
Encumbrance Carryforward (5922)	-	-	-	-	-	-	-	-	-	-
Capital Carryforward (5923)	242,961	-	-	-	-	-	-	-	-	-
Additional Programs										
Implement a Pay as You Throw Program	-	-	-	-	-	-	-	-	-	-
Initiate a Curbside Household Hazardous Waste Program	-	-	-	-	-	-	-	-	-	-
Replacement of Alleyway Carts	377,250	(61,920)	(63,901)	(65,946)	(68,057)	(70,234)	(72,482)	(74,801)	(77,195)	(79,665)
Charging per Ton or Per Visit at RSWCC	-	-	-	-	-	-	-	-	-	-
Potential Additional Tonnage at RSWCC	-	-	-	-	-	-	-	-	-	-
Implement a Charge for Bulky Waste	-	-	-	-	-	-	-	-	-	-
Cash Funded Capital Subtotal	1,240,477	693,080	83,371	2,099,054	236,943	84,766	232,518	80,199	227,805	75,335
Debt Service Subtotal										
TOTAL REQUIREMENTS	19,238,840	18,627,821	18,600,166	21,219,154	19,982,109	20,501,796	21,345,762	21,914,934	22,810,273	23,432,783
ADJUSTED TOTAL REQUIREMENTS	19,238,840	18,627,821	18,600,166	21,219,154	19,982,109	20,501,796	21,345,762	21,914,934	22,810,273	23,432,783
TOTAL RESOURCES	33,983,414	18,848,167	19,115,543	19,377,006	19,691,976	19,983,236	20,583,540	21,143,491	21,777,169	22,413,429
Difference	14,744,574	220,346	515,377	(1,842,148)	(290,132)	(518,560)	(762,222)	(771,443)	(1,035,104)	(1,019,354)
Cumulative	14,744,577	14,964,921	15,480,297	13,638,149	13,348,017	12,829,457	12,067,235	11,295,792	10,262,688	9,243,334
Working Cash Reserve	2,556,540	2,579,763	2,640,683	2,684,105	2,684,258	2,729,153	2,771,964	2,857,340	2,942,884	3,033,559
%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Total Fund Balance	17,301,117	17,544,684	18,120,981	16,322,254	16,032,275	15,558,610	14,839,198	14,153,131	13,205,571	12,276,893
Less: Post Closure Reserve (until 10/10/2035)	4,340,000	4,340,000	4,340,000	4,340,000	4,340,000	4,340,000	4,340,000	4,340,000	4,340,000	4,340,000
Fund Balance for 625	12,961,117	13,204,684	13,780,981	11,982,253	11,692,275	11,218,610	10,499,198	9,813,131	8,865,571	7,936,893

APPENDIX C – ADJUSTED CASHFLOW PROJECTIONS WITH INITIAL POLICY OPTIONS

City of Chandler - BASELINE PROJECTION
 Solid Waste Operating Fund (625) - Solid Waste & Recycling
SOLID WASTE OPERATING FUND

	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 30-31
RESOURCES										
	06-30-21									
Available Balance	18,081,833									
Reserve Goal (15.0% of operating revenues)	(2,556,540)	(41,999)	(117,323)	(71,215)	(71,424)	(74,965)	(72,940)	(91,303)	(91,483)	(96,971)
Interest Earnings	272,000	250,000	250,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
Container Fees	48,960	67,320	67,320	55,080	55,080	30,600	30,600	30,600	30,600	30,600
Other Solid Waste Fees (4738,4741, 4731, 4739,4491)	370,722	383,697	397,127	411,026	425,412	440,301	440,742	441,182	441,624	442,065
Recycling Revenue	100,000	103,500	107,123	110,872	114,752	118,769	122,926	127,228	131,681	136,290
Administrative Service Charges a/c 4455	22,080	29,808	29,808	29,808	29,808	29,808	29,808	29,808	29,808	29,808
Garbage & Refuse Charges	16,672,879	16,939,895	17,708,616	18,169,483	18,631,253	19,116,132	19,601,961	20,210,210	20,819,656	21,465,690
Growth Factor %	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%
Growth Factor	16.673	17.691	17.709	18.613	18.631	19.582	19.602	20.799	20.820	22.091
Rate increase %	6.0%	0.0%	5.0%	0.0%	5.0%	0.0%	6.0%	0.0%	6.0%	0.0%
Effective Months	3	6	6	6	6	6	6	6	6	6
Rate increase	250,343	751,030	443,158	443,158	466,247	466,247	588,647	588,647	625,214	625,214
Total Revenues	17,753,657	18,542,941	19,020,860	19,438,039	19,941,184	20,421,439	21,034,285	21,648,474	22,299,402	22,951,758
TOTAL RESOURCES	33,278,950	18,500,942	18,903,537	19,366,824	19,869,761	20,346,474	20,961,345	21,557,171	22,207,919	22,854,787
OPERATIONS REQUIREMENTS										
Personnel Costs	1,088,832	1,174,135	1,232,842	1,294,484	1,359,208	1,427,168	1,498,527	1,573,453	1,652,126	1,734,732
Operations & Maintenance	436,008	408,113	427,791	448,355	469,849	492,318	515,809	540,373	566,060	592,927
Solid Waste Operations Overage (Recycling/WM)	-	-	-	-	-	-	-	-	-	-
Operations & Maintenance - WM Contract 3.5% Inflation	8,442,396	8,737,870	9,043,695	9,360,224	9,687,832	10,026,906	10,377,848	10,741,073	11,117,010	11,506,106
Operations & Maintenance - United Fibers Contract	1,198,000	1,239,930	1,283,328	1,328,244	1,374,733	1,422,848	1,472,648	1,524,191	1,577,537	1,632,751
Operations & Maintenance - Disposal Contract No Inflation	2,364,321	2,421,065	2,479,170	2,538,670	2,599,598	2,661,989	2,725,877	2,791,298	2,858,289	2,926,888
Ongoing Decision Package - Waste Mgmt Contract with Inflation of 3.5%	418,000	432,630	447,772	463,444	479,665	496,453	513,829	531,813	550,426	569,691
Ongoing Decision Package - United Fibers Recycling Contract with Inflation of 3.5%	160,000	165,600	171,396	177,395	183,604	190,030	196,681	203,565	210,689	218,064
Ongoing Decision Package - Disposal Contract no Inflation	277,000	283,648	290,456	297,426	304,565	311,874	319,359	327,024	334,872	342,909
Ongoing Decision Package - Alley Containers with Inflation of 5%	55,400	58,170	61,079	64,132	67,338	70,706	74,241	77,953	81,851	85,944
Total Cost Center Operations & Maintenance	14,439,947	14,921,160	15,437,527	15,972,375	16,526,392	17,100,293	17,694,819	18,310,741	18,948,861	19,610,010
RSWCC Expenses	1,624,829	1,812,659	1,881,360	1,952,925	2,027,482	2,106,073	2,187,983	2,273,363	2,362,367	2,455,160
Interfund Transfers and Other Expenses										
1290	73,800	73,800	73,800	73,800	73,800	73,800	73,800	73,800	73,800	73,800
1290 - Operating Encumbrances (5922)	750,000	-	-	-	-	-	-	-	-	-
Bad Debt Expense (22%)	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000
Indirect Cost Allocation	1,014,258	1,014,258	1,014,258	1,014,258	1,014,258	1,036,977	1,060,206	1,083,954	1,108,235	1,133,059
Environmental Position - Fund 738	-	-	-	-	-	-	-	-	-	-
Transfers to Funds 736 - Safety Analyst Position	12,963	13,611	14,292	15,006	15,006	15,757	16,544	17,372	18,240	19,152
Transfers to Funds 403	64,531	84,786	84,786	84,786	85,233	85,233	85,233	85,233	85,233	85,233
Operations & Maintenance Subtotal	18,100,328	18,040,274	18,626,023	19,233,151	19,862,172	20,538,133	21,238,585	21,964,463	22,716,736	23,496,416
CIP REQUIREMENTS - CASHFLOW										
Solid Waste Services Facility Improvements	240,000	-	-	105,000	-	105,000	-	105,000	-	105,000
Paseo Vista Landfill	155,000	105,000	80,000	2,010,000	255,000	-	255,000	-	255,000	-
RMS Software	-	650,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
IT Oversight Committee	173,450	-	-	-	-	-	-	-	-	-
WiFi Access Points	51,816	-	17,272	-	-	-	-	-	-	-
Fleet Management	-	-	-	-	-	-	-	-	-	-
Y/E Estimate for CIP Projects	-	-	-	-	-	-	-	-	-	-
Encumbrance Carryforward (5922)	-	-	-	-	-	-	-	-	-	-
Capital Carryforward (5923)	242,961	-	-	-	-	-	-	-	-	-
Cash Funded Capital Subtotal	863,227	755,000	147,272	2,165,000	305,000	155,000	305,000	155,000	305,000	155,000
Debt Service Subtotal	-	-	-	-	-	-	-	-	-	-
TOTAL REQUIREMENTS	18,963,555	18,795,274	18,773,295	21,398,151	20,167,172	20,693,133	21,543,585	22,119,463	23,021,736	23,651,416
ADJUSTED TOTAL REQUIREMENTS	18,963,555	18,795,274	18,773,295	21,398,151	20,167,172	20,693,133	21,543,585	22,119,463	23,021,736	23,651,416
TOTAL RESOURCES	33,278,950	18,500,942	18,903,537	19,366,830	19,869,767	20,346,480	20,961,351	21,557,177	22,207,925	22,854,793
Difference	14,315,398	(294,326)	(130,248)	(2,031,320)	(297,405)	(346,652)	(582,234)	(662,286)	(813,811)	(796,623)
Cumulative	14,315,398	14,021,072	14,151,320	12,120,000	11,822,594	11,475,942	10,893,708	10,331,422	9,517,611	8,720,988
Working Cash Reserve	2,556,540	2,598,539	2,715,861	2,787,076	2,787,285	2,862,250	2,935,191	3,026,494	3,117,977	3,214,948
%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Total Fund Balance	16,871,938	16,619,611	16,867,182	14,907,076	14,609,879	14,338,192	13,828,899	13,357,916	12,635,588	11,935,937
Less: Post Closure Reserve (until 10/1/2035)	4,340,000	4,340,000	4,340,000	4,340,001	4,340,000	4,340,000	4,340,000	4,340,000	4,340,000	4,340,000
Fund Balance for 625	12,531,938	12,279,611	12,527,182	10,567,075	10,269,879	9,998,192	9,488,899	9,017,916	8,295,588	7,595,937

APPENDIX D – ADJUSTED CASHFLOW PROJECTIONS WITH REVISED POLICY OPTIONS

City of Chandler - ADJUSTED WITH POLICY OPTIONS
Solid Waste Operating Fund (625) - Solid Waste & Recycling
SOLID WASTE OPERATING FUND

	FY 21-22	FY 22-23	FY 23-24	FY 24-25	FY 25-26	FY 26-27	FY 27-28	FY 28-29	FY 29-30	FY 30-31
RESOURCES										
Available Balance	18,081,833									
Reserve Goal (15.0% of operating revenues)	(2,556,540)	(23,223)	(60,920)	(43,421)	(43,575)	(44,895)	(42,811)	(85,376)	(85,544)	(90,676)
Interest Earnings	272,000	250,000	250,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
Container Fees	48,960	67,320	67,320	55,080	55,080	30,600	30,600	30,600	30,600	30,600
Other Solid Waste Fees (4738,4741, 4731, 4739,4491)	370,722	383,697	397,127	411,026	425,412	440,301	440,742	441,182	441,624	442,065
Recycling Revenue	100,000	103,500	107,123	110,872	114,752	118,769	122,926	127,228	131,681	136,290
Administrative Service Charges a/c 4455	22,800	29,808	29,808	29,808	29,808	29,808	29,808	29,808	29,808	29,808
Garbage & Refuse Charges	16,672,879	16,814,724	17,207,429	17,483,006	17,759,117	18,043,529	18,328,492	18,897,225	19,467,077	20,071,141
Growth Factor %	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%
Growth Factor	16.673	17.190	17.207	17.741	17.759	18.310	18.328	19.448	19.467	20.656
Rate increase %	3.0%	0.0%	3.0%	0.0%	3.0%	0.0%	6.0%	0.0%	6.0%	0.0%
Effective Months	3	6	6	6	6	6	6	6	6	6
Rate increase (6 mths)	125,172	375,515	258,370	258,370	266,653	266,653	550,405	550,405	584,596	584,596
Additional Programs										
Implement a Pay as You Throw Program	-	-	-	-	-	-	-	-	-	-
Initiate a Curbside Household Hazardous Waste Program	-	-	-	-	-	-	-	-	-	-
Replacement of Alleyway Carts	-	-	-	-	-	-	-	-	-	-
Charging per Ton or Per Visit at RSWCC	597,134	597,134	606,091	615,048	624,005	633,500	651,414	671,510	689,424	711,800
Potential Additional Tonnage at RSWCC	-	-	-	-	-	-	-	-	-	-
Implement a Charge for Bulky Waste	60,750	60,750	61,661	62,573	63,484	64,450	66,272	68,317	70,139	72,416
Total Revenues	18,286,373	16,699,644	19,002,141	19,243,529	19,556,076	19,845,926	20,438,992	21,035,728	21,664,422	22,299,378
TOTAL RESOURCES	33,811,665	18,676,421	18,941,221	19,200,108	19,512,502	19,801,030	20,396,182	20,950,352	21,578,878	22,208,702
OPERATIONS REQUIREMENTS										
Personnel Costs	1,088,832	1,174,135	1,232,842	1,294,484	1,359,208	1,427,168	1,498,527	1,573,453	1,652,126	1,734,732
Operations & Maintenance	436,008	408,113	427,791	448,355	469,849	492,318	515,809	540,373	566,060	592,927
Solid Waste Operations Coverage (Recycling/WM)	-	-	-	-	-	-	-	-	-	-
Operations & Maintenance - WM Contract 3.5% Inflation	8,442,386	8,737,870	9,043,695	9,360,224	9,687,832	10,026,906	10,377,848	10,741,073	11,117,010	11,506,106
Operations & Maintenance - United Fibers Contract	1,198,000	1,239,930	1,283,328	1,328,244	1,374,733	1,422,848	1,472,648	1,524,191	1,577,537	1,632,751
Operations & Maintenance - Disposal Contract No Inflation	2,364,321	2,421,065	2,479,170	2,538,670	2,599,598	2,661,989	2,725,877	2,791,298	2,858,289	2,926,888
Ongoing Decision Package - Waste Mgmt Contract with Inflation of 3.5%	418,000	432,630	447,772	463,444	479,665	496,453	513,829	531,813	550,428	569,691
Ongoing Decision Package - United Fibers Recycling Contract with Inflation of 3.5%	160,000	165,000	171,396	177,395	183,604	190,030	196,681	203,565	210,689	218,064
Ongoing Decision Package - Disposal Contract no Inflation	277,000	283,648	290,456	297,426	304,565	311,874	319,359	327,024	334,872	342,909
Ongoing Decision Package - Alloy Containers with Inflation of 5%	55,400	58,170	61,079	64,132	67,339	70,706	74,241	77,963	81,851	85,944
Total Cost Center Operations & Maintenance	14,439,947	14,921,160	15,437,527	15,972,376	16,526,392	17,100,293	17,694,819	18,310,741	18,948,861	19,610,010
RSWCC Expenses	1,624,829	1,812,659	1,881,360	1,952,925	2,027,482	2,106,073	2,187,983	2,273,363	2,362,367	2,455,160
Interfund Transfers and Other Expenses										
1290	73,800	73,800	73,800	73,800	73,800	73,800	73,800	73,800	73,800	73,800
1290 - Operating Encumbrances (5922)	750,000	-	-	-	-	-	-	-	-	-
Bad Debt Expense (22%)	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000	120,000
Indirect Cost Allocation	1,014,258	1,014,258	1,014,258	1,014,258	1,014,258	1,036,977	1,060,206	1,083,954	1,108,235	1,133,059
Environmental Position - Fund 738	-	-	-	-	-	-	-	-	-	-
Transfers to Funds 736 - Safety Analyst Position	12,963	13,611	14,292	15,006	15,006	15,757	16,544	17,372	18,240	19,152
Transfers to Funds 403	64,531	84,786	84,786	84,786	85,233	85,233	85,233	85,233	85,233	85,233
Additional Programs										
Implement a Pay as You Throw Program	-	-	-	-	-	-	-	-	-	-
Initiate a Curbside Household Hazardous Waste Program	-	-	-	-	-	-	-	-	-	-
Replacement of Alleyway Carts	(101,965)	(105,533)	(109,227)	(113,050)	(117,007)	(121,102)	(125,341)	(129,728)	(134,268)	(138,967)
Charging per Ton or Per Visit at RSWCC	-	-	-	-	-	-	-	-	-	-
Potential Additional Tonnage at RSWCC	-	-	-	-	-	-	-	-	-	-
Implement a Charge for Bulky Waste	-	-	-	-	-	-	-	-	-	-
Operations & Maintenance Subtotal	17,998,363	17,934,741	18,516,796	19,120,101	19,745,165	20,417,030	21,113,244	21,834,735	22,582,468	23,357,448
CIP REQUIREMENTS - CASHFLOW										
New Billing System - ITOC	-	-	-	-	-	-	-	-	-	-
Solid Waste Services Facility Improvements	240,000	-	-	105,000	-	105,000	-	105,000	-	105,000
Paseo Vista Landfill	155,000	105,000	80,000	2,010,000	255,000	-	255,000	-	255,000	-
RMS Software	-	650,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
IT Oversight Committee	173,450	-	-	-	-	-	-	-	-	-
WiFi Access Points	51,816	-	17,272	-	-	-	-	-	-	-
Fleet Management	-	-	-	-	-	-	-	-	-	-
Y/E Estimate for CIP Projects	-	-	-	-	-	-	-	-	-	-
Encumbrance Carryforward (5922)	-	-	-	-	-	-	-	-	-	-
Capital Carryforward (5923)	242,961	-	-	-	-	-	-	-	-	-
Additional Programs										
Implement a Pay as You Throw Program	-	-	-	-	-	-	-	-	-	-
Initiate a Curbside Household Hazardous Waste Program	-	-	-	-	-	-	-	-	-	-
Replacement of Alleyway Carts	377,250	(61,920)	(63,901)	(65,946)	(68,057)	(70,234)	(72,482)	(74,801)	(77,195)	(79,665)
Charging per Ton or Per Visit at RSWCC	-	-	-	-	-	-	-	-	-	-
Potential Additional Tonnage at RSWCC	-	-	-	-	-	-	-	-	-	-
Implement a Charge for Bulky Waste	-	-	-	-	-	-	-	-	-	-
Cash Funded Capital Subtotal	1,240,477	693,080	83,371	2,099,054	236,943	84,766	232,518	80,199	227,805	75,335
Debt Service Subtotal	-	-	-	-	-	-	-	-	-	-
TOTAL REQUIREMENTS	19,238,840	18,627,821	18,600,166	21,219,154	19,982,109	20,501,796	21,345,762	21,914,934	22,810,273	23,432,783
ADJUSTED TOTAL REQUIREMENTS	19,238,840	18,627,821	18,600,166	21,219,154	19,982,109	20,501,796	21,345,762	21,914,934	22,810,273	23,432,783
TOTAL RESOURCES	33,811,665	18,676,421	18,941,221	19,200,108	19,512,502	19,801,030	20,396,182	20,950,352	21,578,878	22,208,702
Difference	14,572,825	48,600	341,055	(2,019,047)	(469,607)	(700,766)	(949,581)	(964,582)	(1,231,395)	(1,224,081)
Cumulative	14,572,825	14,621,425	14,962,480	12,943,433	12,473,826	11,773,060	10,823,480	9,858,898	8,627,503	7,403,422
Working Cash Reserve	2,556,540	2,579,763	2,640,683	2,684,105	2,684,258	2,729,153	2,771,964	2,857,340	2,942,884	3,033,559
%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%
Total Fund Balance	17,129,365	17,201,189	17,603,163	15,627,538	15,158,084	14,502,214	13,695,443	12,716,238	11,570,387	10,436,982
Less: Post Closure Reserve (until 10/1/2035)	4,340,000	4,340,000	4,340,000	4,340,001	4,340,000	4,340,000	4,340,000	4,340,000	4,340,000	4,340,000
Fund Balance for 625	12,789,365	12,861,189	13,263,163	11,287,537	10,818,084	10,162,214	9,255,443	8,376,238	7,230,387	6,096,982